UNIVERSITY OF SOUTHAMPTON

FACULTY OF MEDICINE, HEALTH AND LIFE SCIENCES

SCHOOL OF PSYCHOLOGY

Evaluation of STEPS in Primary Care

by

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ABSTRACT

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Background: In Western primary care settings, depression and anxiety feature as one disorder representing the most common form of psychiatric disturbance seen by primary care professionals. Despite this, GP's fail to recognise the condition in 40% of cases, resulting in many patients receiving inadequate care and poor outcomes.

Objectives: To determine whether a group intervention known as STEPS, would improve the mental health and self-esteem of primary care patients in the absence of accurate psychiatric diagnosis. STEPS is a performance enhancing manualised system based on psychological principles of change, involving eighteen hours of teaching, consisting of video, audio, individual and group participation.

Method: A randomised control trial, cross over design was used. Participants were allocated to the immediate intervention group receiving treatment between Time 1 (T1) and Time 2 (T2) and the delayed intervention group receiving treatment between T2 and T3 (Time 3). Participants consisted of primary care patients experiencing psychological difficulties, self-referrals and some professionals attending the course to enhance their skills. All participants were eighteen years or over. Demographic and psychosocial data was collected by the researcher at T1 and T2. A battery of self-report questionnaires designed to measure self-esteem and current mental state, was completed by participants at T1 prior to the intervention group receiving treatment, at T2 prior to the delayed intervention group receiving treatment and at T3 on completion of treatment.

Results: The findings from Study 1 demonstrate a significant improvement in the mental health and self-esteem of participants in the intervention and the delayed intervention group. The findings from Study 2 also demonstrated a significant improvement in the mental health of participants in the intervention and delayed intervention group. However, improvement in self-esteem of participants in both groups was inconsistent on self-esteem measures. Additionally, baseline scores for the delayed intervention group improved prior to treatment and continued to improve further following treatment.

Conclusions: There was significant improvement in the mental health of participants who completed a STEPS course. Improvement in self-esteem was inconsistent. Promoting the course as a beneficial intervention prior to attendance had therapeutic benefit pre and post treatment. Accurate diagnosis is not a prerequisite to access the therapeutic benefits of STEPS.

List of contents

List of Tables

List of Figures

DECLARATION OF AUTHORSHIP

I, Demelza Foreman, declare that the thesis entitled Evaluation of STEPS in Primary Care and the work presented in the thesis are both my own, and have been generated by me as the result of my own original research. I confirm that:

- this work was done wholly or mainly while in candidature for a research degree at this University;

- where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;

- where I have consulted the published work of others, this is always clearly attributed;

- where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;

- I have acknowledged all main sources of help;

- where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;

- none of this work has been published before submission,

Signed: Demelza Foreman

Date: 18.12.07

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This thesis is dedicated to my daughter Ruth

With love and gratitude

CHAPTER ONE

1.1.0 Introduction

This thesis documents an evaluation of STEPS – a commercially available self-enhancement programme – as a therapy for patients experiencing anxiety/depression in primary care. First, an account is given of barriers to care for patients experiencing anxiety/depression. The failure of GPs to identify psychiatric disturbance in their patients despite numerous attempts to address this problem is highlighted, as is the negative impact misdiagnosis is likely to have on treatment outcome. Next, theoretical explanations and causes of anxiety/depression are considered. This is followed by a discussion of self-esteem and its influence on the cause and maintenance of anxiety/depression. Current treatment strategies available for patients experiencing psychological disturbance in primary care are considered. Physical and psychological interventions are discussed with reference to the strengths and weaknesses of these treatment approaches. Finally, a brief outline of the psychological concepts used in STEPS is given, demonstrating that many of the techniques employed are likely to improve self-esteem. This self-enhancement programme is an innovative approach in the care of this patient group as it targets self-esteem rather than psychopathology and in doing so is independent of accurate psychiatric diagnosis by GPs for effective outcome.

1.2.0 Prevalence of psychiatric disorders in primary care

Affective disorders can be identified in 16% of the adult population in the United Kingdom, are the most common psychiatric conditions seen in primary care (OPCS, 1995). They consist of the following subgroups: mixed anxious depression (7.7%), anxiety states (5%) pure depression (2.1%) and obsessive-compulsive disorder (1.2%) (OPCS, 1995). The above figures exclude the elderly as national data pertaining to rates of psychiatric morbidity amongst this group do not exist (Goldberg, Mann & Tylee, 2000). In a general practice of 2000, there will be 60 to 100 patients with depression, 70 to 80 with anxiety, 40 to 60 with situational disturbance while other psychiatric disorders are less common for example: 2 to 4 patients will suffer from schizophrenia, 6 to 7 affective psychosis, 4 to 5 dementia and 4 to 5 with drug or alcohol misuse (Goldberg, Mann & Tylee, 2000). These studies illustrate the composition of psychiatric disturbance in primary care settings, clearly identifying anxiety and depression (either separately or combined) as the most prevalent mental illness seen by the family physician (Goldberg, Mann & Tylee, 2000).

1.2.1 Description of anxiety and depression

1.2.1.1 Anxiety

Symptoms of anxiety are common in the normal population; although, most individuals experience insufficient symptoms to warrant a diagnosis of anxiety disorder. Prevalence rates of anxiety disorders in the normal population have been estimated between 2 and 4 per cent for men and 3 and 4.5 per cent for women. However, anxiety disorders seen by GPs have been shown to contribute to the onset of illness in 10 per cent of cases and be present in one third of all diagnosed psychiatric cases seen by family doctors, suggesting that anxiety states are significantly higher in primary care compared to the general population (Goldberg, Benjamin & Creed, 1991).

Anxiety states are characterised by increased arousal and feelings of fear and apprehension, coupled with anxious ruminations. The patient broods excessively, often pondering on the somatic symptoms induced by the anxiety state itself, falsely interpreting symptoms such as dizziness and palpitations as signs of pending doom such as loss of consciousness or heart attack that may result in death, thus further exacerbating an already anxious mental state (Goldberg et al., 1991).

Goldberg et al. (1991) organise symptoms of anxiety under the following headings:

1) *'Automatic symptoms of anxiety:* palpitations, tachycardia, cold, clammy hands, sweating, blepharospasm, paraesthesiae, dizziness, hot and cold spells, frequency of micturition, diarrhoea, nausea.

2) *Symptoms relating to motor tone*: shakiness, tremor, muscular aches, lump in throat, distractibility, restlessness, easily tiered, trouble swallowing.

3) *Symptoms of hyper vigilance*: irritability, onset of insomnia, trouble staying asleep, easily startled, poor concentration, feeling 'keyed up.'

Patients may experience severe episodes of uncontrollable anxiety known as panic attacks. These episodes are characterised by intense anxiety of sudden onset with cognitive and somatic changes that last from a few minutes to hours.

Most acute states of anxiety remit. However, chronic anxiety generally leads to depressive symptoms. The majority of patients presenting with depression in primary care will also be co-morbid for anxiety disorder. Patients may develop anxiety symptoms first or simultaneously with depressive symptoms. This is consistent with taking a spectrum approach to anxiety and depression in primary care, and in the literature, anxiety that does not explicitly exclude depression is frequently referred to as 'neurosis' (Goldberg et al., 1991).

1.2.1.2 Depression

It is normal for human beings to feel unhappy on occasion. Depressive illness however, amounts to more than transient feelings of unhappiness, the core features being low mood, pessimistic cognitions, anhedonia or lack of enjoyment in life, reduced energy and slowness of thought and movement, all of which lead to impaired functioning. The patient's appearance characteristically changes, he/she is likely to be less attentive regarding personal grooming, clothes may look crumpled or stained, hair greasy and unkempt and women may stop wearing make up. The facial features also alter, with the corners of the mouth turning downwards accompanied by vertical frowning of the brow. Blinking rate is reduced, shoulders are bent, gaze is downward, eye contact is avoided and gesticulation reduced. Some patients may continue to smile in spite of deep seated feelings of depression; however the smile will not reach the eyes. The patient experiences chronic low mood which fails to improve, even when fortuitous circumstances occur. Anhedonia may be insidious, resulting in a loss of interest and pleasure in previously enjoyable activities such as hobbies or time spent with loved ones; the patient no longer appears to possess the capacity to experience happiness and humour and he/she gradually withdraws from social functioning. Eventually, the mood progresses to one of sadness and misery where the patient ruminates over past losses, slights, failures, and perceived misdoings, the present appears intolerable and the future hopeless. These thoughts may be accompanied by bouts of crying; however, some patients who feel like crying are unable to do so. Feelings of affection for others are frequently reduced or expunged and patients who have

previously held religious beliefs may lose their faith. Thoughts of self harm and/or suicide may also begin to inhabit the patient's mind (Gelder, Gath & Mayou, 1994).

Pessimistic cognitions that focus on the past, present and future are salient in the mind of depressed patients. Thoughts relating to the past may take the form of excessive guilt and self-blame in relation to historical minor misdemeanours. Although the patient would have had access to these same memories prior to the onset of depression they only become a source of painful and debilitating distress once he / she falls ill. Some patients may experience intense feelings of guilt in the absence of any particular recollection, while others become preoccupied with unhappy memories from the past. Thoughts relating to the present consist of negative self-evaluation. Self-loathing is common and can take the form of self-criticism whereby the patient compares him/herself unfavourably to others, ideas of reference occur when the patient believes others are judging and making unfavourable comments about him/her. The patient may believe that he/she is a failure and sets about downgrading past achievements. Women in particular may experience negative cognitions regarding their appearance describing themselves as ugly and sexually unattractive. The patient may become indecisive due to a reduction in confidence and/or a slowing down of thought processes resulting in an inability to think clearly. The future often appears hopeless with thoughts of financial ruin, insurmountable family problems and personal failure dominating the patient's mind and the patient may conclude that his/her only escape is death. It is at this point that suicidal ideation, intent and planning preoccupy the patient's thoughts with increasing intensity and frequency. In severe forms of depression the patient may experience nihilistic ideas, claiming he/she is dead and that the world does not exist (Gelder et al., 1994).

Poor concentration, memory impairment, apathy, fatigue and low energy are common features of depression resulting in a reduced everyday activity and are frequently found in depressive states that occur following influenza and infectious hepatitis. Psychomotor retardation occurs when the patient movements and actions are slowed down, in severe forms of depression patients are unable to get out of bed or feed themselves. Poverty of speech refers to a reduction in the rate at which the patient talks, characterized by long inappropriate pauses which may occur mid-sentence, in extreme cases their may be an absence of speech. Conversely, for some patients' anxiety, irritability and agitation may ensue, which increases psychomotor activity and rate of speech (Gelder et al., 1994).

Biological symptoms frequently occur in moderate to severe depression but may be less apparent in mild depressive disorders and tend to respond well to antidepressant medication. Biological symptoms include sleep disturbance: typically the patient awakens two or three hours before he/she is due to and is unable to resume sleep despite feeling exhausted; this state is known as early morning wakening. The patient may also experience difficulty falling asleep due to intrusive ruminations regarding perceived past failures and the prospect of a hopeless future. When sleep finally arrives the patient may be disturbed further by waking several times during the night. Conversely, some depressed patients sleep excessively however, they always report waking un-refreshed. Weight loss is also common in depression due to a reduced appetite but weight gain may also occur as some patients attempt to gain solace from overeating. Disturbances in eating patterns often result in irregular bowl function such as constipation, while patients who are co-morbid for anxiety may experience diarrhoea. Depressed patients frequently experience variation in mood as the day progresses. The patient will usually report feeling at his/her lowest ebb first thing in the morning; the mood may lift somewhat as the day progresses and dip again during the evening. Loss of libido and amenorrhoea also fall into the biological category (Gelder et al., 1994, Goldberg et al., 1991).

The most common form of depression seen in primary care is depressive illness, however, there is a more severe form known as depressive psychosis. These conditions have been referred to in the literature as reactive/endogenous and neurotic/psychotic depression. Both reactive and endogenous depression can result from adversity; therefore, these labels are somewhat misleading. The term neurotic is equally unhelpful as it implies high levels of neuroticism in individuals who become depressed. While it is true that elevated scores of 'neuroticism' are associated with depression it is also true that high levels of adversity can induce depression in individuals with stable personalities (Goldberg et al., 1991).

Depressive illness brings about emotional, cognitive, motivational and biological changes that may vary in severity and duration. Mild depression is characterised by a decline in pleasure, depressed mood and fatigue. The central components of moderate (major) depression are emotional and psychomotor disturbance with negative beliefs, while severe (psychotic) depression is diagnosed in the presence of mood congruent psychosis.

Symptoms must be consistent over a period of two weeks before a diagnosis can be made. Chronic depression is diagnosed when a patient has experienced depressive illness in the absence of relapse for two years. There is also a condition known as dysthymia which is diagnosed in patients who experience mild depressive symptoms continuously for two years. The full spectrum of depression is often managed in primary care, although psychotic patients are likely to be jointly managed with mental health services (Goodwin & Ghaemi, 2000).

Depression is a chronic disorder with up to 85 % of patients experiencing recurrence (Keller, Lavori & Muellor, 1992). The initial episode of depression may be triggered by a life event such as unemployment or death of a loved one; however, subsequent episodes often transpire in the absence of a stressor and have a tendency to increase in frequency and duration (Goodwin & Ghaemi, 2000).

Psychosocial difficulties frequently feature in the lives of depressed patients which may lead the patient, his/her relatives and professionals to interpret patient suffering as understandable responses to social stimuli. In this way the possibility of diagnosing and treating medical symptoms are lost, much suffering is perpetuated and the patient's ability to tackle social issues is impaired.

1.2.1.3 Severity and co-morbidity

From the discussion above, it follows that anxiety and depression frequently coexist, have similar aetiological influences and recruit similar psychological processes. What does this mean for those patients who suffer from both conditions? When depression is co-morbid with anxiety, the level of disability and burden on healthcare provision is greatly increased (Lecrubiery, 2000). Individuals identified as psychiatric cases using the General Health Questionnaire (GHQ), a brief screening tool for mental health problems (but not diagnosable with a specific psychiatric disorder) display significant morbidity related to their impaired mental health. Gureje (2002) demonstrated that baseline scores on the GHQ consistent with a clinical diagnosis of a psychiatric disorder ("caseness") were associated with poor health perception; disability and high health service utilisation at twelve month follow up. Increase in disability is linear depending on the number of symptoms a patient

has and varies over time. So, disability is better reflected by the number, rather than kind of symptoms reported.

Severity of symptomatology is an important factor in detection, treatment and outcome of depression. Simon and colleagues noted that patients with severe symptoms were more likely to receive accurate diagnosis, treatment and better outcome (Simon et al., 1999). Though difficult to detect, minor depression causes considerable impairment and is frequently overlooked (Wagner et al., 2000). This would suggest that unless patients present with severe depressive symptomatology, GPs are likely to misdiagnose and the consequences for the patient may be far-reaching. The literature proposes that depressed patients who remain unidentified by their GPs constitute hidden morbidity in primary care Despite lack of accurate diagnosis and appropriate treatment, many of these patients will continue to seek help from their physicians and in doing so are likely to be classified as the heartsink patients as discussed above (Goldberg & Huxley, 2001). A systems approach may go some way to explaining this phenomenon, if the difficulties in detection lie at the social or systems level rather than the individual level. An account of one system that is particularly relevant to this argument is the filter model of pathways through care described by Goldberg & Huxley (2001).

1.2.2 The filter system approach to understanding mental health and unmet need

Individuals experiencing unmanageable psychological disturbance are likely to seek help from a professional, usually their GP, either directly or via a family member (Goldberg & Huxley, 2001). In the early sixties Shepherd and his colleagues carried out pioneering work regarding the identification and treatment of psychopathology in primary care. By the eighties, Goldberg and Huxley had developed this work further and designed a model that describes the pathways to psychiatric care experienced by patients with mental health problems (Goldberg & Huxley, 2001). The model has five levels and four filters, with a predicted annual prevalence rate of psychiatric morbidity at each level. Level one refers to the number of adults, in the community, who experience psychiatric symptoms that are consistent with research criteria in any given year. Filter one is passed once GP consultation is sought. The majority of individuals experiencing psychological disturbance at level one will pass through filter one. Therefore, level two, refers to patients who

experience mental ill-health and have sought GP intervention. Filter two, is passed when a patient's psychiatric disorder is identified by the physician, although, the patient is unlikely to receive an accurate ICD-10 diagnosis at this stage. There is a considerable drop in prevalence rates by the time patients reach level three. Filter three is passed when patients are referred to mental health services. Referred patients represent 'conspicuous' morbidity and account for 10 per cent of the patients registered under a physician's care.

Approximately half of all patients suffering from psychiatric disorder who consult with their GP will remain undetected. This group of patients constitute 'hidden' psychiatric morbidity and will continue to seek medical advice from their physician but remain unidentified as psychologically ill. Level four refers to community psychiatric services; patients pass through filter four when they are admitted to a psychiatric hospital. Finally, level five represents psychiatric hospital inpatient services. The impact of filters in obtaining treatment for mental health problems can be further understood by considering the relationship between the filters described above and psychiatric epidemiology (Goldberg, Mann & Tylee, 2000).

1.3.0 Barriers to identification of psychiatric disorder in primary care

The ability of a primary care physician to identify patient psychopathology is somewhat idiosyncratic, with 45-90% of psychiatric disorders remaining unidentified in primary care (Linden 1999). Depression in the community, for example, is undetected in 40% of cases (Simon et al., 1999). Goldberg and Blackwell (1970) hypothesised that a number of patients who visited their GPs suffering from psychiatric disturbance were being misdiagnosed and set about identifying these patients. Consecutive patients attending their GPs surgery completed the GHQ (60) in the waiting room. Data was collected from 553 patients who were then seen by the GP; who was also a trained psychiatrist. The GP assessed whether the patient was psychiatrically ill with the aid of the GHQ (60) scores. 200 patients were then randomised into a group who also received a mental state examination from a research psychiatrist. The findings from this study revealed 90 per cent of patients were correctly identified as well or ill according to the GHQ (60). 'Conspicuous psychiatric morbidity' assessed by the GP and validated by the research psychiatrist was 20 %. 'Hidden psychiatric morbidity' accounted for a third of all disturbed patients. While the degree of disturbance and course of illness in this group was similar to that found in

'conspicuous psychiatric morbidity' patients, the latter group presented the GP with physical rather than psychological symptoms.

The traditional explanations for these findings have been attributed to a combination of patient, physician and system variables (Docherty, 1997). Patient variables include lack of knowledge pertaining to the condition; resulting in inaccurate reporting of symptoms to the physician, the presence of psychological co-morbidity, physical symptomatology and fear of stigmatization. Physician variables incorporate lack of knowledge, training and confidence in the detection and management of depression coupled with a reluctance to openly discuss issues relating to depression with patients. Systems variables were cited as financial, reimbursement and time-management issues (Docherty, 1997). For a physical and / or psychological intervention to be effective, accurate diagnosis is required so as to inform current treatment strategies. Therefore, failure of GPs to identify psychopathology in their patients will have a direct impact on treatment outcomes.

1.4.0 What do we need to know about anxiety and depression in order to develop an effective primary care treatment programme?

So far, an account of the signs and symptoms of anxiety and depression has been presented. The concept of anxiety and depression existing as one condition in primary care has been proposed. Prevalence rates have been discussed, followed by a description of pathways and barriers to care. In addition to the above, it is important to understand the aetiology of anxiety and depression, as this allows therapeutic intervention to be targeted at various points in the chain of causality. The focus of this thesis is on the impact of a psychological intervention upon mental health in primary care; therefore discussion of aetiological processes will be restricted to those that seek to explain the psychological mechanisms which underpin them. However, most only deal with depression as a symptom and in doing so fail to address the disorder as a multifaceted syndrome.

1.4.1 The aetiology of anxiety

The cause of anxiety is multifactorial, and while predisposing, precipitating and perpetuating factors include constitutional and biological components, a large contribution is made by psychosocial factors. Twin studies have demonstrated a genetic link in relation to anxiety

and it is likely that a polygenic mechanism is responsible. However, this explains only a small proportion of the variance. Vulnerability to anxiety disorders is increased if an individual has a diagnosable psychiatric illness, anxious temperament, neuroticism, 'trait' anxiety and / or social adversity (Goldberg, Benjamin & Creed, 1991). Childhood neurotic traits such as thumb-sucking and bed-wetting are not pathologically significant and there is no evidence to suggest that treatment of these conditions will prevent the development of anxiety disorders in later life.

Follow up studies have demonstrated that childhood anxiety is not associated with psychiatric disorder in adulthood Graham (1986). Individuals with normal personalities may develop anxiety when exposed to stressful situations such as war. However, anxiety which develops in response to normal life events is likely to be associated with personality. Unemployment has been associated with neurosis. It has been suggested that the cause of anxiety in this situation may be due to the loss of self-esteem, financial income and loss of social role as opposed to unemployment. Cooper and Sylph (1973) studied patients diagnosed with minor affective disorder and found higher incidences of life events in the three months prior to the onset of illness compared with controls. However, not everyone who experiences adversity develops affective disorders, possibly due to individual responses. For example, the significance of a life event may differ between individuals depending on past experience; protective environmental influences, such as close confiding relationships may be operating and / or resilience will vary at an individual level. Family difficulties are associated with neurosis. Kreitman et al. (1970) found wives of neurotic men to have higher neuroticism and multiple neurotic symptoms which increased in frequency the longer the couple had been married, compared to controls.

1.4.2 The aetiology of depression

Depressive illness results from a number of causes which can be conveniently considered under the following headings: predisposing, precipitating and maintaining factors. ***Predisposing factors*** include: genetic disposition, in utero experience, physical, psychological and psychosocial early life events. Psychoanalysts have cited childhood maternal deprivation, through separation or loss as a predisposing factor in the development of depression in adult life (Gelder, Gath & Mayou, 1994). However, a review of the literature revealed that only seven out of fourteen studies examined supported the hypotheses (Paykel, 1981). However, the association is uncertain and if it exists at all is likely to be non-specific (Gelder, Gath & Mayou, 1994). Childhood relationship with parents may be significant but are often difficult to assess as depressed patients are likely to experience cognitive distortions and negative bias (Gelder, Gath & Mayou, 1994).

Constitution is important and refers to an individual's physical and psychological make-up, which changes throughout the life span via environmental influences. Brown and Harris (1978) divided social predisposing factors into the following two categories, long-term difficulties and vulnerability factors. Long-term difficulties refer to protracted stressful circumstances which can trigger depression and contribute to short-term life events. While vulnerability factors do not cause depression per se they may amplify the negative effect of short-term life events. Vulnerability factors identified by Brown and Harris (1978) in their study of working class women living in Camberwell London included: caring for young children, not working outside the home and lack of a close confiding relationship. Constitutional status will also influence whether or not an individual develops depression in the light of these events (Gelder, Gath & Mayou, 1994). ***Precipitating factors*** are stressful events that occur prior to the onset of depressive illness and may be physical such as, influenza, glandular fever and Parkinsonism, or psychosocial, such as, bereavement or marriage***. Maintaining factors:*** these extend a depressive episode over time. Examples of maintaining factors include unemployment, poverty and domestic violence (Gelder, Gath & Mayou, 1994). In practice a single causative influence might operate as a predisposing, precipitating or maintaining factor according to the context in which it is experienced.

1.4.3 Theories of anxiety and depression

Theoretical explanations of anxiety and depression aid understanding of the development and maintenance of anxiety and depression and often underpin psychological interventions.

1.4.3.1 Psychodynamic theory

Psychoanalytic theory of depression was developed by Freud, who noted that bereavement and depression shared similar symptom profiles. This led Freud to postulate that the causative link between the two phenomena might be loss, either real or abstract loss. Freud suggests depression occurs when ambivalent feelings exist towards a loved object which can either be real or imaginary. Loss of the loved object causes despair and guilt requiring internalisation of negative feelings that might otherwise have been directed at the love object (Gelder, Gath & Mayou, 1994).

1.4.3.2 Learned helplessness theory

Seligman's (1975) theory of learned helplessness developed from experimental work carried out on animals. Learned helplessness occurs when the animal is exposed to situations in which reward or punishment are beyond the animal's control. In these experimental conditions lack of control leads to reduced appetite and mobility, symptoms that are similar to those found in humans experiencing an episode of depressive illness. Abrahamson et al. (1978) developed this idea further suggesting that depression in humans occurs when positive outcomes appear unlikely or negative outcomes seem probable and the individual is powerless to influence outcome (Gelder, Gath & Mayou, 1994).

1.4.3.3 Animal experiments

Hinde (1977) conducted a series of experiments with primates to examine the effects of separation from a loved one, in relation to depression. The researchers found infant rhesus monkeys that were separated from their mothers initially engaged in searching and calling behaviours, developed sad facial expressions, refused to play with other monkeys and ate and drank less. These behaviours were peculiar to infants and were dependent on the quality of the relationship with the mother prior to separation (Gelder, Gath & Mayou, 1994).

1.4.3.4 Cognitive theories

Negative thoughts are secondary to a primary disturbance of mood in depressed patients according to the psychiatric literature. However, Beck (1967) considered depressive cognitions to be the primary disorder. There are three forms of depressive cognitions consisting of negative thoughts, expectations and cognitive distortions. Negative thoughts refer to distressing self-critical phrases or images; for example, a man might tell himself that he is a failure because he has lost his job. Expectations include negative beliefs such as 'only rich people can be truly happy.' Cognitive distortions consist of the following components: 'arbitrary inference' occurs when a negative conclusions is reached in the absence of evidence to support it, 'selective abstraction' refers inappropriate attention to detail at the expense of more salient features of the situation, 'overgeneralisations' occurs when a general conclusion is drawn from an isolated incident, finally, 'personalisation' relates to external incidents that are related to the self in an unhelpful manner. Beck proposed that individuals who were prone to this style of thinking were likely to develop depressive illness. There is however, a lack of evidence to support the notion that these mechanisms are present in individuals prior to the development of a depressive illness (Gelder, Gath & Mayou, 1994).

1.5.0 Self-esteem as an influence upon affective disorders in primary care

The aetiological factors and theories outlined above raise the possibility that anxiety and depression may be influenced by several intermediate psychological constructs. Self-esteem is one such construct, and its possible value is now considered in devising an effective treatment programme in primary care. The discussion begins with a consideration of what constitutes self-esteem, and reflects on the impact of individual differences in self-esteem.

1.5.1 Definition of self-esteem, trait and state self-esteem

Self-esteem can be defined as the evaluation of one's self-worth, which is embedded in cognitive and affective processes (Brown, 1993). This in turn, affects relationships with others and interactions with the environment. Trait self-esteem refers to feelings of self-worth that remain pervasive and stable over time with a test re-test correlation of .904 (Baumeister, 1993). State self-esteem fluctuates around the trait set point; there is considerable individual variation in the degree of fluctuation experienced. Although trait

self-esteem remains reasonably stable over the life span, it is not set in stone and long-term change can shift in either direction (Baumeister, 1993). The circumstances in which change may occur are during times of social upheaval in people's lives such as: moving to a new school, marriage, birth of a child, divorce and unemployment (Baumeister, 1993). Additionally there are several subcategories of self-esteem which will have implications for an individual's physical and mental health, educational achievement, and social competence and whether or not he / she engages in aggressive and / or criminal behaviour.

1.5.2 Theories of self-esteem

1.5.2.1 Domain specific theory and the looking glass-self

James (1892) believed that individuals possess a global sense of self. This refers to the overall value one assigns to self as an individual which endures over time despite positive / negative variations in an individual's external / internal daily life. According to James, the level of competence one demonstrates in different domains determines ones global self-esteem. The individual forms a global estimate of self-worth by summing his / her competencies in multiple domains. Domain specific performance will only influence self-esteem if the individual places value on the domain in question. A good fit between competency and valued domains determines favourable global self-esteem, while poor fit results in an unfavourable estimation. Self-esteem is a subjective appraisal, so may be incongruent with objective ability (Harter, 1990). Global self-esteem is anchored in affective processes while domain specific self-esteem is grounded in cognitive processes (Brown, 1993). Cooley (1956) believed that the origins of self-esteem lay in social relationships; individuals are motivated to seek the opinions of significant others in relation to the self. The individual then imitates or internalises these opinions, which eventually are experienced as a sense of self. This process is known as the 'looking glass-self'.

1.5.2.2 Contingencies of self-worth

Crocker and Wolfe (2001) propose a model that builds on the work of James (1892): specifically the notion that global self-esteem is a measure of self-worth which is derived from summing competencies in valued domain specific areas. A contingency of self-worth refers to a valued domain on which the individual self-esteem is dependent. Contingencies

on which self-esteem are based differ according to individual preference, are arranged hierarchically, vary in accessibility with the most dominant being the easiest to access and are activated by environmental triggers. Crocker and Wolfe propose that state and trait self-esteem will be directly influenced by the impact of events on an individual's contingencies. Some contingencies may be easier to satisfy than others, for example, basing one's self-worth on the love of God is likely to result in high state and trait self-esteem, if one believes God's love is unconditional. Basing one's self-esteem on the opinion of others, however, is likely to result in low state and unstable self-esteem as it is difficult to receive approval from everyone at all times. Contingencies of self-worth develop over the lifespan and while predominantly stable can shift at times of transition, although subordinate contingencies are more amenable to change than super-ordinate ones (Crocker & Wolfe, 2001).

With the 'looking-glass self' hypothesis, Cooley (1956) suggests that people develop a sense of their own self-worth by deferring to the opinions of others as a means of formulating a sense of self. If this model is to be believed one might predict that members of stigmatised groups, such as the elderly would be likely to experience low self-esteem (Erikson, 1956). However, this is not the case; for many people aging and its associative declines and losses in previously valued domains are managed by revising contingencies; additionally, there is considerable variation in how much value people give to the opinions of others (Crocker & Wolfe, 2001).

1.5.2.3 Self-esteem as a motivational force

Theorists argue that people are strongly motivated to maintain a positive view of themselves and avoid losses to self-esteem. This process is supported by a variety of cognitive and behavioural techniques such as social comparison, self-serving attributions, self-handicapping and self-presentation (Leary & Baumeister, 2000). There are emotional consequences that occur as a result of losses of self-esteem, including depression, jealousy, despondency and violence (Baumeister, Smart, & Boden (1996). People are motivated to seek self-enhancing information that will elevate their self-esteem, while simultaneously seeking self-consistency feedback that will verify existing views. For individuals who are high in self-esteem this process is a straightforward as the two motives are compatible. Individuals who have low self-esteem are likely to experience difficulty in this area due to a

history of actual or perceived failures which will be inconsistent with self-enhancement (Leary & Baumeister, 2000). Despite this, individuals with high and low self-esteem prefer self-enhancing feedback. Moreover, Sedikides (1993) has shown that self-enhancement compared to self-consistency is the more dominant motivating force.

1.5.3 Functions of self-esteem

Despite thousands of studies the function of self-esteem remains unclear and the reasons why people appear so keen to maintain it continue to elude scholars. The notion that low self-esteem is the cause of many of society's ills is a popular one; see California Task force (1990). However, according to Baumeister (1993) the negative effects associated with low self-esteem are few and do not explain why people strive to cultivate a positive view of themselves. Several theories exist that attempt to offer an explanation for the function of self-esteem and why people are motivated to preserve and protect it (Baumeister & Leary, 2000).

1.5.3.1 Successful coping

The notion that self-esteem provides affective feedback from the self regarding the competency of the self was proposed by Bednar, Wells & Peterson (1989). When the individual is managing psychological threat he / she will receive positive affective feedback, negative affective feedback occurs when the individual engages in avoidance behaviours. According to this model, prospective coping will be influenced by this process because high self-esteem will increase the likelihood of future successful coping while low self-esteem will increase the likelihood of avoidance. Leary & Baumeister (2000) are critical of this model, pointing out that the feedback loop described is dysfunctional as low self-esteem individuals would deteriorate over time, while those with high self-esteem would gain in strength.

1.5.3.2 Self-determination

'True self-esteem' occurs when people behave in a self-determined autonomous fashion that is congruent with their core self. Conversely, attempting to live up to standards that are set by others, but not congruent with core self, results in a maladaptive form self-esteem, which is known as 'contingent self-esteem' (Leary & Baumeister, 2000).

1.5.3.3 Dominance maintenance

Barkow (1980) proposed that self-esteem evolved from early social groups that were characterised by hierarchical relationships. According to this model self-esteem has an adaptive role the object of which is to monitor and enhance dominance, to secure the attainment of mates. Due to the commonality and strength of self-esteem Leary and Baumeister (2000) agree that this explanation is likely to be valid, though incomplete.

1.5.3.4 Terror management

Terror management theory proposes that self-esteem acts as a buffer to the terror people experience at the prospect of their mortality (Greenberg, Solomon & Pyszczynski, 1997). Studies have demonstrated that under experimental conditions, people become concerned with self-esteem when mortality is a dominant issue. Moreover, high self-esteem has been shown to reduce anxiety in relation to death. Despite these findings there is a lack of empirical evidence to support the view that self-esteem acts as a buffer to relive anxiety at the prospect of death. A criticism of this theory is that many people engage in life threatening behaviours on a regular basis (Leary & Baumeister, 2000).

1.5.3.5 Sociometer theory

Leary & Baumeister (2000) propose that self-esteem acts as an internal measure to monitor interpersonal relationships and maintain attachments in social situations. Self-esteem is based on the values prescribed by the group, which are likely to include competence, amiability, attractiveness and honesty. The role of state self-esteem in this model is to respond to cues that denote rejection or acceptance. Automatic pre-attentive processing is likely to be a salient feature of this model, as the self-esteem system will be constantly monitoring the environment for cues relating to the individual's social inclusion status. When the system detects cues that the individual may be rejected the sociometer triggers aversive affect as a signal to take preventative action (Leary & Baumeister, 2000).

1.5.4 Development and natural history of self-esteem

Harter (1990) was interested in testing James and Cooley's theories in relation to the development of self-esteem across the life span. Children aged 4 to 7 years are unable to articulate judgments about their self-worth, though they are able to make judgements

about their competence in cognitive, physical and behavioural domains if measures are presented in concrete behavioural terms using pictorial stimuli. However, judgement is likely to be inaccurately high due to a tendency to conflate the wish to do well with reality (Harter, 1990). Additionally, the use of social comparison to aid self-evaluation is developmentally inaccessible to the younger child. Young children are unable to judge the importance of different domains; therefore, the competence-importance discrepancy is a meaningless construct for children in this age range. The level of emotional support a child receives from significant others such as parents, teachers and peers can be judged by the younger child, if presented in concrete behavioural terms. Accordingly, in Harter's study researchers asked young children how they knew they were liked / loved by significant others. In this way, a measure was developed that included items based on behavioural manifestations most commonly cited by young children. It is noteworthy that all of the items represent socio-emotional support as opposed to validation of the child's competence. Due to the cognitive limitations of the younger child it was necessary to include observational measures as well as child self-report instruments. This was achieved by developing a behavioural index of self-worth. Behaviours where identified, that characterized the high / low self-worth child and behaviours that did not allow them to discriminate between the two groups. The nursery school teachers then used the instrument to test the level of self-worth on the children in their care. High self-worth children displayed confidence, curiosity, initiative, independence and an ability to adapt to change and stress. Conversely, the low self-worth children failed to demonstrate any of the above behaviours. These behaviours are similar to those that describe securely and insecurely attached infants (Ainsworth et al., 1978). Behaviours that did not discriminate between high / low self-worth were competence, attention, wandering off mentally or physically, motivation to complete task, activity level, friendships and need for teacher encouragement (Harter, 1990).

These findings suggest that task completion, attention and competence are not necessarily required for the endorsement of high self-worth in young children. Additionally, the self-report data collected from these children revealed poor correlation between perceived cognitive and physical competencies and perceived social acceptance from significant others. However, a correlation between perceived social support and perceived affect was found (Harter, 1987). Affect and self-worth were seen to be highly correlated suggesting

that the most important influence on the development of self-worth for young children is the level of socio-emotional support received from significant others.

By mid-childhood and adolescence, children are able to assess self-worth and most domains can be differentiated and verbalised. Harter (1990) recruited children aged 8-15 years for her study and tested the competence verses importance dichotomy derived from James' model of self-esteem and 'the looking glass' theory from Cooley's work. The findings supported both models. Children who were low in self-esteem rated themselves as performing poorly in areas they valued. Conversely, children who were high in self-esteem reported greater congruence between valued domains and ability, which they used to compensate for discrepancies in less competent areas. Additionally, the more a child felt significant others held him / her in high regard, the greater the child's sense of self-worth. These findings suggest that both constructs are equally important in the development of self-worth and that one cannot compensate for the other. The children also rated certain domains of greater importance than others. Physical appearance was the most important predictor of high self-worth, followed by social acceptance. These findings suggest that skill competence is less powerful as a determinant of high self-worth than physical appearance and sociability in school age children. Children rated cognitive and behavioural domains as slightly less important than the above; also, the discrepancy between these domains and performance did not affect self-esteem.

Harter (1990) examined the impact of domain specific judgments on self-esteem in college students and adults. The self-worth of college students was dependent on level of performance in domains that where of importance to the student rather than of approval and support from significant others. Appearance and peer social acceptance also scored highly in this age range. Adult participants rated physical appearance, intimate relationships and sociability as the most important determinant of self-worth.

Harter has postulated on why physical appearance is rated so highly as a determinant of self-esteem throughout the life span. She suggested that physical appearance might be representative of the 'outer self' while 'self-worth' is representative of the inner self. Physical appearance is unique in terms of domain specific competencies; it is ever present rather than situation specific. Maccoby and Martin (1983) noted that physically attractive

infants elicit more positive attention from others than physically unattractive infants. These findings have been replicated with older children and adults (Hatfield and Sprecher, 1986). It is perhaps unsurprising then, that children and adults should be concerned with their physical appearance to such a degree, after all humans are social beings and as such feel the need for approval from others in order to develop a sense of self-worth. Even if one has multiple strengths in many domains, physical appearance is likely to be judged before other domain specific strengths.

1.5.5 Individual differences in self-esteem

There is a popular belief in the west that high self-esteem is a desirable characteristic, while low self-esteem is considered to be somewhat undesirable. However, recent research has demonstrated that high and low self-esteem can have negative ramifications and that there is in fact an optimal level of self-esteem that is associated with healthy psychological functioning. Distinguishing between levels of self-esteem is possible, as people who are high in self-esteem are characteristically distinct from those who are low in self-esteem. The following section will explore the distinction between these two categories, followed by a discussion of the subcategories of self-esteem.

1.5.5.1 Characteristics of people with high self-esteem

People have a fundamental need for self-worth regardless of whether their self-esteem is high or low. High self-esteem individuals have little difficulty fulfilling this need as they think well of themselves, believe in their ability to succeed and have a tendency to engage in self-promoting behaviours. People with high self-esteem persist in the face of adversity and experience only minimal distress when faced with failure; furthermore, they do not waste time remedying difficulties that appear insurmountable (Baumeister & Tice, 1985). Regular use of self-serving bias, a process by which the individual's self-esteem is elevated through favourable distortion of reality, is a salient feature of high self-esteem individuals (Blaine & Crocker (1993). These people have clear and positive expectations with regard to how life will treat them (McFarlin & Blascovich, 1981). Additionally, people with high self-esteem have a thorough, accurate, extensive and stable self-knowledge system, which has a positive impact on their mood (Campell, 1990). Self-ratings on questionnaires are positive and extreme, questions about the self are answered quickly and self-esteem ratings remain stable over time (Campbell, 1990).

1.5.5.2 Characteristics of people with low self-esteem

People who are low in self-esteem experience conflicting needs in the area of self-worth fulfilment (McFarlin & Blascovich, 1981). Human beings are motivated to protect themselves against loss of self-esteem and enhance positive self-views, unfortunately, low self-esteem individuals experience interference in their ability to do this. They are therefore likely to have fewer reasons to think highly of themselves, which renders them vulnerable to threat resulting in the development of a protective rather than a self-enhancing style. The desires and motivations of people with low self-esteem are similar to those of people with high self-esteem, but cognitive expectations differ (Blaine & Crocker, 1993). People with low self-esteem have reduced expectations of self (McFarlin & Blascovich, 1981) and became excessively distressed in the face of failure, focussing on failure as a means of elevating self to an adequate level of functioning and attempting to remedy difficulties rather than developing personal strengths (Baumeister & Tice, 1985). Individuals who are low in self-esteem appear to lack the skills to access self-serving bias techniques (Blaine & Crocker, 1993) and are thus more prone to negative moods and mood swings compared to people with high self-esteem (Campell, Chew & Scratchley, 1991). Low self-esteem individuals may experience adverse physical reactions to positive events (Campbell & Lavallee, 1993). Once self-views have been firmly established it is difficult for people to change them, even if the self-views in question are negative. Individuals with low self-esteem will distrust people who think highly of them and seek out supporting evidence to the contrary, thus perpetuating low self-esteem over time. Maintaining a consistent view of the self is a powerful motivating force. People with low self-esteem wish to avoid negative feedback as much as people with high self-esteem, however, they often find themselves caught in a crossfire between desiring self-enhancement, yet finding themselves compelled to chose self-consistency as a means of resolving cognitive dissonance. Low self-esteem individuals abhor threats to the self and long to feel positive about themselves. Under threat they become self-protective and defensive, despite this, they are inclined to believe negative feedback even though they desire praise, it is through this process that self-enhancement remains unsatisfied (Campbell & Lavallee, 1993). Poor self-knowledge that fluctuates over time is uncertain and incoherent takes centre stage in the life of people with low in self-esteem (Baumeister & Tice, 1985). Poor self-conception motivates the individual to maintain consistency by rejecting or downgrading personal achievements. Interference in the ability to set achievable goals may be a consequence of poor self-knowledge. People

who are low in self-esteem describe themselves in neutral, non-committal terms as opposed to negative ones; therefore, low self-esteem is low in a relative sense, rather than an absolute sense. Low self-esteem individuals also take longer to answer questions about themselves; their answers vary over time and scores on self-esteem scales fall in the mid range of the scale rather than the lower end (Campell, 1990). A more indirect use of self-enhancement is favoured by people who have low self-esteem. Instead of openly enhancing the self, these people prefer to enhance the group to which they belong (Campbell & Lavallee, 1993). Thus by avoiding self-implementation directly, the low self-esteem individual is able to experience self-enhancement without the discomfort of cognitive dissonance. Additionally, low self-esteem individuals engage in downward comparison as a means of self-enhancement. At first sight it appears that the descriptions of low self-esteem and depression are very similar. However, on closer examination it becomes clear that both high and low self-esteem are complex constructs (Campbell & Lavallee, 1993).

1.5.6 Misconceptions and subcategories of self-esteem

Self-esteem is a construct that is often presented in the literature in dichotomous terms: people either have high self-esteem, which is considered to be good, or they have low self-esteem, which is considered to be bad. This stance has led to controversy in the area relating to whether people with low self-esteem are merely confused individuals or adamant self-haters. Recent research has clearly demonstrated that the former is true and that people with low self-esteem are best described as uncertain and ambivalent with poor self-concept (Baumeister & Hutton, 1989). Pelham (1991) showed that people with low self-esteem had pockets of favourable self-judgement. These findings stand in contrast to long held views that low self-esteem is synonymous with depression (Harter, 1993). These views are also inconsistent with clinical observations: poor self-esteem does not necessarily dominate the lives of patients seem in clinical practice. If this were the case, one might expect low self-esteem to only be found amongst the mentally ill, which is certainly not the case (Kernis, 2003). Hoyle et al. (1999) argue that people have a tendency to present themselves positively, so neutral responses to self-esteem questionnaires reflects greater feelings of self-negativity than reported. Alternatively, one could accept these responses at face value which would suggest that the majority of the population falls into the high medium self-esteem category. The above argument suggests that one should possibly discount the influence of self-esteem on mood. Self-esteem has a direct impact on

psychological functioning, with high self-esteem individuals reporting increased emotional wellbeing (Crocker & Wolfe, 2001). Low self-esteem has been cited as a possible cause of a multitude of societal problems (California Task Force, 1990). The Californian Task Force, set up to raise the self-esteem of school children have suggested that money used for such projects would be better employed in teaching children basic academic skills, thus promoting self-esteem that is grounded in achievement. Crocker and colleagues argue that this stance represents a fundamental misunderstanding of the nature of self-esteem. According to Crocker and Wolfe (2001) the reason there is a lack of evidence to support the hypothesis that low self-esteem is the cause of social problems and that elevating self-esteem results in the resolution of such problems is because research has focused exclusively on levels of self-esteem, while ignoring important aspects such as contingencies, fragility and stability. A further area where there is controversy is in relation to whether it is better to have high self-esteem rather than low self-esteem this is because high self-esteem has been shown to have a negative side. Theorists define high self-esteem as 'global feelings of self-liking self-worth, respect, and acceptance' (Brown, 1993); however, self-esteem that is high may also be fragile and vulnerable to threat. The literature suggests that high self-esteem individuals engage in self-protecting and self-enhancing strategise as a means of developing and maintaining high self-esteem. Kernis (2003) argues that these characteristics are associated with fragile high self-esteem. An unwillingness to admit to unflattering characteristics, while promoting self in a positive light is known as defensive high self-esteem. Self-promoting style is more apparent among defensive high self-esteem individuals and represents one form of fragile high self-esteem. Furthermore, conscious and unconscious feelings will also have an influence on the presentational style of high self-esteem individuals. For example, positive feelings of self-worth may be reported, yet the individual may harbour unconscious negative self feelings, this state is known as implicit self-esteem. Epstein and Morling (1995) argue that individuals who have a combination of high explicit self-esteem and low implicit self-esteem are likely to respond defensively to negative evaluative situations, this scenario mirrors the actions of defensive high self-esteem people and in turn equates to fragile high self-esteem. Self-worth that is dependent upon reaching specific goals set by the individual or others is known as contingent self-esteem. If the individual fails to achieve set goals he / she will attempt to avoid criticism and failure by distorting outcomes or derogating the critics (Deci & Ryan, 1995). Kernis (2003) argues that contingent self-esteem is another aspect of fragile self-esteem. A further distinction between secure and fragile self-esteem is the degree to which an individual's self-esteem fluctuates; the greater the fluctuation the more unstable the self-

esteem. People who have unstable high self-esteem respond strongly to events perceived as relevant to self-esteem. These people are more prone to depression, are more influenced by daily events, focus on self-esteem threatening aspects of interpersonal interactions, use self-protective techniques when learning rather than developing a mastery style, have poor self-concepts, over-generalise failures (Kernis, 2003). Defensive behaviour may take the form of aggressive outbursts coupled with loss of control. Depression is correlated with low self-esteem yet evidence to support the hypotheses that low self-esteem is a risk factor for depression is unsubstantiated (Coyne, & Gotlib, 1983). Crocker and Wolfe (2001) suggest that it is the impact of congruent positive and negative events on contingencies combined with negative life experiences that leads to fluctuations in self-esteem and eventually depression, rather than low levels of self-esteem per se. Therefore, contingencies of self-worth represent vulnerability to depression due to variability of self-esteem over time. It is proposed that drops in self-esteem may be more psychologically distressing than chronic low levels of self-esteem. The mechanism that is responsible for unstable self-esteem resulting in depression, to date remains unidentified. Unstable self-esteem may have emotional and biological consequences such as ruminations, a sense of hopelessness, and loss of control. It is noteworthy that the symptoms of unstable self-esteem directly mirror those of anxiety / depression.

1.5.6.1 Optimal self-esteem

Optimal self-esteem can therefore be described as positive feelings towards the self that are secure, do not depend on attainment of specific goals and do not require constant validation (Deci & Ryan, 1995). Private and public self are congruent as is explicit and implicit self-evaluation. The successful management of life's challenges via choices that originate from one's authentic core self is a central component. Finally, relationships that are characterised by acceptance of the self, coupled with a lack of defensiveness and a willingness to accept one's faults at the risk of being rejected by others (Kernis, 2003).

1.5.7 Self-esteem and depression; an explanatory model

Self-esteem is considered to be a key player in the development, maintenance and recovery of depression (Roberts & Monroe, 1994). However, recent studies have suggested that low self-esteem is merely a symptom of depression as opposed to a cause and that symptoms remit on recovery of an episode (Haaga, Dyck & Ernest, 1991). The findings from the

above studies have measured self-esteem in terms of whether it is high or low. Roberts and Monroe argue that vulnerable self-esteem is a multifaceted construct and requires closer examination. They define vulnerable self-esteem as 'characteristics of self-esteem that place individuals at risk for future depression' (Roberts & Monroe, 1994) and examine psychodynamic, cognitive and social-environmental theories in an effort to explore the role self-esteem plays in relation to depression. According to psychodynamic theory, prospective depressives set unrealistic personal goals and are unable to tolerate a lack of congruence between said goals and performance. These people depend on a narrow range of external sources to bolster self-esteem, have low levels of resilience in relation to failure or loss coupled with a tendency towards negative overgeneralization. Individuals who are vulnerable to depression may fall within the normal range of self-esteem in the absence of stress; however, self-esteem may reduce significantly in response to minor hassles. Cognitive theorists argue that individuals who are vulnerable to depression maintain negative non-conscious thoughts about themselves that may be triggered by stress. Others may have low self-esteem that falls in response to negative life events. This model predicts that once activated, low self-esteem will be an important factor in the trajectory of the disorder. Therefore low self-esteem does not predict depression and cannot be used to discriminate between people who have a history of depressive illness and never-depressed controls. Brown and Harris (1978) propose that individuals with low self-esteem become depressed when faced with major life-events i.e. low self-esteem moderates the relationship between depression and negative occurrences. Conversely, Hyland (1987) Oatley and Bolton (1985) and Pyszcynski and Greenberg (1987) suggest that it is the negative life-events themselves that cause self-esteem to plummet and which result in the onset of a depressive episode i.e. that low self-esteem is a mediating factor between depression and major life-events. Therefore, future vulnerability to depression would be associated with limited sources of self-esteem and temporal instability (Roberts & Monroe, 1994).

If self-esteem does indeed influence anxiety / depression, then a treatment that targets self-esteem will indirectly treat anxiety / depression. Furthermore, a treatment aimed at improving self-esteem will not be dependent upon accurate psychiatric diagnosis for its success.

1.6.0 Treatment of affective disorders in primary care

1.6.1 Strategies designed to overcome barriers to identification of psychiatric disorders in primary care

The following section explores various attempts to improve the detection of mental health problems in primary care. To date there have been two main approaches: educative programmes aimed at enhancing GP skills in the identification and assessment of psychiatric disturbance; and the development of a diagnostic and treatment system specifically designed for use in primary care settings.

1.6.1.1 GP education programmes designed to increase the detection rate of psychopathology in primary care

Goldberg and colleagues attempted to address the difficulties relating to barriers to care by developing and evaluated an educative programme, aimed at increasing the ability of GPs to detect psychiatric disturbance in primary care (Goldberg et al., 1980). Trainee GPs were recruited for the programme as it was considered this group would be more amenable to change, compared to established GPs. An agreed coefficient was calculated between 45 trainee ratings of psychiatric disturbance and GHQ (28) scores. 24 trainees with the lowest scores were then randomized into an index or control group. The index group received four 45 minute teaching sessions which consisted of a brief psychiatric assessment designed for use in primary care, plus a video tape demonstration by the trainer and a model. Trainees were videotaped interviewing a model; this material was then used for micro-teaching purposes aimed at modifying interactive style. It was noted that trainees avoided probing the model for psychiatric symptoms because they were unsure of what to do with information once it was disclosed. On completion of the training programme, the index group had significantly improved their ability to detect psychiatric disturbance. Changes in interview technique generalized into other areas and were shown to be consistent over time at three month follow up (Goldberg et al., 1980).

Numerous efforts to improve GP detection rates have failed. A study evaluating the impact of teaching family physicians to complete structured assessment of their long term mentally ill patients was undertaken by Kendrick, Burns & Freeling (1995). The study was a randomized control trial of 16 group general practices in the South Thames region.

Participants consisted of 440 adults who were disabled due to long term mental ill-health; 216 patients were randomized into an intervention group and 224 into a control group. Practice data were utilized to identify appropriate patients for the study from 8 practices. GPs were then instructed in the use of the Structured Assessment Schedule, which was to be implemented by the GPs every 6 months for 2 years with each of the participants. The results yielded follow-up data on 373 (84.7%) patients. The intervention group produced data on 127 patients, all of whom had at least one completed assessment, while a mere 29 patients had received the full quota of 4 assessments from their GP. Changes in GP behaviour as a result of the intervention were found in the following areas: referrals to community psychiatric nurses increased, as did narcoleptic prescribing practices. There was no significant change in patient or day hospital admissions, use of Mental Health Act, drug overdose behaviour or non-psychiatric care of patients. Physicians considered the Structured Assessment Schedule to be easy to use, acceptable to patients and useful in enhancing the patient-doctor relationship, though unnecessarily time-consuming to administer. Attempts at improving the knowledge and skills of family doctors have been mostly unsuccessful (Linden, 1999). The Hampshire Depression Project (Thompson, Kinmonth & Stevens, 2000) and a recent study by Croudace et al. (2003) found that educating GPs in the identification of psychiatric disorder failed to increase detection rates. Explanations for this failure as proposed by Docherty (1997) do not fit with his hypothesis as GPs should have few problems learning basic psychiatric assessment skills. The systems hypothesis proposed by the author offers an alternative view and carries the implication that further attempts to educate GPs are likely to be unsuccessful.

1.6.1.2 Diagnostic and treatment systems for use in primary care

Psychiatric taxonomies, such as ICD-10 and DSM-IV were designed for use in secondary care. However, neither of these systems is particularly helpful in the primary care setting as they tend to be unnecessarily complex and fail to offer specific guidance in the management of diagnosed conditions. Therefore, a primary care classification of psychiatric disorder, known as ICD-10-Primary Health Care (PHC) was developed by an international group of psychiatrists and GPs to address this problem. ICD-10 PHC (WHO, 1996) identifies 24 common psychiatric disorders and outlines appropriate management strategies, but has failed to improve GP detection rate of psychiatric disorder in primary care. The conditions outlined in ICD-10 PHC are a subset of Chapter V of ICD-10, which derives from cases described in secondary care. There is evidence to suggest that these diagnostic systems

may not be transferable to primary care settings. Evidence to support this argument lies in the filter system approach itself, which is fundamentally about assigning people to a particular group. If patients present with severe signs of mental illness it will be a relatively simple task for the GP to assign the patient for psychiatric care. However, for those patients who present with ambiguous symptomatology the task is more difficult. The physician may be less likely to identify a patient as psychiatrically ill due to the patient being submerged in a large heterogeneous group that may act as a smokescreen making it difficult for the physician to identify the true nature of the patient's complaint.

Questionnaire studies have found that it is not possible to distinguish between anxiety and depression in community settings, though these disorders are separable in secondary care. Additionally, as described in the previous study, researchers who are trained in psychiatry have also failed to identify psychologically disturbed patients once they are practicing as GPs.

1.6.2 Treatment

Irrespective of whether GPs are capable of detecting psychiatric disorder or not, there will be large numbers of patients in primary care suffering from psychological disturbance who require treatment. The following section will review the guidelines on the treatment of depression in primary care, the various treatment options that are available to GPs and discuss limitations relating to their delivery.

1.6.2.1 Disease Management for depression

Disease management programmes provide low intensity, high capacity interventions for people experiencing depression. These population based models of care educate providers in screening techniques, patients in self-help strategies and promote effective communication between agencies involved in the care of this group of patients. Disease management programmes for depression have been shown to significantly improve depressive outcome (Neumeyer-Gromen et al., 2004).

1.6.2.2 Guidelines for treatment of depression in primary care

The National Institute for Health and Clinical Excellence (NICE, 2007 amended) has issued clear guidelines consisting of a stepped care model from primary to secondary care for the treatment of depression. Outlined below is a description of the guidelines applicable to practitioners working in primary care only, as this setting was the focus for the delivery of STEPS. The use of screening questions by primary care staff is advised to assist in the identification of hidden morbidity. For patients presenting with mild depression who do not want treatment, 'watchful waiting' is advised. This involves making arrangements for a further appointment within two weeks to reassess the situation before prescribing treatment. Additionally, it is advised that these patients are given information on the importance of sleep hygiene, anxiety management, exercise and guided self-help involving written materials, limited professional support over 6-9 weeks and / or computerised cognitive behavioural therapy (CBT). For patients experiencing mild to moderate depression, psychological interventions known to be effective in the treatment of depression should be considered, such as problem-solving therapy, brief CBT and counselling delivered over 6-8 sessions. Antidepressants are not recommended for the treatment of mild depression because of the risk of side effects, unless the patient has a history of moderate or severe depression, other interventions have failed, or psychosocial and / or medical issues are associated with the condition. Professionals are advised to consider follow-up of patients with mild depression who do not attend appointments.

For patients experiencing moderate to severe depression in primary care, antidepressants medication with selective serotonin reuptake inhibitors (SSRIs) in the first instance are advised, with a detailed explanation of possible side effects, risk of discontinuation and withdrawal symptoms, delayed onset of effect, course of treatment and importance of adhering to treatment as prescribed. Patients under 30 years or at risk of suicide should be seen one week after treatment commences and monitored regularly until the risk reduces. For patients who present with a high risk of suicide, the quantity of drugs prescribed should be limited and side-effects monitored. Patients who are not at risk of suicide should be seen every 2 weeks initially then 4 weekly. Treatment should continue for 6 months after remission or up to two years if the patient has a history of two or more episodes. For severe depression and treatment-resistant depression a combination of antidepressants and CBT delivered over 16 – 20 sessions over 6 -9 months should be prescribed, as this is more

effective than either treatment delivered on its own. For patients who experience recurrent depression despite antidepressant treatment, or for those who prefer psychological intervention, CBT should be offered. A befriending and rehabilitation programme should be considered for patients experiencing chronic depression. If depression is co-morbid with anxiety the depression should be treated in the first instance. For all patients experiencing depression, telephone support should be considered. Information regarding treatment options should be provided to patients and their relatives and patient preference considered (NICE, 2007 amended).

1.6.2.3 Physical treatments

Physician 'usual care' in the treatment of depressive disorder will often include pharmacological intervention. Antidepressant medication taken at the recommended dose and for the appropriate length of time is an effective form of treatment for depressive illness. Studies have demonstrated that there is no one antidepressant or group of antidepressants that are superior in terms of efficacy, although SSRIs have been shown to have fewer side effects and may be more acceptable to patients. Clinical trials to demonstrate the efficacy of antidepressant medication are carried out under standardised and optimal conditions, which may not reflect real-world effectiveness (Donoghue & Hylan, 2001).

In the past, depression was considered to be a chronic, recurring, lifelong illness. However, between 1960 and 1970 monoamine oxidise inhibitors and tricyclic antidepressants were developed. Treatment with these drugs produced significant relief from depressive symptomatology within a matter of weeks, leading doctors to believe depression could now be considered a short-term and curable disease. However, opinions shifted once again in the 1980's, following the publication of a longitudinal study involving 400 depressed patients. Findings from this study showed that over a 15 year period, 1 in 8 patients made a complete recovery from their original illness and remained well, 80 percent experienced a minimum of at least 1 recurrent episode and 6 % experienced chronic depression for the total 15 year period. These findings encouraged doctors to return to the concept of depression as a long term illness which is recurring and chronic in nature for many patients. Thus for treatment to be successful, both short- and long-term components must be addressed (Hirschfeld, 2001).

For treatment purposes, depressive illness can be divided into three phases: acute, continuous and maintenance. The acute phase of the illness usually lasts three months in the absences of complications; intervention at this stage is aimed at stabilising the patient's symptoms. Antidepressant medication has been shown to be effective in treating depression in the acute phase of the illness, with two thirds of patients responding to treatment while one third remain symptomatic (Janicak, Davis & Preskorn, 1997). The continuous phase follows, beginning with symptom stabilisation and ending 6-12 months later. This would be the normal length of time an episode of depression would last in the absence of treatment. Relapse into the original illness occurs if symptoms return within the 12 months of the continuous phase. Studies have shown that half of the patients treated successfully in the acute phase will relapse if medication is discontinued in the continuous phase. It is therefore, recommended that patients continue with antidepressant therapy for six to nine months following symptom resolution to avoid relapse (Hirschfeld, 2001).

Positive clinical outcome is associated with appropriate dosage and duration of treatment. However, low-dose prescribing is common practice in the U.K. One study found 88 percent of patients who were prescribed tricyclic antidepressants were receiving inadequate doses and despite long term treatment, three quarters of the patients receiving low-dose antidepressant therapy remained ill (Donoghue & Tylee, 1996). The new SSRIs tend to be prescribed at the appropriate dosage due to dosage regimes and are associated with greater patient tolerability and improved safety issues (Donoghue & Tylee, 1996). Adherence to antidepressant medication is also a problem in primary care, with up to 60 % of patients not taking their medication as prescribed (Cramer, 1995). This behaviour is likely to produce discontinuation symptoms, which may occur after one missed dose (Dilsaver & Greden, 1984).

The maintenance phase is aimed at preventing the development of further episodes of depression once the patient is fully recovered from his / her pervious episode. Maintenance therapy is appropriate for patients who have a history of three or more episodes of depression, family history of depression, seasonal affective disorder, co-morbid anxiety disorder, substance misuse and / or poor response to continuous therapy (Hirschfeld & Schatzberg, 1994). Studies have shown that 60 % of patients', who are risk of recurrence

of depression will fall ill again within a year if they do not receive maintenance treatment (Herschfeld, 2001).

While numerous studies have demonstrated that antidepressants are an effective treatment for depression, difficulties associated with GP inaccurate diagnosis, under-prescribing and inadequate duration of treatment, coupled with poor user compliance have meant that many patients are unable to reap the benefits of this particular treatment approach. For GPs who are reluctant to prescribe adequate doses of antidepressants over the recommended time period and for patients who present with psychological disturbance that is not instantly recognised as anxiety / depression and / or are unwilling to engage in pharmacological treatments, psychological intervention may prove more acceptable.

1.6.2.4 Psychological treatments

The psychological management of patients with emotional disturbance by GPs was reviewed by Cape et al. (2000). The authors noted that there were few empirical studies relating to this topic and those that did exist lacked detail. The study demonstrated that GPs rated themselves as using a variety of psychological techniques in the management of patients experiencing emotional disturbance such as listening, non directive interview style, problem identification and defining skills, counselling techniques, problem solving, behavioural and relaxation techniques, stimulus control, advice regarding increasing pleasurable activities, cognitive behavioural techniques, psychodynamic and systemic approaches. The majority of GPs however, reported using listening skills and discussion of problems coupled with symptom explanation as standard. However, the use of psychological management strategies by GPs for emotionally disturbed patients was found to be less when rated by external observers. Evidence for the efficacy of psychological management of emotional disturbance by physicians in primary care was considered to be encouraging.

Counselling services in general practice are widespread in the U.K. However, evaluation of the effectiveness of counselling for the treatment of mental health difficulties in primary care is sparse. A randomised control trial examining the efficacy and cost-effectiveness of generic counselling and GP usual care in relation to patients experiencing a variety of mental health difficulties, the most salient being anxiety, was undertaken in nine general

practices. Patients received up to six, fifty minute sessions of counselling or GP routine care. Findings from this study demonstrate that the mean cost of practitioner time was higher in the counselling arm though the cost of prescribed medication was lower in this condition. The overall result found no significant financial differences in the treatment cost of the two groups. There was also no difference in the mental health of patients assigned to the counselling condition, compared to those assigned to GP routine care at four month follow up (Harvey et al., 1998).

Churchill et al (1999) reviewed the effectiveness of psychological interventions in the treatment of depression in primary care compared to generic counselling. The original intention was to review the effectiveness of counselling for the treatment of depression in primary care but this was not possible due to a lack of studies specifically addressing this issue. Findings suggest that the majority of the evidence in support of the efficacy of psychological interventions for the treatment of depression derives from studies of limited duration with no information regarding relapse. The authors conclude that while specific psychological treatments have been shown to be as effective as antidepressant medication in the treatment of depression, the evidence for the efficacy of counselling in this area is unsubstantiated.

Sibbald et al. (1993) were interested in establishing the prevalence of counsellors in general practices across England and Wales, factors associated with their distribution, therapist qualifications, working arrangements and case mix. A combination of postal questionnaires and telephone interview surveys were used to collect data from 1880 GPs, 82% of whom participated in the study. The findings revealed 586 counsellors were dispersed amongst 484 of the 1542 practices included in the study. Of the 596 counsellors identified, 187 were community psychiatric nurses, 145 were practice counsellors and 95 were clinical psychologists. Factors associated with the presence of practice councillors included: partnership of four or more GPs, physician list size in excess of 10,500 and being a training practice. In relation to counsellor qualifications, just over half the counsellors in the study were in receipt of specialist counselling education, i.e. 91 had completed counselling or psychotherapy courses, including 'Relate' training. The professional qualifications of 85 counsellors were unknown. Of the 342 counsellors whose qualifications were known to the GP, 145 had no formal training in counselling. Despite this, GPs referred patients with a multitude of psychological disturbance varying in severity, chronicity and complexity to

individuals practicing as counsellors in their surgeries. The authors conclude that counsellors in England and Wales are required to treat patients with complex and diverse psychopathology, in the absence of appropriate training. This paper also suggests that family doctors who refer patients with psychiatric illness and personality disorders to counsellors are unaware of the specialist training required in managing this group. Community psychiatric nurses and clinical psychologists will have undergone years of training in the field of mental health enabling them to work safely with psychiatric patients. Counsellors are not trained in the identification or management of psychiatric and personality disordered patients. Counselling techniques are appropriate for patients who have experienced life events that are causing adjustment reactions such as bereavement and divorce, as opposed to psychiatric disorders that are often complex, enduring and require specialist training to manage. The findings from this paper suggest that GPs who refer psychologically disturbed patients to counsellors, who may or may not have received formal training in their field, pose a significant risk to the counsellor and the patients in their care.

1.6.2.5 Group therapy

There are a number of manualized psychological group treatments available. Stresspac was developed by Jim White for the treatment of anxiety disorder and has been used successfully in a variety of community settings. The intervention is delivered over 6 sessions, based on cognitive behavioural principles and presented in an adult education format rather than a therapeutic one. Patients are referred to as students, taught in classroom settings using traditional teaching practices. The aim is for the student to become their own therapist. The content of the course covers information about behavioural and cognitive aspects of anxiety and the management of the condition. Anxiety reducing techniques are taught and practical homework assignments set. The effectiveness of the approach was demonstrated by a randomized controlled trial comparing different versions of the course with placebo. At 6 month follow-up, all treatment groups showed improvement on measures of anxiety, depression and coping, 50% of participants reached clinically significant change (White et al., 1992) and at two year follow-up 66% maintained change (White, 1998).

Physical and psychological treatments for psychiatric disturbance are likely to be ineffective if unacceptable to patients. A prospective randomised control study designed to examine efficacy and patient satisfaction with non-directive psychotherapy verses GP routine care, was implemented at 14 GP practices in the London area (Friedli et al., 1997). Treatment was divided into two conditions: 70 patients received 1 to 12 sessions of non-directive psychotherapy over 12 weeks, whereas 66 patients received usual care via their GP. All patients in the study were psychologically disturbed, the majority being depressed. Mental state was measured at baseline, 3 and 9 months using social adjustment measured self-reports. The findings revealed that the mental health of all participants improved over time; there was no significant difference between the two groups, except, the therapy group reported greater treatment satisfaction. The authors conclude that GP care, for patients with psychological disturbance, is as effective as brief non-directive psychotherapy, however, patients prefer non-directive psychotherapy to the GP care.

A randomised control trial comparing the efficacy and acceptability of problem-solving therapy, antidepressant medication or placebo for the treatment of major depression in primary care was undertaken by Mynors-Wallis, Gath, Lloyd-Thomas & Tomlinson (1995). Patients were assigned to the following treatment groups: problem solving, Amitriptyline and routine care or drug placebo and routine care. Interventions were delivered in 6 sessions over 12 weeks to 91 patients. Following treatment, 60% of the patients assigned to the problem-solving condition had recovered compared to 27% of patients assigned to the placebo condition. Problem-solving therapy was rated as helpful and very helpful by participants. Problem-solving therapy took 7 hours to complete 12 sessions (Mynors-Wallis et al., 1995).

A further study by Scott and Freeman (1991) compared efficacy, patient satisfaction and cost of psychiatrist prescribed Amitriptyline, clinical psychologist administered cognitive behavioural therapy, social work administered counselling and casework and GP routine care. 121 patients from 14 GP practices in Edinburgh aged 18 to 65 were recruited for the study. All patients were psychologically disturbed and half qualified for a diagnosis of major depression. Patient psychopathology improved in all cases by 16 weeks. The advantage of specialist intervention over routine care by GP was small; while contact time was 4 times greater and treatment cost twice as much for specialist interventions, compared to GP routine care. Psychological treatments, especially social work counselling, were rated most

highly by patients on completion. These findings suggest GP routine care is the most effective treatment for depression in the primary care setting. However, clinical efficacy may be compromised if patients are unwilling to comply with treatment. For example, 1 in 6 patients in the study refused antidepressant medication in the form of Amitriptyline. The authors argue that psychological therapies such as cognitive behavioural therapy may be beneficial in the prevention of relapse compared to physical treatments or GP routine care but do not offer evidence to support their assertion.

There are many studies examining the efficacy of psychological treatments for mental health problems in the community. However, cross comparisons of treatment outcomes are hindered by the breadth and insufficient details regarding the nature of the psychological interventions studied and variation in therapist training and qualifications. A systematic review to address these issues was carried out by Churchill and colleagues, 2001. The aim of the study was to review all clinical trials where brief psychological interventions such as cognitive behavioural therapy (CBT), interpersonal therapy (IPT), psychodynamic therapy (PDT) and supportive therapy (ST) were compared with one another or treatment as usual for the management of clinical depression; additionally, the authors evaluated the cost effectiveness of each treatment. A variety of electronic databases, hand-searched psychiatric and psychological journals, text books, dissertations and grey literature were accessed for the purpose of the study. Studies were selected from those that had used randomized control trials or controlled clinical trials comparing brief (20 sessions or less) specific psychological treatments with treatment as usual. Participants were male and / or female 16-65 years old with a diagnosis of depression. Findings demonstrated significant improvement in the mental health of participants receiving any variant of psychological treatment compared to treatment as usual. A comparison of all the psychological interventions found CBT to be the most efficacious and cost-effective form of treatment for depression in primary care.

The above studies repeatedly demonstrate that GP routine care consisting of antidepressant therapy coupled with listening and advice is an effective form of treatment for minor, moderate and major depressive illness in primary care; however in real world settings this may not be the case (Linden, 1999). The form of treatment is not always acceptable to patients, for example, it is recommended that antidepressant medication should be taken continuously for three to nine months once the patient is asymptomatic (Reimherr et al.,

1998). In practice however, patient non-compliance to recommended guidelines is common, with 64% of patients abandoning antidepressant therapy within three weeks of commencing treatment (Priest et al., 1981). Moreover, patients show a significant preference for psychological intervention over GP routine care. Psychological treatments are more time-consuming in terms of the number of hours they take to deliver and therefore, may appear less cost effective than GP routine care. However, a treatment such as GP routine care that may be unacceptable for many patients reduces the likelihood of patient recovery and cancels out the efficacious and cost-effective benefits of intervention.

Reasons why there are high rates of patient medication non compliance and preference for therapeutic intervention may be gleaned from a study by Priest and colleagues (1996). The researcher's task was to investigate the attitudes of the general public towards individuals diagnosed as depressed prior to the Defeat Depression Campaign of The Royal College of Psychiatrists and General Practitioners (1996), the results of which were to form baseline data to aid development of questionnaires for the survey. The results revealed that lay people, while aware of many of the symptoms of depression, would be reluctant to consult their GP if they became ill for fear of being labelled neurotic by their physician.

Furthermore, 85% of participants believed counselling to be an effective form of treatment for depression. Antidepressant medication was considered to be addictive and 78% of lay people were against its use (Priest et al., 1996). The findings from this study go a long way to explain why patients drop out of physical treatments and show significant preference for psychological interventions once diagnosed with a depressive illness. Additionally, the results of this study may explain why a large number of patients belonged to the 'hidden' morbidity group described by Goldberg and colleagues (1970). Severity and number of symptoms were similar for patients in the 'hidden' and 'conspicuous' morbidity groups, as was level of disability. However, the 'hidden' morbidity group expressed their ill-health in terms of physical symptomatology when consulting their physician. Priest et al.'s (1996) identification of patient fear of a neurotic label and the associated stigma that implies, reinforces Goldberg's findings, that the physician's attitude towards mental illness is a vital ingredient in successful identification and treatment of depression in primary care (Priest et al., 1996).

The psychosocial, psychological and physical consequences of inadequate detection and intervention for psychiatric disorder have far reaching effects at an individual, family and service provision level (Henderson, 1990). Such individuals and their families may find themselves in receipt of intervention from a single agency or a combination of several, spanning health, social services, education and the criminal justice system. It is important to realise that psychiatric disorder can present as psychosocial problems thus masking the symptoms of illness. For example, psychosocial difficulties frequently feature in the lives of depressed patients which may lead the patient, his / her relatives and professionals to interpret patient suffering as understandable responses to social stimuli. In this way the possibility of diagnosing and treating medical symptoms is lost, much suffering is perpetuated and the patient's ability to tackle social issues from a place of wellness is no longer available.

In everyday practice, 9 out of 10 cases of mental illness are managed exclusively by the primary care team; and despite an extensive programme of research-based training spanning 30 years, only 1 in 10 diagnosed cases of depression in primary care receive adequate treatment (Linden, 1999). What more can be done?

This review has established that 50 - 90 per cent of patients presenting with psychological difficulties in primary care will be misdiagnosed by their GPs, despite this they will continue to consult (Linden, 1999). Additionally for the remaining patients who are identified as psychologically disturbed, only 60 per cent will receive adequate care (Linden, 1999). Educating GPs in the identification and management of psychiatric disorder has failed to increase detection rates or improve outcome for this patient group. The systemic hypothesis discussed above suggests an alternative approach is timely. All treatments can be divided into two components, a specific effect that is directed at the psychopathology in question and a non-specific effect that promotes a subjective sense of wellbeing and benefit e.g. placebo effect. To date, the dominant approach has been to improve the specific effects of treatments. The systemic hypothesis suggests that a treatment relying largely on generic effects — so not dependent on precise case identification i.e. diagnosis — could offer considerable benefits to psychologically disturbed patients in primary care, with self-enhancement programmes appearing to meet these criteria. The STEPS programme is one such intervention.

1.6.3 The STEPS Programme

STEPS claims to be a psychological performance enhancing system designed to improve effectiveness and productivity at the personal and organisational level. The course was developed by Lou and Diane Tice who started their careers as high school teachers. Together they studied cognitive and psychological principles and developed a method that taught ordinary people how to apply these concepts to their daily lives through commercial training programmes. Programmes are based on Bandura's theory that an individual's belief in their ability to perform a task determines if the task will be attempted, so by changing beliefs through goal-setting, positive affirmations and vivid visualisation, personal success will follow and self-esteem will be raised (Bandura, 1997). One of these programmes is known as STEPS and involves eighteen hours of cognitive teaching consisting of video, audio, individual and group participation, which can be delivered over several days or spread out over the course of several weeks. Sessions are run by a facilitator who has attended a basic STEPS course and group facilitator training. The 5 day facilitator training course consists of exploration of the facilitator role, nature and dynamics of groups, use of participant skills and a thorough grounding in course content. The role of the facilitator is to clarify and assimilate instructions given by Lou Tice (the founder of STEPS) via video recordings to participants. The facilitator also uses group dynamics as a vehicle for learning. All participants receive manual and audio tapes which reinforce course material and are designed specifically to aid learning outside the course setting. The STEPS programme has been used in a variety of settings including: commerce, education, community systems, prison and at-risk populations as well as the individual level. There are currently no scientific studies examining the efficacy of STEPS.

1.6.3.1 Course structure

STEPS consist of twelve units of teaching. In ***Unit one, Breaking Barriers,*** the importance of effective thinking skills is considered, the participant's attention is drawn to the fact that people are influenced by their beliefs, conditioning and vows they make to themselves. The author suggests that scotomas or blind spots develop which inhibit people from reaching their true potential. ***Unit two, Search for the Truth*** works on a premise that people hold and act upon beliefs about themselves, even if these beliefs are untrue. This unit explains how beliefs are formed and how they can inhibit personal psychological

growth through conditioning processors. ***Unit three, Thought Process*** works on a premise that the self-image and thought processes held by people determine what they do. This unit teaches participants the way the mind works and that the reality they create is only their perception, not necessarily the truth. The conscious, subconscious and creative subconscious is explained in conjunction with the maintenance of sanity and the formulation of self-image. ***Unit four, Perception and Beliefs*** takes a detailed look at how beliefs influence perception in particular issues relating to selective perception, cognitive dissonance and self-regulation. In ***Unit five, Self-Talk,*** an explanation is given of how thought patterns are built and modified to form a person's self-image through self-talk. The concept of words precipitating pictures which then educe emotion is introduced, followed by the suggestion that the subconscious does not distinguish between an actual event and one that has been vividly imagined. The idea that people have the power to shape their own beliefs, and negative beliefs do not have to be sanctioned is proposed***. Unit six, Self-Esteem*** has a premise that self-talk reinforces self-image which in turn controls performance, so, it is important to cultivate a virtuous cycle in order to develop potential and elevate self-esteem. The self-talk cycle, how self-esteem develops and the benefits of high self-esteem are discussed. ***Unit seven, Comfort Zones*** has a premise that self-image defines a persons comfort zones acting as an internal regulator. People who deviate from their dominant self-image will experience aversive physical and psychological feedback which encourages them to return to their original self-image. This unit teaches visualisation and imagery techniques as a method of allowing the individual to move comfortably into new situations. In `***Unit eight, what do you think about?***`, the following themes are covered: people have the ability to look into the future and plan, people move towards what they think about, current thoughts determine future reality and lasting change starts on the inside**.** In ***Unit nine, Goal setting*** it is argued that the creative subconscious has four functions: 1) maintaining sanity by making sure the individual stays as he / she perceives self to be, 2) resolving conflict, 3) creating drive and energy, and 4) goal seeking. The process of goal setting and visualisation throws the system out of order and releases the creative energy that is necessary to reach the desired goal without the need to formulate a solution. In ***Unit ten, Motivation*** it is argued that true motivation is internal: once a goal is set, drive and energy follow. Coercive interactions result in negative outcome while people who assume full responsibility for their future achieve success. In ***Unit 11, Affirmations,*** it is argued that for change to be successful, it must be accompanied by appropriate self-talk. The goal should be clearly identified, affirmations written and practiced with emotion, followed by vivid visualisation to facilitate imprinting.

In ***Unit twelve, Staying on Track:*** the importance of staying goal orientated, rather than pondering on methods of reaching the goal is emphasized (The Pacific Institute, 1997).

These theoretical proposals and methods used to implement them have much in common with thinking patterns and behaviours of people who are high in self-esteem. In ***Unit one and two*** the notion that people are influenced by their beliefs even if they are untrue, often developing scotomas or blind spots is consistent with low self-esteem individuals having self-limiting expectations and a protective rather than self-enhancing style (McFarlin & Blasovich, 1981***). Unit three*** teaches the importance of self-image, thought processes and perception in predicting outcome. This can be linked to the literature on the use of self-serving bias and self-promoting behaviours as a means of elevating and maintaining self-worth and persistence in the face of adversity which is found in people with high self-esteem (Baumeister & Tice, 1985). ***Unit four*** explores selective perception and cognitive dissonance which is consistent with the literature on emotional crossfire experienced by people who are low in self-esteem when they are forced to choose between self-consistence and self-enhancement (Campell & Lavallee, 1993). ***Unit five*** promotes the idea that self-image is shaped by words triggering pictures which then elicit emotions, which may explain why low self-esteem people are prone to negative moods (Blaine & Crocker, 1993). ***Unit six's*** argument that self-talk reinforces self-image is comparable to the notion that firmly established negative self-views are difficult to shift (Campell, Chew & Scratchley, 1991). ***Unit seven's*** premise that when people deviate from their self-image they experience physical and psychological discomfort is in keeping with the discussion of low self-esteem individuals being caught in crossfire between self-enhancement and self-consistency (Campell & Lavallee, 1993). ***Unit eight's*** focus on looking into the future, planning and moving towards a goal fits with the behaviour of high self-esteem people who have clear and positive expectations of themselves (McFarlin & Blascovich, 1981). ***Unit nine and ten's*** discussion of the role of the subconscious accords with Kernis (2003) who also argues that conscious and unconscious mechanisms influence self-esteem. Goal setting is consistent with high self-esteem individuals believing in their ability to succeed (Baumeister & Tice, 1985). ***Units eleven and twelve reiterate*** many of the points raised above.

People attending a STEPS course join a group which offers mutual support during the process of personal growth with a facilitator who uses Rogerian techniques of unconditional positive regard and encourages participants to make choices that originate from the core self so that the participant may reach self-actualization. These themes are compatible with those discussed earlier in the description of self-determination theory (Leary & Baumeister, 2000) and the development of optimal self-esteem (Kernis, 2003).

1.7.0 Concluding summary

This chapter has identified these patients as high service users and a source of distress and frustration to the GPs who are responsible for their care. The majority suffer from anxiety / depression which in primary care presents as depression. Depression is a debilitating condition and the most prevalent psychiatric disorder seen in primary care; furthermore, it is misdiagnosed in 40-50 % of cases resulting in poor outcome. Many years of research and a variety of strategies aimed at improving GP detection rates have failed to reduce misdiagnoses. Despite misdiagnosis many patients continue to consult their GPs on a regular basis in an effort to relieve aversive symptomatology. For those patients that are accurately diagnosed a mere 60 % will receive adequate treatment. Physical interventions in the form of antidepressant therapy has been shown to be efficacious in clinical trials; however, in real world settings there are difficulties relating to GP prescribing practices and patient non-compliance, resulting in poor treatment outcome. Cognitive behavioural therapies have been shown to be the most efficacious form of psychological treatment for depression in primary care. Cognitive behavioural therapy teaches the patient specific cognitive skills, thus has the added benefit of reducing relapse. Additionally, studies have demonstrated that patients prefer psychological therapies to physical interventions. However, there are a number of problems in relation to psychological interventions including insufficient training of therapists, specific therapeutic interventions used inappropriately for generic purposes and certain therapies such as counselling producing no effect. A treatment that can be delivered independent of accurate diagnosis for positive outcome has the potential to treat depression in primary care. STEPS is a psychological intervention, using cognitive behavioural techniques that do not require accurate diagnosis as a prerequisite to delivery. Therefore, there is a good case for assessing the value of STEPS as a treatment for this group of patients in primary care. The next chapter will discuss the research design and methodology.

CHAPTER TWO

2.1.0 Introduction

Study 1 was designed to evaluate the impact of STEPS on the mental health and self-esteem of participants who attended a STEPS course. Participants consisted of a group of professionals, primary care patients and self-referrals from the adult population. Professionals attended STEPS courses as a means of improving their clinical skills while primary care patients considered to have psychological difficulties were referred by professionals involved in their care. Self-referrals attended for reasons that were unknown, the rationale for including this group in the treatment was to represent a help seeking community. A crossover waiting list design was used to ensure all participants received the treatment; the main advantage of this approach was that participants acted as their own controls. Information regarding participant characteristics was obtained to assist understanding regarding outcome and guide future researchers in the replication of the study if required. Demographic, psychosocial and mental health data was collected using an assessment form which was specifically designed for this study. In addition to this, participants were asked to complete a battery of questionnaires aimed at eliciting information relating to psychological processes such as hope, self-esteem and current mental state, all of which directly relate to the concept of hidden morbidity in primary care. The questionnaires that were used for this task where chosen because they were reliable, valid and user-friendly.

Randomised control trials are the best method of establishing whether an intervention is effective because participant variability is distributed equally between groups prior to treatment, irrespective of whether the variability is measured or not. Many studies use a randomised control parallel group design; an example of which is when participants are randomised into two groups, group 1 receives treatment while group 2 act as controls. Advantages to this approach are that all main effects and interactions can be estimated separately. However, if this design had been used it may have been difficult to gain ethical approval because a potentially useful intervention such as STEPS would have been withheld from some participants and made available to others. Therefore, a cross-over design was chosen which resolved the ethical issues mentioned above i.e. on completion of the study all participants had received the intervention. The main strength of this design is that between-participant variability is removed by using within-participant comparisons to measure treatment effects, which is particularly important when managing small samples sizes. A disadvantage of using a cross-over design is that cross-over studies are not full

factorial designs thus not all combinations of factors are used. However, this was not a problem in Study 1 as group and time were defined in terms of treatment and therefore, added no additional information. A further weakness of the crossover design has been highlighted by Friedman, Furberg & DeMets (1998) namely that participants must be available for twice as long as would be necessary in a parallel study and even longer if a washout period is required. However these criticisms are not relevant in relation to the STEPS study because firstly, while it is true that participants who were assigned to the delayed intervention group did wait twice as long as participants assigned to the intervention group to receive treatment, this was preferable to receiving no treatment at all if a parallel design had been used, assuming the ethics committee had approved it. Secondly, a wash out period was not relevant for a psychological intervention such as STEPS.

2.1.1 Aim

The aim of this study was to evaluate the impact of STEPS on a group of professionals and patients with a heterogeneous mix of mental health problems. It was a scoping and feasibility study designed to establish the effect sizes which could be expected with the intervention and test whether the instruments chosen were appropriate and if modification would be necessary for future studies.

2.1.2 Hypothesis

Hypothesis: On completion of a STEPS course the mental health and self-esteem of participants would be improved relative to the wait list control condition. For mental health this would equate to improvement in base line scores on the General Health Questionnaire (GHQ) and Adult Hope Scale (HOPE) between baseline and Time 3. For self-esteem, this would equate to improvement in scores on the Self-esteem Scale (SES) and Texas Social Behaviour Inventory (TSBI) between baseline and Time 3.

2.1.3 Design

The trial employed a randomised controlled cross-over design. Participants were randomly assigned to one of two groups. Group I (*immediate intervention group*) received the STEPS intervention during therapy period one (between the baseline assessment, T1, and the 12

weeks before the second assessment period: T2). Group II (*delayed intervention group*) received intervention during therapy period two (between T2 and the third assessment point (T3) which followed 12 weeks after T2. Both groups were assessed at all three testing points. The delayed intervention group had no contact with members of the trial team between T2 and T3.

Table 2.1: The design for study 1

	T1	Therapy Period 1	T2	Therapy Period 2	T3
Immediate Intervention Group	Assessment	STEPS	Assessment	No treatment	Assessment
Delayed Intervention Group	Assessment	No treatment	Assessment	STEPS	Assessment
		12 weeks		12 weeks	

Participants were allocated to groups using a randomised number generator. Even numbers = immediate intervention, odd numbers = delayed intervention. Data was conducted blind to group assignment.

2.1.4 Delivery of Intervention

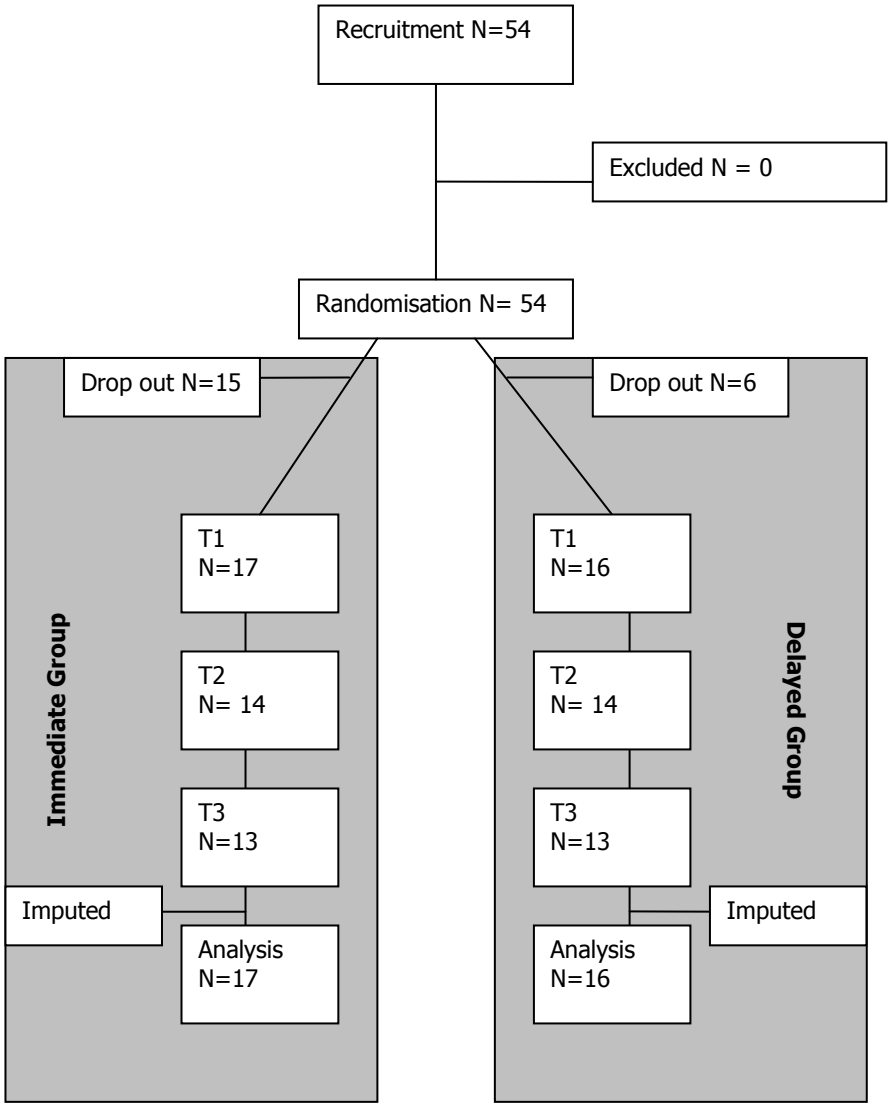
There were two modes of delivery of treatment consisting of: (i) seven weekday lunch time sessions or (ii) two Saturdays and three weekday lunch time sessions over four weeks. STEPS courses were delivered in local health and community settings for the convenience of the participants. The cost of attending a STEPS course is £620.00 per person.

2.2.0 Method

2.2.1 Participants

The study was an evaluation of a health service innovation, so clinical issues determined the number of available patients, therefore power calculations could not be applied. There were 54 participants randomised to the two arms in Study 1. 21 dropped out prior to interview at T1, 15 from the immediate intervention arm and 6 from the delayed intervention arm. There was no statistically significant difference between the numbers of participants that dropped out from the two arms (Fisher's Exact Test p=.168). There were 33 remaining participants, 17 of these were assigned to the immediate intervention arm and 16 were assigned to the delayed intervention arm.

Figure 2.1 Consort Diagram showing the flow of participants through Study 1.



All participants were adults over eighteen years of age. Participants referred by a health professional were experiencing psychological difficulties at time of referral. Twenty participants were referred to the STEPS programme via their health professional, three were self-referred and ten were professionals. Tables 2.2.1 and 2.2.2 give a detailed description of background characteristics for all participants including referral source, gender, marital status, psychiatric medication, neurotic symptoms, psychotic symptoms, drug / alcohol misuse, previous suicide attempts, psychiatric in-patient experience, domestic violence, victim of crime and sexual abuse experience and police involvement.

2.2.1.1 The professionals

The ten professionals who took part in the study included health visitors, social workers, teachers, nurses and therapists who attended the course for experiential reasons as opposed to being referred for mental health difficulties. Details of their background characteristics can be found in Tables 2.2.1 and 2.2.2.

2.2.1.2 The assessment form

An assessment form was constructed to elicit information regarding socio-demographic, psychological and social variables. This was important because it enabled direct comparisons to be made between the intervention and delayed intervention groups on all background characteristics included in the form. While most of the variables are self-explanatory, some require definition. *Neurotic symptoms* (current or history) refers to patient reports of anxiety, depression, post natal depression, post traumatic stress disorder, bipolar disorder, eating disorder and / or Obsessive Compulsive Disorder. *Psychotic symptoms* (current or history): refers to patient reports of delusions, hallucinations and / or schizophrenia.

Table 2.2.1: Background characteristics that differed significantly between professionals and non-professionals (p<.05).

		Professional (N = 10)		Non-professional (N = 23)	
		Freq.	**%**	**Freq.**	**%**
Referrer LR=19.96, df=5, p=.00	GP	0	0	8	34.8
	Health Visitor	1	10	3	13
	M H Practitioner	0	0	5	21.7
	Social Worker	0	0	1	4.3
	Child Psychiatrist	0	0	2	8.7
	Other	8	80	3	13
	Missing Data	1	10	1	4.3
Marital Status LR=11.09, df=4, p=.04	Married	6	60	7	30.4
	Single	0	0	6	26.1
	Divorced	0	0	6	26.1
	Cohabiting	1	10	1	4.3
	Separated	2	20	2	8.7
	Missing Data	1	10	1	4.3
Psychiatric meds (current / historical) LR=13.68, df=3, p=.01	Never	6	60	3	13
	Current	0	0	5	21.7
	History	3	30	7	30.4
	Current/History	0	0	7	30.4
	Missing Data	1	10	1	4.3
Neurotic Symptoms (current / historical) LR=11.48, df=1, p=.00	Yes	5	50	22	95.7
	No	4	40	0	0
	Missing Data	1	10	1	4.3
Drug / Alcohol Misuse (current / historical) LR=7.24, df=1, p=.04	Yes	0	0	9	39.1
	No	9	90	14	60.9
	Missing Data	1	10	0	0
Psychiatric In-patient (historical) LR=8.26, df=2. p=.03	In patient	0	0	3	13
	Out patient	5	50	18	78.3
	N/A	4	40	1	4.3
	Missing Data	1	10	1	4.3
Domestic violence (historical) LR=6.64, df=1, p=.02	Yes	1	10	13	56.5
	No	8	80	9	39.1
	Missing Data	1	10	1	4.3

Table 2.2.2: Background characteristics that did not differ significantly between professionals and non-professionals

		Professional (N = 10)		Non-professional (N = 23)	
		Freq.	%	Freq.	%
Gender	Male	1	10	6	26.1
LR=1.20, df=1, p=.40	Female	9	90	17	73.9
Psychotic Symptoms (current / historical)	Yes	0	0	4	17.4
	No	9	90	18	78.3
LR=2.98, df=1, p=.30	Missing Data	1	10	1	4.3
Suicide Attempt	Yes	1	10	4	17.4
	No	8	80	18	78.3
LR=.25, df=1, p=1.00	Missing Data	1	10	1	4.3
Victim of crime (current/ historical)	Yes	2	20	8	34.8
	No	7	70	14	60.9
LR=.61. df=1, p=.68	Missing Data	1	10	1	4.3
Sexual Abuse (historical)	Yes	2	20	8	34.8
	No	7	70	14	60.9
LR=.61, df=1,p=.68	Missing Data	1	10	1	4.3
Police involvement (current/historical)	Yes	0	0	5	21.7
	No	9	90	16	69.6
LR=3.98, df1, p=.16	Missing Data	1	10	2	8.7

2.2.2 Measures

2.2.2.1 Assessment form

The assessment form was developed specifically for this study. It was designed to elicit current and historical information regarding demographics such as designation of referrer, participant name, gender, and marital status. It also gathered information regarding mental health, including whether the participant was treated as an in- or out-patient, diagnosis and whether psychiatric medication was prescribed. Psychosocial data consisted of information regarding domestic violence, criminal behaviour towards the participant, sexual abuse and police involvement. Additional information regarding the children in the family was collected for future research but not used in this trial.

2.2.2.2 12-item General Health Questionnaire (Goldberg, 1978)

The 12-item General Health Questionnaire (GHQ-12) was designed to screen for psychiatric caseness in adult populations. It has been widely used in community samples and is accepted as a measurement standard by the World Health Organization. The GHQ-12 has been shown to have good discriminant validity between patients and non-patients in primary care populations. Internal consistency is good (Cronbach's alpha ranges from 0.82-0.90) as is validity with sensitivity ranging from 71 per cent to 91 per cent (Goldberg and Williams, 1998).

2.2.2.3 The Adult Hope Scale (Snyder, Sympson, Ybasco, Borders, Babyak & Higgins (1996)

A key concept of the STEPS programme is the notion that mental health is associated with goal orientated behaviour. Hope has been described as the perception that one's goals can be met (Snyder, et al., 1996). The Adult Hope Scale measures goal directed thinking, of which there are two different aspects: goal-directed determination and planning to achieve goals. These aspects are measured using an eight items scale, of which four items refer to agency and four items refer to pathways. The internal consistency as demonstrated by Cronbach α ranges from 0.81 – 0.89 (Snyder et al., 1996).

2.2.2.4 The Self-Esteem Scale (Rosenberg, 1965)

The Self-Esteem Scale (SES) is a uni-dimensional measure of global self-esteem which was originally designed for use with adolescents but has since been widely employed with adults. The SES is a brief 10-item scale consisting of statements that relate to feelings of self-worth. Internal consistency is satisfactory (Cronbach of .77), as is test-retest correlation of .85 after two weeks interval (Robinson, Shaver and Wrightsman, 1991).

2.2.2.5 Texas Social Behaviour Inventory (Helmreich, Strapp & Ervin, 1974)

The Texas Social Behaviour Inventory (TSBI) was designed to measure an individual's feeling of self-worth or social competence. Factors on the 32-item TSBI consist of confidence, dominance, social acceptance and social withdrawal. A five-point Likert-type format is used (not at all characteristic of me, not very, slightly, fairly, very much

characteristic of me). Total scores on the scale range from 0-64 with higher scores indicating higher self-esteem. The 32-item TSBI was based on a sample of 1000 college students. Internal consistency is good (Cronbach's alpha .92) (Robinson, Shaver and Wrightsman, 1991).

2.2.3 Procedure

2.2.3.1 Ethical approval

Ethical approval for the study was given by North and Mid Hampshire Local Research Ethics Committees and the University of Southampton.

2.2.3.2 Initial contact

The Medical Director of STEPS contacted everyone who had been referred to STEPS and established who was prepared to take part in the evaluation study as a research participant. The participants were then randomised into an immediate or delayed intervention group.

Next, the researcher contacted the participants to arrange a time and date for the first interview; most interviews where conducted in the participant's home. All the participants where interviewed by DF or by the research assistant at Time 1 prior to the onset of the STEPS course, to establish baseline data.

2.2.3.3 Time 1: After randomization – prior to study

Participants completed the questionnaires described above. The intention was to complete the Assessment Form for all participants at T1, however; this was not possible for some participants resulting in the Assessment Form data being collected for 18 participants at T1 and 14 participants at T2. DF collected data from 17 participants (8 intervention and 9 delayed intervention) and a research assistant collected data (excluding the Assessment Form data) from 12 participants (7 intervention and 5 delayed intervention) at T1 only. Participants allocated to immediate intervention group commenced treatment.

2.2.3.4 Time 2

Data were collected from all participants using the same questionnaires at T2. Participants in the delayed intervention group received treatment following T2.

2.2.3.5 Time 3

Data were collected from all participants. Thus, participants allocated to the immediate intervention condition represent follow up, while participants allocated to the delayed intervention group represent post-intervention only.

2.3.0 Results

2.3.1 Initial data Treatment

For each questionnaire mean imputation was used when participants had missed out individual questions. The number of imputed items varied from questionnaire to questionnaire but overall there were less than 1 percent imputed questionnaire items across the whole study.

Table 2.3: Basic descriptive Statistics of Outcome Measures for Study 1

	N	Minimum	Maximum	Mean	Std.Dev.
GHQ totals T1	33	0	12	5.79	4.07
GHQ totals T2	28	6	12	3.50	4.22
GHQ total T3	26	0	11	1.38	2.91
HOPE total T1	33	1	40	24.70	9.85
HOPE total T2	28	25	48	31.65	11.53
HOPE total T3	26	12	48	36.38	8.57
TSBI total T1	33	36	131	92.06	20.91
TSBI total T2	28	92	134	98.75	18.38
TSBI total T3	26	99	139	108.49	19.51
SES total T1	33	108	38	27.33	5.74
SES total T2	28	27	36	23.79	5.64
SES total T3	26	24	32	20.31	5.14

The above table gives the mean, standard deviation, maxima and minima in Study 1. It can be seen that there has been some attrition between the time points, 33 participants started, 28 remained by T2 and 26 by T3.

2.3.1.1 Analysis of similarities and differences between the two groups at T1

It was important to establish whether the two groups were similar in background characteristics to ensure randomisation had been successful thus avoiding bias in the final results**.**

Table 2.4: A comparison of immediate and delayed intervention groups on background characteristics. No significant differences were noted in any of the comparisons below.

		Immediate Intervention		Delayed Intervention	
		Freq	**%**	**Freq**	**%**
Referrer LR=7.25, df=5, p=.32	GP	2	13.3	6	37.5
	Health Visitor	3	20	1	6.3
	M H Practitioner	1	6.7	4	25
	Social Worker	1	6.7	0	0
	Child Psychiatrist	1	6.7	1	6.3
	Other	7	46.7	4	25
Gender LR=1.92, df=1, p=.23	Male	2	11.8	5	31.3
	Female	15	88.2	11	68.8
Marital Status LR=7.40, df=4, p=.20	Married	8	53.3	5	31.3
	Single	3	20	3	18.8
	Divorced	1	6.7	5	31.3
	Cohabiting	0	0	2	12.5
	Separated	3	20	1	6.3
Psychiatric meds(current / historical) LR=3.80, df=3. p=.30	Never	4	26.7	5	31.3
	Current	1	6.7	4	25
	History	7	46.7	3	18.8
	Current/History	3	20	4	25
Neurotic Symptoms (current / historical) LR=1.05, df=1, p=.60	Yes	14	93.3	13	81.3
	No	1	6.7	3	18.8
Psychotic Symptoms (current / historical) LR=.01, df=1, p=1.00	Yes	2	13.3	2	12.5
	No	13	86.7	14	87.5
Drug / Alcohol Misuse (current / historical) LR=.16, df=1, p=1.00	Yes	5	33.3	4	25
	No	10	66.7	12	75
Suicide Attempt LR=.17, df=1, p=1.00	Yes	2	13.3	3	18.8
	No	13	86.7	13	81.3
Psychiatric Inpatient (current / historical) LR=2.63, df=2, p=.41	In patient	1	6.7	2	12.5
	Out patient	13	86.7	10	62.5
	N/A	1	6.7	4	25.0
Domestic violence (historical) LR=1.66, df=1, p=.29	Yes	5	33.3	9	56.3
	No	10	66.7	7	43.8
Victim of crime (current / historical) LR=2.04, df=1, p=.25	Yes	3	20	7	43.8
	No	12	80	9	56.3
Sexual Abuse (historical) LR=2.04, df=1, p=.25	Yes	3	20	7	43.8
	No	12	80	9	58.3
Police involvement (current / historical) LR=.24, df=1, p=1.00	Yes	2	13.3	3	20
	No	13	86.7	12	80
Professional / non-professional LR=.42, df=1, p-.71	Professional	6	35.3	4	25
	Patient	11	64.7	12	75
Attendance LR=.02, df=2, p=1.00	Complete	11	64.7	10	62.5
	Incomplete	4	23.5	4	25
Researcher status LR=.87, df=1, p=.48	Assistant	8	47.1	5	31.3
	DF	9	52.9	11	68.8
Mode of delivery LR=.26, df=1, p=.73	Creche	10	58.8	8	50
	Non-creche	7	41.2	8	50

Table 2.5: A comparison of immediate and delayed intervention groups on test measures at T1

This table shows there were no significant differences between the two groups on any of the measures.

	GHQ T1	HOPE T1	TSBI T1	SES T1
Immediate				
Mean	5.88	22.71	91.22	27.47
N	17	17	17	17
Std. Dev.	4.27	11.20	23.52	5.86
Delayed				
Mean	5.69	26.81	92.94	27.19
N	16	16	16	16
Std. Dev.	3.98	8.01	18.48	5.79

2.3.1.2 Analysis of similarities and differences between complete attendees, incomplete attendees and DNA

Of the 33 people who entered the study four did not attend (DNA) the course and nine failed to attend all sessions. The purpose of study was to evaluate the impact of STEPS on the mental health and self-esteem of participants who this attended the course. Partial attendance may impact on the results, so, a separate analysis was undertaken to establish whether there was a difference in the outcome scores for complete versus incomplete attendees at T3.

Table 2.6: A comparison of immediate and delayed intervention groups on background characteristics for complete, incomplete and DNA categories.
There was no significant difference in any of the categories listed below.

		Complete				Incomplete				DNA			
		Immed.		Delayed		Immed.		Delayed		Immed.		Delayed	
		N	%	N	%	N	%	N	%	N	%	N	%
Referrer	GP	2	18.2	4	40	0	0	2	50	0	0	0	0
	Health Visitor	2	18.2	1	10	1	50	0	0	0	0	0	0
	M H Practitioner	0	0	1	10	1	50	2	50	0	0	1	50
	Social Worker	0	0	0	0	0	0	0	0	1	50	0	0
	Child Psychiatrist	1	9.1	1	10	0	0	0	0	0	0	0	0
	Other	6	54.5	3	30	0	0	0	0	1	50	1	50
Gender	Male	2	18.2	4	40	0	0	1	25	0	0	0	0
	Female	9	81.8	6	60	4	100	3	75	2	100	2	100
Marital Status	Married	7	63.6	4	40	0	0	0	0	1	50	1	50
	Single	1	9.1	1	10	1	50	1	25	1	50	1	50
	Divorced	0	0	3	30	1	50	2	50	0	0	0	0
	Cohabiting	0	0	2	20	0	0	0	0	0	0	0	0
	Separated	3	27.3	0	0	0	0	1	25	0	0	0	0
Psych. Meds.	Never	4	36.4	4	40	0	0	0	0	0	0	1	50
	Current	1	9.1	2	20	0	0	1	25	0	0	1	50
	History	4	36.4	2	20	1	50	1	25	2	100	0	0
	Curr. / Hist.	2	18.2	2	20	1	50	2	50	0	0	0	0
Neurotic Symptoms	Yes	10	90.9	8	80	2	100	4	100	2	100	1	50
	No	1	9.1	2	20	0	0	0	0	0	0	1	50
Psychotic Symptoms (curr/hist)	Yes	2	18.2	0	0	0	0	1	25	0	0	1	50
	No	9	81.8	10	100	2	100	3	75	2	100	1	50
Drug-Alc. Misuse (curr/hist)	Yes	2	18.2	1	10	3	100	3	75	0	0	0	0
	No	9	81.8	9	90	0	0	1	25	2	100	2	100
Suicide Attempt	Yes	0	0	0	0	1	50	2	50	1	50	1	50
	No	11	100	10	100	1	50	2	50	1	50	1	50
Psych. Inpatient (curr/hist)	In patient	1	9.1	0	0	0	0	1	25	0	0	1	50
	Out patient	9	81.8	7	70	2	100	3	75	2	100	0	0
	N/A	1	9.1	3	30	0	0	0	0	0	0	1	50
Domestic violence	Yes	2	18.2	5	50	2	100	4	100	1	50	0	0
	No	9	81.8	5	50	0	0	0	0	1	50	2	100
Crime vict. (curr/hist)	Yes	2	18.2	5	50	0	0	2	50	1	50	0	0
	No	9	81.8	5	50	2	100	2	50	1	50	2	100
Sexual abuse (historic.)	Yes	1	9.1	5	50	0	0	2	50	2	100	0	0
	No	10	90.9	5	50	2	100	2	50	0	0	2	100
Police involve. (curr/hist)	Yes	0	0	2	20	1	50	1	33.3	1	50	0	0
	No	11	100	8	80	1	50	2	66.7	1	50	2	100
Prof. or non-prof	Professional	4	36.4	3	30	1	25	0	0	1	50	1	50
	Non-prof.	7	63.6	7	70	3	75	4	100	1	50	1	50
Res. status	Assistant	5	45.5	3	30	2	50	2	50	1	50	0	0
	DF	6	54.5	7	70	2	50	2	50	1	50	2	100
Mode of delivery	Creche	6	54.5	4	40	3	75	2	50	1	50	2	100
	Non-creche	5	45.5	6	60	1	25	2	50	1	50	0	0

Table 2.7: A comparison of complete vs. incomplete attendance subdivided into intervention and delayed intervention groups on test measures at T3

	Complete		Incomplete	
	Immediate Intervention	Delayed Intervention	Immediate Intervention	Delayed Intervention
	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)
GHQ T3	1.00 (1.41)	.44 (1.01)	5.50 (7.78)	2.50 (5.00)
HOPE T3	36.64 (5.75)	42.33 (4.61)	22.50 (14.85)	29.25 (8.30)
TSBI T3	101.91 (19.39)	122.06 (12.09)	81.57 (21.83)	109.50 (13.23)
SES T3	20.73 (5.06)	17.89 (3.79)	27.50 (6.36)	21.00 (5.42)

A two-way ANOVA was performed, showing the differences in means between complete attendees and incomplete attendee's at T3. Results showed that attendance at T3 was significant for the GHQ (F=6.07, df =1, 22, p=.022), Hope (F= 18.45, df =1, 22, p=.000) and SES (F=4.52, df =1, 22, p=.045) but the TSBI was a trend only (F=4.22, df =1, 22, p=.052). However, Group was significant for the TSBI at T3 (F=9.01, df = 1, 22, p=.007. There were no significant interactions between Group X Attendance for any of the dependable variables at T3

2.3.2 Main analysis of the STEPS trial

Because of the drop out between T1 and T3 the main analysis was conducted in two ways. In the first analysis only those subjects where full information was available were included (N=26). Full information refers to all participants who completed the course and participants who agreed to data being collected at all three time points despite the fact that they did not attended or complete the course. In the second analysis all participants who begun the trial were included and the missing values imputed (N=33).

2.3.2.1 Analysis of cases with full information (N=26)

Table 2.8: Group means and standard deviations for outcome measures at all three time points as a function of group membership (N=26)

	Immediate Intervention Groups			Delayed Intervention Groups		
	Mean (Std Dev)			Mean (Std Dev)		
	TI	T2	T3	T1	T2	T3
GHQ	5.69 (4.44)	1.23 (3.27)	1.69 (3.09)	6.31 (3.61)	6.15 (3.87)	1.08 (2.81)
HOPE	22.54 (11.37)	35.38 (9.25)	24.46 (8.61)	26.77 (8.49)	26.71 (12.24)	38.31 (8.42)
TSBI	87.45 (23.32)	102.45 (18.12)	98.78 (20.28)	94.85 (19.29)	94.54 (19.18)	118.19 (13.33)
SES	27.69 (6.42)	22.31 (5.60)	21.77 (5.59)	26.69 (5.60)	25.23 (5.23)	18.85 (4.38)

A series of repeated measures ANOVAS were undertaken on cases with full information (N =26). The crossover design for Study 1 had three time points i.e. at the start of the first treatment, the crossover point and the end of the treatment. So, the within subject independent variable was measurement point (T1, T2 & T3) and the between subject independent variable was group (immediate versus delayed intervention). The dependent variables were scores for GHQ-12, Adult Hope Scale, SES and TSBI, at time 1, 2 and 3. A crossover design is not a full factorial model so treatment effects are always expressed as the interaction between time and group. A significant Group X Time interaction is equivalent to the effect of the treatment itself.

Results of a repeated measures ANOVA showed that Time was significant for the GHQ (F=14.65, df =2, 48, p=.000), Hope (*F*=20.46, df =2, 48, p=.000), SES (F=22.44, df =2, 48, p=.000) and TSBI (F=11.29, df =2, 48, p=.000). These findings demonstrate that for all participants who provided full information (N=26), there was significant change in their

scores. Results for Time X Group (which is equivalent to the effect of treatment) produced the following results: GHQ (F=5.82, df =2, 48, p=.005), Hope (F=8.00, df =2, 48, p=.031), SES (F=4.20, df =2, 48, p=.021) and TSBI (F=6.99, df =2, 48, p=.002). These results show that the change over Time was related to Treatment which is consistent with the hypothesis. For the intervention group, the GHQ and SES scores were high at T1 and went down at T2 and remained low at T3 and the HOPE and TSBI scores were low at T1 and went up at T2 and remained high at T3. For the delayed intervention group, the GHQ and SES scores were high at T1 and T2 and went down at T3 and the HOPE and TSBI scores were low at T1 and T2 and went up at T3. This is consistent with the hypothesis.

Because the professionals in this study had significantly different mental health profiles to the non-professionals, the full information analysis was repeated on non-professionals only for GHQ scores alone, to check if the different profiles predicted a different trajectory of the subjects' symptomatology. With the numbers reduced to 9 in the immediate intervention group, and 10 in the delayed intervention group, Time X Group remained similar (F=4.2, df=2, p=.024) with the reduction in the F value reflecting the loss of power through decreased sample size. Therefore, further analyses were carried out with the professionals included, to preserve power.

2.3.2.2 Analysis of full information (N=26) with covariates

Although there were no differences between the two groups identified at T1 it is possible that certain variables may have had an effect on subsequent responses to the treatment. Confounding variables are variables that have not been accounted for in the study design yet have the potential to influence outcome by altering the scores of those present or by leading to biased drop-out in the study; thus the bias arises from how the data are missing. It was therefore, necessary to identify and control for confounding variables. In Study 1 these include: a) Identity of researcher at Time 1 (DF versus researcher assistant). Due to sickness DF was unable to collect all the data at Time 1, so half the participants were seen by a research assistant whose brief was to collect questionnaires completed by the participants. DF alone was responsible for completing the assessment form for all participants in Study 1, which meant those who had been seen by the research assistant did not engage in the assessment form interview with DF until Time 2. b) Participant status (professional versus non professional). A proportion of the participants in the study were

professionals who were attending the course for professional development purposes. c) Mode of delivery of treatment. Participants attended crèche or non crèche courses. d) Attendance (DNA, Incomplete attendance or complete attendance).

A one-way ANOVA was performed on full information (N=26) for DF versus research assistant; findings were significant at T3 for the GHQ (F=8.50, df = 1, 24, p=.008), at T3 for the Hope (F=5.39, df = 1, 24, p=.029), at T3 for the TSBI (F=5.51, df = 1, 24, p=.027) and at T3 for the SES (F=10.44, df = 1, 24, p=.004).

For professionals versus non-professionals, findings were significant at T3 for the Hope (F=6.71, df = 1, 24, p=.016) and at T3 for the TSBI (F=7.86, df = 1, 24, p=.010).

For Mode of delivery of service, findings were significant at T3 for the GHQ (F=5.47, DF = 1, 24, p=.028), at T3 for the Hope (F=6.04, df = 1, 24, p=.022) and at T3 for the SES (F=7.53, df = 1, 24, p=.011).

For Attendance, findings were significant at T3 for the GHQ (F=4.73, df = 1, 24, p=.040) and at T3 for the Hope (F=14.35, df, 1, 24, p=.001).

These findings show that DF versus research assistant, professionals versus non-professionals, mode of delivery of service and attendance were all confounding variables that were influencing outcome. A series of repeated measures ANOVAS to control for the impact of the above confounding variables was performed on all cases with full information (N =26). Results showed that that Time (which is equivalent to a Group X Treatment interaction) was significant for the GHQ (F=3.45, df = 2, 24, p=.048), Hope (F=5.20, df =2, 24, p=.013), TSBI (F=6.15, df = 2, 24, p=.007) and SES (F=10.26, DF = 2, 24, p=.001).

Results for Time X Group (which is equivalent to the effect of treatment) were significant for the GHQ (F=6.45, df = 2, 24, p=.006), Hope (F=4.95, df = 2, 24, p=.016) and TSBI (F=6.65, df = 2, 24, p=.005).

2.3.2.3 Analysis of all trial starters (N=33)

The analysis was repeated with imputed scores taking the place of missing values for those participants who dropped out during the trial.

Table 2.9: Group means and standard deviations for outcome measures at all three time points as a function of group membership (N=33)

	Immediate Intervention Groups			**Delayed Intervention Groups**		
	Mean (Std Dev)			**Mean (Std Dev)**		
	TI	**T2**	**T3**	**T1**	**T2**	**T3**
GHQ	5.88 (4.27)	1.13 (2.85)	1.90 (2.76)	5.69 (3.98)	6.07 (3.67)	1.14 (2.62)
HOPE	22.71 (11.20)	36.09 (8.94)	34.34 (7.56)	26.81 (8.01)	26.83 (11.09)	38.37 (7.56)
TSBI	91.22 (23.52)	103.32 (19.46)	100.59 (17.90)	92.94 (18.48)	94.65 (17.27)	116.32 (12.99)
SES	77.47 (5.86)	22.36 (5.18)	21.93 (5.30)	27.19 (5.79)	25.37 (5.22)	19.10 (14.36)

Results of a repeated measures ANOVAS showed that Time (which is equivalent to a Group X Treatment interaction) was significant for the GHQ (F=16.26, df = 2, 62, p=.000), Hope (F=26.96, df = 2, 62, p=.000), TSBI (F=13.12, df = 2, 62, p=.000) and SES (F=27.04, df = 2, 62, p=.000).

Results for Time X Group (which is equivalent to the effect of treatment) produced the following results: GHQ (F=8.82, df = 2, 62, p=.000), Hope (F=11.79, df = 2, 62, p=.000), TSBI (F=7.28, df = 2, 62, p=.001) and SES (F=5.00, df =2, 62, p=.010).

2.3.2.4 Analysis of all trial starters (N=33) imputed data with covariates

A series of repeated measures ANOVAS to control for the impact of the confounding variables, as discussed above, was performed on the imputed data (N =33). Results showed that that Time (which is equivalent to a Group X Treatment interaction) was significant for the GHQ (*F*=5.83, df =2. 26, *p*=.008), Hope (*F*=10.09, df= 2, 26, *p*=.001), TSBI (*F*=3, 69, df = 2, 26, *p*=.039) and SES (*F*=11.63, df = 2, 24, *p*=.00).

Results for Time X Group (which is equivalent to the effect of treatment) was significant for the GHQ (*F*=6.58, df = 2, 26, *p*=.005), Hope (*F*=6.15, df =2, 26, *p*=.007), TSBI (*F*=84.56, df = 2, 26, *p*=.020) and SES (*F*=3.98, df = 2, 26, *p*=.031).

2.3.2.5 Within Group t-tests showing significant changes

Table 2.10: Immediate intervention

		Mean difference	t	df	Sig. (2-tailed)
GHQ	**T1 - T2**	5.000	3.989	13	.002
	T2 - T3	-.462	-.384	12	.708
HOPE	**T1 - T2**	-14.357	-5.301	13	.000
	T2 - T3	.923	.681	12	.509
TSBI	**T1 - T2**	-14.505	-2.373	13	.034
	T2 - T3	3.672	.783	12	.449
SES	**T1 - T2**	6.000	3.969	13	.002
	T2 - T3	.538	.643	12	.532

Table 2.11: Delayed intervention

		Mean difference	t	df	Sig. (2-tailed)
GHQ	**T1 - T2**	.000	.000	13	1.000
	T2 - T3	5.077	4.247	12	.001
HOPE	**T1 - T2**	.129	.050	13	.961
	T2 - T3	-11.600	-3.553	12	.004
TSBI	**T1 - T2**	-.210	-.069	13	.946
	T2 - T3	-23.656	-4.471	12	.001
SES	**T1 - T2**	1.643	1.445	13	.172
	T2 - T3	6.385	3.841	12	.002

The above tables show that within group changes were significant and consistent with the intervention provided.

2.4.0 Discussion

The findings from Study 1 demonstrate a statistically significant improvement in the mental health and self-esteem of participants who attended a STEPS course. These findings proved to be consistent for full information (N=26), imputed data (N=33) and when covariants were taken into account. For the intervention group, baseline scores at T1 improved following treatment at T2 and were maintained by T3. For the delayed intervention group, baseline score at T1 remained stable at T2 and improved following treatment at T3. Statistical analysis shows that improvement over time was as a result of the treatment effect alone.

2.4.1 Strengths and weaknesses of this study

Design strengths: A randomised control trial is the gold standard in study design; it ensures that participant variables are evenly distributed across groups thus avoiding bias in the final outcome. The main advantage of a crossover design is that it enables participants to act as their own controls. ***Design weaknesses:*** There are no main effects in a crossover design; therefore, results suffer from confounding interaction. Another potential weakness of a crossover design is hangover effect; this refers to treatment effects being carried over to the non-treatment phase. This was not an issue in study 1. ***Sample strengths:*** The sample was representative of patients seen in primary care settings. ***Sample weaknesses:*** The study was a directed opportunistic sample which was not heterogeneous. The sample size was small. Several participants dropped out. ***Measurements strengths:*** The GHQ, HOPE and SES proved reliable, sensitive and accurate. ***Measurements weaknesses:*** The TSBI lacked sensitivity and was unable to pick up change and distinguish between signal and noise. ***Treatment strengths:*** STEPS is a standardised and manualised intervention. ***Treatment weaknesses:*** It was not possible for DF to remain blind to which arm of the study each participant belonged as participant disclosure was common.

2.4.2 Rationale for next study

The results from this study suggest that STEPS may be an efficacious intervention for patients presenting with psychological difficulties in the primary care setting. In the next chapter, attempts are made to replicate these findings in a further study.

Chapter Three

3.1.0 Introduction

The purpose of Study 2 was to replicate Study 1. The aims and hypothesis remained the same as for Study 1. The same method, design and procedure were used for both studies with a number of differences in Study 2: Firstly, DF collected all data at T1 T2 and T3. Secondly, DF attended a STEPS course herself and was instructed to positively promote the course to participants. Thirdly, three further questionnaires where included in the design: the Adult Nowicki-Strickland Internal-External Control Scale (Nowicki & Duke, 1974a), Clinical Outcomes in Routine Evaluation-Outcome Measure (Evans et al., 2000) and Global Assessment Functioning (DSM IV, 1994).

3.2.0 Method

3.2.1 Participants

There were 54 participants randomised to the two arms in Study 2, 12 dropped out prior to interview at T1, 6 from the immediate intervention arm and 6 from the delayed intervention arm. There were 42 remaining participants, 22 of these were assigned to the immediate intervention arm and 20 were assigned to the delayed intervention arm.

Figure 3.1 Consort Diagram showing the flow of participants through Study 2.

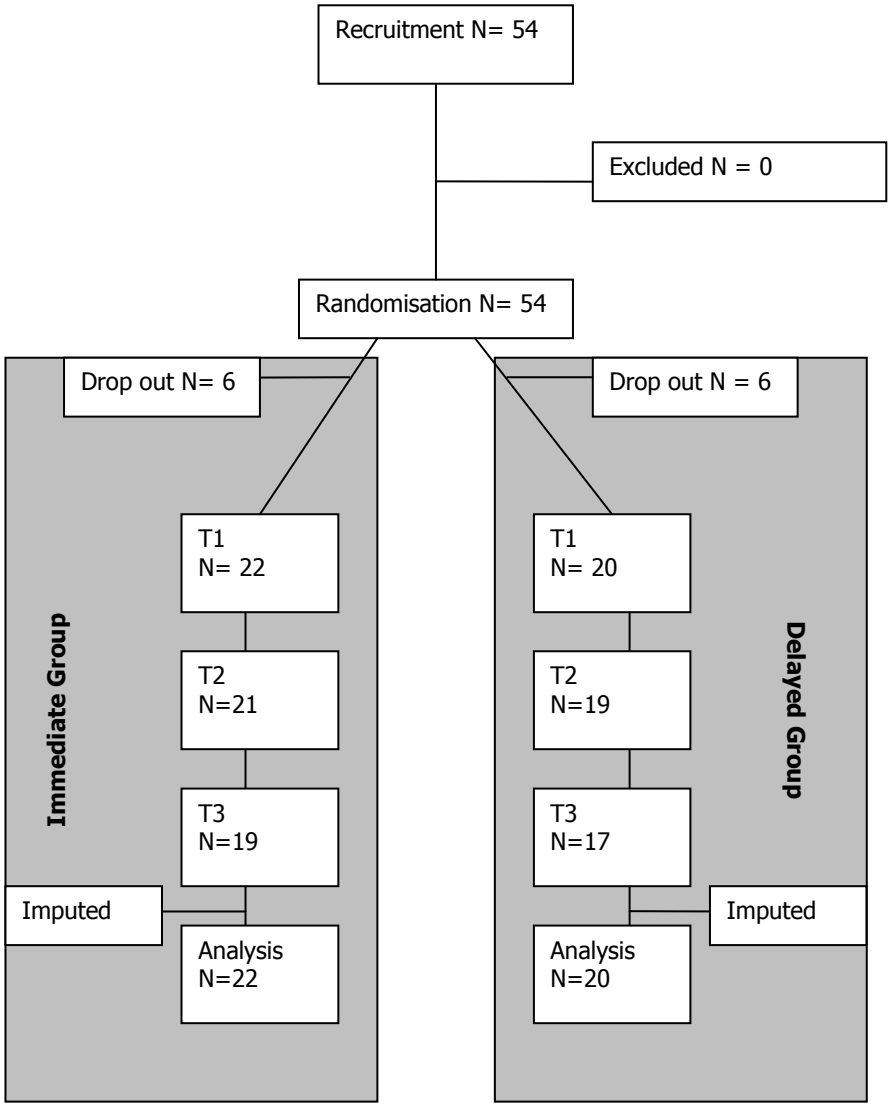


Table 3.1.1: Significantly different background characteristics between professionals and non-professionals (p<.05)

This table shows that professionals and non professionals are significantly different in the background characteristic of referrer.

		Professional (N=7)		Non-professional (N = 35)	
		N	Percent	N	Percent
Referrer LR 10.412, DF 4, p=.04	GP	0	0	14	41.2
	Health Visitor	3	50	6	17.6
	M H Practitioner	0	0	6	17.6
	Social Worker	0	0	0	0
	Child Psychiatrist	0	0	1	2.9
	Other	3	50	7	20.6
	Missing Data	1		1	

Table 3.1.2: Background characteristics between professionals and non-professionals that did not differ significantly

This table shows that professionals and non-professionals did not differ significantly in the following background characteristics.

		Professional (N=7)		Non-professional (N=35)	
		N	Percent	N	Percent
Gender LR 2.819, DF 1, p= .326	Male	0	0	7	20.0
	Female	7	100	28	80.0
Marital Status LR 1.915, DF 4, p=.899	Married	2	28.6	13	38.2
	Single	2	28.6	11	32.4
	Divorced	1	14.3	7	20.6
	Cohabiting	1	14.3	2	5.9
	Separated	1	14.3	1	2.9
	Missing Data			1	
Psychiatric meds (current/historical) LR 4.494, DF 3, p=.277	Never	3	42.9	10	29.4
	Current	0		3	8.8
	History	3	42.9	6	17.6
	Current/History	1	14.3	15	44.1
	Missing Data			1	
Neurotic Symptoms (current/historical) LR 2.626, DF 1, p=.128	Yes	5	71.4	32	94.1
	No	2	28.6	2	5.9
	Missing Data			1	
Psychotic Symptoms (current/historical) LR 2.903, DF 1, P=.321	Yes			7	20.6
	No	7	100	27	79.4
	Missing Data				
Drug/ Alcohol Misuse (current/historical) LR .401, DF 1, p=.685	Yes	2	28.6	14	41.2
	No	5	71.4	20	58.8
	Missing Data			1	
Suicide Attempt LR .401, DF 1, p=.685	Yes	2	28.6	14	41.2
	No	5	71.4	20	58.8
	Missing Data				
Psychiatric In patient (historical) LR 2.122, , DF 3, p=.748	In patient	1	14.3	7	20
	Out patient	4	57.1	24	68.8
	N/A	2	28.6	3	8.6
	Missing Data			1	
Domestic violence (historical) LR .041, DF 1, p~1	Yes	3	42.9	16	47.1
	No	4	57.1	18	52.9
	Missing Data			1	
Victim of crime (current/ historical) LR 1.026 DF 1, p=.361	Yes	3	42.9	8	23.5
	No	4	57.1	26	76.5
	Missing Data			1	
Sexual Abuse (historical) LR .514, DF 1, p=.66	Yes	1	14.3	25	73.5
	No	6	85.7	9	26.5
	Missing Data			1	
Police involvement (current/historical) LR 3.857, DF 1, p=.18	Yes	0		9	26.5
	No	7	100	25	73.5
	Missing Data			1	

3.2.2 Measures

In addition to the measures used in Study 1 the following questionnaires were employed:

3.2.2.1 Adult Nowicki-Strickland Internal-External Control Scale (Nowicki & Duke, 1974a)

The Adult Nowicki-Strickland Internal-External Control Scale (ANSIE) was designed to assess locus of control. It is a 40-item self-administered scale requiring yes / no answers. Test-retest reliability ranges from .65 for a 7 week interval to .83 for a 6 week interval. It has been shown to correlate well with other measures of locus of control and is free of social desirability or bias (Lefcourt, 1991).

3.2.2.2 Clinical Outcomes in Routine Evaluation-Outcome Measure (Margison, Mellor-Clark & Margison, 2000)

The Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM) is a 34-item self-report questionnaire designed to be used before and after psychological interventions to assess efficacy. The CORE-OM covers 4 domains: subjective well-being, problems / symptoms, life functioning and risk to self and others. Internal consistency was indicated by a coefficient of 0.75 and 0.95, therefore reliability was appropriate. Test-retest stability and convergent validity were good (Evans, Connell et al., 2002).

3.2.2.3 Global Assessment of Functioning (DSM IV, 1994)

The Global Assessment of Functioning (GAF) scores symptoms and social functioning on a scale of 0-100.

3.3.0 Results

3.3.1 Initial data Treatment

For each questionnaire, mean imputation was used when participants had missed out individual questions. The number of imputed items varied from questionnaire to questionnaire but overall there were less than 1 percent imputed questionnaire items across the whole study.

Table 3.2: Basic descriptive statistics of outcome measures in Study 2

		N	Min	Max	Mean	Std. Dev.
GHQ	**T1**	42	0	12	5.24	4.14
	T2	40	0	12	2.40	3.42
	T3	36	0	12	1.58	3.07
HOPE	**T1**	42	7	45	25.69	11.65
	T2	39	8	48	32.08	11.59
	T3	36	11	48	35.75	10.09
TSBI	**T1**	42	50	148	94.43	24.04
	T2	40	53	151	102.30	24.72
	T3	36	62	146	105.86	23.71
Locus of Control	**T1**	41	4	23	14.07	4.57
	T2	40	2	27	14.40	5.35
	T3	36	2	26	12.53	5.39
Core-OM	**T1**	41	0	97	46.95	28.80
	T2	40	0	120	31.93	28.44
	T3	36	0	88	22.44	20.30
SES total	**T1**	42	10	39	26.52	6.33
	T2	40	10	37	22.30	6.52
	T3	36	10	34	20.13	5.96

The above table gives the mean standard deviation maxima and minima in Study 2. It can be seen that there has been some attrition between the time points, 42 participants started, 40 remained by T2 and 36 by T3.

3.3.1.1 Analysis of similarities and differences between the two groups at T1

It was important to establish whether the two groups were similar in background characteristics to ensure randomisation had been successful thus avoiding bias in the final results**.**

Table 3.3: A comparison of immediate and delayed intervention groups on background characteristics This table shows there were no significant differences between the two groups on any of the categories listed below.

		Immediate Intervention		Delayed intervention	
		Frequency	**Percent**	**Frequency**	**Percent**
Referrer LR 6.169, DF 4, p=.217	GP	5	22.7	9	50
	Health Visitor	7	31.8	2	11.1
	M H Practitioner	4	18.2	2	11.1
	Social Worker	0	0	0	0
	Child Psychiatrist	0	0	1	5.6
	Other	6	27.3	4	22.2
Gender LR .077, DF 1, p~1	Male	4	18.2	3	15
	Female	18	81.8	17	85
Marital Status LR 7.022, DF 4, p=.266	Married	9	40.9	6	31.6
	Single	9	40.9	4	21.1
	Divorced	3	13.6	5	26.3
	Cohabiting	0	0	3	15.8
	Separated	1	4.5	1	5.3
Psychiatric meds LR 2.456, DF 3, p=.539	Never	9	40.9	4	21.1
	Current	2	9.1	1	5.3
	History	4	18.2	5	26.3
	Current/History	7	31.8	9	47.4
Neurotic Symptoms (current/historical) LR .024, DF 1, p~1	Yes	20	90.9	17	89.5
	No	2	9.1	2	10.5
Psychotic Symptoms (current/historical) LR .395, DF 1, p=.685	Yes	3	13.6	4	21.1
	No	19	86.4	15	78.9
Drug/ Alcohol Misuse (current/historical) LR .071, DF 1, p~1	Yes	9	40.9	7	36.8
	No	13	59.1	12	63.2
Suicide Attempt LR 1.038, DF 1, p=.352	Yes	7	31.8	9	47.4
	No	15	68.2	10	52.6
Psychiatric Inpatient (current/historical) LR 1.635, DF 1, p=.945	In patient	4	18.2	4	20
	Out patient	15	68.2	13	65
	N/A	3	13.6	2	10
Domestic violence (historical) LR .564, DF 1, p=.538	Yes	9	40.9	10	52.6
	No	13	59.1	9	47.4
Victim of crime (current/historical LR .005, DF 1, p~1	Yes	6	27.3	5	26.3
	No	16	72.7	14	73.7
Sexual Abuse (historical) LR .993, DF 1, p=.469	Yes	4	18.2	6	31.6
	No	18	81.8	13	68.4
Police involvement (current/historical) LR 1.931, DF 1, p=.26	Yes	3	13.6	6	31.6
	No	19	86.4	13	68.4
Professional/non-professional LR 1.262, DF 1, P=.424	Professional	5	22.7	2	10
	Non-prof.	17	77.3	18	90
Attendance LR 2.504, DF 1, p=.368	Complete	18	81.8	13	65
	Incomplete	0	0	1	5
	DNA	4	18.2	6	30
Mode of delivery LR 1.22, DF 1, p=.328	Creche	9	45	5	27.8
	Non creche	11	55	13	72.2

Table 3.4: A comparison of immediate and delayed intervention groups on test measures at T1

This table shows there were no significant differences between the two groups on any of the measures at T1.

	GHQ T1	***Hope T1***	***TSBI T1***	***SES T1***	***ANSIE T1***	***CORE-OM T1***	***GAF T1***
Immediate							
Mean	4.86	27.36	93	26.55	14.41	47.77	63.77
N	22	22	22	22	22	22	22
Sd	4.07	11.84	25.04	6.97	5.09	32.4	16.75
Delayed							
Mean	5.65	23.85	94.43	26.52	13.68	46	59.89
N	20	20	42	42	19	19	19
Sd	4.27	11.44	24.04	6.33	3.99	24.85	10.26

3.3.1.2 Analysis of similarities and differences between complete attendees, incomplete attendees and DNA.

Of the 42 people who entered the study 10 did not attend (DNA) the course and 1 failed to attend all sessions. Partial attendance is likely to impact on the results, so, a separate analysis was undertaken to establish whether there was a difference in the outcome scores for complete versus incomplete attendees at T3.

Table 3.5: A comparison of immediate and delayed intervention groups on background characteristics for complete, incomplete and DNA categories

There was no significant difference in any of the categories listed below (continues over).

		Complete				Incomplete				DNA			
		Immed.		Delayed		Immed.		Delayed		Immed.		Delayed	
		N	%	N	%	N	%	N	%	N	%	N	%
Referrer LR 4.086, DF 3, p=.256	GP	3	16.7	6	50	0	0	1	100	2	50	2	40
	Health Visitor	5	27.8	2	16.7	0	0	0	0	2	50	0	0
	M H Pract.	4	22.2	1	8.3	0	0	0	0	0	0	1	20
	Social Worker	0	0	0	0	0	0	0	0	0	0	0	0
	Child Psych.	0	0	0	0	0	0	0	0	0	0	1	20
	Other	0	0	0	0	0	0	0	0	0		1	20
Gender LR .009, DF 1, p~1	Male	3	16.7	2	15.4	0	0	1	100	1	25	1	16.7
	Female	15	83.3	11	84.6	0	0	0	0	3	75	5	83.3
Marital Status LR 4.315, DF 1, p=.566	Married	8	44.4	6	46.2	0	0	0	0	1	25	0	0
	Single	6	33.3	3	23.1	0	0	0	0	3	75	1	20
	Divorced	3	16.7	1	7.7	0	0	1	100	0	0	3	60
	Cohabiting	0	0	2	15.4	0	0	0	0	0	0	1	20
	Separated	1	5.6	1	7.7	0	0	0	0	0	0	0	0
Psychiatric Medication LR 4.56, DF 3, p=.327	Never	8	44.4	3	23.1	0	0	0	0	1	25	1	20
	Current	2	11.1	0	0	0	0	0	0	0	0	1	20
	History	3	16.7	4	30.6	0	0	0	0	1	25	1	20
	Current/History	5	27.8	6	46.2	0	0	1	100	2	50	2	40
Neurotic Symptoms (curr/hist) LR .056, DF 1, p~1	Yes	17	94.4	12	92.3	0	0	1	100	3	75	4	80
	No	1	5.6	1	7.7	0	0	0	0	1	25	1	20
Psychotic Symptoms (curr/hist) LR .789, DF 1, p=.625	Yes	2	11.1	3	23.1	0	0	0	0	3	75	4	80
	No	16	88.9	10	76.9	0	0	1	100	1	25	1	20

		Complete				Incomplete				DNA			
		Immed.		Delayed		Immed.		Delayed		Immed.		Delayed	
		N	%	N	%	N	%	N	%	N	%	N	%
Drug & Alcohol Misuse (curr/hist) LR .086, DF 1, p~1	Yes	6	33.3	5	38.5	0	0	0	0	3	75	2	40
	No	12	66.7	8	61.5	0	0	1	100	1	25	3	60
Suicide Attempt LR .392, DF 1, p=.701	Yes	5	27.8	5	38.5	0	0	1	100	2	50	23	60
	No	13	72.2	8	61.5	0	0	0	0	2	50	2	40
Psychiatric In patient (curr/hist) LR .124, DF 2, p~1	In patient	3	16.7	2	15.4	0	0	0	0	1	25	2	33.3
	Out patient	13	72.2	10	76.9	0	0	1	100	2	50	2	33.3
	N/A	2	11.1	1	7.7	0	0	0	0	1	25	2	33.3
Domestic violence (historical) LR .001, DF 1, p~1	Yes	7	38.9	5	38.5	0	0	1	100	2	50	4	80
	No	11	61.1	8	61.5	0	0	0	0	2	50	1	20
Victim of crime (curr/hist) LR .033, DF 1, p~1	Yes	5	27.8	4	30.8	0	0	0	0	1	25	1	20
	No	13	72.2	9	69.2	0	0	1	100	3	85	4	80
Sexual Abuse (historical) LR .286, DF 1, p=.689	Yes	4	22.2	4	30.8	0	0	1	100	0	0	1	20
	No	14	77.8	9	69.2	0	0	0	0	4	100	4	80
Police involved (curr/hist) LR 3.62, DF 1, p=.134	Yes	1	5.6	4	30.8	0	0	0	0	2	50	2	40
	No	17	94.4	9	69.2	0	0	1	100	2	50	3	60
Prof / non-prof LR .685, DF 1, p=.667	Professional	5	27.8	2	15.4	0	0	0	0	0	0	0	0
	Non-prof.	13	72.2	11	84.6	0	0	1	100	4	100	6	100
Mode of delivery LR 1.931, DF 1, p=.26	Creche	9	50	3	25	0	0	0	0	0	0	2	40
	Non creche	9	50	9	75	0	0	1	100	2	100	3	60

Table 3.6: A comparison of complete v incomplete attendance subdivided into immediate intervention and delayed intervention groups on test measures at T3

	Complete		Incomplete	
	Immediate	**Delayed**	**Immediate**	**Delayed**
	Mean (sd)	**Mean (sd)**	**Mean (sd)**	**Mean (sd)**
GHQ T3	2.81 (4.07)	.15 (.55)	2.67 (3.06)	.5 (.58)
Hope T3	33.75 (12.69)	37.15 (5.73)	32.33 (9.81)	41.75 (9.84)
TSBI T3	106.19 (26.59)	105.46 (20.8)	85.67 (13.2)	121 (21.46)
SES T3	21.06 (7.29)	18.92 (3.62)	25 (4.36)	16.75 (5.74)

Table 3.7: A two-way ANOVA showing the differences between immediate Vs delayed group, attendance Vs incomplete and non- attendance and interaction effects at T3

This table shows there were no significant differences between the immediate verses delayed intervention group at T3 on the Hope, ANSIE and GAF. There was a significant difference on the SES and CORE-OM and a trend on GHQ and TSBI at T3. There was no significant difference for any of the measures on attendance or interaction effects at T3. These findings show there is no need to control for attendance in future analysis.

	GHQ T3	***Hope T3***	***TSBI T3***	***SES T3***	***ANSIE T3***	***CORE-OM T3***	***GAF T3***
Immediate Vs Delayed							
F	3.79	2.21	3.03	4.37	1.81	5.78	1.13
df	1,32	1,32	1,32	1,32	1,32	1,32	1,32
P-value	*.06*	.14	*.092*	**.045**	.189	**.022**	.295
Attended (Y/N)							
F	.007	.136	.063	.126	1.66	.052	.149
df	1,32	1,32	1,32	1,32	1,32	1,32	1,32
P-value	.936	.715	.804	.725	.207	.821	.702
Interaction							
F	.039	.486	3.29	1.51	.59	.798	.118
df	1,32	1,32	1,32	1,32	1,32	1,32	1,32
P-value	.844	.491	.079	.228	.448	.378	.733

3.3.2 Main analysis of the STEPS trial

Because of the drop out between T1 and T3 the main analysis was conducted in two ways. In the first analysis only those subjects where full information was available were included. Full information refers to all participants who completed the course and participants who agreed to data being collected at all three time points despite the fact that they did not

attended or complete the course. In the second analysis all participants who begun the trial were included and the missing values imputed (N=42).

3.3.2.1 Analysis of cases with full information

Table 3.8: Group means, N and standard deviations for outcome measures at all three time points as a function of group membership

	Immediate Intervention Groups			Delayed Intervention Groups		
	Mean (Std. Dev.)			Mean (Std. Dev.)		
	TI	T2	T3	T1	T2	T3
GHQ	4.86 N = 22 (4.07)	2.38 N = 21 (3.58)	2.79 N = 19 (3.85)	5.65 N = 20 (4.27)	2.42 N = 19 (3.32)	.24 N = 17 (.56)
HOPE	27.36 N = 22 (11.84)	33.77 N = 21 (11.39)	33.53 N = 19 (12.05)	23.85 N = 20 (11.44)	30.22 N = 18 (11.87)	38.24 N = 17 (6.84)
TSBI	93.00 N = 22 (25.04)	103.71 N = 21 (26.35)	102.95 N = 19 (25.84)	96.00 N = 20 (23.43)	100.74 N = 19 (23.40)	109.12 N = 17 (21.38)
SES	26.55 N = 22 (6.97)	22.19 N = 21 (6.79)	21.68 N = 19 (6.98)	26.50 N = 20 (5.73)	22.42 N = 19 (6.40)	18.41 N = 17 (4.11)
ANSIE	14.41 N = 22 (5.09)	13.95 N = 21 (5.68)	13.37 N = 19 (6.54)	13.68 N = 19 (3.99)	14.90 N = 19 (5.08)	11.59 N = 17 (3.69)
CORE-OM	47.77 N = 22 (32.40)	30.05 N = 21 (30.86)	29.74 N = 19 (24.45)	46.00 N = 19 (24.85)	34.00 N = 19 (26.19)	14.29 N = 17 (9.75)
GAF	63.77 N = 22 (16.75)	70.00 N = 21 (16.05)	68.58 N = 19 (16.01)	59.89 N = 19 (10.27)	63.22 N = 18 (20.04)	77.06 N = 17 (15.21)

A series of repeated measures ANOVAs were undertaken on cases with full information, the number of which varied from 17 to 22 due to missing data. The crossover design was the same as Study 1. There were three time points i.e. the start of the first treatment, the crossover point and the end of the treatment. So, the within subject independent variable was measurement point (T1, T2 & T3) and the between subject variable was group (immediate versus delayed intervention). The dependent variables were scores for GHQ-12, Adult Hope Scale, TSBI, SES, ANSIE, CORE-OM and GAF at T1, T2 and T3. A crossover design is not a full factorial model so treatment effects are always expressed as the interaction between group and time. A significant Group X Time interaction is equivalent to the effect of the treatment itself.

Results of a repeated measures ANOVAS showed that Time was significant for the GHQ F=13.52, *df* =2, 64, p=.00), Hope (F=15.75, *df* =2, 64, p=.00), SES (*F*=23.50, *df* =2, 64, p=.00), TSBI (*F*=10.96, *df* =2, 64, p=.00), CORE-OM (F=15.98, *df*=2, 64, p=,00) and GAF (F=9.45, *df*=2, 64, p=.00). Time was non significant for the ANSIE (F=1.77,*df*=3.64, p=.18) These findings demonstrate that for all participants who provided full information there was significant change in their scores on all dependent measures except for the ANSIE.

Time X Group (which is equivalent to the effect of treatment) was significant for the GHQ (F=3.84, *df* =2, 64, p=.03), SES (F=3.11, *df* =2, 64, p=.05), CORE-OM (F=4.12, *df*=2, 64, p=.02) and GAF (F=9.30, *df*=2, 64, p=.00). Time X Group was non significant for the Hope (F=1.69, *df* =2, 64, p=.19), TSBI (F=.94, *df* =2, 64, p=.40), ANSIE (F=1.55, *df*=2, 64, p=.22).

However, the tests of within-subjects contrasts for Time X Group (which is equivalent to the effect of treatment) showed that linear rather than quadratic contrast was significant for the GHQ (F=6.09, *df* =1, 32, p=.02), SES (F=4.20, *df* =1, 32, p=.05), CORE-OM (F=4.83, *df*=1. 32, p=.04) and GAF (F=17.08, *df*=1, 32, p=.00)

The addition of the GAF and the CORE-OM provided alternate measures of mental health to the GHQ. This allowed a more sophisticated analysis of the inclusion of subjects who were

not psychiatric cases than in study 1, where professional status had to be used as a proxy for non-cases, despite tabular evidence suggesting at least some psychiatric symptomatology in that group. Goldberg & Williams (1998) have pointed out that using a caseness cutoff between 2/3 on the GHQ-12 tends to exclude possible cases whose symptomatology is likely to remit. Given the findings of a change between times 1 and 2 in the delayed treatment group were suggestive of such remission, excluding subjects whose initial GHQ-12 scores were below 3 would examine whether this was a confounding variable. The CORE-OM was chosen as the outcome variable to explore this, as it is a self-rated measure, and in this context therefore less susceptible to investigator bias. With numbers reduced to 11 in each group, the results were very similar both for the simple Time X Group effect ($F=3.6$, $df=2$, $p=.037$) and for the linear contrast ($F=3.74$, $df=1$, $p=.067$). Once again, the reduced F values are consistent with the loss of power due to sample size. So, the inclusion of non-cases did not to affect the results, and were kept within the study to retain power.

Table 3.8 shows the means for all dependent measures moved in the appropriate direction i.e. improved mental health and self-esteem. However, while all the tools designed to measure mental health reached significance, only the SES reached significance of those used to measure self-esteem. These findings demonstrate that the treatment was efficacious for the improvement in mental health but less so for self-esteem.

Although there were no differences between the two groups identified at T1 it is possible that certain variables may have had an effect on subsequent responses to the treatment. It was therefore, necessary to identify and control for confounding variables. In Study 2 these include: a) Participant status (professional versus non professional) and b) Mode of delivery of treatment. Participants attended crèche or non crèche courses.

A one-way ANOVA was performed on full information for: professionals versus non professional, findings were non-significant for all dependent variables at T3. For Mode of delivery of service, findings were also non-significant at T3 for all dependent variables. These findings show that professionals versus non-professionals and mode of delivery of service were not confounding variables; therefore it was not necessary to control for them.

3.3.2.2 Analysis of all trial starters (N=42)

The analysis was repeated with imputed scores taking the place of missing values on the dependent variables for those participants who dropped out during the trial.

Table 3.9: Group means, N and standard deviations for outcome measures at all three time points as a function of group membership

	Immediate Intervention Groups			**Delayed Intervention Groups**		
	Mean (Std. Dev.)			**Mean (Std. Dev.)**		
	TI	**T2**	**T3**	**T1**	**T2**	**T3**
GHQ	4.86 N = 22 (4.7)	2.50 N = 22 (3.54)	2.81 N = 22 (3.68)	5.65 N = 20 (4.27)	2.40 N = 20 (3.23)	.07 N = 20 1.04
HOPE	27.36 N = 22 (11.84)	32.79 N = 22 (11.86)	32 N = 22 (11.88)	23.85 N = 20 (11.44)	30.90 N = 20 (11.47)	37.63 N = 20 (8.05)
TSBI	93.00 N = 22 (25.04)	104.47 N = 22 (25.95)	102.36 N = 22 (25.18)	96.00 N = 20 (23.43)	100.76 N = 20 (22.77)	107.64 N = 20 (22.22)
SES	26.55 N = 22 (6.97)	22.33 N = 22 (6.65)	21.67 N = 22 (7.37)	26.50 N = 20 (5.73)	22.69 N = 20 (6.35)	17.89 N = 20 (4.10)
ANSIE	14.41 N = 22 (5.09)	14.14 N = 22 (3.61)	13.58 N = 22 (61.11)	13.99 N = 20 (4.12)	14.72 N = 20 (5.00)	11.98 N = 20 (4.72)
CORE-OM	47.77 N = 22 (32.40)	20.09 N = 22 (30.11)	31.31 N = 22 (23.00)	47.26 N = 20 24.83	36.49 N = 20 (27.81)	15.34 N = 20 (11.63)
GAF	63.77 N = 22 (16.75)	69.01 N = 22 (16.33)	66.21 N = 22 (17.44)	60.72 N = 20 (10.66)	63.35 N = 20 (19.30)	77.21 N = 20 (14.52)

Results of a repeated measures ANOVAS showed that Time (which is equivalent to a Group X Treatment interaction) was significant for the GHQ (*F*=17.84, df = 2, 80, *p*=.00), Hope (F=15.26, df = 2, 80, *p=.*00), TSBI (*F*=10.55, df = 2, 80, *p*=.00), SES (*F*=30.71, df = 2, 80, *p=*.00), ANSIE (F=3.12, df=2, 80, p=.05), CORE-OM (F=20.83, 20, 80, p=.00) and GAF (f=9.38, df=2, 80, p=.00).

Results for Time X Group (which is equivalent to the effect of treatment) produced the following results: GHQ (*F=*4.06, df = 2, 80, *p=*.02), Hope (*F=*3.38, df = 2, 80, *p=.*04), TSBI (*F=*1.90, df = 2, 80, *p=.*16), SES (*F=*3.48, df =2, 80, *p=*.04), ANSIE (F=1.16, df =2, 80, p=.32), CORE-OM (F=4.26, df=2, 80, p=.01) and GAF (F=8.34, df=2,80, p=.00).

However, the tests of within-subjects contrasts for Time X Group (which is equivalent to the effect of treatment) showed that linear rather than quadratic contrast was significant for the GHQ (F=6.29, *df* =1, 40, p=.02), HOPE (F=5.18, *df* =1, 40, p=.03), CORE-OM (F=4.49, *df*=1, 40, p=.04) and GAF (F=14.04, *df*=1, 40, p=.00).

Analysis of all trial starters (N=42) imputed data with covariates was not needed.

These findings demonstrate that the mental health of participants in the immediate intervention group improved following treatment. Inspection of the means and the within-subjects contrasts for the delayed intervention group showed that the mental health of the delayed intervention group improved prior to treatment and continued to improve further following treatment. The self-esteem of the immediate intervention and delayed intervention group did not improve on completion of treatment.

3.3.2.3: Within group t-tests showing significant changes

3.3.2.3.1: Immediate intervention

Table 3.10: T test data relating to immediate intervention

		Mean diff	t	df	Sig. (2 tailed)
GAF	**T1 - T2**	-4.667	-1.959	20	.064
	T2 - T3	2.368	1.116	18	.279
GHQ	**T1 - T2**	2.381	2.401	20	.026
	T2 - T3	-.842	-1.128	18	.274
HOPE	**T1 - T2**	-6.143	-3.274	20	.004
	T2 - T3	1.053	.490	18	.630
TSBI	**T1 - T2**	-10.333	-3.119	20	.005
	T2 - T3	.211	.076	18	.940
ANSIE	**T1 - T2**	.619	.699	20	.492
	T2 - T3	.000	.000	18	1.000
CORA	**T1 - T2**	16.047	2.833	20	.010
	T2 - T3	-4.263	-1.036	18	.314
SES	**T1 - T2**	4.286	4.640	20	.000
	T2 - T3	-.263	-.290	18	.775

The above table reports within-subject changes within the immediate intervention group. The results across all measures changed between T1 and T2 with the exception of the ANSIE, suggesting that locus of control remained stable. These results are consistent with Study 1.

3.3.2.3.2: Delayed intervention

Table 3.11: T test data relating to delayed intervention

		Mean diff	t	df	Sig. (2 tailed)
GAF	**T1 - T2**	-2.278	-.540	17	.596
	T2 - T3	-15.188	-2.942	15	.010
GHQ	**T1 - T2**	2.895	2.519	18	.021
	T2 - T3	1.824	2.404	16	.029
HOPE	**T1 - T2**	-5.833	-1.805	17	.089
	T2 - T3	-5.188	-1.978	15	.067
TSBI	**T1 - T2**	-5.632	-1.459	18	.162
	T2 - T3	-6.529	-1.940	16	.070
ANSIE	**T1 - T2**	-1.210	-1.636	18	.119
	T2 - T3	2.647	2.010	16	.062
CORA	**T1 - T2**	12.000	2.721	18	.014
	T2 - T3	15.647	2.746	16	.014
SES	**T1 - T2**	3.895	2.750	18	.013
	T2 - T3	3.000	2.905	16	.010

The above table documents within-subject changes in the delayed group. The GAF was the only measure that showed a change pattern equivalent to Study 1. The GHQ, SES and CORE-OM showed significant improvements across the whole time period. Changes in the other measures failed to reach significance at any time point.

3.4.0 Discussion

The findings from Study 2 demonstrate a statistically significant improvement in the mental health of participants who attended a STEPS course. However, there was no statistically significant improvement in the self-esteem of participants attending the course. These findings were consistent for full information and imputed data (N=42). Improvement in mental health scores for the intervention group was as follows: baseline scores at T1 improved following treatment at T2 and were maintained by T3. For the delayed intervention group, baseline score at T1 improved without treatment at T2 and improved further following treatment at T3. Statistical analysis shows that improvement over time was as a result of the treatment effect and anticipatory effect.

3.4.1 Reasons for differing results to Study 1

The strengths and weaknesses outlined in Study 1 also apply to this study. Additional strengths in Study 2 include: one researcher collecting the data at each time point (DF), the number of participants in the study was greater and it was not necessary to do an analysis of co variants. Additional weaknesses: While DF had been instructed to encourage participants to attend the STEPS course in both studies by Study 2 she had attended a STEPS course herself; this may explain the positive shift in scores on all measures for the delayed intervention group. The improvement between T1 and T2 in the delayed treatment group could be due to an expectancy effect which is discussed in detail in Chapter 4.

Chapter Four

4.0 Discussion

4.1 The aim of this research project

The aim of this research project was to apply STEPS to a heterogeneous sample of the adult population taken from primary care and the community. The objective was to evaluate the impact of STEPS on the mental health and self-esteem of patients experiencing psychological problems in primary care settings. As discussed in the introduction, a major limitation to providing mental health treatments in primary care is the difficulty in identifying need. This study represents an alternative approach to the traditional one of improving primary care detection; testing instead, a treatment model that might not be dependent upon diagnostic criteria for its effective application.

Findings from the trial suggest STEPS is an effective treatment for improving mental health and self-esteem of participants in Study 1 and improvement in the mental health of participants in Study 2. However, there was evidence of additional influences prior to intervention for participants in the delayed treatment arm in Study 2 compared to those in Study 1. This chapter will examine the results from Study 1 and 2 in more detail and present supporting evidence to establish that the improvement in patient mental health and self-esteem was in fact due to attending a STEPS course.

4.2 Major findings of this thesis

Participants in the STEPS trial reported high rates of psychosocial adversity and psychopathology that were pervasive across several areas of wellbeing, persistent over time and for a minority may even have been life-threatening.

The results from Study 1 suggest that on completion of STEPS, the mental health and self-esteem of participants had improved. The results of Study 2 also suggest that on completion of STEPS, the mental health of participants improved. Given the small study size subgroup analyses were not possible so the caseness of individual subjects has not been specifically reported in either study. However, the mean initial score of the GHQ was well above the usual caseness threshold, and the mean final scores well below, suggesting

that sufficient improvement was obtained to significantly alleviate the subjects' presenting symptoms, thus moving participants from a clinical to a sub-clinical status.

The results of Study 2 also suggest that participants' self esteem remained stable on all self-esteem measures but the SES, which may have been due to the sample size being too small to ensure consistent randomization of unobserved variables between the two studies. Additionally, the mental health of participants in the delayed intervention group in Study 2 improved prior to treatment and improvement was greater than the intervention group on completion of STEPS. Several researchers have noted statistically reduced depressive symptoms in delayed controls prior to treatment (Brown & Lewinsohn; 1984; Hogg & Deffinbacher, 1988). However, this does not explain why the mental health and SES scores of participants in the delayed intervention group in Study 1 did not improve in line with the participants in the delayed intervention group in Study 2. One explanation for this phenomenon may be the expectancy effect.

4.3 The expectancy effect

Expectancy responses have been shown to impact on a range of conditions such as anxiety disorders, depression, substance abuse, sexual dysfunction and pain management (Meyer et al., 2002). Specific treatments for these conditions have also been shown to be influenced by patient expectancies. When the patient has a positive expectancy response, lasting change in symptom relief that is corroborated by physiological changes has been found. Meyer and colleagues (2002) studied 151 patients diagnosed with major depression, age 21 to 60 years. Patients were randomised into three groups of 12 sessions over 15 weeks of CBT, imipramine and clinical management and placebo and clinical management. Findings showed that patients' expectancies of therapeutic outcome prior to intervention predicted positive clinical outcome (Meyer et al., 2002). As a result of the work in this field, encouraging positive expectancies in patients seeking psychotherapy is advocated as good practice. For depressed patients, disturbance in motivation may require treatment outcome expectation to be developed in the early stages of therapy to assist in the engagement process (Meyer et al., 2002).

Prior to collecting data, DF was instructed to encourage participants to take part in STEPS. In Study 1 a student and DF collected the data at T1, in Study 2 DF collected all the data.

Additionally, by Study 2 DF had attended STEPS as a means of understanding course content and process. This may have inadvertently resulted in DF promoting STEPS more enthusiastically to participants in Study 2 than participants in Study 1. The improvement in mental health and SES scores of participants in Study 2, pre- and post-treatment compared to participants in Study 1 may demonstrate participant behaviour consistent with the literature in relation to the expectancy effect.

4.4 Putting STEPS in context

Outlined in Chapter 1 are the twelve teaching units of STEPS and a discussion on how each unit relates to self-esteem theory. The following section considers which components of STEPS are similar to other therapeutic interventions and which are specific to STEPS alone.

4.5 The value of the facilitator

A trained facilitator delivers STEPS in group settings, which is a common mode of therapeutic service delivery in psychotherapy, cognitive behaviour therapy (CBT) and parent training (McDermut, Miller & Brown, 2001, Jones et al., 2007). Parenting Training is an adult-based treatment designed for the management of non-compliant child behaviours (Jones et al., 2007). The role of the facilitator is to deliver the contents of the course as per the instructions in the STEPS teaching manual, provide clarification, encourage group discussion and assign behavioural homework. This method of group therapy is also practiced in CBT and parent training (Mc Dermut, Miller & Brown, 2001; Jones et al., 2007).

The founder of STEPS, Lou Tice, delivers the main teaching principles and methods via video tapes which are played to the group by the facilitator. This approach is also used in Webster-Stratton's version of parenting training (Jones et al., 2007).

4.6 Similarities and differences between STEPS and CBT

The therapeutic model that is most similar to STEPS in content and execution is Cognitive Behaviour Therapy (CBT). The following section discusses the similarities and differences between STEPS and CBT.

Both the STEPS and CBT model stress the importance of early conditioning in the development and maintenance of belief systems. The concept of individuals possessing the power to shape their own thoughts, beliefs and future by altering self-talk and examining patterns of thinking is common to STEPS and CBT. Not all thoughts are easily accessible though; in STEPS these are known as blind spots whereas CBT refers to them as core beliefs. Imagery is used in STEPS and CBT to rehearse activities and forthcoming events that may be difficult to negotiate. The goal setting component of STEPS is consistent with CBT. However, in CBT the process of working through the specific stages of reaching a goal is taught, while in STEPS participants are actively discouraged from thinking about this and are instructed to concentrate on developing detailed images of the desired goal accompanied by positive affect and supporting affirmations. The use of homework assignments to practice the skills taught in the sessions are central to both treatments (The Pacific Institute, 1997; Jacobson, et al., 1996).

According to the STEPS model the conscious, subconscious and creative subconscious work together to resist change, while CBT theory argues that dysfunctional stable core beliefs are responsible for this phenomenon. STEPS teaches goal identification and visualisation with supporting affirmation and positive affect in the absence of a method for reaching the goal (The Pacific Institute, 1997; Jacobson, et al., 1996). As a psychological treatment, this component of the theory and practice is specific to STEPS.

Previous studies have demonstrated the behavioural components of CBT are responsible for bringing about change both generally and specifically in depression (Jacobson et al., 1996). The composition of STEPS includes a variety of behavioural components such as listening to supportive audio tapes, the identification of written goals and affirmations which are practiced aloud whilst simultaneously visualising the desired goal. Therefore, it is likely that the behavioural component of STEPS is responsible for therapeutic change in this trial rather than the cognitive approaches which differ between the two models.

4.7 Relating the findings from the STEPS trial to the literature

Depression is the most common psychiatric disorder seen in primary care (OPCS, 1995) and Chapter 1 examines a variety of treatment options available for this group of patients. The

previous section argues the treatment most similar in content and execution to STEPS is group CBT so the following section will consider the literature in relation to this area.

There are a number of difficulties in comparing the outcomes of other studies with the findings from the STEPS trial. Firstly, most studies relate to individual CBT interventions rather than group CBT treatment programmes. Secondly, the majority of comparable trials refer to homogeneous groups, so the outcomes of these studies cannot be generalised to a heterogeneous population. Not one study was found with entry criteria exactly the same as that used in the STEPS trial, i.e. adult participants with undiagnosed psychological symptoms who referred themselves or had been referred by primary care staff for group psychological intervention. The STEPS trial is unique in that it avoided using caseness cut-off or clinical diagnosis to determine entry to a trial for group psychological treatment.

Peterson and Halstead (1998) noted that the use of restrictive inclusion criteria used in most trials means that their findings can only be generalised to about 20 percent of the clinical population. In an effort to address this issue, these authors used less selective criteria to examine group CBT and recruited 138 adults from community mental health settings diagnosed with five separate categories of depression according to DSM-IV (1994). Co-morbidity was categorized using Axis I mental disorder =10% Axis II personality disorder 6% Axis III medical disorders 2.2%. Patients diagnosed with bipolar and psychotic disorders were excluded from the study. Treatment consisted of six two hour sessions of manualized group CBT. Results showed group CBT to be an effective intervention for this population although magnitude of effect was less 38% compared to research settings' 57% (Peterson and Halstead (1998).

Craig, Judd and Hodgins (2005) examined the impact of group CBT for post natal depression (PND) in rural settings. A clinical psychologist provided a one day group CBT training session for health workers. The health workers then delivered manualized group CBT over nine sessions to fourteen women in two centres. All the women had a baby less than 12 months old and reported depressive symptomatology Findings from the study demonstrated a significant reduction in scores on all measures post treatment and at six week and three month follow-up. This study suggests that non professional staff may be trained to deliver group CBT for PND.

Enns, Cox and Pidlubny (2002) investigated the impact of a manualized 12 week, group CBT intervention delivered by clinical nurses. The target group were patients experiencing residual depression, a condition that is common following an episode of major depression. The study consisted of 75 patients who met diagnostic criteria for DSM-IV major depression in the previous 18 months and who continued to have residual symptoms. All the patients in the trial had been treated with at least one course of antidepressant medication and continued to adhere to pharmacological intervention throughout the study. Results showed significant improvement in residual depressive symptoms and functional status on completion of treatment.

A review of 48 empirical studies of group therapy, 47 of which were CBT based, concluded that group therapy is as effective as individual therapy (McDermut, Miller & Brown, 2001). Patterson and Halstead (1998) found that group therapy was only 8-17% of the cost of individual therapy and has similar drop-out rates. McDermut et al. (2001) argue that group therapy should be used as a first line intervention in a step-care model of service delivery, with individual therapy and medication being available as second line interventions.

The above section argues that manualized group CBT is an efficacious and cost effective treatment for depressed patients in primary care (McDermut et al., 2001). Costs are reduced by treating patients in groups rather than individually and using non professional staff to facilitate service delivery (Craig, Judd & Hodgins, 2005). Findings from the STEPS trial also demonstrate an improvement in the mental health of participants on completion of treatment. Similarly, STEPS is a manualized intervention that is delivered in groups and non professional mental health staff can be trained to facilitate treatment programmes effectively. However, the STEPS trial was unique in that it examined a heterogeneous group of patients presenting with psychological problems in primary care and avoided using diagnostic categorisation to determine inclusion or exclusion criteria as a gateway to treatment. Therefore, findings from the trial demonstrate that STEPS has a unique advantage over other interventions because it could provide treatment solutions for 'heartsink' patients and cases of hidden morbidity in primary care settings.

4.8 Putting the method in context

The strengths and weaknesses of experimental designs in general will be outlined and followed by a discussion of how these weaknesses were managed in the STEPS trial. This will be followed by a discussion of the remaining strengths and weaknesses of the trial.

4.8.1 Randomised controlled trials

Randomised control trials (RCT) are the gold standard by which all trials are judged. Randomization is the process by which participants are assigned to intervention and control groups in parallel studies. There are a number of advantages to randomized designs: firstly, allocating participants to intervention or control condition removes bias. Secondly, randomization ensures groups are comparable, while any unobserved differences that do occur are distributed evenly between the intervention and control condition, guaranteeing the validity of statistical tests of significance.

4.8.1.1 Randomised Control Trials and Ethics

Clinicians may object to their patients being denied access to a treatment they belief to be efficacious even when the validity of that treatment has not yet been proven. This is an error on the part of the clinicians as treatment efficacy cannot be established until the results of the RCT have been analysed. Patients may also object to the lack of choice inherent in RCT, while the placebo group will have the task of completing multiple questionnaires for no therapeutic gain (Friedman, Furberg & DeMets, 1998).

STEPS participants were randomised into the intervention or delayed condition. A cross-over design was used which has several advantages over a parallel design. Firstly, between-participant variability was removed by using within participant comparisons to measure treatment effects which allows smaller sample sizes to detect response. Secondly, cross-over designs require only half the number of participants which makes the trial more economical to run. Thirdly, as the intervention and delayed intervention groups did not receive the treatment in the same order the problem of differences between treatments being confounded with other changes over time was avoided. Fourthly, on completion of the study all the participants had received the treatment thus resolving the ethical issues

arising from parallel designs. There are several disadvantages to cross-over studies: firstly, they are not full factorial designs, therefore not all combinations of factors are used so main effects are confounded with two factor interactions. In Study 1 and 2 this was not an issue as group and time were defined in terms of treatment which provided no additional information. Secondly, cross-over designs require the participants to be available for twice as long as would be necessary in a parallel study but on completion of the study all participants will have received treatment.

4.8.2 Bias

Issues of bias in clinical trials are of central concern to investigators. Bias may occur at the conscious and / or subconscious level, at any stage during the course of the trial. Designing studies where the investigator and / or participant is unaware of which condition the participant is assigned to, reduces bias and is known as a blind condition. However, it is not always possible to do this in surgical, medical and psychological interventions for example because patients are aware of the treatments they are getting. Un-blind designs are less expensive to carry out and may reflect clinical practice more accurately but participants who know they are assigned to the control group may drop out of the trial (Friedman, Furberg & DeMets, 1998). The design of the STEPS trial did not allow the participants to be blind to which group they were assigned to. In addition, while DF was blind initially to which arm of the study participants were assigned to when collecting the data, it was not possible for her to remain blind throughout the study's duration, as participant disclosure was common.

4.8.3 Subgroup analysis

Patients entered into clinical trials can respond differently to treatments and this may result in specific groups of patients finding the treatment harmful. If this were the case the investigator would have an ethical and scientific duty to report the findings. However, there are a number of problems in identifying subgroups: firstly, the majority of studies have only enough power to manage main effect differences, so the detection of most subgroups is likely to be missed. Secondly, with so many baseline variables and a lack of clarity to which subgroups may respond to treatment in the early stages of the trial, investigators run the risk of identifying a post hoc response in the final analysis (Pocock et al., 2002). So, subgroup analyses were limited to the exclusion of subgroups that might have biased the

main results. In Study 1 the professionals had significantly different mental health to the non-professionals. Further analysis of non-professionals alone showed a similar treatment effect with less strong p value, due to the smaller group sizes. As professionals and non-professionals had similar responses to the intervention, it was therefore reasonable to keep the professionals in for the rest of the analyses, but any residual impact controlled by inclusion of professional/non-professional as a covariate.

For Study 2 it was possible to use a more sophisticated analysis because there was more than one measure of mental health. It was not possible to use the professionals as a proxy for people who were not mentally ill in Study 2 because the professionals had similar mental health profiles as the non professionals. As the GHQ and CORE-OM are both self-rated the GHQ could be used to define those participants who did not have major mental health problems (non-cases) and then use the CORE-OM as an alternative symptomatology measure. The findings showed that the non-cases had similar symptomatic responses to the intervention as the cases, the only differences being ascribable to the smaller sample size. Thus, inclusion of non-cases in the analyses of Study 2 was also reasonable. It was not appropriate to combine Studies 1 and 2 given the evidence for an expectancy effect (see above) in Study 2 only, which implies that the two interventions differed systematically.

4.8.4 The efficacy paradox

There is an assumption that the only valuable component of an intervention in clinical trials is the specific effect, but this is not necessarily so. Change is evaluated by examining the scores on the measures used in a trial. However, change can have four components: random variability or error, regression to the mean, placebo effect (i.e. non specific effects which occur by changing the system) and the beneficial effect of the treatment. It is conventional to talk about the effectiveness of the treatment as the sum of all four parts. Efficacy is a single component of the treatment and not solely responsible for the beneficial impact. The efficacy paradox arises in situations were a condition is known to have a high rate of positive response to a non-specific component i.e. placebo intervention. Therefore, in these situations it is possible for an efficacious treatment, demonstrated by a RCT, to be a less effective intervention than a non specific treatment if the RCT that established its efficacy excluded non-specific effects form the intervention (Walach et al., 2006)

Even though efficacy was not demonstrated conclusively in the STEPS trial, the intervention was effective and from the patients' perspective, effectiveness is what matters.

4.8.5 Additional strengths and weaknesses of the STEPS trial

Additional strengths included, firstly, that the trial used a heterogeneous sample which means that caseness cut offs and / or diagnosis was not a pre-requisite to treatment. This is important in primary care as physicians lack the skill to identify psychiatric illness in 45-90 % of cases (Linden, 1999). Secondly, the measures used were validated and had been proven reliable, sensitive and accurate in previous studies. Thirdly, STEPS is a standardized and manualized intervention. Previous studies have demonstrated manualized interventions are effective in group psychological treatments (Peterson & Halstead, 1998) reducing drift, therapist idiosyncratic behaviour and allowing for true comparisons during the experimental stage

Additional weaknesses included firstly that despite Study 1 and 2 being of similar size, in Study 2 the self-esteem measures failed to show significant improvement, with the exception of the S.E.S. For Study 1 DF and a researcher administered the measures at T1. DF administered all measures at each time point for the remainder of the trial. Therefore, there are two possible explanations for the difference in the outcomes on the self-esteem measures between Study 1 and 2: either data collection or population differences. The mental health scores of the populations were similar for the two studies so researcher differences are likely to have produced the effect, which must have been due to unobserved variables differing between the two studies. Secondly, DF had been instructed to encourage participants to attend the STEPS course in both studies; however, by Study 2 she had attended a STEPS course herself in order to gain insight into the STEPS process. Thirdly, in Study 1 DF and a student were responsible for collecting data at T1, in Study 2 DF alone collected data. It is impossible to tell which of all these influences is responsible for the expectancy effect. Fourthly, sample size was not large enough to tease out individual diagnostic groups however; as the intention was to measure the impact of STEPS on a heterogeneous group in primary care this decision was justifiable.

4.8.5.1 Antidepressant medication

The assessment form recorded information relating to prescribed psychiatric medication under the categories of never, current, history, current / history. There was no specific examination of the use of antidepressants medication, dosage and whether participants started, stopped, increased or decreased antidepressant treatment during the trial. However, as participants could have stopped taking their antidepressants in response to an improvement in their mental state as a result of attending STEPS, or they may have attended STEPS as an alternative to medication the significance of changes in medication would be impossible to evaluate.

4.8.5.2 Combining studies

It was not possible to combine the results of the trial because the conditions in Study 1 and 2 were not the same. As mentioned above, a researcher was used in Study 1 but not Study 2, DF attended a STEPS course prior to Study 2 and additional measures were used in Study 2.

However, the proportion of non-cases (7/33, 21%) for Study 1 and (11/42, 26%) for Study 2 did not differ significantly (p=.61) and there were no professionals in Study 2 so the changes in the results between Studies 1 and 2 could not possibly have been due to the inclusion of the professionals in the trial. Furthermore, an analysis of covariates found the influence of professionals attending STEPS for experiential purposes was non-significant.

4.9 Future studies of STEPS

Findings from the STEPS trial are encouraging and certainly warrant future investigation. The following section suggests how the original design may be modified in the light of these results to develop further knowledge in this area. Firstly, while the effects in relation to SES was robust in both Study 1 and 2, the other self-esteem scales were less so, probably as a result of small sample size which led to different frequencies of unobserved variables between Study 1 and 2. Future studies will be able to use baseline data from the STEPS trial to calculate the sample size necessary so all the self-esteem measures originally employed may be used and insensitivity avoided in the future. Secondly, the GHQ measures psychopathology in the community. Future researchers may be interested in

exploring diagnostic composition by using the same population but employing measures that are specifically designed to identify caseness in anxiety and depression. Thirdly, data collected regarding participant background characteristics suggested high levels of psychosocial adversity. This would imply further exploration is required in this area, with regard to the level and impact of disability and quality of life in general. The findings from Study 2 suggested an expectancy effect, so, future studies should include questionnaires designed to measure this construct specifically. Fourthly, blindness was an issue in the STEPS trial as participants would invariably disclose their group status to the researcher. This could be avoided in future by using two researchers, one to prime the participants and another to facilitate data collection via postal questionnaires. Fifthly, while participants in the intervention arms for Study 1 and 2 maintained treatment effects at T3, it is unknown whether these effects were persistent over a longer time periods. Future research should build in follow-up studies at 6 and twelve month intervals to address this issue. Finally, the expectancy effect that may have occurred in Study 2 is consistent with the literature and demonstrates the importance of promoting positive treatment expectancies. In the future it is recommended that findings from Study 1 and Study 2 should be made available to STEPS participants prior to intervention as a means of elevating treatment expectancy in order to produce additional positive outcomes other than those produced by STEPS alone.

4.10 Conclusion

Findings from the STEPS trial demonstrate positive change to the mental health of participants referred to the course, at least in the short-term, which points towards utility. Furthermore, the possible expectancy effect seen in Study 2 reveals the importance of promoting patients' expectancies prior to intervention as a means of harnessing best possible treatment outcomes.

STEPS produced improvement in patients' mental health irrespective of diagnosis. Therefore, the provision of STEPS courses in primary care settings for patients experiencing psychological problems may address the issue of misdiagnosis and reduce the burden of care on primary care services.

STEPS is delivered in groups and facilitators do not require prior professional training. This opens the possibility of STEPS being delivered in a number of community settings by

facilitators from a variety of backgrounds. Quality control could be effectively maintained via the video teaching component of the course and facilitator adherence to the manual, which in turn would provide consistency of standards.

Finally, the questions on the GHQ are designed to tap into feelings and mood, with high scores indicating mental ill-health. However, there will be a number of participants attending the STEPS course whose mental health improved because the intervention elevated feelings and mood rather than cured illness. If this is so, in addition to treatment of affective disorders, STEPS may have an important preventative role in primary care.

.

Appendix

Assessment Form

General Health Questionnaire 12 (GHQ 12)

The Adult Hope Scale

Self-esteem Scale

Texas Social Behavior Inventory (TSBI)

Adult Norwicki-Strickland Internal External Control Scale (ANSIE)

General Assessment of Functioning Scale (GAF)

Clinical Outcomes Routine Evaluation Outcome Measure (CORE-OM)

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Assessment Form

Date of assessment

Participant number

Referrers: Name

Designation

Address

Name of GP

Address

Postcode

Telephone number

Patient name

D.O.B

Address

Postcode

Telephone number

Mobile number

Occupation

Married / single / divorced / widowed / cohabit

Ethnicity

Special needs

Reason for attending course

Physical Health

Has the patient a history of physical illness that required/requires ongoing treatment from:

	Y/N	DATE OF ONSET	DURATION OF ILLNESS	DIAGNOSIS	NAME,DOSAGE AND DURATION OF DRUG TREATMENT	NAME AND DURATION OF ANY OTHER TREATMENT
GP						
Outpatient department						
Admission to Hospital						

Mental Health

Has the patient a history of mental illness that required/requires ongoing treatment for:

	Y/N	DATE OF ONSET	DURATION OF ILLNESS	NAME, DOSAGE AND DURATION OF DRUG TREATMENT	NAME AND DURATION OF ANY OTHER TREATMENT	IN/ OUT PT
Anxiety						
Depression						
Post- natal depression						
Post-traumatic stress disorder						
Eating disorder						
Obsessive-Compulsive Disorder						
Bipolar-disorder						
Schizophrenia						
Personality disorder						
Alcoholism						
Drug dependency						
Self-harm						

Suicide attempts						

Children

NAME OF CHILD	D.O.B	BIOLOGICAL	STEP	FOSTERED	ADOPTED	C.P.T DATES

Have any of the children a history of: physical, behavioural, emotional or learning difficulties

NAME OF CHILD	PHYSICAL	BEHAVIOURAL	EMOTIONAL	LEARNING DIFFICUTIES	TREATMENT	IN/ OUT PT

Has the patient attended a parenting course?

WHO ATTENDED ?	Y/N	DATE OF COURSE	DURATION OF COURSE	NO. OF SESSIONS ATTENDED
MOTHER				
FATHER				
CAREGIVER/OTHER				

Social

Has the patient experienced;

	Y/N	DATE	POLICE INVOVMENT	OUTCOME
DOMESTIC VIOLENCE				
CRIMINAL BEHAVIOUR TOWARDS THEMSELVES OR THEIR PROPERTY				
SEXUAL ABUSE				

Has the patient ever been in trouble with the police?

	Y/N	DATE	DURATION
CAUTION			
CONVICTION			
PROBATION			

IMPORTANT - PLEASE READ THIS FIRST

This form has 34 statements about how you have been OVER THE LAST WEEK.
Please read each statement and think how often you felt that way last week.
Then tick the box which is closest to this.
Please use a dark pen (not pencil) and tick clearly within the boxes.

Over the last week	Not at all	Only Occasionally	Sometimes	Often	Most or all the time	OFFICE USE ONLY
1 I have felt terribly alone and isolated	0	1	2	3	4	F
2 I have felt tense, anxious or nervous	0	1	2	3	4	P
3 I have felt I have someone to turn to for support when needed	4	3	2	1	0	F
4 I have felt O.K. about myself	4	3	2	1	0	W
5 I have felt totally lacking in energy and enthusiasm	0	1	2	3	4	P
6 I have been physically violent to others	0	1	2	3	4	R
7 I have felt able to cope when things go wrong	4	3	2	1	0	F
8 I have been troubled by aches, pains or other physical problems	0	1	2	3	4	P
9 I have thought of hurting myself	0	1	2	3	4	R
10 Talking to people has felt too much for me	0	1	2	3	4	F
11 Tension and anxiety have prevented me doing important things	0	1	2	3	4	P
12 I have been happy with the things I have done.	4	3	2	1	0	F
13 I have been disturbed by unwanted thoughts and feelings	0	1	2	3	4	P
14 I have felt like crying	0	1	2	3	4	W

50

41
Serious symptoms (SI severe OC rituals, shoplifting)
Serious impairment in social, work or school fxn (no friends, unable to keep a job)

40

31
Some impairment in reality testing or communication (illogical, obscure, irrelevant speech)
Major impairment in several ADLS (avoiding support, neglecting responsibilities, unable to work, defensive, failing in school)

30

21
Behaviour considerably influenced by delusions or hallucinations (incoherent, inappropriate, suicidal preoccupation)
Inability to function in almost all circumstances (in bed all day, no job, home or friends) serious impairment in communication or judgement

20

11
Some degree of hurting self or others (suicide attempt without clear expectation of death, manic excitement, freq, violence)
Occasional failure to maintain hygiene (smearing faeces) gross impairment of communication (incoherent or mute)

10

1
Persistent danger of severely hurting self or others (recurrent violence, SA with clear expectation of death)
Persistent inability to maintain minimum personal hygiene

0
Inadequate information

GAF Scale (Axis V)

100

91
Superior functioning.
Better than the average bear!

90

81
Absent or minimal symptoms, good functioning in all areas, generally satisfied.
No more than everyday concerns, arguments.

80

71
Symptoms are transient and expectable to stressors.
Temporary and slight impairment in social, work or school fxn.

70

61
Some mild symptoms (depressed mild insomnia, occ. truancy or theft in the household)
Some difficulty in social, work or school fxn, but generally O.K. and with meaningful relationships.

60

51
Moderate symptoms (flat affect, circumstantial speech, occ. panic attacks)
Moderate difficulty in social, work or school fxn (few friends, conflicts with peers)

31. Most of the time do you find it useless to try to get your own way at home?

Yes ☐ No ☐

32. Do you feel that when good things happen they happen because of hard work?

Yes ☐ No ☐

33. Do you feel that when somebody your age want to be your enemy there's little you can do to change matters?

Yes ☐ No ☐

34. Do you feel that it's easy to get friends to do what you want them to do?

Yes ☐ No ☐

35. Do you usually feel that you have little to say about what you get to eat at home?

Yes ☐ No ☐

36. Do you feel that when someone doesn't like you there's little you can do about it?

Yes ☐ No ☐

37. Did you usually feel that it was almost useless to try in school because most other children were just plain smarter than you?

Yes ☐ No ☐

38. Are you the kind of person who believes that planning ahead makes things turn out better?

Yes ☐ No ☐

39. Most of the time, do you feel that you have little to say about what your family decides to do?

Yes ☐ No ☐

40. Do you think it's better to be smart than to be lucky?

Yes ☐ No ☐

21. If you find a four-leaf clover, do you believe that it might bring you good luck?

Yes ☐ No ☐

22. Did you often feel that whether or not you did your homework had much to do with the kind of grades you got?

Yes ☐ No ☐

23. Do you feel that when a person your age is angry at you, there's little you can do to stop him or her?

Yes ☐ No ☐

24. Have you ever had a good luck charm?

Yes ☐ No ☐

25. Do you believe that whether or not people like you depends on how you act?

Yes ☐ No ☐

26. Did your parents usually help you if you asked them to?

Yes ☐ No ☐

27. Have you felt that when people were angry with you it was usually for no reason at all?

Yes ☐ No ☐

28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?

Yes ☐ No ☐

29. Do you believe that when bad things are going to happen, they just are going to happen no matter what you try to do to stop them?

Yes ☐ No ☐

30. Do you think that people can get their own way if they just keep trying?

Yes ☐ No ☐

11. When you get punished, does it usually seem it's for no good reason at all?

Yes ☐ No ☐

12. Most of the time, do you find it hard to change a friend's opinion (mind)?

Yes ☐ No ☐

13. Do you think that cheering more than luck helps a team to win?

Yes ☐ No ☐

14. Did you feel that it was nearly impossible to change your parents' minds about anything?

Yes ☐ No ☐

15. Do you believe that parents should allow children to make most of their own decisions?

Yes ☐ No ☐

16. Do you feel that when you do something wrong, there's very little you can do to make it right?

Yes ☐ No ☐

17. Do you believe that most people are just born good at sports?

Yes ☐ No ☐

18. Are most people of your age stronger than you are?

Yes ☐ No ☐

19. Do you feel that one of the best ways to handle most problems is just not to think about them?

Yes ☐ No ☐

20. Do you feel that you have a lot of choice in deciding who your friends are?

Yes ☐ No ☐

ADULT NOWICKI-STRICKLAND INTERNAL EXTERNAL CONTROL SCALE

1. Do you believe that most problems will solve themselves if you just don't fool with them?

   Yes ☐ No ☐

2. Do you believe that you can stop yourself from catching a cold?

   Yes ☐ No ☐

3. Are some people just born lucky?

   Yes ☐ No ☐

4. Most of the time, do you feel that getting good grades meant a great deal to you?

   Yes ☐ No ☐

5. Are you often blamed for things that just aren't your fault?

   Yes ☐ No ☐

6. Do you believe that if somebody studies hard enough, he or she can pass any subject?

   Yes ☐ No ☐

7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?

   Yes ☐ No ☐

8. Do you feel that if things start out well in the morning, it's going to be a good day no matter what you do?

   Yes ☐ No ☐

9. Do you feel that most of the time parents listen to what their children have to say?

   Yes ☐ No ☐

10. Do you believe that wishing can make good things happen?

    Yes ☐ No ☐

A NOT AT ALL CHARACTERISTIC OF ME	B NOT VERY	C SLIGHTLY	D FAIRLY	E VERY MUCH CHARACTERISTIC OF ME

12. When I meet a stranger, I often think that he is better than I am.	A	B	C	D	E
13. It is hard for me to start a conversation with strangers.	A	B	C	D	E
14. People see naturally to turn to me when decisions have to be made.	A	B	C	D	E
15. I feel secure in social situations.	A	B	C	D	E
16. I like to exert my influence over other people.	A	B	C	D	E

13. I would rather not have very much responsibility for other people.	A	B	C	D	E
14. I feel comfortable being approached by someone in a position of authority.	A	B	C	D	E
15. I would describe myself as indecisive.	A	B	C	D	E
16. I have no doubts about my social competence.	A	B	C	D	E

A	B	C	D	E
NOT AT ALL CHARACTERISTIC OF ME	NOT VERY	SLIGHTLY	FAIRLY	VERY MUCH CHARACTERISTIC OF ME

1. I would describe myself as socially unskilled.	A	B	C	D	E
2. I frequently find it difficult to defend my point of view when confronted with the opinions of others.	A	B	C	D	E
3. I would be willing to describe myself as a pretty "strong" personality.	A	B	C	D	E
4. When I work on a committee I like to take charge of things.	A	B	C	D	E
5. I usually expect to succeed in the things I do.	A	B	C	D	E
6. I feel comfortable approaching 7. someone in a position of authority to me.	A	B	C	D	E
8. I enjoy being around other people, and seek out social engagements frequently.	A	B	C	D	E
9. I feel confident of my social behaviour.	A	B	C	D	E
9. I feel I can confidently approach and deal with anyone I meet.	A	B	C	D	E
10. I would describe myself as happy.	A	B	C	D	E
11. I enjoy being in front of large audiences.	A	B	C	D	E

8. I wish I could have more respect for myself.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree
9. I certainly feel useless at times.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree
10. At times I think I am no good at all.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree

Texas Social Behavior Inventory

	A NOT AT ALL CHARACTERISTIC OF ME	B NOT VERY	C SLIGHTLY	D FAIRLY	E VERY MUCH CHARACTERISTIC OF ME
1. I am not likely to speak to people until they speak to me.	A	B	C	D	E
2. I would describe myself as self-confident.	A	B	C	D	E
3. I feel confident of my appearance.	A	B	C	D	E
4. I am a good mixer.	A	B	C	D	E
5. When in a group of people, I have trouble thinking of the right things to say.	A	B	C	D	E
6. When in a group of people, I usually do what the others want rather than make suggestions.	A	B	C	D	E
7. When I am in disagreement with other people, my opinion usually prevails.	A	B	C	D	E
8. I would describe myself as one who attempts to master situations.	A	B	C	D	E
9. Other people look up to me.	A	B	C	D	E
10. I enjoy social gatherings just to be with people.	A	B	C	D	E
11. I make a point of looking other people in the eye.	A	B	C	D	E
12. I cannot seem to get others to notice me.	A	B	C	D	E

The Adult State Hope Scale

Directions: Read each item carefully. Using the scale shown below, please select the number that best described *how* you think about yourself right *now* and put that number in the blank before each sentence. Please take a few moments to focus on yourself and what is going on in *your life at this moment*. Once you have this "here and now" set, go ahead and answer each item according to the following scale:

1 = Definitely False
2 = Mostly False
3 = Somewhat False
4 = Slightly False
5 = Slightly True
6 = Somewhat True
7 = Mostly True
8 = Definitely Tue

___ 1. If I should find myself in a jam, I could think of many ways to get out of it

___ 2. At the present time, I am energetically pursuing my goals.

___ 3. There are lots of ways around any problem that I am facing now.

___ 4. Right now, I see myself as being pretty successful.

___ 5. I can think of many ways to reach my current goals.

___ 6. At this time, I am meeting the goals that I have set for myself.

Self-Esteem Scale

1. I feel that I am a person of worth, at least on an equal basis with others.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree
2. I feel that I have a number of good qualities.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree
3. All in all, I am inclined to feel that I am a failure.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree
4. I am able to do things as well as most other people.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree
5. I feel I do not have much to be proud of.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree
6. I take a positive attitude toward myself.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree
7. On the whole, I am satisfied with myself.	1. Strongly Agree	2. Agree	3. Disagree	4. Strongly Disagree

7

Thank you for agreeing to participate in our small research project evaluating the STEPS course. Please complete the following questions and return the questionnaire to our researcher. If you need any assistance then please ask the researcher for help.

Name **Address**

GP's name **GP's address**

Please read this carefully:

We should like to know if you have had any medical complaints and how your health has been in general over the past few weeks. Please answer ***all*** the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer ***all*** the questions.

Have you recently:

GHQ 12

1.	been able to concentrate on whatever you are doing?	Better than usual	Same as usual	Less than usual	Much less than usual
2.	lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
3.	felt you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
4.	felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
5.	felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
6.	felt you couldn't overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
7.	been able to enjoy your normal day to day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual
8.	been able to face up to your problems?	More so than usual	Same as usual	Less able than usual	Much less than usual
9.	been feeling unhappy and depressed?	Not at all	No more than usual	Rather more than usual	Much more than usual
10.	been losing confidence in yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
11.	been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
12.	been feeling reasonably happy, all things considered?	More so than usual	About the same as usual	Less so than usual	Much less than usual

PRISON SENTENCE			
REHABILITATION			

Are there any other professionals involved with the family? Y/N

Name and designation of professionals

Over the last week

		Not at all	Only occasionally	Sometimes	Often	Most or all the time	OFFICE USE ONLY
15	I have felt panic or terror	0	1	2	3	4	P
16	I made plans to end my life	0	1	2	3	4	R
17	I have felt overwhelmed by my problems	0	1	2	3	4	W
18	I have had difficulty getting to sleep or staying asleep	0	1	2	3	4	P
19	I have felt warmth or affection for someone	4	3	2	1	0	F
20	My problems have been impossible to put to one side	0	1	2	3	4	P
21	I have been able to do most things I needed to	4	3	2	1	0	F
22	I have threatened or intimidated another person	0	1	2	3	4	R
23	I have felt despairing or hopeless	0	1	2	3	4	P
24	I have thought it would be better if I were dead	0	1	2	3	4	R
25	I have felt criticised by other people	0	1	2	3	4	F
26	I have thought I have no friends	0	1	2	3	4	F
27	I have felt unhappy	0	1	2	3	4	P
28	Unwanted images or memories have been distressing me	0	1	2	3	4	P
29	I have been irritable when with other people	0	1	2	3	4	F
30	I have thought I am to blame for my problems and difficulties	0	1	2	3	4	P
31	I have felt optimistic about my future	4	3	2	1	0	W
32	I have achieved the things I wanted to	4	3	2	1	0	F
33	I have felt humiliated or shamed by other people	0	1	2	3	4	F
34	I have hurt myself physically or taken dangerous risks with my health	0	1	2	3	4	R

THANK YOU FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE