A Social Identity Understanding of Depression: Implications for Onset, Maintenance and Recovery

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1. Abstract

The literature on depression is dominated by theories which focus on individualistic variables, including biological differences, personality, and individual cognition. Whilst the importance of social variables for depression risk and recovery has also been recognised, there has been a notable absence of a unifying theory explaining, how, when, and why they might impact on depression. In recent years, the Social Identity Approach (SIA) – a theoretical framework with roots in social psychology – has been used to provide a new understanding of the role of group processes in depression. The aim of this thesis was to add to a growing body of evidence in support of the SIA to depression by replicating previous findings using a sample, who on average, scored high on a measure of depression symptomology, and by identifying additional mediators of the relationship between social identity processes and depression. Specifically, it was theorised that optimism – a personality variable associated with depression, but traditionally conceptualised as a fixed trait – would vary along with group memberships and mediate the effect of social identity processes on depression. Participants who had experienced depression (N = 288) completed an online survey. It was found that in support of previous research, an increase in group involvement predicted lower depression scores. However, this relationship was mediated by increased optimism. Similarly, identifying more strongly with a specific group predicted depression indirectly through an increase in perceived social support, and increased optimism. For a sub-sample of participants with experience of psychological therapy (N = 135), the negative association between a good therapeutic alliance and depression was serially mediated by increased identification with the therapist, internalisation of the therapist identity between sessions, and increased optimism. The extent to which the therapist was perceived as prototypical of therapists in general also indirectly reduced depression via increased identification with the therapist category, and increased optimism. These findings are discussed in relation to the further development of the social identity approach to depression, with consideration of their implications for onset, maintenance and recovery.

2. Introduction

2.1 Thesis overview

The period of time which directly preceded the start of my doctoral training in clinical psychology can be best described as a time of personal ambivalence. I was filled with excitement at the prospect of working towards a career which I had desired since I started my undergraduate degree. However, I was also consumed with a feeling of regret and sadness at what I was leaving behind. Before applying to train as a clinical psychologist, I spent several years completing a PhD and working as a post-doctoral researcher in the field of social psychology. I was developing a specialist interest in crowd psychology, with particular focus on social identity and group processes in crowds, and my research was starting to bear fruit. I had invested so much into something which I cared for passionately, yet here I was, choosing to close the door on that chapter of my life.

'Choosing to close the door on that chapter of my life'. As I write that now, it seems strange to me that I felt as though a door was closing behind me or that I was walking away. As an undergraduate, I was frequently told by my tutors that I should be on the look-out for opportunities to make links between psychological sub-disciplines, and that attempts to do so would be recognised and rewarded. It was (and remains) an idea that I bought into and valued. Yet as I made the transition from social to clinical psychology, I was somehow blinded to the possibility of taking forward my understanding of social psychological processes into my future work as a clinical psychologist.

That changed during the August of 2012. I was attending what I thought was to be my final annual conference of the British Psychological Society's Social Psychology Section at St Andrew's University, Scotland. As I scanned the conference programme, one oral paper title jumped out at me: *Group identification, social contact, and mental health* (Sani & Wakefield, 2012). My interest was piqued and as I listened to the talk later that day, my excitement grew as I came to realise the potential importance of social identity processes in relation to mental health.
I should not have been surprised by the link between group psychology and mental health. At that time, a body of work was already emerging, which was revealing the

positive impact that group memberships could have on a range of health outcomes (e.g. see Jetten, Haslam, & Haslam, 2012). There were also some hints at the relationship between group processes and psychological outcomes of interest to clinical psychologists, such as responses to stress (e.g. Haslam, O'Brien, Jetten, Vormedal, & Penna, 2005), and survivor resilience following mass emergencies (Drury, 2012). There was even a clinically relevant focus in the work I was involved with at that time – e.g. on the links between group processes and positive psychology in crowds (Novelli, 2010; Novelli, Drury, Reicher, & Stott, 2013), and collective resilience in the face of potential adversity (e.g. Drury, Novelli, and Stott, in press). However, it is with some embarrassment that I admit that I never made the direct link between social psychology and the core interest of clinical psychologists – i.e. mental health.

In recent years, that early trickle of work linking social psychological theory with mental health has turned into a steady stream. Perhaps no more so than in the field of depression research (e.g. Cruwys, Haslam, Dingle, Haslam, & Jetten, 2014a), which is where the work described in this thesis sits. It is hoped that the research described here will make a further contribution to building the bridge between social and clinical psychology, as was called for in a recent review article by Cruwys et al. (2014a), which will be discussed in greater detail later.

This thesis will begin by giving a broad description of depression, including its estimated prevalence, before critically outlining some of the traditional theoretical accounts of its aetiology, and related treatment approaches. The main focus will be on theories which feature predominantly in best-practice guidelines (e.g. National Institute for Health and Clinical Excellence, NICE, 2010), or which speak directly to the core interests of this thesis. Whilst the review will highlight the largely individualised focus of depression theories, an attempt will also be made to bring to the fore the elements of these approaches which have started to consider the social aspects of depression. However, it will be argued that traditional theoretical approaches to depression have many shortcomings when it comes to accounting for the role of social relationships, group processes, and social identity, which each

appear to have an important role in the onset, maintenance and treatment of depression.

In light of these shortcomings, the social identity approach (SIA; Tajfel and Turner, 1979; Turner, Hogg, Oakes, Wetherell, & Reicher, 1987) will be introduced as a theoretical framework which can provide new insights to our understanding of depression (see Cruwys et al., 2014a). A brief history of the approach will be provided, along with an outline of its more recent application to mental health. Following a review of work which has started to develop a theoretical account of depression based on the SIA, the aims of the current research will be introduced. These aims will in part be based on the need to replicate exciting, but currently relatively isolated findings in this new area of research. The aims will also outline new theoretical hypotheses derived from the SIA, which will focus on the relationship between group membership, social identity processes and depression, both within the therapeutic relationship and beyond the therapy room. The remainder of the thesis will then describe the current study and provide some reflection on the implications of its findings.

Before proceeding with a critical review of the relevant literature[1], it is important to be transparent with regards to the scope of the sections which follow. The literature on depression research and theory is vast. It touches on broad and diverse topics, of which just a few examples include: historical reviews of the depression literature (e.g. Berrios, 1988), genetic influences on depression (e.g. see Lau & Eley, 2010 for a review), the role of cognition in depression (e.g. see Gotlib & Joormann, 2010 for a review), demographic influences on depression (e.g. Girgus & Yang, 2015; Mirowsky & Ross, 1992) and the relationship between depression and physical health outcomes, such as coronary heart disease (e.g. Carney, Freedland, Miller, & Jaffe, 2002). Equally, the SIA is one of the most-well researched theoretical approaches in the social psychological literature (Haslam, 2014), and as such its associated theories have moved in several directions and touched upon wide-ranging phenomena including, prejudice (e.g. Reynolds, Turner, Haslam, & Ryan, 2001),

[1] For an outline of the systematic review strategy, see Appendix 1

crowd behaviour (e.g. Reicher, 2001), organisational psychology (e.g. Haslam, 2004) and leadership (e.g. Haslam, Reicher, & Platow, 2011). It is hoped that the following review will incorporate the essential literature to highlight the key areas of interest. However, it will be impossible to even attempt to touch upon all of the areas which could undoubtedly be of relevance or interest.

2.2 Depression

2.2.1 Defining depression

There is a great deal of overlap between the diagnostic criteria for depression listed in the most commonly used diagnostic manuals: the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, APA, 2000; DSM-V; APA, 2013) and the tenth edition of the International Classification of Diseases (ICD-10; WHO, 1992). The DSM-V (APA, 2013) and the ICD-10 (WHO, 1992) list the following symptoms and state that they should be experienced for at least two weeks before a diagnosis of depression can be made: depressed mood, diminished interest in and enjoyment of daily activities, appetite changes, sleep difficulties, fatigue and reduced energy, feelings of guilt or worthlessness, reduced or poor concentration, and thoughts or acts relating to self-harm or suicidal ideation. In addition, the ICD-10 (WHO, 1992) states that reduced self-esteem and self-confidence, and a pessimistic view of the future are common symptoms of depression. Further to these diagnostic criteria, research has highlighted the relational symptoms of depression. For example, in a survey of 966 psychiatric patients, 64 per cent of patients who were rated as severely depressed reported a loss of attachments to other people as a key symptom of their depression (Beck and Alford, 2009).

‘Depression’ is a broad term for a range of symptoms or experiences, which can be broadly classified into episodic or chronic disorders which can be unipolar or bipolar (Beck & Alford, 2009). Unipolar depressive disorders (i.e. disorders which are generally characterised by low mood and the symptoms outlined above) include major depressive disorder and dysthymia. The former refers to either single or frequent episodes of depression, defined by the presence of at least five of the

symptoms listed above (of which one must be depressed mood, DSM-V; APA, 2013). The latter refers to less severe, but chronically depressed mood spanning more than two years (DSM-V; APA, 2013). Bipolar depression tends to be episodic and characterised by contrasting mood states of major depression at one extreme and mania or hypomania at the other (Beck & Alford, 2009). Mania refers to symptoms which include, but are not limited to: elevated mood, rapid speech, disinhibition (e.g. inappropriate sexual behaviours), impulsivity, and possible hallucinations or grandiose delusions (DSM-V; APA, 2013). Hypomania refers to similar, but milder symptoms than those associated with mania, and tends to be experienced in the absence of hallucinations or delusions (DSM-V; APA, 2013). For the purpose of the current thesis, the interest is in the experience of symptoms associated with major depression and dysthymia – e.g. low mood, as opposed to the 'highs' associated with bipolar disorder.

2.2.2 Prevalence

According to the World Health Organization (WHO, 2012), depression is the leading cause of 'disability' worldwide, affecting approximately 350 million people. It was estimated that 1.24 million people were experiencing depression in the United Kingdom in 2007 with an estimated £1.7 billion annual cost to public services, rising to a cost of £7.5 billion in lost employment (McCrone, Dhanasiri, Patel, Knapp, & Lawton-Smith, 2008). McCrone et al. (2008) have estimated that by 2026, the annual cost of depression in terms of impact on public services and in terms of lost employment will rise to £3 billion and £12.2 billion respectively.

Epidemiological studies have attempted to estimate the prevalence of major depressive disorder in the general population. An example includes the National Comorbidity Survey Replication (NCS-R; Kessler et al., 2003) – a large-scale household survey, in which a nationally representative sample of Unites States (US) residents were assessed via face-to-face interviews. It was estimated that approximately 16.2 per cent of the US population had experienced major depression during their lifetime, whereas 6.6 per cent had experienced depression during the twelve months prior to the study (Kessler et al., 2003; Kessler, Bergland, Demler, Jin, Merikangas, & Walters, 2005). These figures were higher than those obtained in

the Baltimore Epidemiologic Catchment Area Survey (ECA; Eaton et al., 1989) – the first large-scale representative survey of US households, from which the 12-month prevalence rate was estimated to be 6.3 per cent of the population and the lifetime prevalence rate was estimated to be 8.3 per cent. Richards (2011), has speculated that the observed increases in the NCS-R (Kessler et al., 2003) might represent either increased prevalence amongst younger cohorts, greater willingness to report depression to health practitioners, or methodological improvements to data collection and analytical procedures. Either way, Kessler at al.'s (2003) estimation that approximately one in six Americans had experienced depression during their lifetime highlighted how common and widespread the disorder appeared to be, in the US at least.

Research exploring cross-national differences in depression prevalence rates has been fraught with methodological difficulties, such as a lack of standardisation in the translation of assessment tools, and cross-cultural differences in the meaning ascribed to items within measurement tools (Bromet et al., 2011). However, Bromet et al. (2011) conducted a large-scale study of ten high income countries (e.g. US, Japan, and Germany) and eight low- to middle-income countries (e.g. Brazil, Mexico, and South Africa) which sought to minimise these research limitations. Firstly, they used standardised translation and administration procedures, and secondly, they assessed depression based on the self-reported presence of three descriptive terms which are thought to have cross-cultural validity (sadness, depression, and loss of interest; Bromet et al., 2011). The authors reported that the average lifetime prevalence rate of depression was 14.6 per cent in high income countries and 11.1 per cent in low- to middle-income countries, indicating that higher depression rates are associated with greater national wealth. The authors speculated that this discrepancy might have resulted from either higher subjective stress levels or from greater social inequalities in wealthier countries. Whilst Bromet et al.'s (2011) research points towards a positive correlation between wealth and depression prevalence, it is important to consider that their research was conducted between nations. In contrast to this finding, research conducted within nations suggests that higher rates of depression are positively associated with indicators of lower socio-

economic status, such as low income, unemployment, and disability (e.g. Kessler et al., 2003).

Gender is a further within-nation socio-demographic variable which has been found to be associated with depression. For example, King et al. (2008) assessed depression in a sample of patients who were attending appointments in primary care settings in six European countries. They found that across all of the nations included in the study, depression was consistently more prevalent in females than males. Whilst the discrepancy in prevalence rates was relatively small in the United Kingdom (13.2 per cent prevalence for women and 12.7 per cent for men), it was much higher in other countries, such as Spain (18.4 per cent for women and 11.2 per cent for men). Kessler (2003) has suggested that the overall female to male ratio in depression prevalence rates may be as high as 2:1, and concluded from his review of the literature that the between gender differences cannot be solely accounted for by biological or hormonal variations, thus indicating the potential importance of environmental influences, which will be considered further below.

2.2.3 Aetiology

The brief review of prevalence data provided above demonstrates that depression is a common mental health disorder. However, implicit in the findings discussed is the suggestion that the causes of depression are likely to be complex. It is true that variables such as wealth, for example, might impact on the likelihood of a person or group of people developing depressive symptoms. However, such variables cannot be seen to be causal due to the simple fact that not all people living in wealthy countries or all people living in poverty in wealthy countries experiences depression. Therefore, other variables must play a role in determining why certain people develop symptoms of depression whilst others remain protected.

Over the past century, theorists have proposed a wide-range of explanations of depression, which sit within several schools of thought. In the following section, some well-established theories pertaining to the causes of depression will be briefly introduced, beginning with biological theories and then moving onto theories which consider the role of psychological and social psychological processes.

2.2.3.1 Biological and genetic theories

One well-established approach to understanding the biological causes of depression has been to consider the likelihood of symptoms being expressed by members of biologically related families – i.e. those with genetic similarity. The underlying assumption being that identifying a familial pattern in depression symptomology will indicate an underlying genetic susceptibility to impaired mood regulation, low stress tolerance, or seeking out situations which increase stress, thus increasing the risk of developing depression (Lau & Eley, 2010).

There are several common methodological approaches used to study genetic influences on depression. In family studies, the occurrence of depression amongst first-degree relatives is compared between participants with depression and healthy controls who are demographically matched. Alternatively, in twin studies, co-occurrence of depression is compared between monozygotic twins (genetically identical twins) and dizygotic twins (non-identical twins), to establish how much shared variance in depression rates can be accounted for by genetic or environmental similarity. In adoption studies, comparisons are made between participants and their biological siblings who are raised in a different family and are therefore exposed to a different environment and non-biological siblings who are raised in the same family and therefore share an environment. This helps to obtain an estimate of the influence of genetic and environmental factors on the phenotype of depression.

Sullivan, Neale and Kendler (2000) conducted a meta-analysis of five twin studies and five family studies, and also reviewed three adoption studies to explore genetic influences on depression. They concluded that the heritability of major depression (that is, the proportion of the *variance* in depression accounted for by genetic similarity) could be estimated at 31-42 per cent. They concluded that both genetic and environmental factors were likely to increase the risk of developing depression symptoms. In a more recent review article, Lau and Eley (2010) agreed that twin, family and adoption studies point towards a significant amount of heritability in depression. However, they argued that epigenetics is the essential mechanism determining how inherited genes are expressed. In short, they draw on animal

studies (e.g. Fish et al. 2004) to demonstrate that environmental (e.g. parental interactions), hormonal, and random variables influence whether genes associated with depression are expressed as an infant moves towards adulthood (Lau & Eley, 2010).

As there is evidence to suggest that there is likely to be a genetic influence over depression, attempts have been made to identify which specific genes, or 'candidate' genes, might be of importance. A focus for geneticists has been on locating functional polymorphisms, which refer to variations in DNA sequences which result in altered gene expressions (Levinson, 2006). In a review article, Levinson (2006) suggested that whilst several such polymorphisms have been implicated, the only one to be consistently linked with depression involves the short allele of the serotonin transporter gene (5-HTTLPR). It is hypothesised that the short allele of this candidate gene produce less serotonin transporters, resulting in reduced post-synaptic serotonin re-uptake (Levinson, 2006).

Levinson (2006) suggested that rather than causing depression per se, polymorphisms in the short allele of 5-HTTLPR increases sensitivity to stress which in turn increases the likelihood of depression. Initial interest in the relationship between polymorphism of 5-HTTLPR gene, stress, and depression followed findings from a longitudinal study, which revealed that a positive relationship between stress and depression was moderated by the presence of increased numbers of the short allele of the 5-HTTLPR gene (Caspi et al., 2003). Several studies followed Caspi et al.'s (2003) findings, which prompted Karg, Burmeister, Seddon, and Sen (2011) to conduct a large-scale meta-analysis of 54 of the 56 studies of the relationship between polymorphisms of 5-HTTLPR, stress and depression published between 2003 and 2010. They found that the presence of short alleles of 5-HTTLPR was a strong moderator of the relationship between stress and depression across samples who had either experienced child maltreatment, specific medical conditions, or stressful life events (Karg et al., 2011), thus lending further support to the indirect effect of this candidate gene.

The finding that a likely candidate gene was associated with the transportation of serotonin may not have been a surprise to many with an interest in biological explanations of depression. Along with noradrenaline, serotonin has long been considered important in relation to depression (Owens & Nemeroff, 1994). Whilst it was originally thought that depression was simply the result of a depletion of neurotransmitters such as noradrenaline and serotonin, more recent thinking implicates less effective sensitivity in the post-synaptic receptor sites, leading to problems with ineffective absorption (Carr, 2012). As such, selective serotonin reuptake inhibitors (SSSRIs) were developed to prevent the reuptake of serotonin into presynaptic membrane, resulting in increased levels of the neurotransmitter in the synapse. SSSRIs provided an alternative to tricyclic antidepressants (TCAs), which worked by increasing the sensitivity of less effective neurotransmitter receptor sites. Findings from a meta-analysis of 102 randomised control trials suggest that SSSRIs and TCAs do not differ in their efficacy when it comes to treating depression, although SSSRIs appear to be more tolerable, resulting in lower discontinuation rates (Anderson, 2000).

However, if depression is to be understood as a consequence of physiological processes in the brain, specifically related to neurotransmitters, the important question perhaps, is not which medication is more efficacious, but how medications compare with placebo treatments in their ability to reduce depression symptoms. Meta-analyses have sought to answer this question. Kirsch et al. (2008) combined the findings of 35 studies submitted to the Food and Drug Administration (FDA). They found that SSSRIs did not lead to clinically significant improvements in depression symptoms compared to a placebo treatment for participants rated as either ‘moderately’ or severely depressed. The only significant difference between SSSRIs and the placebo pill treatment emerged for participants scoring in the extremely depressed range (those scoring over 28 on the Hamilton Rating Scale of Depression, HRSD; Hamilton, 1960). However, Fournier et al. (2010) noted that a limitation of Kirsch et al.’s (2008) finding is that in all but one of the studies included in their analysis, the focus was on participants scoring more than 23 on the HRSD, which is in fact the threshold for severe depression. Thus, the vast majority could be classified as severely depressed, limiting the scope of the conclusions, and raising

questions over treatment efficacy for those genuinely in the moderate range. Fournier et al. (2010) conducted their own meta-analysis which included a wider range of severity ratings. In line with Kirsch et al. (2008), they found no difference between the efficacies of SSSRIs and placebo treatments for participants with mild, moderate or even severe depression. However, for those experiencing very severe depression, SSSRIs resulted in a greater reduction in symptomology than the placebo treatments, and this difference was found to be clinically significant (Fournier et al., 2010).

Based on this brief review of biological processes involved in depression, it appears that whilst there is some evidence for genetic risk and the role of neurotransmitters (particularly serotonin), a biological explanation of depression is far from satisfactory when taken alone. Firstly, the fact that 30-40 per cent of the variance in depression can be accounted for by genetic similarity suggests that it is not solely a genetic disorder. Indeed, even if genetic variance is kept at the fore of our understanding of depression aetiology, promising work in the field of epigenetics is starting to implicate the importance of social interaction in determining how genes will eventually be expressed. On a related note, as candidate genes such as 5-HTTLPR only appear to act as moderators and not mechanisms, we are left without explanation of how depression symptoms might develop in the absence of obvious specific stressors. In addition, the finding that medications which increase levels of serotonin are only more effective than a placebo for the most severely depressed raises doubts over the extent to which we can understand depression in terms of problems with the absorption of neurotransmitters. As such, psychological explanations which look beyond biological processes need to be considered to gain a clearer understanding of the causes of depression.

2.2.3.2 Personality

Attempts to understand depression in relation to personality can be traced as far back as Hippocrates, who theorised that certain “humours” could account for the formation of particular personality types and mental illness (Klein, Kotov, & Bufferd, 2011). There has long been debate within psychology regarding how personality should be conceptualised. However, since the 1980s, researchers have tended to

focus on personality ‘traits’ with five traits in particular being proposed (e.g. McCrae & Costa, 1987). The five traits are: neuroticism, agreeableness, openness, conscientiousness, and extraversion (McCrae & Costa, 1987). Traits are considered to be individual-level personality variables, which vary in how they manifest and are subsequently measured. For example, a content analysis of various inventories used to measure personality traits concluded that conscientiousness, extraversion, and agreeableness were predominately conceptualised and measured behaviourally (Pytlik-Zillig, Hemenover, & Dienstbier, 2002). However, neuroticism tended to be conceptualised in terms of affect and cognition, whereas openness tended to be conceptualised as a cognitive disposition (Pytlik-Zillig et al., 2002). For some personality theorists, traits reflect dispositions which are genetically determined and not influenced by environmental factors (e.g. McCrae et al., 2000), whilst others have argued that personality traits may be susceptible to changes over time (e.g. Fraley & Roberts, 2005)

In an attempt to better understand the link between the ‘big five’ personality traits and psychological disorders, Kotov et al. (2010) conducted a meta-analysis, which included 175 published studies. They found that neuroticism, which generally relates to worrying, being insecure, self-conscious or temperamental (McCrae & Costa, 1987) was strongly positively associated with depression. In addition, depression was associated with lower levels of extraversion (which relates to being sociable, talkative, and fun-loving, McCrae & Costa, 1987) and conscientiousness (which relates to being careful or thorough, McCrae & Costa, 1987). Whilst this profile was not specific to depression (owing to extensive overlap between disorders), a recent review has concluded that consistent evidence exists, which links these three personality traits with depression (Klein et al, 2011).

An additional personality trait to be associated with depression is optimism, which relates to a person’s tendency to believe that good, rather than bad things will happen to them (Scheier & Carver, 1985). It is not surprising that optimism might have an important role to play in depression, as it speaks directly to one of the core symptoms listed in the ICD-10 (WHO, 1992) – i.e. pessimism. According to Scheier and Carver (1985), trait optimism is diametrically opposed to pessimism, which

relates to the tendency to expect bad outcomes. Carver and Scheier (2014) have suggested that optimism can be understood as an individual disposition, which is stable over time and not susceptible to situational variances.

Higher levels of dispositional optimism have been associated with more favourable outcomes on a range of physical health outcomes, including distress following a breast cancer diagnosis (Carver et al., 1993), and quality of life following treatment for head and neck cancer (Allison, Guichard, & Gilain, 2000). Optimism has also been shown to be protective against low mood or depression. This is particularly true in the presence of a stressor, such as hospitalisation for ischemic heart disease (Shnek, Irvine, Stewart, & Abbey, 2001). In addition, new mothers who scored higher in optimism were less likely to show signs of postnatal depression three weeks after giving birth than those who scored higher in pessimism (Carver & Gaines, 1987). However, even in the absence of specific stressors, but where people are exposed to situations which might be distressing (such as working in palliative care), optimism has been positively associated with improved subjective wellbeing (Hulbert & Morrison, 2006).

The link between optimism and positive health outcomes has been theorised within value-expectancy models, which state that people place greater value on goals which are of greater importance to them (Scheier, Carver, & Segerstrom, 2010). However, their motivation to work towards attaining those goals will depend on their expectancy that they can be attained (Scheier et al., 2010). Thus, people with a so-called disposition towards optimism will be more likely to think they can achieve their goals, and will be more motivated to work towards them using approach strategies, whereas those scoring high in pessimism will be more likely to avoid goal-directed activities due to low expectancy of success (Scheier et al, 2010). The link between goal motivation, pessimism and depression has been elaborated in an experimental study by Dickson, Moberly, & Kinderman (2011). When clinically depressed patients and non-depressed controls were asked to list personal goals, no differences were noted between the number of goals listed by the groups, or the extent to which they favoured approach or avoidant motivation strategies. However, depressed participants were more pessimistic about their chances of successfully attaining their

goals, more likely to predict unfavourable outcomes, and felt they had less control over goal outcomes than those in the control group (Dickson et al., 2011).

Based on the information provided so far, it is clear that optimism has been largely conceptualised as an individual personality trait, which impacts on physical and psychological outcomes via *intrinsic* motivation. However, there has also been a move towards explaining an indirect, social route through which optimism can influence health outcomes, including depression. To be more precise, it has been suggested that people who score high on optimism are more likely to (a) be liked by others, (b) work harder at their relationships, and (c) see their relationships in a positive light (Carver et al., 2010). As such, they will be more likely to accumulate social support, which operates as a type of social resource, which buffers against the potentially harmful effects of stress (Segerstrom, 2007). To further explore the links between optimism and social relationships, Segerstrom (2007) conducted a longitudinal study in which law students were assessed during their first year of study and then again ten years later. Contra to the first part of the above hypothesis, optimism at time one was not predictive of the size of the support network at time two. However, it was found that longitudinal increases in support network size did predict increased optimism, which in turn predicted better mental health outcomes. Importantly, this finding points to the possibility of changes in optimism being associated with changes in social relationships, as opposed to simply being understood as an individual-level, robust disposition, which acts a causal variable in determining how much social support a person might be able to obtain. This is an idea which will be returned to in section 2.3.4, below.

2.2.3.3 Cognitive behavioural approaches

The previous section focussed on elements of personality which may be associated with depression. However, when considering the role of optimism, what becomes clear is that thoughts – or *cognitions* – have been heavily implicated. In other words, it is how people think about their future prospects (i.e. whether they are optimistic or pessimistic), which will influence either their motivation to work towards their goals, or how they evaluate their chances of attaining them. Indeed, perhaps the best-

supported psychological approach to depression – the cognitive behavioural approach – focusses in large part on the role of cognitions.

Research exploring the role of cognition in depression spans more than forty years and has given rise to a wide range of theoretical approaches, which focus on various cognitive processes, including attention, memory, and cognitive control (for a review see Gotlib & Joormann, 2010). However, much of the theorising can be traced back to the pioneering work of Beck (1976). Beck's cognitive model is often used as a framework from which to understand depression within cognitive behavioural therapy (CBT), and will be briefly outlined here.

In short, Beck (1976, 2008) suggested that experiences of loss or separation in early life can lead to the formation of a negative schema which serves as a perceptual framework which shapes the way in which people attend to information. The negative schema can be activated following subsequent life stressors such as the loss of a job or a bereavement. Within the schema sits negative core beliefs which the perceiver will hold about themselves, the world and others – known as the negative triad. These core beliefs are associated with negative automatic thoughts which might arise in certain situations. For example, a depressed person who is looking for employment might respond to a job advert with the thought that *'I'm useless so I won't bother applying'*. Negative thoughts are related to behavioural, physiological and emotional outcomes or consequences. For example, the person might feel sad following their negative self-appraisal. This might discourage engagement with activities they previously enjoyed, or lead to withdrawal from satisfying relationships. In addition, they might choose to withhold their application for the job, which might prolong their unemployment, and possibly strengthen their feelings of worthlessness. A further consequence for the person might be a lack of energy stemming from their inactivity and low mood.

Within a CBT model, thoughts, feelings and behaviours are seen to act together in the form a vicious cycle, as opposed to being linearly arranged. In addition to the negative core beliefs and automatic thoughts as outlined above, the CBT approach proposes that depression is maintained by cognitive biases when interpreting

otherwise ambiguous information (Kovacs & Beck, 1978). These biases include, but are not limited to: extreme thinking (e.g. catastrophizing or predicting the worst case), selective attention (e.g. filtering information and selectively attending to negative information), relying on intuition (e.g. jumping to conclusions), and self-reproach (e.g. assuming responsibility for negative outcomes) (Westbrook, Kennerley, & Kirk, 2011).

Treatment for depression from a CBT perspective can take various forms – for example, it can be delivered face-to-face, or via computer programs or websites (Andersson & Cuijpers, 2009). Here is not the place to discuss the merits associated with various delivery methods (for a meta-analysis see: Andrew, Cuijpers, Craske, McEvoy, & Titov, 2010). However, within CBT, there is generally a focus on formulation, psychological education, skill development (e.g. problem-solving), identifying negative automatic thoughts and testing their accuracy via behavioural experiments, and engaging people in meaningful and pleasurable activities via behavioural activation (Beck & Alford, 2009). In a review of meta-analyses, Butler, Chapman, Forman, and Beck (2006) concluded that CBT is a highly effective treatment approach, which is superior to both waiting-lit and placebo controls, and has superior long-term outcomes over psychodynamic-interpersonal therapy. They also concluded that CBT is at least as effective as pharmaceutical medication, and suggested that CBT combined with medication was advised for clients presenting with severe depression symptoms (Butler et al., 2006) – a recommendation which is reflected in the current NICE (2010) guidelines for depression.

On the surface, CBT could be interpreted as an individualistic approach, owing to the focus on the individual's 'distorted' negative view of the self, the world, and others. Therapy generally targets change within the individual. However, bearing in mind that Beck identified loss of relationships in early life as the precursor to the formation of the negative schema, there is clear recognition of the role of social relationships in the formation of depression. Indeed, as components of behavioural activation seek to increase social interaction (Veale, 2008), the approach also values the role of social relationships in the treatment of depression (see also: Beck & Alford, 2009). Yet despite the importance placed on social processes within CBT, Cruwys et al.

(2014a) have noted that sociality, or social-connectedness is conceptualised in individualistic terms – i.e. how an individual relates to other individuals, rather than how being a part of a *group* impacts upon them.

2.2.3.4 The role of social relationships

In the previous sections, it has been noted that even within individualistic approaches to depression, such as those which focus on personality traits or individual thoughts, feelings, or behaviours, there is acknowledgement of the role of social processes in the formation, maintenance and treatment of depression (see also Cruwys et al., 2014a). The potential role of social relationships in the treatment of depression has been considered above. In the following section, some consideration will be given to the potential protective role of social relationships in depression onset and maintenance.

There is a large body of work to support the view that social relationships are important for the prevention of depression. For example, cross-sectional and longitudinal studies conducted by Cacioppo, Hughes, Waite, Hawkley, & Thisted (2006), found that for middle- and older-age adults, loneliness was associated with depression at a specific time point, and also predictive of later depression onset. In a five-year longitudinal study, Cacioppo, Hawkley, and Thisted (2010) found that when controlling for variables known to be associated with depression (such as ethnicity, gender, social support, physical health, social network size, stress, level of education, and neuroticism), loneliness at time one predicted depression at time two. However, the inverse relationship (depression as a predictor of loneliness) was found to be non-significant.

These studies indicate that an absence of social relationships is a strong risk factor for depression onset. In a review article published thirty years ago, Cohen and Wills (1985) found evidence to suggest that the presence of social support (e.g. via integration in large communities) was associated with better psychological wellbeing, including lower depression, and hypothesised that social support acts as a 'buffer' against stressful life events. A recent review of 51 studies agreed that social support is an important protective factor against depression onset, and that there is some

evidence to suggest that feeling connected to others might also have an important protective function (Santini, Koyanagi, Tyrovolas, Mason, & Haro, 2015).
This introduction to the role of social relationships in depression has been brief. However, it was included to draw the reader's attention to the fact that social relationships have long been recognised as important for researchers and clinicians with an interest in depression. However, as Cruwys et al. (2014a) have argued, at present, social relationships have been conceptualised in diverse, and often disparate ways – e.g. in terms of social support (Cohen & Wills, 1985), social connectedness (Santini et al., 2015), or loneliness (e.g. Cacioppo et al., 2006). Cruwys et al. (2014a) have also noted that this diversity in conceptualisations has resulted in a wide variety of measures being used to estimate social relationships or feelings of social connectedness. As such, they have suggested that a move towards a unified theory or framework is needed, which can account for (i) how social connectedness should be conceptualised, (ii) how it affects depression,(iii) what types of social connectedness are important for depression outcomes, and (iv) how social connectedness should be measured. They have suggested that our current knowledge of group psychology can be used to address these needs, as will be discussed in the following section.

2.3 Group psychology

In the previous section, various (individualistic) approaches to the understanding of depression were introduced, as were some possible links between 'personal' variables (such as some personality traits and cognition) and social relationships. This led onto an overview of some of the more explicit links between social relationships and depression, and the argument by Cruwys et al. (2014a) that we currently lack an overriding, unified theoretical account of how social relationships or group memberships might impact on depression.

To be more specific, Cruwys et al. (2014a) have suggest that our current understanding of group psychology, and the social identity approach (SIA) in particular, can be used as the framework from which to understand the relationship between social connectedness and depression. As such, a brief history of group psychology will be provided, leading to an introduction of two theories which

comprise the SIA – social identity theory (Tajfel and Turner, 1979) and self-categorization theory (Turner et al., 1987). Applications of the SIA to depression will be discussed, leading to the rationale for the current research. Finally, a series of specific, theory-derived hypotheses underlying the current research, and based on the SIA, will be outlined.

2.3.1 Historical development

In 1973, Kenneth Gergen wrote a seminal paper in which he argued that rather than describing objective facts about the human condition, social psychological theories are reflections of the historical contexts from which they are derived. Social identity theorists might disagree with the first part of the above statement insofar as they would argue that the tendency for humans to act in terms of group memberships has been a central feature of human behaviour throughout history (although what constitutes a social group is susceptible to social, historical and comparative context, as will be discussed below). However, they would certainly agree that the SIA was a product of the historical context from which it emerged. It therefore seems important to at least nod to that historical context before continuing with a theoretical outline.

There has been academic interest in the psychology of groups for over a century. Early theorists included Le Bon (1895/1965) and Allport (1924), who offered what appeared to be contrasting conceptualisations of the underlying processes which constitute group or crowd behaviour. For Le Bon, people in a crowd (which is a special example of a group) experience a loss of identity and are at the mercy of the 'collective mind' which is qualitatively different from (and inferior to) the minds of individual crowd members. Le Bon suggested that emotions and behaviours spread 'hypnotically' through crowds via the process of 'contagion', and that actions of crowds are impulsive, destructive, and primitive. In contrast, Allport (1924) argued that "…there is no psychology of groups which is not essentially and entirely a psychology of individuals" (p. 4). For Allport, a group or crowd exacerbates the individual qualities of its members through the process of 'social facilitation' leading to each member behaving "…just as he would behave alone only more so" (p. 295). Allport (1924) also claimed that when groups or crowds grow in size, the influence of socially learned behaviours becomes reduced and as a result, instinctive, destructive

behaviours will come to the fore. Thus, as noted by Reicher (2001), despite appearing to be in conflict on the surface, Le Bon's 'group mind' approach and Allport's individualistic approach are comparable in their assessment of members of groups and crowds experiencing a diminution of identity, and subsequently acting destructively and instinctively. In addition, they both overlooked the role of both contextual influences and inter-group processes (Reicher, 2001).

Towards the middle of the 20th century, a series of experimental findings started to highlight the importance of interaction between group members in shaping the normative behaviour of groups, and of the impact that a group's norms could have on its individual members (Asch, 1952; Sherif, 1935). In other words, there was growing evidence that rather than acting in ways which were instinctive or reflective of pre-existing individual qualities, a group's actions reflected a shared, group-level understanding of the situations they were faced with. This work started to provide an understanding of intra-group processes such as conformity. However, following the Nazi persecution of many ethnic minority groups in Europe during the Second World War, social psychologists started to examine the processes underlying *inter*-group behaviours, most notably discrimination.

In a shift back to individualistic explanations of group processes, theories began to emerge which explained inter-group discrimination in terms of personality differences. For example, in the theory of the authoritarian personality (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950), it was suggested that people who had received punitive upbringings were more likely to develop personality traits which included rigid belief systems, ethnocentrism, anti-Semitism, and submission to authority. Adorno et al. (1950) proposed that people with an authoritarian personality were those most likely to express prejudiced attitudes and thus act in discriminatory ways towards out-groups (see Roiser & Willig, 2002, for a review).

Attempts to locate discrimination within the personalities and developmental histories of its individual perpetrators subsequently came under heavy criticism from social psychologists predominately based in Europe, many of whom had been the victims of persecution during the Second World War. In one such critique, Tajfel (1978)

noted that it is implausible that large-scale genocide, which is perpetrated by the majority of a particular group, can be explained by a coincidence of shared personality style or punitive child-rearing practices across the group as a whole. Tajfel (1978) also pointed out that an individualistic approach such as the authoritarian personality ignored socio-cultural factors and most importantly, the inter-group context in which discrimination occurs.

The role of inter-group processes in discriminatory behaviour was famously demonstrated in a series of experiments conducted by Sherif, Harvey, White, Hood, and Sherif (1954/1961). Sherif et al. set up a summer camp for boys called the Robbers Cave. Twenty-four boys who were approximately twelve years of age were invited to attend the camp and were split into two demographically matched groups, and kept apart for the first phase of the study, with each group unaware of the presence of the other at the camp. The experimenters noted that after a period of intra-group co-operation (i.e. taking part in tasks which required co-operation within the group), the two groups began to form into cohesive units. They started to take on group identities, naming themselves the Eagles and Rattlers, and each group developed its own set of norms, rules, and identity markers such as flags and songs.

Importantly, in a second phase of the experiment, the two groups were introduced to one another and instructed to take part in a multi-event competition which lasted for five days, with prizes on offer to the victorious team. The boys started off the competition in good spirits and were magnanimous in defeat. However, as the competition progressed, the two groups engaged in increasingly hostile actions towards one another, which included verbal insults, raiding one another's cabins, burning each other's flags, social rejection, and evaluating one another negatively (Sherif et al., 1954/1961). However, in a final phase of the research, the experimenters introduced scenarios which required co-operation between the teams in order for them to obtain a mutually beneficial outcome (e.g. fixing a broken plumbing system so that they could drink water), which the authors named a superordinate goal (Sherif et al., 1954/1961). Although the boys resisted working together at first, and some inter-group hostility remained at the end of this phase of

research, their co-operation resulted in more incidences of positive social interactions and more positive ratings of out-group members.

Sherif et al.'s (1954/1961) findings were of huge importance with regards to providing some *social* psychological insights to the processes underlying inter-group discrimination. Their focus on contextually-determined competition and co-operation as mediators of the relationship between inter-group behaviour and discrimination helped to move academic attention away from unsatisfactory individualistic explanations.

However, in the early 1970s, experimental studies were starting to show that inter-group discrimination could emerge in the absence of competition (Tajfel, Billig, Bundy, & Flament, 1971). Using their classic experimental design, which is now known as the minimal group paradigm, Tajfel et al. (1971) arbitrarily divided schoolboys into two groups seemingly based on their preference for artwork by the artists Klee or Kandinsky. The boys were asked to anonymously allocate money between two other participants and were told that their decisions would have no bearing on how much money they received as that would be decided by a third party. Thus, they had no personal stake in their allocations. Tajfel et al. (1971) found that participants tended to allocate the money in a way which maximised relative profit in favour of an anonymous in-group member over an anonymous out-group member. This finding demonstrated that inter-group discrimination would emerge in the absence of competition, and based on the most minimal of group distinctions. It also appeared to suggest that participants were able to gain a sense of positive identification with an in-group by positioning it as relatively more advantaged than a relevant out-group.

2.3.2 The social identity approach

The findings from the minimal group studies prompted Henri Tajfel and John Turner to theorise the mechanisms which could account for the observed inter-group discrimination. What resulted over the following decade was a complex set of theoretical assumptions derived from two distinct, but closely related theories; first social identity theory (SIT; Tajfel and Turner, 1979), and then self-categorization

theory (SCT; Turner et al., 1987). These theories will be summarised here. However, rather than providing a separate overview of each theory, they will be largely described together under the umbrella-term; the social identity approach (SIA). It should also be noted that both theories have been elaborated greatly since their inception. Therefore, only their fundamental assumptions will be outlined in the following section (for a detailed overview, see: Reicher, Spears, & Haslam, 2009).

In order to provide an explanation of how group behaviour (and associated phenomena such as prejudice and discrimination) becomes possible, the SIA (Tajfel & Turner, 1979; Turner et al., 1987) suggests that people can either think and act as individuals – i.e. as 'I' and 'me', or as members of social groups – i.e. as 'we' and 'us'. The distinction between acting alone or as part of a group has been understood in terms of the differences between personal identity and social identity. Personal identity relates to self-definitions based on our perceived differences from other individuals, whereas social identities relate to our self-definitions based on our perceived similarities to other in-group members, and our perceived differences from members of out-groups. According to Tajfel and Turner (1987), people strive to see the groups to which they belong positively. One way of doing so is by differentiating their own groups from relevant out-groups in a way which enhances this positive evaluation. For the boys in the minimal group studies (Tajfel et al., 1971), the only way of enhancing their collective self-esteem via inter-group comparison was to discriminate against the out-group in a way which maximised relative profit for their own group.

In its original formulation, SIT (Tajfel & Turner, 1987) conceptualised the distinction between personal and social identity as operating on a bi-polar continuum. However, this was later modified in SCT (Turner et al., 1987) in which identities were conceptualised as hierarchically-structured categorizations, which are cognitive representations of the self-concept. The hierarchical component does not refer to importance, but to the level of inclusiveness. For example, people can self-define in terms of their personal identity, which is exclusive of all others, or they can self-define in terms of social identities which vary in their inclusiveness. To elaborate, a person can think of themselves as a supporter of a specific football team, in which

case supporters of other teams might be considered as ‘other’. However, if a shift in context draws comparisons between football fans and rugby fans, those supporters of other teams who were previously ‘other’ will come to be included in the more inclusive in-group category of football fans. At higher levels of abstraction, people can define at a level which is inclusive of all humans (human vs non-human) or as a part of nature.

The SIA (SCT in particular) outlines some important processes which determine whether people will self-categorise according to their personal identity or one of a potentially infinite number of social identities, relating to their membership of social groups or categories (see Turner et al., 1987). The first process is a perceiver’s readiness to self-define in terms of a particular identity. Perceiver readiness depends in part on how accessible a particular identity is, and accessibility is determined by a perceiver’s historical experiences and personal values, as well as their goals, motives, and needs within a particular context (Turner, et al., 1994). The second important process is category fit which is comprised of two components; comparative fit and normative fit. Comparative fit relates to perceiver evaluations of difference and similarity (within and between aggregates of people) on contextually relevant domains. Normative fit relates to the extent to which a perceiver’s normative expectations of a particular social category are matched. People are more likely to be categorised as a group when their behaviour, appearance or attitudes match a perceiver’s expectations of that group (e.g. Oakes, Turner, & Haslam, 1991; Turner et al., 1987).

According to the SIA, the process underlying the perceptual shift from personal to social identity (known as depersonalisation) has important implications, not only for how individuals define themselves and other in-group members (i.e. in terms of prototypical intra-group stereotypes), but also how they relate to other members of their in-groups. According to Turner (1999), when people self-define in terms of a social identity, “psychologically, the social collectivity becomes self” (p. 12). Thus, according to the SIA, social identities can determine how people define who they are, who else is perceived as part of their self-concept, and subsequently how they think, behave, and feel. The idea that social groups have a normative component

has an important implication; discrimination between groups is *not* an inevitable consequence of group formation. In the minimal group studies, the participants only had one way of distinguishing their group from the other – there were no group-level pre-existing norms to shape behaviour. However, in contexts where people are self-categorized according to a social identity which has a normative component based on helping, or in some cases even 'inter-group' helping (e.g. foreign aid workers), their behaviour would not suddenly become discriminatory (e.g. Johnson & Downing, 1979); that would be counter-normative and contrary to the SIA's assumptions.

A further implication derived from the SIA is that social categories are not fixed entities. Whether someone self-categorizes according to a particular social identity will be based on the comparative context (Turner, 1999). In other words, social identities, and hence the social component of the self-concept, are fluid and variable (Onorato & Turner, 2004). It follows that the extent to which others will be perceived to be in-group members or members of outgroups will also be fluid and context-dependent, not determined solely by fixed demographic boundaries. To illustrate, consider a male clinical psychologist. In a context which compares men with women (e.g. in a discussion about the under-representation of men within the profession) he might view his female co-worker, who is also a clinical psychologist, as 'other' – a member of the out-group and distinct from the self. However, if a contextual shift brings to the fore a comparison with psychiatrists, the man may self-define in terms of his similarities to other clinical psychologists and his differences from psychiatrists. In this context, his female colleague will be a part of his in-group, and thus seen to be a part of 'self', and the psychiatrist as 'other'. Indeed, if a further shift in comparative context invites comparisons between mental health workers and those working in construction, the psychiatrist would come to be seen as part of the in-group, and thus a part of 'self', and so the broadening of inclusiveness continues.

2.3.3 Applications of the SIA to depression

The SIA has been used to understand a broad range of group-related phenomena (for a review, see Reicher, Haslam, Spears and Reynolds, 2012). However, over the past decade it has increasingly been applied to the domains of physical and mental health (e.g. Jetten et al., 2012). Work which has been directly concerned with the

impact of social identity processes on depression has been summarised by Cruwys et al. (2014a). In short, Cruwys et al. have suggested that a SIA derived understanding of the relationship between social connectedness and depression differs from traditional approaches insofar as it does not focus simply on how people relate to one another, but on how people define themselves. They suggest that a self-definition which includes others gives rise to a positive feeling associated with being part of something which is bigger than an individualised self-view. Cruwys et al. (2014a, p. 219) structured their review around six key hypotheses based on the SIA, which will be summarised below, along with some key findings which support them.

H1. Social identification with meaningful groups will predict lower levels of depression, and
H2. Social identification with a greater number of meaningful groups will predict lower levels of depression.
In support of H1, Cruwys et al. (2014a) have argued that across thirteen studies which investigated the relationship between strength of identification and depression, the average weighted Pearson's correlation is -.25. However, none of the studies reviewed were conducted with clinically depressed samples. In support of H2, Cruwys, Dingle, Haslam, Haslam, Jetten, & Morton (2013) conducted a secondary analysis of a large-scale population data. They found that over a four-year period, belonging to an increasing number of groups protected against the development of depression symptoms, and alleviated symptoms for those who were initially depressed (Cruwys et al., 2013).

H3. The benefit of group membership for depression symptoms will be moderated by relevant normative content.
Underlying H3 is the assumption that it is not simply a case that identifying with social groups will have a positive impact on depression. If a person self-categorises in terms of a social group or groups for whom normative behaviours or attitudes include those which may be detrimental to well-being (e.g. excessive drug-taking, self-harm, or self-deprecation), then increased identification may lead to greater levels of depression. For example, Crabtree, Haslam, Postmes, & Haslam (2010)

found that whilst belonging to a mental health support group was associated with beneficial outcomes, such as increased social support and resistance to stigmatisation, stronger identification with the group was associated with reduced self-esteem. In addition, whilst not specific to depression, but in demonstration of the same underlying process, St. Claire and Clucas (2012) concluded in their review of the impact of normative beliefs on illness: "…people who resist self-categorizing in terms of an illness group experience fewer and less severe symptoms and enhanced self-esteem" (p. 91).

H4. Subjective indicators of social relationships will be better predictors of depressive symptoms than objective indicators.

In relation to H4, Cruwys et al. (2014a) make the important point that it is not simply a case of reaping the benefits of group membership following mere contact with a collective. Instead, it is the subjective experience of feeling part of a group that will have benefits for mental health. This relates to the distinction between the physical and psychological group, outlined by Turner (1987, p. 1), who stated the following when describing a psychological group:

> In the usual terminology, it is a (positive) *reference* group and not merely a *membership* group as defined by outsiders, i.e., it is not simply a group which one is objectively *in*, but one which is subjectively important in determining one's actions.

In support of H4, Sani, Herrera, Wakefield, Boroch, and Gulyas (2012) have shown across two studies that identification with a social group (family units and the army were the groups under investigation) was a better predictor of mental health outcomes (including depression) than frequency of social contact. Social contact was measured in relation to face-to-face and over-the-telephone interactions, as well as attendance of social events. Thus, it is psychological group memberships as opposed to physical group contact that is important for positive mental health outcomes.

H5. Social identification will determine the impact of the various social factors (e.g., social support) that are implicated in depression.

H5 states that the positive benefits associated with group membership, such as increased helping (e.g. Levine, Prosser, Evans, & Reicher, 2005), collective resilience (Drury, 2012), and social support (e.g. Haslam et al., 2005) will operate as mediators of the relationship between social identification and depression. Cruwys et al. (2014a) note that there has been little research exploring these proposed mediators directly in relation to depression. However, promising hints at the relationship can be found in related research, which has shown that the relationship between social identification and reduced stress, for example, is mediated by social support (Haslam et al., 2005).

H6. Social interventions for depression will be more effective to the extent that they increase social identification.

The final hypothesis states that interventions which increase social identification will have better depression-related outcomes. A body of work has started to emerge in support of this prediction, particularly in residential care homes (e.g. Gleibs, Haslam, Jones, Haslam, McNeill & Connolly, 2011). Going beyond those findings, in a recent study, a sample of vulnerable Australian adults was recruited to join a community group which organises social and recreational activities (Cruwys et al. 2014b). It was found that participants who identified most strongly with the group benefited from the greatest reduction in depression scores following participation in group-based activities. This finding was replicated in a follow-up study which focussed on a clinical sample who participated in a group-based CBT intervention (Cruwys et al., 2014b). Therefore, it is not necessarily the type of group intervention that is important, but the extent to which participants identify with the therapeutic group.

2.3.4 Further implications of the SIA for depression

In the previous section, basic assumptions drawn out from the SIA have been outlined along with supporting evidence. However, some recent work has started to emerge which elaborates further on how social identification might reduce depression. Work by Cruwys and her colleagues has started to demonstrate that social identifications can impact on so-called ‘individual’ psychological processes.

For example, past research has linked depression with a certain 'depressive' attribution style, in which perceivers attribute negative events to internal, stable and global causes and positive events to external, variable, and situation-specific causes (Abramson, Seligman, & Teasdale, 1978). However, in a sample of undergraduate students, involvement with more groups predicted a less depressive attribution style, which in turn was predictive of lower levels of depression (Cruwys, South, Greenaway, & Haslam, 2014c). Thus, individual cognition varied in relation to social processes.

This group-related shift in individuals' attribution style raises interesting questions around the extent which other 'individual' variables might be related to social identification processes. Specifically, it speaks to the possibility of personality variables operating at the level of both individuals and groups. This is not a new idea in the SIA (see for example: Turner, Reynolds, Haslam, & Veenstra, 2006). Turner et al. (2006) have argued that because traditional approaches have conceptualised personality exclusively in terms of individual differences, research has focussed on measurements taken when people are self-categorized in terms of their personal identity – hence the observed consistency across time and measures. However, when contextual shifts lead people to self-categorize according to social identities, measures of personality will tap into normative, stereotypical content of those identities. To illustrate, in a study of the relationship between right-wing authoritarianism (a personality style associated with racism, Altemeyer, 1996) and prejudice, a strong positive correlation was observed between these variables when participants self-defined in terms of their personal identities (Reynolds, Turner, Haslam, & Ryan, 2001). However, the relationship became non-significant when participants were self-categorised in terms of their national (Australian) identity, which indicates that personality variables which are conceptualised as fixed individual differences, vary along with contextually determined shifts in the level of self-definitions.

As discussed previously in this thesis (see Section 2.2.3.2), personality variables such as optimism have been associated with depression. Researchers with an interest in optimism conceptualise it as an individual trait which is stable over time

and resistant to change (see Carver & Scheier, 2014). However a redefinition of personality as something which can operate at the level of both personal and social parts of the self suggests that rather than seeing optimism as a stable personality trait, it might also vary at the level of groups. Indeed, there is some very limited evidence within the optimism literature which alludes to this possibility.

As discussed previously, Segerstrom's (2007) longitudinal analysis of law students found that an increase in social relationships over a ten year period was associated with higher optimism, and lower depression, although the analysis suggested that optimism did not predict an increase in relationships. Segerstrom (2007) interpreted this finding as a reflection of enhanced social skills amongst 'dispositional optimists' at baseline, meaning that there was a ceiling effect in the amount of social support they could attract. However, baseline social skills were not measured. An alternative SIA explanation might state that regardless of individual levels of optimism or social support, people who had become involved in group activities would perhaps experience more opportunities to feel part of a social group, and thus reap the benefits associated with group membership, as discussed above.

2.3.5 Group formation in the therapy room

Extensive research has demonstrated the importance of the therapeutic alliance for positive therapy outcomes (Martin, Garske, & Davis, 2000). However, Cruwys et al. (2104a) have highlighted that the therapeutic relationship has not yet been understood in relation social identity principles, but perhaps should be. According to Cruwys et al (2014a) "…we would anticipate that therapeutic efforts would meet with greater success when they are made by a practitioner who is perceived by the patient to be an in-group rather than an out-group member (i.e., understood to be "one of us," and hence "like me" rather than "one of them" and "not like me")" (p. 231). As discussed in the theory overview, above, who is categorised as an in-group member is not dependent on demographic variables, such as gender or 'race'. As such Cruwys et al.'s (2014a) suggestion does not endorse ethnic matching in psychotherapy (see Karlsson, 2005, for a review of ethnic matching research), which has been the subject of controversy. Rather, it speaks to the idea of a sense of

togetherness based on perceived similarity on relevant domains within the therapeutic relationship.

To extend Cruwys et al.'s (2014a) ideas further, it could also be the case that whilst identifying with a therapist might be important in terms of the therapeutic alliance, the likelihood of sustaining the benefits of that alliance beyond the therapy room will depend on the extent to which clients can internalise their therapist as part of their identity. To reiterate, the internalisation process from within the SIA approach relates to the process of depersonalisation whereby a person shifts from the personal to collective level of identification, and comes to self-define in terms of their perceived similarity or interchangeability with an in-group other. As stated previously, the processes of perceiver readiness and fit are vital within this process (see section 2.3.2). Within the therapy room, where the therapist may be seen as the therapy expert, clients might view their therapist as the stereotypical group member, and define the emergent shared identity in relation to their own similarities to the stereotype. Thus, outside of the therapy room, clients who can successfully maintain progress may be those who can self-categorise according to the therapeutic social identity as they go about their daily lives.

The internalisation of the therapist beyond the therapy room is not a new idea. It is prominent in psychodynamic approaches, where it has been conceptualised in various overlapping ways, including attachment, object-relations, internal representations, and transference, among others (Knox, Goldberg, Woodhouse, & Hill, 1999). However, from a SIA perspective, the internalisation of the therapist identity would follow from a process of comparison, in which the therapist is firstly seen to be similar to self, and then subsequently incorporated as part of the (social) self-concept.

A final area of interest regarding social identity processes in the therapeutic relationship relates to the prototypicality of the therapist in relation to the wider therapist identity. Within the SIA's idea of normative fit (see section 2.3.2) is the suggestion that people are more likely to categorised as a group when they match a perceiver's expectation of what is normative for that group (e.g. Oakes, Turner, &

Haslam, 1991; Turner et al., 1987). This raises questions over the extent to which clients are more likely to categorise their therapists as therapists when they match their expectations of how a therapist should look or act. If so, the extent to which perceivers rate their therapists as prototypical of the therapist identity might have an impact on how therapeutic interventions are received and how successful they are. In other words, if the stereotype is a positive one, the therapist's interventions may be welcomed, whilst a negative stereotype might result in them being rejected. The therapist may also act as a vehicle through which their clients can not only internalise the social identity which emerges in the therapy room, but also the extent to which they can identify with the wider therapist social category. The ability to access both types of therapist social identity might increase participant's optimism (if optimism does indeed vary along with social identities) relating to future positive events, which in turn might reduce their symptoms of depression.

2.4 Rationale, aims, and hypotheses for the current research

2.4.1 Rationale

Cruwys et al. (2014a) have reviewed a wide range of evidence which lends initial support to a SIA understanding of depression. Importantly, clinical applications of the SIA have started to produce encouraging results in relation to their ability to reduce depression symptoms. However, as Cruwys et al (2014a) acknowledge, the process of theory application is in its infancy and requires a great deal more work, across a wide range of issues. The current project is being conducted to make a contribution to a SIA understanding of depression in the following ways:

2.4.2 Aims

- Firstly to replicate findings which support a SIA understanding of depression using a sample reporting a high level of depression symptomology.
- Second, to identify further theoretically derived mediators of the relationship between social identification and depression; namely the role of (i) personality 'dispositions', such as optimism, and (ii) the role of social support.
- Third, to explore and elaborate on the extent to which the therapeutic relationship can be understood in relation to social identity processes.

2.4.3 Hypotheses

The key hypotheses, which all relate to a sample comprised of people who have previously, or are currently experiencing depression are as follows:

H1: In line with Cruwys et al. (2013, 2014c), *belonging to an increasing number of social groups will be a unique predictor of lower depression scores, using (a) a general measure of social group membership, and (b) the number of groups participants can list.* Two measures of quantity of group memberships will be included to explore whether a general perception of belonging to multiple groups and the number of groups which can actually be named (and are therefore cognitively accessible), differ in their impact on depression.

H2: *An increase in optimism will be a unique predictor of lower depression scores.*

H3: *The relationship between quantity of group memberships and depression scores will be mediated by an increase in optimism.*

H4: *Strength of identification with a group self-identified as important to participants and perceived social support will be unique predictors of lower depression scores.*

H5: *The relationship between identification with an important social group and depression will be mediated by increased perceptions of social support and increased optimism.*

H6: *The quality of therapeutic relationship, identification with the therapist, and internalisation of therapist identity will each be unique predictors of lower depression scores.*

H7: *Any association between the quality of the therapeutic relationship and reduced depression symptoms will be mediated by (i) participants' identification with their therapist, (ii) internalisation of the therapist identity, and (iii) increased optimism. It is predicted that these variables will operate serially.*

H8: *Perceived therapist prototypicality and identification with the wider therapist category (i.e therapists in general) will both be unique predictors of lower depression scores.*

H9: *The relationship between therapist prototypicality and depression will be serially mediated by identification with therapists in general and optimism.*

3. Method

3.1 Design

The current study used a cross-sectional web-based online survey to collect data. An alternative approach would have been to recruit a clinical sample via mental health services. However, an online survey was the preferred method as it allowed for access to a wide range of people who have experienced depression, improved cost effectiveness (both financial and time), and provided an enhanced sense of anonymity for participants.

3.2 Target population and recruitment strategy

The target population was adults aged 18 or over who had either previously experienced depression, or were experiencing depression at the time of completing the survey. The nationality of the target population was not specified, although recruitment was largely focussed on countries where English is the primary language – mainly the UK and the US. However, the survey was open to people of all nationalities. The decision to keep the target population broad involved a trade-off between tight control over the sample characteristics and improved accessibility to a larger number of potential participants. It was decided that the main priority was to enhance recruitment and that the loss of control over the sample characteristics would not be greatly detrimental to the interpretation of the findings.

3.3 Final sample size and response rate

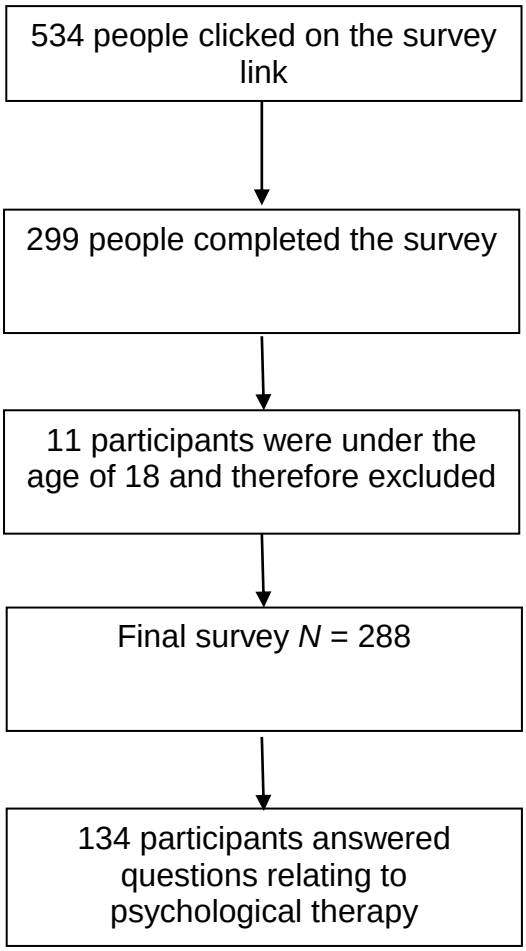

Figure 1: Final sample sizes in study sub-sections

Data collection was concluded on February 15th 2015. At that time, 534 people had clicked on the survey link which took them to the front page of the online survey where the information sheet was located. Only participants who completed the whole survey were included in the final data analysis. In total 299 participants completed the study, which indicates a drop-out rate of forty-four per cent. Of the final sample, eleven participants indicated that they were below the age of eighteen and were not included in the analysis. The final survey sample was comprised of 288 participants, fifty-four per cent of the people who initially clicked on the survey link. As several hypotheses focussed specifically on participants' experiences of therapy, a further sub-section of the sample (*N* = 173) who indicated that they had previously received psychological therapy, was derived. Of these, 134 participants answered the questions relating to their experiences of therapy. The thirty-nine participants who

received psychological therapy but did not answer the therapy questions were filtered past the therapy section. This was due to a flaw in the survey design. Participants were asked what type of treatment they had received and the medication response was programed to allow participants to skip past the psychological therapy questions. However, thirty-nine participants who had received both medication and therapy clicked on the separate 'medication' and 'psychological therapy' response options as opposed to the combined option, resulting in them not being presented with the therapy items.

3.4 Sample size determination and sensitivity analysis

A power calculation was conducted to determine the minimum sample size required to detect a relationship between a predictor (e.g. strength of identification) and a criterion variable (e.g. depression symptoms) as stated in the hypotheses of the study (see Section 2.4.3). The results revealed that a sample size of N = 92 would be required to detect a medium effect size correlation of r = .30. As the final sample size of turned out to be three times larger in size (N = 288), the sensitivity of the study to discover a much smaller effect was very high.

3.5 Survey development

There were several sections included in the survey, each of which was designed to capture components of the hypotheses outlined in Section 2.4.3. Some of the items included were based on well-established measures, whereas others were designed for the purpose of this study. The main sections were as follows:

1. Current feelings (self-report measures of depression over the previous week).
2. Historical information relating to depression and mental health.
3. Experience of treatment for depression.
4. Identification processes relating to psychological therapy.
5. Social identification and group memberships (including measures of social support).
6. Self-reported optimism.
7. Socio-demographic information.

3.5.1 Measures

3.5.1.1 Depression

An estimate of participants' current level of depression was obtained using the Center for Epidemiological Studies Depression (CES-D) Scale (Radloff, 1977). The CES-D contains twenty statements which are designed to measure cognitive, behavioural, affective, and somatic aspects of depression as well as some aspects of positive affect (see Appendix 2 for the individual scale items). Participants were asked to respond to the items in relation to how they had generally felt during the previous week, using a four-point response scale. In order to streamline the survey, the wording of the response scale was slightly modified from the original and the final categories included: 1 = *rarely*, 2 = *a few times*, 3 = *quite often*, and 4 = *almost all of the time*. The items scaled together extremely well (α = .94), and were summed to obtain a single depression score.

3.5.1.2 Mental health and depression history

Participants were asked to respond to a series of questions relating to their mental health, which were designed specifically for the purpose of the current survey. These questions specifically addressed: (i) whether participants had received a depression diagnosis, (ii) whether participants' depression was co-morbid with other disorders, and (iii) whether participants believed that they had recovered from depression (and if so, for how long).

3.5.1.3 Treatment history

Participants were presented with a screening question which asked whether they had received treatment for their depression and for those who responded 'yes', what type of treatment they received. Participants who indicated that they had either not received treatment or who stated that their treatment had not included psychological therapy were directed to the next section of the survey. Participants who indicated that they had experience of psychological therapy were asked a series of follow-up questions, which are described below.

3.5.1.4 Therapy measures

Participants responded to all items relating to their experience of psychological therapy on a scale which ranged from 1 (do not agree) to 7 (agree completely).

3.5.1.4.1 Quality of the therapeutic relationship: The extent to which participants felt that they had a good relationship with their therapist was assessed using a single item which was designed for the purpose of this study, *'I had a good relationship with my therapist'*.

3.5.1.4.2 Identification with the therapist: Participant's identification with their therapist was measured using two items of social identification adapted from Ellemers, Kortekaas, and Ouwerkerk (1999), *'I am like my therapist'*, and *'I identified with my therapist'*. Additional items of identification (e.g. Ellemers et al., 1999; Leach et al., 2008) were not included in order to minimise the length of the survey and repetitiveness of survey items as much as possible to reduce drop-out rates. Additionally, it was felt that many measures of identification might not make sense to participants when they were asked to assess their identification with their therapist (e.g. *'being a _____ is a reflection of who I am'*, Ellemers et al., 1999). Therefore, it was decided to use a limited number of identity measures, which is a well-established method of measuring social identification (Haslam, 2004). There was a strong correlation between these two items of identification with the therapist, $r = .63$, $p < .001$, and they were combined to produce a composite measure.

3.5.1.4.3 Identification with therapists in general: The two social identity items from Ellemers et al. (1999) described in the previous section were further adapted to measure identification with therapists in general, *'I am like therapists in general'*, and *'I identify with therapists in general'.* Again, these measures correlated very well, $r = .82$, $p < .001$, and were combined.

3.5.1.4.4 Internalisation of the therapist identity: The extent to which participants internalised the therapist social identity was measured using three items designed for the purpose of this study, *'I often think of myself as being my own therapist'*, *'I can handle difficult situations by thinking to myself in a way that reflects how my*

therapist would talk to me', and *'I often think of myself in terms of my similarities to my therapist'.* These three items each measured how much participants thought or acted in a way that is comparable to their therapist, which gives some indication of the extent to which they internalised the therapist identity as a part of their self-concept. These items showed a good degree of internal consistency, α = .64, and were combined to produce a composite measure of therapist identity internalisation.

3.5.1.4.5 Therapist prototypicality: Two items, which were based on items used by van Knippenberg and van Knippenberg (2005), were designed to assess participants' rating of the extent to which their therapist fitted the therapist prototype, *'I think my therapist is/was typical of other therapists'*, and *'I think my therapist is/was representative of therapists in general'*. These items scaled together very well, r = .85, and were combined.

3.5.1.5 Group variables

Participants responded to all items relating to their membership of social groups on a scale which ranged from 1 (do not agree) to 7 (agree completely).

3.5.1.5.1 General measure of multiple group memberships: Four items, which were adapted from the Exeter Identity Transition Scales (EXITS; Haslam, Holme, Haslam, Iyer, Jetten, & Williams, 2008) were adapted to measure participants' involvement with multiple groups. The four items included in the survey were: *'I belong to lots of different groups', 'I join in the activities of lots of different groups', 'I have friends who are members of lots of different groups',* and *'I have strong ties with lots of different groups'.* The items scaled together extremely well, α = .90, and were therefore combined.

3.5.1.5.2 Quantity of group memberships: To establish how many groups participants felt they belonged to, they were simply asked to list all of the groups which they felt they belonged to at the time of completing the survey. The number of groups was then summed for each participant.

3.5.1.5.3 Strength of social Identification: Prior to completing a measure of strength of identification, participants were asked to choose which group is most important to them from the list of groups they compiled in the previous section. They were then presented with a single item measure of strength of identification, '*I am like other people who also belong to this social group'* (adapted from Ellemers et al. 1999) which was conceptualised in relation to perceived similarity to other members of the group (see Section 5.6.2 for a discussion around possible alternative measures of identification).

3.5.1.5.4 Perceived social support: Three items were designed to measure the extent which participants felt supported by members of the group they chose as important to them. The items were: *'I receive support from other people from this social group when I feel depressed'*, *'I expect to receive support from other people from this social group when I feel depressed'*, and *'Members of this social group are on my side'*. The three social support items scaled together reliably, α = .85, and were combined.

3.5.1.6 Optimism

Optimism was assessed using the Life Orientation Test – Revised (LOT-R; Scheier, Carver, & Bridges, 1994). The LOT-R is comprised of ten items; three items designed to measure optimism, three items designed to measure pessimism, and four filler items (see Appendix 3). Research suggests that it is unnecessary to treat optimism and pessimism separately (Vautier, Raufaste, & Cariou, 2003). Therefore, the pessimism items were reverse coded before assessing for inter-scale reliability. The six items scaled together well, α = .85, and were combined to create a composite optimism scale. Although the original LOT-R was responded to on a five-point scale ranging from 0 (strongly disagree) to 4 (strongly agree), a seven-point scale ranging from 1 (do not agree) to 7 (agree completely) was used in the current survey to retain consistency with other items.

3.5.1.7 Demographic variables

A series of questions were included to obtain information relating to some key demographic variables, including age, gender, nationality, employment status, level

of education, and relationship status. These items were included towards the end of the survey to prevent inadvertently influencing participants to self-categorise according to social identities based on these demographics before completing measures of the key variables.

3.6 Procedure

Recruitment was largely focussed on social media platforms, such as Twitter and Facebook, where adverts for the study were strategically placed on various pages associated with depression. In addition, people with links to mental health, depression, or psychology in general were asked to 'share' links to the survey. Those people will not be named here to maintain their anonymity. Adverts for the study were also placed on several online mental health discussion forums and shared via websites of mental health charities in the UK and the US. Finally, psychology students at the University of Hertfordshire with a history of depression were offered the opportunity to take part in the study in exchange for course credits.

Potential participants were invited to click on a link to the survey which was hosted on Qualtrics – an online survey software provider. Having clicked on the link, potential participants were presented with an information sheet which (a) provided background information to the study, (b) informed participants of what they would be asked to do, (c) outlined some possible risks and benefits associated with taking part, (d) clarified that participant responses would be confidential, (e) informed participants of their right to withdraw from the study at any time, (f) provided information regarding ethical approval of the study, and (g) provided contact details for the primary researcher (see Appendix 4). The information sheet also stated that by clicking the 'continue' button, participants were consenting to take part in the study. Participants then worked through the survey, until reaching the end, where they were presented with a written debrief (see Appendix 5) which thanked them for taking part, explained the purpose of the study, and provided a link to Mind for anyone who meet require additional support. Participants were also informed that they could leave their email address if they wanted to be sent a summary of the main findings. When the data collection was completed, responses were imported directly into SPSS (statistical software package) from Qualtrics.

3.7 Ethical considerations

To ensure that participants were able to provide fully informed consent, they were presented with an information sheet, as described in the previous section. In addition to consenting to take part, participants were informed that they were able to withdraw from the study at any time without experiencing any negative repercussions.

Participant were not required to provide any identifiable information to take part in the study. Thus, anonymity was possible for all participants. However, participants were given the option of providing their email address if they wanted to receive a summary of the main findings. Whilst anonymity could not be ensured for these participants, they were assured that their responses would remain confidential and not shared beyond the research team. When participants' responses were imported to SPSS, their email addresses were deleted and stored in a separate file.

As the survey targeted people with a history of depression, and the study design involved thinking about being depressed, it was possibility that taking part might have a negative impact on participants' mood. However, it was not anticipated that taking part would have detrimental impact on participants' mood beyond that experienced in their everyday lives. However, contact details for Mind – a UK-based mental health charity – was provided for anyone who might require additional information or support for their mental health difficulties.

Before starting the recruitment process for this study, ethical approval was sought, and subsequently provided, by the University of Hertfordshire Ethics Committee (protocol number: LMS/PG/UH/00292, see Appendix 6 for a copy of the approval certificate).

4. Results

4.1 Chapter overview

This chapter will present the results from the analyses. To begin with, the sample will be described in terms of some demographic variables, their mental health status, and their experiences of psychological therapy. Descriptive statistics will then be provided for the key variables, including the extent of depression symptomology in the sample. Finally, a series of predictive models will then be presented, along with mediational analyses which intend to elaborate on the pathways through which various predictors might impact on depression.

4.2 Sample description

4.2.1 Demographic information

Gender: As shown in Table 1 (below), the final sample was comprised of a much larger proportion of female (83%) than male participants (17%).

Age: The majority of participants were aged between eighteen and twenty-five (41%), with increasingly fewer participants in each ascending age-bracket, which possibly reflects the typical ages of users of social media sites, where the study was primarily advertised.

Nationality: A large majority of the sample were British (58%). Sixteen per cent of the final sample were categorised as 'other', which means that they were not from the UK or USA (countries represented in the 'other' category included: The Republic of Ireland, Italy, Spain, Iceland, Belgium, Serbia, Hungary Germany, Australia, Canada, Sri Lanka, Sweden, Mexico, Brazil, Malaysia, Saudi Arabia, India, Palestine, and Israel).

Employment status: Twenty-nine per cent of the final sample were students, thirty-one per cent were either in full-time or part-time employment, and twelve per cent were unemployed. Twenty-one per cent of the sample chose multiple employment categories. For example, they may have been in full-time employment and studying part-time. Twenty-one people chose 'other' in relation to their current employment. Amongst those who provided further information 'other' related to: maternity leave/mother/housewife (*N* = 3), disabled/long-term sick (*N* = 10), volunteer (*N* = 1), not seeking employment (*N* = 3).

Education: At least seventy per cent of participants had received a qualification beyond high school. Nine per cent of the sample chose 'other' in relation to qualifications; most of these listed postgraduate qualifications.

Relationship status: The sample was fairly evenly split between those who were single (47%) and those who were in a relationship (51%).

Table 1. Frequencies and percentages of gender, age, nationality, employment status, education, and relationship status within the final sample.

Variable	Category	Frequency	Percentage
Gender	Male	50	17%
	Female	238	83%
Age	18-25	118	41%
	26-35	82	28%
	36-45	54	19%
	46-55	23	8%
	56-65	11	4%
Nationality	United Kingdom	167	58%
	USA	64	22%
	Other	57	20%
Employment Status	Full-time employment	61	21%
	Part-time employment	28	10%
	Student	83	29%
	Unemployed	33	12%
	Other	22	8%
	Multiple categories	61	21%
Education (highest qualification)	High school qualification	57	20%
	Professional diploma	23	8%
	A-levels (or equivalent)	73	25%
	University degree	105	37%
	No qualifications	3	1%
	Other	27	9%
Relationship status	Single	125	43%
	In a relationship	85	30%
	Married	58	20%
	Civil partnership	4	1%
	Divorced	11	4%
	Other	5	2%
Sample	Total	288	100%

4.2.2 Mental health status

Diagnoses: Information relating to participants' mental health diagnoses is displayed in Table 2 (below). Sixty-three per cent of the sample had been formally diagnosed with depression. Within the sub-sample who had received a formal diagnosis, forty per cent had been diagnosed with unipolar depression or major mood disorder. Forty-eight per cent had received a dual-diagnosis. Almost half (46%) of those who had received a dual diagnosis were also diagnosed with an anxiety disorder (e.g. social anxiety, generalised anxiety, or obsessive compulsive disorder). Thirty-three per cent of participants who had received a dual-diagnosis did not specify what other diagnosis they had received.

Table 2. Frequencies and percentages for variables relating to participants' mental health diagnoses.

Variable	Category	Frequency	Percentage
Received depression diagnosis?	Yes	181	63%
	No	91	32%
	Don't know	16	5%
Sample	Total	288	100%
Type of diagnosis	Unipolar depression	67	38%
	Bipolar depression	10	6%
	Major mood disorder	4	2%
	Post-natal depression	4	2%
	Dual diagnosis	87	48%
	Diagnosis not specified	8	4%
Sub-sample	Total	181	100%
Dual Diagnoses	Anxiety disorder	40	46%
	Personality disorder	7	8%
	PTSD/Trauma	7	8%
	Eating disorder	4	5%
	Not-specified		33%
Sub-sample	Total	87	100%

Current depression status: Participants' subjective evaluations of their current depression status are summarised in Table 3 (below). The majority of participants (67%) reported to be currently experiencing depression. Of those who felt that they

had recovered from depression, the majority appeared to move towards the extremes of the measuring scale, with forty-two per cent reporting that they recovered within the previous year, and twenty-five per cent stating that they recovered more than five years ago.

Table 3. Frequencies and percentages for variables relating to participants' current depression status.

Variable	Category	Frequency	Percentage
Have you recovered from depression?	Yes	95	33%
	No	193	67%
Sample	Total	288	100%
Length of time since recovery	Up to 6 months	21	23
	6 months – 1 year	18	19
	1 – 2 years	17	18
	2 – 3 years	4	4
	3 – 4 years	8	9
	4 – 5 years	2	2
	More than 5 years	23	25
Sub-sample	Total	95	100%

4.2.3 Treatment for depression

As displayed in Table 4 (below), the majority of participants had received treatment for depression (71%). Of the sub-sample who had received treatment, most (85%) had received some form of psychological therapy, either with or without concurrent medication.

Table 4. Frequencies and percentages for variables relating to type of treatment received

Variable	Category	Frequency	Percentage
Received depression treatment?	Yes	204	71%
	No	84	29%
Sample	Total	288	100%
Type of treatment	Medication	29	14%
	Psychological therapy	28	14%
	Psychological therapy & medication	145	71%
	Other	2	1%
Sub-sample	Total	181	100%

4.3 Descriptive statistics for the main variables

Descriptive statistics for the variables included in the main analyses are provided in Table 5. Boxplots for the variables can be found in Figures 2 and 3. The variables include: clinical status, which relates to current depression scores (CES-D; Radloff, 1977), optimism (LOT-R; Scheier et al., 1994), and measures relating to group memberships (subjective multiple group memberships and number of groups listed), and social identity processes (strength of social identification with an important group and perceived social support). As can be seen, the values for skewness and kurtosis for most variables did not exceed 1, which indicates that the assumption of normally of the error term in regression analysis was hardly violated (Bulmer, 1979). This is supported by the boxplots which show reasonably even distributions with no outliers. The only exception was the number of groups listed by participants, for which there was a modest positive skew, and the distribution was leptokurtic. The boxplot reveals that the positive skew can be accounted for by several outliers, with examination of the data revealing that these are legitimate high scores as can be expected in a sample of this size.

4.3.1 Depression symptomology: A boxplot for the CES-D can be found in Figure 2. The overall mean level of depression within the sample was high. When the sample was divided into groups based on the number of diagnoses received, there was a significant difference in depression scores between those who had never received a depression diagnosis (N= 107) (M = 27.44, SD = 13.63), those who had received a single depression diagnosis (N= 94) (M =30.76, SD = 14.75), and those who had received a dual-diagnosis (N= 87) (M = 35.86, SD = 12.82), F (2, 285) = 9.01, p < .001, η^2 = .06, although the size of the effect was modest An increasing number of diagnoses was associated with higher depression scores, as might be expected. Importantly, mean scores for participants in each of the diagnostic categories were well above the CES-D cut-off of sixteen.

4.3.2 Multiple group memberships: Participants' score on the composite measure of perceived involvement with multiple groups (see Table 5) was significantly below the

scale mid-point of 4 'neither agree nor disagree', t (287) = -6.74, p < .001, indicating relatively low levels of group involvement.

4.3.3 Number of groups listed: On average, participants could name approximately three groups to which they felt they belonged, with the median also being three.

4.3.4 Strength of identification: On the composite measure of strength of identification with a specific group, the average score (see Table 5) was significantly above the scale midpoint of 4, t (287) = 7.02, p < .001, indicating relatively high levels of identification.

4.3.5 Perceived social support: The mean score for perceived social support was significantly above the scale mid-point of 4, t (287) = 3.56, p < .001, which suggests that overall, participants felt that they were supported by fellow members of a group that was important to them.

4.3.6 Optimism: Overall, participants' optimism was significantly below the mid-point 4 of the scale, t (287) = -6.44, p < .001, indicating low levels of optimism.

Table 5. Descriptive statistics for key predictor and outcome variables (N = 288).

	Min	Max	Mean	SD	Median	Skew-ness	Kurt-osis
Depression	0.00	58.00	31.07	14.15	33.00	-0.29	-0.87
Multiple group memberships	1.00	7.00	3.33	1.69	3.00	0.34	-0.96
Number of groups listed	0.00	12.00	2.98	2.37	3.00	1.05	1.19
Strength of identification	1.00	7.00	4.77	1.85	5.00	-0.77	-0.36
Perceived social support	1.00	7.00	4.39	1.85	4.67	-0.43	-0.84
Optimism	1.00	6.83	3.47	1.40	3.50	0.10	-0.79

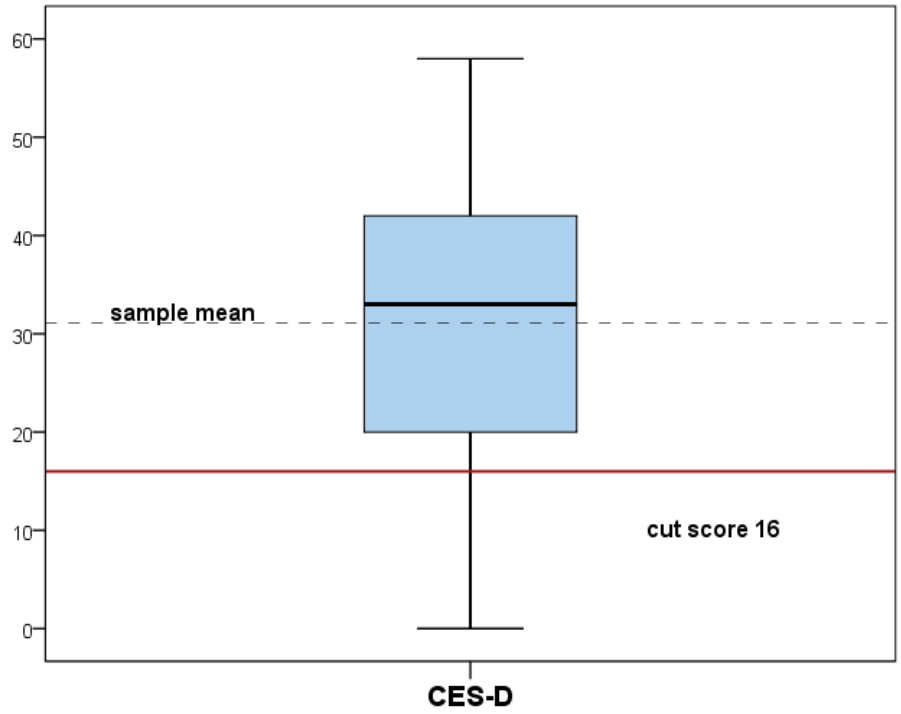

Figure 2. Boxplot showing the distribution of the CES-D scores. Cut-off score of 16 indicates clinical depression (*N* = 288).

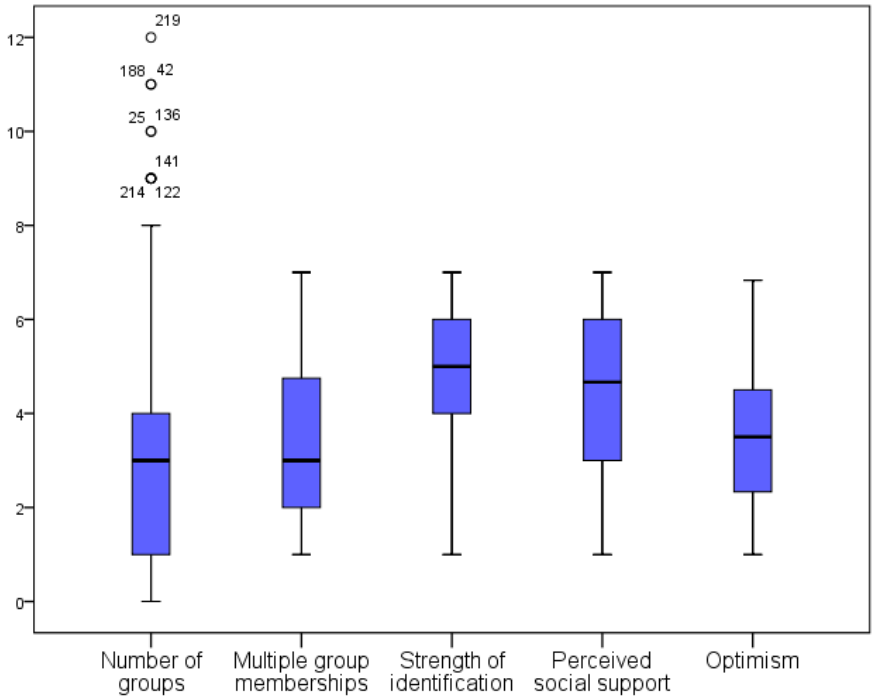

Figure 3. Boxplots for the group membership, social identification, social support, and optimism measures (N = 288)

4.4 The relationship between multiple group memberships, accessibility of multiple groups, optimism, and depression

4.4.1 Correlations

As shown in Table 6, there were highly significant correlations between each of the variables. As expected, participants' subjective evaluation of belonging to several groups was positively correlated with the number of groups they could list. Also as predicted, an increase in both the number of groups that people listed and their subjective evaluation of multiple group memberships was associated with lower depression scores. The two measures of multiple group memberships were also associated with higher optimism scores. Finally, higher optimism scores were associated with lower depression.

Table 6. Pearson's correlations for depression, group memberships, group accessibility, and optimism (N = 288).

	Depression	Multiple group memberships	Number of groups	Optimism
Depression	-	-.30***	-.23***	-.54***
Multiple group memberships			.55***	.32***
Number of groups				.25***

***p < .001

4.4.2 Predictive model of depression (i)

4.4.2.1 Covariates: Based on strong evidence within the literature, several socio-demographic variables associated with depression were included as covariates in the predictive model. These were: participants' gender (female = 0, male = 1), age, and relationship status (single = 0, in a relationship = 1. Participants who were single, widowed or divorced were included in the 'single' category (47%), those who were married, in a relationship, or in a civil partnership were included in the 'relationship' category (53%). In addition, there was a significant difference in depression scores based on participants' diagnostic status (see Section 4.2.1). Therefore, diagnostic status was also included as a covariate. Past research has

also indicated that indicators of socio-economic status, such as employment are associated with depression (e.g. Kessler et al., 2003). However, as it is difficult to separate out the people who have chosen multiple employment categories within the current data, it will not be included as a covariate.

4.4.2.2 Hypothesis 1: Belonging to an increasing number of social groups will be a unique predictor of lower depression scores, when controlling for potential confounds, using (a) a general measure of social group membership, and (b) the number of groups participants can list: For the first stage of model building, a multiple regression analysis was conducted to assess the extent to which the two measures of multiple group memberships – i.e. the composite measure of perceived involvement with multiple groups, and the number of important social groups named by participants – could predict depression scores. R^2 for the model is .10, which indicates that together, the multiple group membership variables accounted for 10% of the variance in depression scores, F (2, 285) = 14.96, $p < .001$. As shown in Table 7, when entered into the model together, participants' ratings of their involvement with multiple groups was a highly significant predictor of depression with a moderate effect size (β = -.25) in reducing depression scores. However, the number of groups that they could recall was not a significant predictor. Therefore, hypothesis 1 was partially supported: participants' overall evaluation of involvement with several groups was a significant positive predictor of their depression scores, but the number of groups they could name was not a unique predictor.

Table 7. Multiple regression model 1: Multiple group memberships, and number of groups named as predictors of depression (N = 288).

	B	*SE (B)*	*β*	*t*
Multiple group memberships	-2.06	0.57	-.25	-3.65***
Number of groups (recall)	-0.57	0.40	-.10	-1.41

*** $p < .001$

Stage 2: For the second step of model building, the number of groups named by participants was not included as it did not make a significant contribution to the model at step 1. A hierarchical multiple regression model was constructed to explore

the extent to which perceived multiple group memberships predicted depression when controlling for gender, age, relationship status, and diagnostic status (see Table 8). R^2 for step 1, which included the four covariates, was .12, indicating that the model accounted for 12% of the variance in depression scores, which was significant, F (4, 283) = 9.33, $p < .001$. The F change statistic was significant at step 2, which indicates that the addition of perceived multiple group memberships significantly improved the model, *F Change* (1, 282) = 22.51, $p < .001$, R^2-change = .06 and could account for 18% of the variance in depression scores, $R^2 = .18$. Importantly, perceived multiple group memberships remained a highly significant predictor of depression when controlling for the potential confounding variables (model step 2) and its partial regression weight, $\beta = -.27$, is only slightly smaller compared with its zero-order correlation $r = .30$ thus lending more robust support to part A of hypothesis 1. Of the four covariates, only relationship status and diagnostic status were reliable predictors of depression. With regards to relationship status, being in a relationship was predictive of lower depression scores. For diagnosis status, an increasing number of diagnoses was predictive of higher depression scores, as might be expected.

4.4.2.3 Hypothesis 2: An increase in optimism will be a unique predictor of lower depression scores, when controlling for potential confounding variables: To test hypothesis 2, participants' optimism score was added to a third step of the multiple regression model (see Table 8). R^2 for step 3, which included the four covariates, multiple group memberships and optimism was .35. Therefore, the model could account for 35% of the variance in depression scores, which was significant, F (6, 281) = 25.41, $p < .001$. The addition of optimism enabled the model to explain approximately twice as much variance as the previous step of the model, and the R^2-change = .17 was a statistically significant improvement, *F Change* (1, 281) = 73.69, $p < .001$. Considering the improvement to the model when optimism was added, it is unsurprising that in support of hypothesis 2, an increase in optimism was associated with a significant decrease in depression amounting to a substantial effect ($\beta = -.45$), when controlling for multiple group membership and the covariates. When optimism was added to the model, perceived multiple group memberships remained a

significant predictor, but its effect was considerably reduced to β = -.12. Altogether, these results lend further support to hypothesis 1.

Table 8. Perceived multiple group memberships and optimism as predictors of depression when controlling for gender, age, relationship status and diagnostic status (N = 288).

	B	*SE (B)*	*β*	*t*
Step 1: R^2 = *.12*				
Gender	3.90	2.18	.11	1.79
Age	0.38	0.73	.03	0.52
Relationship status	-6.95	1.64	-.25	-4.23***
Diagnostic status	3.97	0.99	.23	4.02***
Step 2: R^2 = *.18*				
Gender	3.86	2.10	.10	1.84
Age	-0.29	0.72	-.02	-0.41
Relationship status	-6.56	1.59	-.23	-4.14***
Diagnostic status	3.33	0.96	.19	3.47**
Multiple group memberships	-2.22	0.47	-.27	-4.75***
Step 3: R^2 = *.35*				
Gender	3.37	1.87	.09	1.80
Age	0.49	0.65	.04	0.76
Relationship status	-4.04	1.44	-.14	-2.80**
Diagnostic status	2.51	0.86	.15	2.91**
Multiple group memberships	-0.96	0.44	-.12	-2.18*
Optimism	-4.58	0.53	-.45	-8.58***

*** p < .001, ** p < .01, * p < .05

4.4.2.4 Hypothesis 3: The relationship between quantity of group memberships and depression scores will be mediated by an increase in optimism: As discussed above, participants' perceived involvement with multiple groups was positively correlated with their optimism score (r = .32) – i.e. an increase in involvement with multiple groups was associated with higher levels of optimism. Optimism was also associated with lower depression scores (r = -.54). It was hypothesised that optimism would operate as a mediator of the relationship between perceived multiple group memberships and depression. In other words, belonging to multiple groups would increase participants' optimism for the future, which in turn would predict lower depression scores.

In order to test this hypothesis, the bootstrapping approach was used (Preacher and Hayes, 2004) to obtain confidence intervals for the indirect effects involving mediators. The approach is a non-parametric method which does not rely on the assumption of normally-distributed sampling distribution of the indirect effect. The mediation analysis was performed using the SPSS macro, PROCESS (Hayes, 2012). Perceived multiple group memberships was included in the model as the independent variable, depression score as the dependent variable, and optimism as the mediator. The two significant covariates; relationship status and diagnostic status were also included in the model.

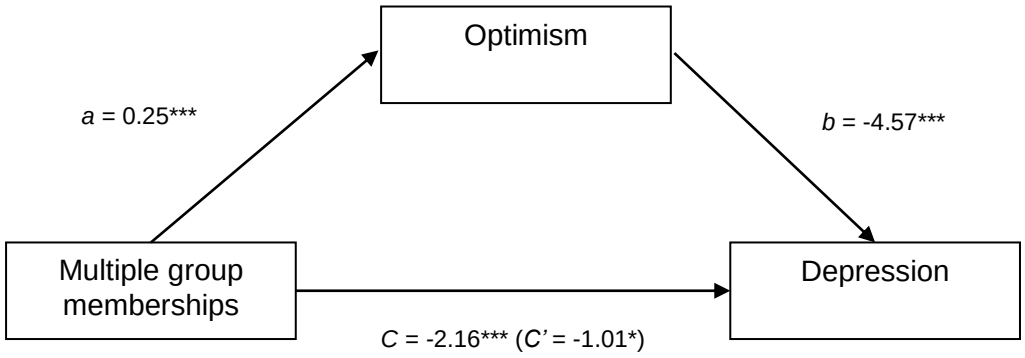

Figure 4. Optimism as a partial mediator of the relationship between multiple group memberships and depression. Values represent unstandardized regression weights. All path coefficients are controlled for relationship status and diagnostic status * p < .05, *** p < .001.

The analysis (95% bias corrected and accelerated confidence intervals based on 1,000 bootstrap samples) revealed that the total effect (*C*) of perceived multiple group memberships on depression was highly significant, B = -2.16, t = -4.69, p < .001 (see Figure 4). When controlling for the effect of perceived multiple group memberships and the covariates, optimism was a significant negative predictor of depression, B = -4.57, t = -8.64, p < .001, which lends support to hypothesis 2. With optimism as a mediator in the model, the direct effect (*C'*) of perceived multiple group memberships remained significant, B = -1.01, t = -2.34, p = .02, which suggests that it still impacted directly on depression. However, the indirect effect was also found to be significant with a point estimate of -1.15 (95% CI = -1.68 to -

0.71), which provides evidence in support of hypothesis 3; that optimism will operate as a mediator between perceived multiple group memberships and depression. The completely standardized parameter for this path was -.14 (95% CI = -.21 to -.09) suggesting a modest effect size. Since this analysis revealed both a statistically reliable direct as well as an indirect effect of perceived multiple group memberships, the resulting model is referred to as a partial mediation model.

4.5 The relationship between strength of identification, perceived social support, optimism, and depression

The previous section considered how participants' perceived membership of multiple social groups impacted on depression. The following section focusses specifically on the extent to which strength of identification with a particular group might impact on depression.

4.5.1 Correlations

As shown in Table 9, there were highly significant correlations between each of the variables. There was a very strong positive relationship between strength of identification with an important social group and the extent to which participants anticipated receiving social support from fellow group members. Both strength of identification and perceived social support were significantly positively correlated with optimism, and significantly negatively correlated with depression. In other words, the more participants identified with a social group, and anticipated receiving support from group members, the higher their optimism scores and the lower their depression scores.

Table 9. Pearson's correlations for depression, group identification, perceived social support and optimism (*N* = 288).

	Depression	Group identification	Perceived social support	Optimism
Depression	-	-.29***	-.26***	-.54***
Group identification			.81***	.24***
Perceived social support				.26***

***$p < .001$

4.5.2 Predictive model

4.5.2.1 Covariates: In the predictive model tested in the previous section, it was found that of the four covariates, only relationship status and diagnostic status made a significant contribution. Therefore only these two variables will be included in the models which follow, whilst age and gender will be excluded

4.5.2.2 Hypothesis 4: Strength of identification with a group self-identified as important to participants and perceived social support will be unique predictors of lower depression scores, when controlling for potential confounding variables: Hierarchical multiple regression was used to test the extent to which strength of identification with an important social group and anticipated social support from members of that group can predict depression. As shown in Table 10, the variables were entered into the model in three steps, with the proposed covariates in step 1, and the two identity-related measures included in subsequent steps. For step 1, R^2 was .11, which suggests that 11% of the variance could be accounted for by the covariates, F (2, 285) = 16.95, $p < .001$. The second step of the model could account for 15% of the variance in depression ($R^2 = .15$). The change in F scores from step 1 to step 2 was significant, *F Change* (1, 284) = 13.52, $p < .001$, which suggests that the second step of the model explained significantly more variance (R^2-change = .04) than the first. Importantly, social identification was a significant predictor when controlling for the potential confounds, which supports hypothesis 4. The change in F scores from step 2 to step 3 was significant, *F Change* (1, 283) = 4.40, $p = .04$, which suggests that the predictive power of the model improved significantly when perceived social support was included in the model, R^2-change= .02. At step 3 of the model, perceived social support was a significant predictor of depression when controlling for potential confounds suggesting that higher levels of social support lead to a considerable reduction in symptoms of depression ($\beta = -.20$). However, the strength of social identification measure became non-significant when social support was included, which suggests that perceived social support may operate as a mediator between strength of identification and depression.

Table 10. Hierarchical multiple regression model: Social identification and social support as predictors of depression when controlling for relationship status and diagnostic status (*N* = 288).

	B	*SE (B)*	*β*	*t*
Step 1: R^2 = .11				
Relationship status	-6.18	1.59	-.22	-3.90***
Diagnostic status	4.23	0.97	.25	4.37***
Step 2: R^2 = .15				
Relationship status	-5.93	1.55	-.21	-3.82***
Diagnostic status	3.96	0.95	.23	4.17***
Social identification	-1.55	0.42	-.20	-3.68***
Step 3: R^2 = .16				
Relationship status	-5.95	1.54	-.21	-3.85***
Diagnostic status	3.91	0.94	.23	4.14***
Social identification	-0.34	0.71	-.05	-0.48
Perceived social support	-1.49	0.71	-.20	-2.10*

*** $p < .001$, * $p < .05$

4.5.2.3 Hypothesis 5: The relationship between identification with an important social group and depression will be mediated by increased perceptions of social support and increased optimism: Whilst the impact of these two proposed mediators could be explored within a model which treats them as unrelated constructs, it makes more theoretical sense to consider the extent to which they operate sequentially. To elaborate, it is likely that as participants identify more with an important social category, the more they will come to anticipate social support. This in turn will likely lead to an increase in optimism as they feel better equipped to overcome future challenges, which in turn should predict lower depression scores.

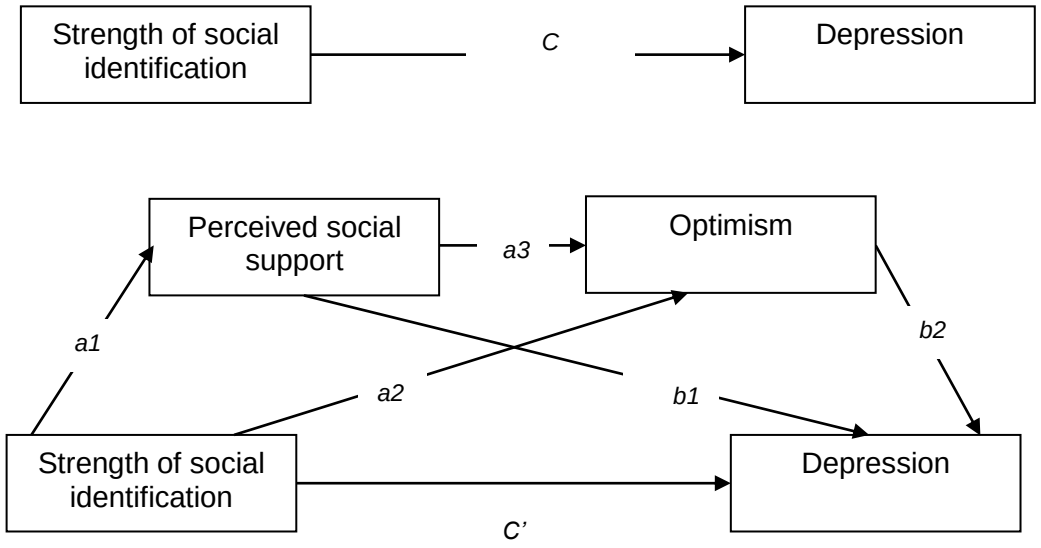

Figure 5. Serial mediation model with perceived social support and optimism as proposed mediators of the relationship between strength of social identification and depression (see Table 11 for estimates).

Table 11. Unstandardized path coefficients from serial mediation model (*N* = 288)

	a1	*a2*	*a3*	*b1*	*b2*	*C*	*C'*
Path coefficients	0.80***	0.04	0.15*	-0.79	-4.64***	-1.54***	-0.14

*** $p < .001$, * $p < .05$

The SPSS PROCESS macro (Hayes, 2012) was used to test the proposed serial model, again using the bootstrapping approach. The full serial model is depicted in Figure 5, with unstandardized beta values and point estimates provided in Table 11. Strength of social identification was entered into the model as the independent variable, with depression as the dependent variable. Perceived social support and optimism were entered into the model as serial mediators, with relationship status and diagnostic status as covariates. The analysis, with bias corrected and accelerated confidence intervals based on 1,000 bootstrapped samples revealed that the total effect of social identification on depression (*C* = -1.54), representing the unstandardized slope of a simple regression, was significant. This suggests that for each unit increase in social identification, a reduction of 1.54 scores on the CES-D

scale can be expected. The main purpose of the following mediator analysis is to estimate how much of the total effect of social identification can be attributed to perceived social support and optimism which are suggested to explain the psychological process by which social identification impinges on depression.

The results revealed that in the presence of the two mediators as well as the two covariates, there was no statistically reliable direct effect of social identification on depression (p = .81) which suggests a full mediation model. When exploring the relevance of the two mediators, the specific indirect effect from social identification through perceived social support was not significant with a point estimate of -0.64 (95% CI = -1.74 to 0.32). Likewise, the specific indirect effect from social identification through optimism was non-significant with a point estimate of -0.20 (95% CI = -0.87 to 0.51). However, with a point estimate of -0.56 (95% CI = -1.19 to -0.04) the specific indirect effect of strength of social identification on depression through perceived social support and optimism was significant. In support of hypothesis 5, an increase in social identification predicted an increase in perceived social support, which predicted an increase in optimism, which in turn predicted lower depression scores. The completely standardized parameter for this path was -.08 (95% CI = -0.16 to -.007) suggesting a modest effect size.

4.6 Social identity processes in the therapeutic relationship

The previous sections have broadly considered how multiple group memberships and strength of identification might influence depression. In the following section, consideration will be given to the extent to which the therapeutic relationship can be thought of in relation to social identification processes and if so, whether social identification processes within the therapeutic relationship might predict depression.

4.6.1 Descriptive statistics (sub-sample)

The following analyses were based on data provided by a sub-sample who had taken part in psychological therapy and who completed the items which related to their therapy experience (N = 134). Descriptive statistics for the predictor variables and for depression scores are provided in Table 12. The skewness and kurtosis values did not exceed 1 for any of the variables, which suggests that there was no

indication of a violation of the normality assumption for regression analysis (Bulmer, 1979).

4.6.1.1 Depression: Within the sub-sample, average depression scores (*M* = 33.31, *SD* = 13.61) were well above the clinical cut-off score of 16.

4.6.1.2 Therapist identity measures: The mean scores were significantly below the scale mid-points of 4 (neither agree nor disagree) for both the measures of identification with participants' own therapist, t (133) = -3.50, p = .001, and with therapists in general t (133) = -5.74, p < .001, suggesting relatively low levels of identification, on average.

4.6.1.3 Therapist prototypicality: Overall, participants' rating of the extent to which their own therapist matched the therapist prototype did not differ significantly from the scale mid-point, t (133) = 1.50, p = .14, indicating that the sample neither agreed nor disagreed that their therapist was a prototypical therapist.

4.6.1.4 Therapeutic relationship: On average, participants' rating of the quality of their therapeutic relationship was considerably above the scale mid-point of 4, t (133) = 6.67, p < .001. This suggests that participants felt that they experienced a good therapeutic relationship.

4.6.1.5 Optimism: Reflecting the scores within the overall sample, participants' mean optimism was significantly below the scale mid-point, t (133) = -4.71, p < .001, which suggests relatively low levels of optimism.

Table 12. Descriptive statistics for therapy predictor and outcome variables (*N* = 134).

	Min	Max	Mean	SD	Median	Skew-ness	Kurt-osis
Depression	0.00	58.00	33.31	13.61	36.00	-0.54	-0.55
Identify with therapist	1.00	7.00	3.46	1.80	3.50	0.29	-0.99
Identify with other therapists	1.00	7.00	3.15	1.68	3.50	0.30	-0.76
Therapist prototypicality	1.00	7.00	4.19	1.50	4.00	-0.26	-0.38
Internalisation of therapist ID	1.00	7.00	3.43	1.43	3.33	0.26	-0.33
Optimism	1.00	6.50	3.40	1.48	3.33	0.19	-0.93
Quality of relationship	1.00	7.00	5.12	1.94	6.00	-0.87	-0.48

4.6.2 The relationship between quality of therapeutic relationship, social identity process, optimism, and depression

4.6.2.1 Correlations

As shown in Table 13, the quality of the therapeutic relationship was significantly positively correlated with the measure of identification, the measure of internalisation of the therapist identity, and optimism. In other words, the therapeutic relationship was rated as more positive when participants identified more with their therapist and were able to think of themselves in terms of their similarities to their therapist between sessions. An increase in optimism scores was also associated with a more positive therapeutic relationship. As expected, there was a significant positive correlation between the measures of identification with the therapist and internalisation of the therapist identity, whilst both of these measures were significantly positively correlated with optimism. Depression scores were significantly negatively correlated with the measures of identification (p = .05), internalisation of the therapist identity, quality of therapeutic relationship, and optimism.

Table 13. Pearson's correlations for depression, identification with therapist, internalisation of therapist identity, optimism, and quality of therapeutic relationship (*N* = 134).

	Depression	Identify with own therapist	Internalisation of therapist identity	Optimism	Quality of therapy relationship
Depression	-	-.17*	-.24**	-.50***	-.22**
Identify with own therapist			.46***	.24**	.67***
Internalisation of therapist identity				.30***	.25**
Optimism					.24**

***$p < .001$, ** $p < .01$, * $p = .05$

4.6.2.2 Predictive model

4.6.2.2.1 Potential confounding variables: In previous sections, participants' diagnostic status and their relationship status have been considered as potential confounding variables and controlled for in the analyses. As such, it is worthwhile to consider how the sub-sample was split according to these variables. With regards to diagnostic status, twenty-two (16%) had received no diagnoses, forty-six (34%) had received a single depression diagnosis, whereas sixty-six (49%) had received a dual-diagnosis. With regards to relationship status, sixty-two (46%) were single, whereas seventy-two (54%) were in a relationship. As might be expected, the majority of participants in the therapy sub-sample had received a formal depression diagnosis. Relationship status and diagnostic status were again included as covariates in the following models.

4.6.2.2.2 Hypothesis 6: The quality of therapeutic relationship, identification with the therapist, and internalisation of therapist identity will each be unique predictors of depression when controlling for potential confounding variables: Hierarchical multiple regression was used to test whether the quality of participants' relationship with their therapist, strength of identification with their therapist, and the extent to which they internalised their therapist's identity could predict depression scores. As shown in Table 14, the variables were entered into the model in three steps, with the proposed covariates in step 1, the measure of quality of the therapeutic relationship in step 2, and the measures relating to social identity processes included in step 3. For step 1,

R^2 was .09, which suggests that 9% of the variance could be accounted for by the covariates, F (2, 131) = 6.71, p = .002. The second step of the model could account for almost 14% of the variance in depression (R^2 = .14). The change in F scores from step 1 to step 2 was significant, *F Change* (1, 130) = 6.94, p = .009, indicating that the second step of the model explained significantly more variance than the first, R^2-*change* =.05. Step 3 of the model could account for 16% of the variance in depression scores (R^2 = .16). However, the change in F-scores from step 2 to step 3 was not significant, *F Change* (2, 128) = 1.25, p = .29. Table 14 shows that in step 3 of the model, the quality of the therapeutic relationship remained significant when controlling for potential confounding variables (of which only relationship status was a significant predictor) and measures of social identity processes. However, the two measures of identity processes were not significant predictors in the model. Therefore, hypothesis 6 is only partially supported; the quality of therapeutic relationship was a significant unique predictor of depression with a considerable effect size in reducing depressing (β = -.22), but identification with the therapist and internalisation of the therapist identity were not.

Table 14. Hierarchical multiple regression model: Quality of therapeutic relationship, identification with therapist, and internalisation of the therapeutic relationship as predictors of depression when controlling for relationship status and diagnostic status (N = 134).

	B	*SE (B)*	*β*	*t*
Step 1: R^2 = .09				
Relationship status	-6.76	2.30	-.25	-2.94**
Diagnostic status	2.53	1.55	.14	1.64
Step 2: R^2 = .139				
Relationship status	-6.98	2.25	-.26	-3.10**
Diagnostic status	2.13	1.52	.12	.15
Quality of therapeutic relationship	-1.51	0.57	-.22	-2.64**
Step 3; R^2 = .155				
Relationship status	-6.17	2.30	-.23	-2.68**
Diagnostic status	1.89	1.53	.10	1.24
Quality of therapeutic relationship	-1.56	0.77	-.22	-2.02*
Identify with own therapist	0.48	0.91	.06	0.53
Internalisation of therapist identity	-1.42	0.90	-.15	-1.58

** p < .01, * p < .05

4.6.2.2.3 Hypothesis 7: Identification with the therapist M1, internalisation of the therapist identity M2, and optimism M3 will serially mediate the relationship between quality of the therapeutic relationship and depression: The extent to which participants identified with their therapist and were able to internalise the therapy group identity did not have a direct effect on depression scores. However, it was also hypothesised that these variables would operate as serial mediators of the relationship between the quality of the therapeutic relationship and depression. It was therefore predicted that (1) the quality of the therapeutic relationship would impact on depression to the extent that participants identified with their therapist (M1), which in turn would predict their ability to internalise their therapist's identity (M2). It was also predicted that (2) being able to internalise the therapist identity (and hence think in a way which reflected therapy conversations) would enhance participants' optimism (M3) for the future, which in turn would predict lower depression scores. Finally, relationship status was used as a controlling covariate.

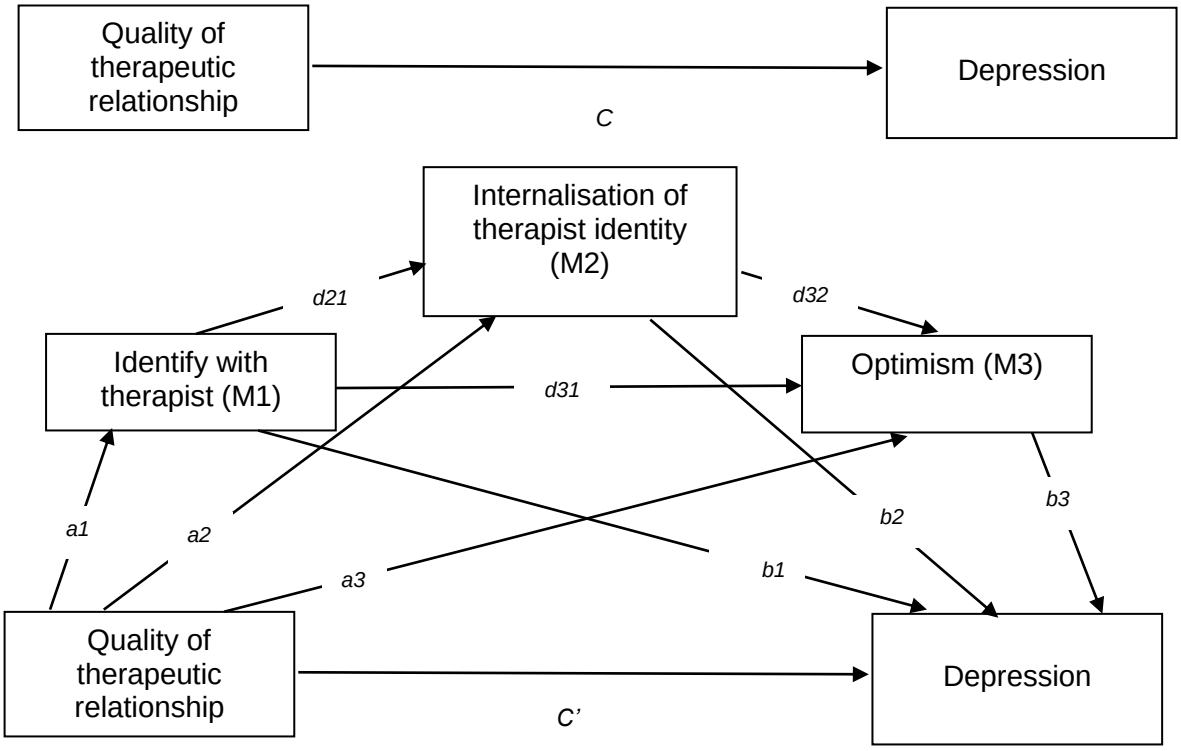

Figure 6. Serial mediation model with identification with the therapist, internalisation of the therapist identity and optimism as proposed mediators of the relationship between quality of therapeutic relationship and depression (see Table 15 for estimates).

Table 15. Unstandardized path coefficients from serial mediation model (*N* = 134)

	a1	*a2*	*a3*	*b1*	*b2*	*b3*	*d21*	*d31*	*d32*	*C*	*C'*
Path coefficients	0.62***	-0.07	0.13	0.57	-0.64	-3.90***	0.41***	0.02	0.23*	-1.59**	-1.10

*** $p < .001$, ** $p < .01$ * $p < .05$

This serial mediation model was again tested using The SPSS PROCESS macro (Hayes, 2012). The full serial model is depicted in Figure 6, with unstandardized path coefficient estimates provided in Table 15. Quality of the therapeutic relationship was entered into the model as the independent variable, with depression as the dependent variable. Identification with the therapist, internalisation of the therapist identity, and optimism were entered into the model as serial mediators. As relationship status was the only significant predictor in the multiple regression model described in the previous section, it was the only covariate included in the model, with diagnostic status dropped. The analysis, with bias corrected and accelerated confidence intervals based on 1,000 bootstrapped samples revealed that the total effect of the quality of the therapeutic relationship on depression (*C* = -1.59) was significant. However, when all three mediators and the covariate (relationship status) were taken into account, no evidence for a direct effect of therapeutic relationship on depression was found (*p* = .12).

When exploring the various mediational paths, the three specific indirect effects involving only one mediator variable from quality of the therapeutic relationship to depression were all non-significant as their confidence intervals contained zero. The results were as follows; identification with the therapist M1 (0.36, 95% CI = -0.73 to 1.30), internalisation of the therapist identity M2 (0.05, 95% CI = -0.06 to 0.45), and optimism M3 (-0.52, 95% CI = -1.48 to 0.31). Likewise, the three serial indirect effects involving two mediators from quality of the therapeutic relationship to depression were also statistically unreliable. The results were as follows; identification with the therapist (M1) then internalisation of the therapist identity (M2) -0.16 (95% CI = -0.75 to 0.27); internalisation of the therapist identity (M2) and then

optimism M3 (-0.04, 95% CI = -0.54 to 0.51); internalisation of the therapist identity (M1) then optimism (M3) 0.06 (95% CI = -0.04 to 0.31).

However, in support of hypothesis 7, the specific indirect effect which included all three mediators was significant -0.23 (95% CI = -0.59 to -0.04). An alternative way of describing this model is to consider identification with the therapist (M1) working as a mediator between quality of therapeutic relationship and internalisation of the therapist identity (M2), which in turn mediated the relationship between identification with the therapist and optimism (M3), which in turn mediated the relationship between internalisation of the therapist identity and depression, as suggested by the path coefficients displayed in table 15. The completely standardised parameter for this path was -.03 (95% CI = -0.09 to -.01), indicating that whilst reliable, the effect was modest.

4.6.3 The relationship between therapist prototypicality, identification with the wider therapist identity, optimism, and depression

In the previous section, there was specific focus on social identity processes within the therapeutic relationship, and how they might impact on depression through optimism. The following section considers how the process of normative fit – specifically, whether participants perceived their therapist as fitting the therapist prototype – had an impact on depression scores, and the processes through which this relationship might operate.

4.6.3.1 Correlations

Pearson's correlations are reported in Table 16. There was a significant positive correlation between perceived therapist prototypicality and identification with therapists in general. However, there was not a significant relationship between therapist prototypicality and depression, nor between therapist prototypicality and optimism. Identification with therapists in general was significantly negatively correlated with depression and positively correlated with optimism.

Table 16. Pearson's correlations for depression, therapist prottoypicality, identification with therapists in general, and optimism (*N* = 134).

	Depression	Therapist prototypicality	Identify with therapists in general	Optimism
Depression	-	-.14	-.18*	-.50***
Therapist prototypicality			.23**	.07
Identify with therapists (in general)				.30***

****p* < .001, ** *p* < .01, * *p* = .05

4.6.3.2 Predictive model

4.6.3.2.1 Hypothesis 8: Perceived therapist prototypicality and identification with therapists in general will both be unique predictors of lower depression scores when controlling for potential confounding variables: A Hierarchical multiple regression was used to test hypothesis 8. Based on findings from the previous model, relationship status was included as the only potential confounding variable, and was entered into step 1 of the model. Therapist prototypicality was included in step 2, with identification with therapists in general included in step 3. As shown in Table 17, only the covariate was a significant predictor of depression in the model. Contrary to hypothesis 8, neither therapist prototypicality, nor identification with the wider therapist identity were unique predictors of depression scores.

Table 17. Hierarchical multiple regression model: Therapist prototypicality, and identification with therapists in general as predictors of depression when controlling for relationship status (*N* = 134).

	B	*SE (B)*	*β*	*t*
Step 1				
Relationship status	-7.39	2.23	-.27	-3.16**
Step 2				
Relationship status	-7.20	2.33	-.26	-3.09**
Therapist prototypicality	-1.20	0.79	-.13	-1.53
Step 3				
Relationship status	-6.83	2.33	-.25	-2.93**
Therapist prototypicality	-.94	0.80	.10	1.17
Identification with therapist in general	-1.07	0.71	-.13	-1.50

** *p* < .01, * *p* < .05

4.6.3.2.2 Hypothesis 9: The relationship between therapist prototypicality and depression will be serially mediated by identification with therapists in general and optimism: An advantage of using the Preacher and Hayes (2004) approach to a mediation analysis is that there is not a requirement for the direct relationship between the predictor and outcome variable to be statistically significant. To clarify, Preacher and Hayes (2004) have noted that whilst they are often used as interchangeable terms, mediation and indirect effects differ. The former depends on an initial significant total effect on the predictor on the outcome. The second considers how the initial predictor might be part of a causal predictive chain even in the absence of an initial significant relationship. As shown in Table 17, therapist prototypicality was positively associated with identification with therapists in general, which in turn was positively associated with higher optimism, which in turn was associated with lower depression. It is therefore worthwhile to consider whether this might represent a significant indirect effect of therapist prototypicality on depression when other variables are controlled for within a predictive model. The model is displayed in Figure 7, with associated unstandardized coefficients displayed in Table 18.

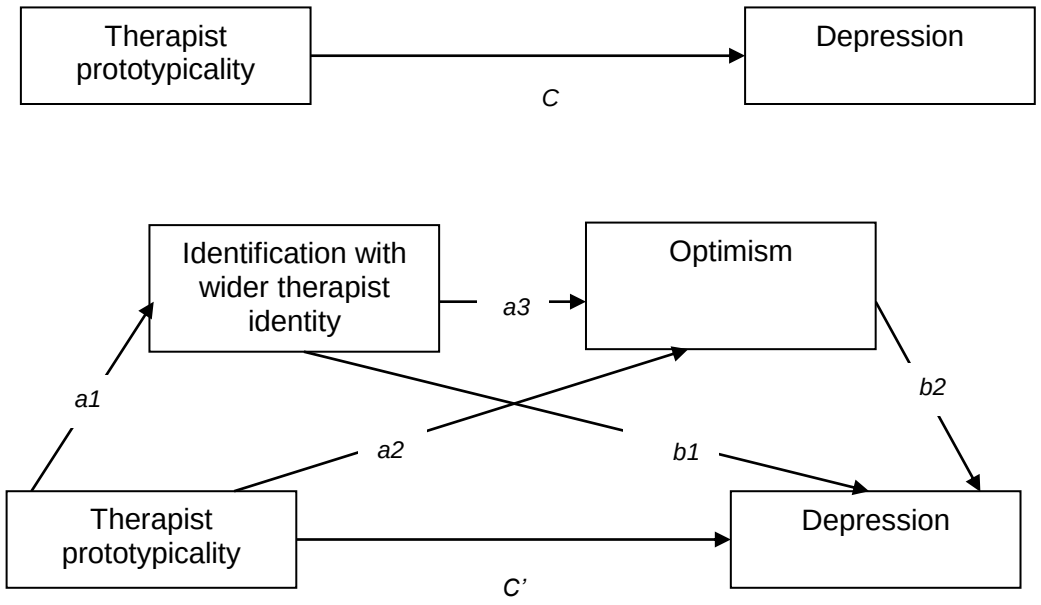

Figure 7. Indirect effect of therapist prototypicality on depression through identification with the wider therapist identity and increased optimism (see Table 18 for estimates).

Table 18. Path coefficients from serial mediation model (*N* = 130)

	a1	*a2*	*a3*	*b1*	*b2*	*C*	*C'*
Path coefficients	0.25*	-0.02	0.25**	0.02	-4.26***	-1.20	-1.03

*** $p < .001$, * $p < .05$

It was already established from multiple regression analysis that the total effect of therapist prototypicality on depression was not significant. When exploring specific indirect effects, first from therapist prototypicality through social identification with therapists in general to depression (0.01, 95% CI = -0.34 to 0.35) and then from therapist prototypicality through optimism to depression (0.09, 95% CI = -0.56 to 0.83), both were non-significant. However, the serial indirect effect involving both mediators from therapist prototypicality through identification with therapists in general and then through optimism, was significant with a point estimate of -0.27 (95% CI = -0.73 to -0.06). Therefore, whilst there was no evidence of the proposed mediation within hypothesis 9, there was a significant serial indirect effect of therapist prototypicality on depression, again with a modest effect size (standardized coefficient = -.03, 95% CI = -0.08 to -.01).

5. Discussion

5.1 Chapter overview and summary of findings

The main aim of this study was to contribute to a growing body of work which considers the impact of social identity processes on depression (e.g. Cruwys et al., 2013; Cruwys et al., 2014a; Cruwys et al., 2014b; Cruwys et al., 2014c). Within a sample who expressed a high level of depression symptomology, this research sought to replicate and elaborate on existing findings which suggest a negative relationship between identifying with social groups and depression scores. This research also aimed to explore whether optimism – a personality variable associated with depression – might vary at the level of group memberships or social identities, and if so, whether social identity processes can impact on depression indirectly through optimism. A final aim of this research was to explore whether the therapeutic relationship might be a type of social group, and if so, whether social identity processes within the therapeutic relationship can predict lower depression scores.

Overall, the findings confirm that identifying with multiple groups, and identifying more strongly with a particular social group can predict lower depression scores. The evidence also suggests that participants' level of optimism varied with their social group memberships, and that optimism is a key variable through which social identity processes might impact on depression. Furthermore, the results of this study highlight the potential for social identity processes to operate within the therapeutic relationship. They suggest that the impact of a good therapeutic alliance on depression can, to some extent, be accounted for by identification with the therapist category and the associated increase in optimism which might follow from the formation of a new social identity within the therapy room.

The remainder of this chapter will provide a more detailed summary and discussion of the main findings of this research. Each hypothesis will be restated along with the corresponding findings. These findings will be interpreted from the perspective of the social identity approach (SIA; Tajfel and Turner, 1979; Turner et al., 1987) and in relation to the social identity approach to depression (Cruwys et al., 2014a). In doing

so, the clinical implications of the findings in relation to the onset, maintenance and treatment of depression will be considered. Finally, the study's strengths and limitations will be discussed, leading to suggestions for future research.

5.2 Discussion of main findings

5.2.1 Sample Characteristics

The data suggested that on average, the sample was experiencing relatively high levels of depression, which indicates that the recruitment strategy was successful. There was a far larger proportion of female than male participants within the sample, and the largest proportion of participants were aged between eighteen and twenty-five. The sample varied in diagnostic status, with a fairly even split between those who had received no diagnosis, a single depression diagnosis, and a dual diagnosis. It is also noteworthy that the sample was fairly evenly split between those in a relationship and those who were classified as single. The majority of participants were British. Where possible, demographic variables known to predict depression were controlled for as covariates to minimise their influence as confounding variables. These were: gender, age, diagnostic status and relationship status.

5.2.2 The relationship between multiple group memberships, optimism, and depression

5.2.2.1 Hypothesis 1: Belonging to an increasing number of social groups will be a unique predictor of lower depression scores when using (a) a general measure of social group membership, and (b) the number of groups that participants can list:

The results of this study suggest that the extent to which participants felt as though they were involved with the activities of multiple groups was predictive of their depression score. Specifically, an increase in perceived multiple group memberships was predictive of lower depression scores. Thus, in support of previous research (e.g. Cruwys et al., 2013), this finding suggests that within a sample who reported a high level of depression, when people felt as though they were increasingly part of something bigger than the individual self (cf. Cruwys et al., 2014a) – i.e. a social group – they felt less depressed.

It was also hypothesised that participants who were able to list an increasing number of groups would be less depressed. This was based on an assumption that listing an increasing number of groups would act as a proxy measure of the extent to which specific group memberships were cognitively accessible to participants. In other words, it was predicted that when people can think of themselves in relation to an increasing number of groups, they have more social identities cognitively available from which they can derive a sense of feeling socially supported, which in turn might predict a lower depression score. Whilst the results of this study found a significant negative correlation between the number of groups listed and depression, this measure was not a reliable unique predictor of depression when it was included in the regression model with the generalised measure of multiple group memberships. Therefore, this part of the hypothesis was not fully supported. It is worthwhile to note that there was a large positive correlation between the generalised measure of multiple group memberships and the number of groups listed. This suggests that the generalised measure of multiple group memberships likely measured accessibility of multiple groups much in the same way as listing specific groups. The lack of a unique effect of listing groups can most likely be explained in terms of the extensive overlap between these two measures.

5.2.2.2 Hypothesis 2: An increase in optimism will be a unique predictor of lower depression scores, when controlling for potential confounding variables

Across each of the predictive models, there was a strong negative correlation between optimism and depression when controlling for the impact of the other variables within the models. This was clearest in the first regression model tested (see Section 4.3.2.3) where optimism was specifically included as an initial predictor (whereas subsequent models treated optimism as a mediator). Within this model, there was a large effect size for the relationship between optimism and depression. This finding was not surprising when considering the large body of evidence which demonstrates that higher levels of optimism are associated with positive health outcomes, including better mental health and reduced depression (e.g. Carver & Gaines, 1987).

5.2.2.3 Hypothesis 3: The relationship between quantity of group memberships and depression scores will be mediated by an increase in optimism

The current analysis also provided evidence in support of a positive relationship between participants' perceived membership of multiple groups and their level of optimism. That is, an increase in perceived multiple group memberships was associated with an increase in optimism. Whilst the relationship between optimism and depression has been previously established within the existing literature, this link between group memberships and optimism was less clear, and where limited evidence for it did exist, it was dismissed as a procedural artefact (e.g. Segerstrom, 2007).

It was also predicted that optimism would operate as a mediator of the relationship between multiple group memberships and depression. In other words, as people feel they belong to more groups, they might feel more optimistic about their ability to achieve their goals, which might lead to them feeling less depressed. This hypothesis was largely supported by the data. Although the relationship between multiple group memberships and depression remained significant when optimism was included in the model, optimism was found to be a significant mediator. The mediating role of optimism will be discussed further in the sections which follow, and a social identity understanding of optimism in relation to depression will be elaborated in Section 5.4.

5.2.3 The relationship between strength of social identification, social support, optimism, and depression

5.2.3.1 Hypothesis 4: Strength of identification with a group self-identified as important to participants and perceived social support from other group members will be unique predictors of lower depression scores.

In addition to the question of whether belonging to an increasing number of social groups might predict depression (and optimism), a further aim was to explore whether a person's *strength* of identification with a particular group would predict lower depression scores, which would replicate previous findings (Cruwys et al., 2014b). This is an important supplementary question. Measures of multiple group activities might tell us something about participants' involvement with multiple

groups, but they do not tell us anything about the extent to which they identify with those groups. The data suggested that as predicted, stronger identification with a self-identified important group predicted lower depression scores. It was also predicted that an increase in the extent to which participants felt supported by other members of the relevant group would predict lower depression scores. Again, this was supported by the data. However, when perceived social support was included in the regression model, the strength of participant's social identification was no longer a reliable predictor of depression scores. This suggests that perceived social support may be the mechanism through which strength of identification impacts on depression.

This explanation would be consistent with ideas from within the social identity approach. Haslam, Reicher, and Levine (2011) have suggested that social identification processes play an important part in (a) whether social support will be offered, and (b) how it will be received. According to Haslam et al. (2011), and based on the idea that people strive to see the groups to which they belong positively, members of social groups are more likely to offer support to fellow in-group members. In doing so, they are not offering support to an 'other', but to a part of the collective self, which can have overall benefits to them and the wider group. In addition, Haslam et al. (2011) have suggested that the recipient of social support will interpret the offer of support from an in-group member positively owing to intra-group processes leading to the perception of enhanced empathy from, and trust in, the provider. In relation to depression, increased identification with a social group should give rise to more support being available and accepted, which in turn should result in more favourable outcomes: in this case, lower levels of depression. The current analysis cannot provide an objective insight to the first part of Haslam et al.'s (2011) SIA account of social support as no measures of offered social support were included in the design. However, the study did allow for an assessment of the receiver's perceptions of the amount of support available, and the potential mediating role of social support was explored further in the analysis described in the following section.

5.2.3.2 Hypothesis 5: The relationship between identification with an important social group and depression will be mediated by increased perceptions of social support and increased optimism.

It was hypothesised that as people identify more with a social group, they will increasingly feel more supported by other members of their relevant in-group. In turn, it was predicted that feeling more supported would reduce feelings of depression. Thus, perceived social support would mediate the relationship between strength of identification and depression. However, it was also predicted that optimism would be a further mechanism through which this relationship would operate. In other words, it was hypothesised that stronger identification with a social group would lead to an increase in perceived social support, which in turn would lead to increased optimism, which in turn would lead to lower depression. The results suggest that this hypothesis was supported, with a small, but significant effect size.

This finding offers further support to a SIA understanding of social support (Haslam et al. 2011). However, it also advances our current understanding of the extent to which, and how, the relationship between social identification and social support might impact on depression. Firstly, it directly highlights that the processes of social identification and enhanced perceptions of social support impact on depression as an outcome, and importantly, this was demonstrated within a sample of participants who were reporting a high level of depression symptomology. Secondly, this finding has, for the first time, introduced the idea of optimism – a personality variable with clear implications for depression – operating as a further mechanism through which social support might reduce depression. Again, this will be discussed further in Section 5.4.

5.2.4 Social identity processes in the therapeutic relationship and their impact on depression

The results discussed so far relate to participants' memberships of social groups in their everyday lives, outside of the therapy room. The remaining hypotheses relate directly to the question of the extent to which social identity processes within the therapeutic relationship might account for variation in participants' depression scores.

5.2.4.1 Hypothesis 6: The quality of therapeutic relationship, identification with the therapist, and internalisation of therapist identity will each be unique predictors of depression.

Within the study design, a sub-sample with experience of psychological therapy were asked to respond to items designed to measure their rating of the quality of their therapeutic relationship, the extent to which they identified with their therapist, and the extent to which they could internalise a therapist identity. The measure of therapist identity internalisation related to the extent to which, and how often, participants thought of themselves in terms of their similarities to their therapist, and were able to talk to themselves in a way which reflected how their therapist would speak to them.

Each of these variables (quality of therapeutic relationship, identification with therapist, and internalisation of the therapist identity) negatively predicted depression. The finding that the quality of the therapeutic relationship was predictive of lower depression scores is not surprising, nor is it novel. The importance of a good therapeutic alliance for positive therapy outcomes was already well-supported by research more than twenty years ago (e.g. Horvarth & Luborsky, 1993) and still continues to be considered important (e.g. Goldfried, 2013). Likewise, the suggestion that identifying with the therapist might be important for positive therapy outcomes is not new (see Karlsson, 2005), nor is the idea that the ability to internalise the therapist beyond the therapy room might be beneficial for maintaining therapeutic progress (see Knox et al., 1999). However, previous attempts to consider identification with the therapist have been framed in terms of fixed demographic variables, such as ethnicity (Karlsson, 2005), whereas internalisation of the therapist has been conceptualised in terms of psychodynamic principles, such as object relations (Knox et al., 1999).

Where the current analysis differs is in terms of its consideration of social identification and internalisation processes in relation to principles derived from the SIA. Cruwys et al. (2014) asserted that "…therapeutic efforts would meet with greater success when they are made by a practitioner who is perceived by the

patient to be an in-group rather than an out-group member" (p. 231). However, from the perspective of the SIA, who is an in-group member, and who is not, does not depend on fixed demographics, but is determined by perceived similarities on contextually relevant domains. In the therapy room, similarity could be derived from any one of a number of processes including the development of a shared theoretical understanding of psychological distress, a shared understanding of the client's difficulties, through shared experiences of therapy itself, or possibly through a sense of similarity in relation to non-specific human qualities, such as sense of humour. In addition, the process of internalisation does not relate to the internalisation of the therapist as an internal object representing a parental relationship. Instead, and as described above, it relates to a person's shift to a collective level of self-categorisation, where thoughts, feelings and behaviours take on the characteristics of the group, which in this case is defined in terms of the therapeutic relationship. It is proposed that as the therapy expert (i.e. the one with the most therapy experience), the norms of the group are largely derived from the therapist, who will be seen as the exemplar of the newly formed social identity.

The results of this study confirm that identification with the therapist and internalisation of the therapist identity predicted lower depression scores, which supports the idea that social identity processes within the therapeutic relationship can impact on depression. Of course, it is currently impossible to ascertain on what basis participants were rating similarity to their therapist, and this is something which requires further exploration. However, with regards to the internalisation process, these findings demonstrate that the ability of participants to think of themselves in terms of the therapeutic identity, which is in large part based on perceived similarity to their therapist, predicted how depressed they felt. Previous research has suggested that a good therapist-client relationship can determine the likelihood of clients using therapeutic techniques beyond the therapy room (Goldfried & Davila, 2005). The findings of the current research are consistent with this idea, but not necessarily because the relationship between therapist and client is good on an interpersonal level, but because the client can shift towards a collective level of self-definition, which is inclusive of the therapist as an in-group member and whose

actions, thoughts and feelings are shaped by the norms of the group, which are heavily influence by the therapist. It is therefore an intra-group process.

Identifying social identity processes as predictors of depression provides new insights to our understanding of potentially important predictors of therapy outcomes. However, to strengthen the SIA to depression, what is needed is some elaboration of how these process operate sequentially to impact on depression, and the extent to which they can account for the well-established link between the quality of the therapeutic relationship and depression. This is provided in the following section.

5.2.4.2 Hypothesis 7: Identification with the therapist, internalisation of the therapist identity, and optimism will serially mediate the relationship between quality of the therapeutic relationship and depression:

It was predicted that as participants felt that they had a more positive relationship with their therapist, they would identify more with them. Following this increase in identification, it was predicted that participants would be better able to self-categorise according to the newly formed therapeutic social identity between sessions (internalise the social identity between sessions). It was further hypothesised that doing so would lead to an increase in optimism, and in line with the analyses above, this increase in optimism was expected to lead to a reduction in depression. Thus, a good therapeutic relationship was hypothesised to impact on depression sequentially through identification with the therapist, internalisation of the therapist identity, and optimism.

The serial mediation model confirmed that as predicted, these three hypothesised variables did reliably mediate the association between quality of the therapeutic relationship and depression. This finding sheds some new light on some of the social psychological processes which can play an important part in determining how, and why the therapeutic relationship can successfully operate as a change mechanism within a psychological intervention. The current analysis does not deny the importance of well-established therapist characteristics, such as empathy, competence, experience, and perceived trustworthiness for developing a therapeutic alliance (e.g. Ackerman & Hilsenroth, 2003). What it does bring to the fore however,

is how the relationship can be conceived of as a type of group when group members are comparable on a contextually relevant domain. Within this formulation, clients are not just a passive recipients of their therapists' warmth and experience, but people who actively compare themselves to their therapists and who think of themselves in terms of their identification with their therapists as they go about their lives between sessions. This analysis suggests that it is this active social identification process on the client's behalf which results in them feeling more optimistic about the future, and therefore less depressed. Of course, the current analysis does not allow for elaboration on why this process of social identification might increase optimism. However, it can be speculated that therapy clients who feel better able to self-categorise according to their therapy social identity might be better equipped to draw on progress made within the therapy room, apply the techniques they have learnt in therapy, and therefore face the challenges which they face as they go about their lives.

5.2.4.3 Hypothesis 8: Perceived therapist prototypicality and identification with therapists in general will both be unique predictors of lower depression scores.

Whilst H7 related to the formation of a shared social identity within the therapy room, H8 and H9 were concerned with the extent to which the wider therapist identity might impact on participants' depression. To elaborate, and in line with the concept of normative fit (Oakes et al., 1991; Turner et al., 1987), it was predicted that participants would be more likely to categorise their therapist as such when their behaviours fitted their expectation of how a therapist should behave. Following this, clients might be more receptive to a therapeutic intervention when offered by someone who they are categorising as a therapist, resulting in better therapy outcomes – i.e. less depression. Although the proposed mechanism of receptiveness was not measured, it was predicted that an increase in perceived therapist prototypicality would predict lower depression. This hypothesis was not supported. It was also predicted that the extent to which clients identified with therapists in general would predict lower depression scores, much in the same way as the therapeutic identity did in the previous section. However, again, this hypothesis was not supported. This initial set of findings suggests that participants' ability to identify with therapists more generally, and the extent to which their therapist matched their

normative expectation of how therapists should be were not important predictors of depression.

5.2.4.4 H9: The relationship between therapist prototypicality and depression will be serially mediated by identification with therapists in general and optimism.

The extent to which participants perceived their therapist to match the therapist prototype did not have a direct impact on their depression score. However, it is possible that a variable can impact on an outcome indirectly even where there is not an initial direct relationship (Hayes, 2013). Within the current analysis, it was predicted that participants' perceptions of their therapists as prototypical of the therapist identity would predict their identification with therapists in general. It was then predicted that identification with therapists would be associated with higher levels of optimism (presumably because it allowed for in-session work to be continued between sessions, although this was not measured), which in turn would predict lower depression scores. The analysis revealed that as hypothesised, therapist prototypicality indirectly reduced depression sequentially through the proposed variables. In other words, perceiving the therapist as prototypical was associated with lower depression scores, but only when it was considered as the first link in a causal chain, not as a direct causal variable.

5.3 Implications for the social identity approach to depression

Throughout this chapter, the findings of the current study have been discussed in relation to the SIA (Tajfel & Turner, 1979; Turner et al., 1987). However, it might be useful if the specific implications for a social identity understanding of depression are briefly listed here.

5.3.1 Support for current theory

- The results of this study lend further support to Cruwys et al.'s (2014a) hypothesis that identification with an increasing number of meaningful groups will predict lower depression scores. This study can also inform future researchers' choice of measure of multiple group memberships. It demonstrates that a separate measure of the number of meaningful group memberships does not appear to improve the predictive accuracy of depression

over and above the use of a general measure of multiple group memberships, such as the EXITS scale (Haslam et al., 2008).

- The findings of this research also speak directly to Cruwys et al.'s (2014a) hypothesis that "Social identification will determine the impact of the various social factors (e.g., social support) that are implicated in depression" (p. 219). The current analysis does not provide any insights into the impact that social support might have when provided by people based on different levels of self-categorisation. However, the finding that social support was an important mediator of the relationship between social identification and depression highlights the interaction between these variables and how they impact on depression. Importantly, this analysis provides much-needed evidence in support of the mediating role of social support within a sample who reported a high level of depression symptomology, and directly relating to depression as an outcome.
- The current study has also provided data in support of Cruwys et al.' s (2014a) speculative prediction that therapeutic interventions will be more effective when they are provided by a therapist who is perceived as part of self via their shared group membership.

5.3.2 Elaborating on the SIA approach to depression

- Perhaps the most notable aspect of this research is the introduction of optimism as a significant mediator between well-established social identity processes (such as strength of identification and social support) and depression. Not only does this provide insights into potential mechanisms through which social identity processes impact on depression, but also highlights the potential for therapists to use social identification principles to influence changes in optimism, and subsequently reduce depression.
- The results of this study also elaborate on the ways in which social identification processes within the therapy room can impact on depression. Most notably, they highlight the importance of the ability to internalise the therapist identity between sessions, and how this can impact on depression through increased optimism.

- Also related to therapy outcomes, the results start to suggest some ways through which a match between clients' normative expectations of therapists and how their own therapist presents to them can serve as a route through which they can think of themselves in relation to a therapist identity, resulting in lower depression, via increased optimism.

5.4 A social identity understanding of the role of optimism in depression

It is evident from the results of this study that optimism is a key mechanism through which social identity processes impact on depression. This finding is potentially important for two reasons. Firstly, it provides some insight into *how* identifying with social groups might impact on depression, as already discussed. Secondly, it can be seen as a starting point for a reconceptualization of optimism, in which it is seen to have a collective component as opposed to being seen solely as a given personality trait (e.g. Carver and Scheier, 2014). In relation to this second point, it is perhaps not surprising that current thinking has resulted in optimism being conceptualised as an individual trait. This can in large part be understood in relation to theoretical conceptualisations of the self. From the perspective of Western personality theorists, the self tends to relate to individual characteristics, or what theorists from within the SIA might refer to as personal identity (Turner et al., 2006). As such, within studies of personality, participants would only have been required to respond to measures in contexts where their personal identity is salient. Whilst personal identity is also seen to be context-dependent and variable from within the SIA, the particular component of personal identity made salient when measures of optimism are administered (e.g., in a laboratory environment) may be consistent across time, resulting in stable scores. However, from the perspective of the SIA, personal identity only speaks to one part of the self-concept, whilst overlooking the important social component of the self, which is multi-faceted and shaped by the normative components of various social identities (Turner et al. 1987).

It follows that whilst optimism might be trait-like and resistant to change at the level of personal identity, it might be highly variable and malleable at the level of social identity. As alluded to above, this variability might have a normative component. However, what is left to explain is why and how variations in the strength of

identification with a social group might be associated with varying levels of optimism, and how this in turn might reduce depression. One possible explanation could be derived from theories relating to collective self-efficacy, or in other words, the extent to which people feel they will be able to achieve their goals via participation in group activities. The concepts of optimism and efficacy are clearly related, with both focussing on ratings of the likelihood of goals being met or challenges overcome. In its original formulation (e.g. Bandura, 2000), collective self-efficacy related to an individual's belief that they could attain their personal goals via collective action. Thus, it was an individualistic account of the benefits derived from group memberships (Drury & Reicher, 2005). However, research has started to uncover links between social identification and collective self-efficacy (e.g. Drury & Reicher, 2005; van Zomeren, Postmes, & Spears, 2008). Central to this work is the idea that when people self-categorise according to a social identity, their goals are defined by their collective identity and are shared by other in-group members. Importantly, a person's (or group's) ability to attain their collective goals is increased by taking part in collective action when they are self-categorised according to a social identity.

This is not the place for a detailed discussion of the role of self-efficacy in collective action (see van Zomeren, Leach, & Spears, 2012, for a relatively recent account). However, it does become clear that the sense of self-efficacy which comes from a shift in self-definition from the personal to more inclusive social level of identification might account for variations in optimism. It is important to clarify here that this is not an argument for outright rejecting value-expectancy models of optimism, and their relation to positive health outcomes (e.g. Scheier et al. 2010). As discussed in Section 2.2.2.2, these models propose that when people are low in optimism in relation to their ability attain their valued goals, they will experience reduced motivation to work towards attaining them (Scheier et al., 2010). This may well be the case when people are self-categorised according to their personal identity and when their goals are therefore personal. However, as people increasingly shift toward a social level of self-categorisation, their goals will be defined by their group memberships. Not only will their goals change, but so too will the level of support they might receive in attaining them. Thus, as social identification increases, so too will perceived social support, as shown in the current analysis. For participants in

the current study, increased social support predicted increased optimism. Although it was not measured within the study design, it could be that feeling supported and part of a group may have given rise to a sense of increased collective self-efficacy, which in turn may have led to feelings of increased optimism, which then predicted lower depression. Whilst this is a question for future research, the current social identity understanding of collective self-efficacy does provide a theoretical framework from which to understand the potential relationship between feeling part of a group, optimism, and ultimately depression. Thus, for people who are depressed, one way of increasing their optimism might be to consider ways for them to either develop new social identities, or to help them to access their existing social identities, which may currently be chronically inaccessible.

5.5 Clinical implications: onset, maintenance, and recovery

The findings of this study have clear clinical implications, which are summarised in the sections which follow.

5.5.1 Onset

The proportion of depression variance explained by the models tested within the current analyses varied from around ten to twenty per cent when social identity variables were included in the models, and then up to thirty-five per cent when optimism was added. Therefore, although the measured variables were significant predictors of depression, between sixty-five and ninety-percent of the variance was left unaccounted for in the models tested. This is not unusual or surprising. As discussed throughout the introduction to this thesis, a wide range of individual and social variables are well-established predictors of depression onset. It is not being proposed here that a social identity account is the only way for depression to be understood, or that fewer group memberships is the only risk factor for depression onset. Rather, it is being suggested that identification with social groups can have important implications for whether a person develops depression, and offers a way for helping people to recover from it. This is particularly important when considering that many individual-level risk factors for depression, such genetic susceptibility are resistant to change.

Within the study, the finding that multiple group memberships predicted depression severity within a sample who reported high levels of depression, on average, lends further support to a social identity understanding of depression (Cruwys et al., 2014). The implication of this finding for the onset of depression is simply stated, and is already supported by research: identifying with fewer social groups increases the *risk* of subsequently developing depression symptoms (Cruwys et al., 2013). With this in mind, there are clear preventive implications. For example, although this study was conducted with a sample of working-age adults, it is likely that the relationship between social identity processes and depression will be evident across the lifespan.

As such, professionals such as healthcare providers, teachers, and social workers, who have regular contact with potentially vulnerable people, could be trained to identify those who are most at risk of depression onset as a result of their (lack of) involvement with social groups (Haslam, Jetten, & Haslam, 2012) . Within schools, staff involved in pastoral care could use screening tools to identify children who are not involved with, or report the lowest levels of identification with social groups to help with targeted interventions to prevent depression onset. Similarly, screening methods could be used to identify low levels of group identification in populations of older adults, for whom loss and isolation might be particularly problematic. Indeed, across the lifespan, wherever people are faced with adversity, such as following a bereavement, ill-health, or any other trauma, involved professionals could consider the extent of a person's involvement with social groups as a way of evaluating risk of subsequent depression onset. It is important to note here that involvement with social groups does not relate only to a person's interpersonal relationships (Cruwys et al., 2013). In the current study, whether participants were in an intimate relationship did predict depression severity. However, the impact of multiple group memberships and strength of social identification was reliable even when participants' relationship status was controlled for.

5.5.2 Maintenance and recovery

The implications of this study for the maintenance of, and recovery from the symptoms of depression are considered together as they are so closely connected.

In other words, interventions which target recovery, will by definition disrupt the processes which maintain depression symptoms.

As was the case when considering depression onset, the role of social identity processes for maintenance and recovery is simple. A depressed person's withdrawal from social groups, or lack of initial involvement with group activities will contribute to the maintenance of their depression symptoms and will hinder their recovery. As such, an obvious focus for clinicians should be to (a) help their depressed clients to become involved with more group activities, (b) facilitate the depersonalisation process (help their clients to shift from a personal to social level of identification) either through group activities, or by altering the comparative context underlying their self-categorizations via conversations in therapy, and (c) to use psychological therapy to provide a context which allows for the development of a new group identity within the therapeutic relationship. Each of these will briefly be considered in turn.

5.5.2.1 Increased group involvement

On the surface at least, one of the easiest ways for a clinician to increase service-user involvement with social groups is to consider what groups are currently offered within the relevant mental health service. The clinician can then refer their client to the relevant group based on their needs and hope that the resulting period of group involvement will reduce their depression symptoms. This is likely to be the approach taken in many mental health services throughout the UK, and may be beneficial to some service-users. However, from the perspective of the SIA, this approach is problematic. The SIA proposes that a precursor to social identification is perceiver readiness to identify with a particular group, and within the concept of perceiver readiness is the person's goals, motives and needs within a particular context. Haslam, et al. (2012) alluded to this point when considering the implication of the SIA for health outcomes more generally. Haslam et al. noted that involvement with groups is only likely to have beneficial outcomes when a thorough assessment of a person's existing or desired group affiliations is considered, as opposed to prescribing specific, "off the peg" (Haslam et al., 2012, p. 331) group solutions. The same could be said to apply to working with people with depression.

Haslam et al. (2012) propose a model for implementing group interventions for people who have reduced connections to groups. Within the model, they suggest that where people are already embedded in groups, and where there are no barriers to continuing to identify with those groups, they should be encouraged to remain actively involved with them. If no current group memberships are in place, existing groups should be sourced, and if there are no barriers preventing the client from identifying with those groups, the clinician should facilitate joining them. However, if it is not possible to maintain identification with current groups, or to develop new identifications with existing groups, new groups should be created with the question of which groups can be used as a basis for social identification at the centre of group development (Haslam et al., 2012). There are potentially many ways to achieve this. To give one example, studies have used a contextually relevant focus of interest as the basis of new groups, such as water groups in residential homes for older adults, with the aim of countering dehydration (Gleibs, Haslam, Haslam, & Jones, 2011). Within Gleibs et al.'s (2011) study, participants required less interventions from their General Practitioner after involvement with the water groups, with this positive outcome associated with increased identification, and increased social support from the group. Another way of identifying the basis for new groups might be to establish common interests amongst previously unacquainted service users, and then creating groups based on those shared interests.

5.5.2.2 Facilitating the depersonalisation process

Whilst encouraging involvement with existing and novel groups is undoubtedly important, it should not be forgotten that within the SIA, social identities are not dependent solely on the physical co-presence of others. The process underlying social identification – i.e. depersonalisation – is a cognitive process. Thus, whilst group membership is of course reliant on being with others to some extent, people are also said to carry around social identities as cognitive structures (Turner et al., 1987). Whilst these identities may be chronically inaccessible when people are depressed and increasingly self-identified according to their personal identity (Cruwys et al., 2014a), therapists can work to encourage people to talk about valued

group memberships, and to think about their similarities to other in-group members as a way of facilitating depersonalisation.

These ideas are not inconsistent with well-established theoretical models of depression. For example, from a CBT perspective (e.g. Beck, 1976, 2000) a person who attends therapy because they are depressed may have their negative schema activated, resulting in negative thoughts about the self (plus the world, and others). That person's focus on negative aspects of the individual self may prevent them from accessing the social component of their self-concept, rendering social identities inaccessible, and resulting in a pessimistic view of the future. However, if we accept the SIA's conceptualisation of the self as having both social and individual components, a therapist might encourage the depressed person to think of themselves in terms of their existing group memberships, thus shifting the focus away from the individual self/personal identity, giving rise to an enhanced sense of belonging, feeling more supported, and thus feeling more optimistic for the future.

5.5.2.3 Group formation in the therapeutic relationship

The ways in which the therapeutic relationship can be used as a platform from which a new social identity can form has already been discussed in this chapter (see Section 5.2.4). Although these social identity processes have important implications for recovery, they will not be repeated here. It might however be worthwhile to briefly elaborate on some practical suggestions as to how a therapist might facilitate the formation of a new group identity and why doing so might facilitate positive therapy outcomes. With regards to facilitating the formation of a new group identity, there is no obvious hard and fast rule. There are many aspects of therapy which are common to most approaches which can be used a good starting point. For example, developing a shared perspective on the client's difficulties, formulating collaboratively, and working within an empathic environment are just a few examples. In addition, therapists might consider maximising opportunities to use 'we', 'us' and 'our' in their talk with their clients, as opposed to solely using 'you' and 'your' as a default, or at least supplementing use of the latter with the former. For example, when considering a challenge that a client might face, the therapist could help them to think through their available options by framing questions in relation to

their shared perspective – e.g. “based on what *we* know about how events have unfolded in the past, what alternatives are available for *us* to try out this week?”. Indeed talking about psychological processes in general, including distress and low mood as phenomena which happen to ‘us’ as opposed to just ‘you’ might also help to create the sense of togetherness underlying social identification. Of course, this approach will not always be possible, or even beneficial, and there may be times where the focus needs to remain solely on the client’s personal experiences, but it does provide an example of how language might be used to start to build a sense of ‘we-ness’ in therapy.

In terms of recovery, a further question remains to be answered around how social identification in the therapeutic relationship might facilitate positive therapy outcomes. This question has been addressed throughout this thesis, with internalisation of the therapist identity, increased optimism, and possible increases in perceived social support proposed as potential mediating variables. However, the literature on consensualisation provides a further insight into how a shared sense of identity might facilitate change (e.g. Haslam, Oakes, Reynolds, & Turner, 1999; Haslam, Oakes, Turner, McGarty, & Reynolds, 1998; Haslam, Turner, Oakes, Reynolds et al., 1998). Although their work primarily focusses on consensualisation in intra-group stereotypes, Haslam et al. (1999), suggest that when people are self-categorized according to a social identity, they expect to reach agreement with fellow in-group members and will actively strive to do so. Thus, in the context of therapy, where a client might be rigid in their own understanding of a particular situation, and where the therapist’s theoretical understanding of the same situation might be quite different, a shared sense of identity might help the client to shift in their view as they strive to reach consensus with their therapist as a fellow in-group member. Thus, the newly formed intra-group therapeutic context can be used a vehicle for change.

5.6 Strengths, limitations, and directions for future research

5.6.1 Strengths

One of the major strengths of this study was the reasonably large sample size. The use of an online survey as a means of data collection enhanced the capability to

recruit a large sample owing to the relative ease with which it was distributed to a large number of people. In addition, the use of carefully selected measures, which reduced the survey length and repetition of items, whilst maintaining validity, enhanced the likelihood of a large number of participants continuing to the end of the survey. The survey was 'live' for a little over six weeks, in which time more than five hundred people clicked on the link, with nearly three hundred of those going on to complete the survey. When considering that the sample was comprised of people experiencing depression, which is associated with low motivation and poor concentration, this can be seen as a good achievement. On a related point, the fact that the sample scored high on the measure of depression indicates that the recruitment strategy was successful, which can be seen as a further strength.

5.6.2 Limitations

The findings of this survey offer interesting insights into possible new directions for the social identity approach to depression. However, it is important to be clear with regards to their potential limitations. Firstly, the sampling procedure resulted in a self-selected opportunity sample. The benefits of using this approach have been highlighted above. However, its limitations should also be acknowledged. It is not possible to be clear on why some people chose to complete the survey or what prohibited others. These unmeasured underlying motivational factors could have implications for explaining the relationship between social identification and depression. In addition, male participants and those aged over 25 were underrepresented in the current study. Based on the extensive literature, there is no reason to anticipate differences in social identity processes across genders or throughout the lifespan. However, based on the sample characteristics, there are limits to the generalisability of the current findings.

In addition, as the study used a cross-sectional design, it is impossible to make definitive conclusions with regards to causality, or to the direction of potential causal relationships within the models. It is certainly the case that the mediation models tested are causal models (Hayes, 2013), and the direction of those causal relations were based on predictions derived from well-established theoretical principles. However, the possibility that outcome variables in the models might also lead to

changes in the predictors is possible, or relationships between variables might be bi-directional, or even caused by variables other than those measured. For example, feeling part of a group might lead to more optimism, and less depression, whilst feeling less depressed might further enhance optimism, leading to greater motivation to join more groups. That should not call into question the validity of the conclusions derived from this study. The reported relationships between the variables were present in the data and they fit with a social identity understanding of depression. However, the causal nature of these relationships could benefit from further exploration using longitudinal or experimental research designs.

A further potential limitation relates to the choice of measures used to assess strength of identification. Two items, based on a well-established measure of social identification (Ellemers et al., 1999) were used to measure strength of identification with therapists. One of those items (I identify with my therapist/therapists in general) has been shown to be a valid and reliable single-item measure of social identification (Postmes, Haslam, & Jans, 2013) and to correlate well with multi-item multiple-component measures of identification, such as that developed by Leach et al. (2008). Thus, its inclusion in a two-item composite measure of identification is not problematic, particularly as it correlated well with the additional measure (I am like my therapist/therapists in general). However, when measuring strength of identification with an important group, it was decided that a single item would be used to minimise repetition for participants. The item 'I am like other people who also belong to this social group' was chosen for this purpose. However, on reflection, it would have been preferable to have used the single-item measure supported by research (Postmes et al., 2013). That is not to say that the chosen measure is invalid. It taps into one of the core components of social identification: perceived similarity. It also correlated well with the established single item measure of identity discussed above, providing good reason to have confidence in its validity. However, it is important to bring to the reader's awareness that the measures of identification differed slightly across the study design.

It is also important to note that when participants were rating their strength of identification, they were doing so in relation to a group which they identified as

important to them. As such, participants were rating their strength of identification with different groups to one another. This is not problematic as such – the analysis certainly demonstrates the important benefits associated with stronger identification with a group (see Section 5.2.3). However, as noted by Cruwys et al. (2014a), a SIA to depression would not predict that identifying more with any group will inevitably decrease depression symptoms. Where a group's normative behaviours are associated with increased depression (e.g. excessive drug-taking, or self-harm), feeling more part of the group might result in higher depression scores. However, within those groups, it is equally possible that people may still feel more supported by their fellow group members leading to lower depression. As participants were given free rein to choose a group to rate their identification, the type of group could not be controlled for, or included as a moderator in the models, leaving us unable to draw conclusions regarding the impact of different group memberships on the models. Future research might benefit from re-running these analyses with participants recruited based on their memberships of specific groups to enable better control within the study design.

A final notable limitation of the study design relates to the models of social identity processes within the therapeutic relationship. Within the current study, there were no measures of length of therapeutic intervention, modality of the intervention, or time elapsed since the intervention took place. The modality of the intervention could be of particular importance as different therapeutic schools have different theoretical approaches to the therapeutic relationship. For example, a cognitive behavioural therapist might take a challenging, yet collaborative stance within the therapeutic relationship with the aim of working towards solving their client's 'distorted' thinking patterns, changing their behaviours, or solving the problems they face. The focus is unlikely to be directly on the therapeutic relationship itself. However, a psychoanalyst might see the therapeutic relationship as a vehicle through which a client can work through past relationships via transference in the 'here and now', and might specifically use the therapeutic space to address any relationship issues which may arise. It would therefore be interesting to establish whether social identity processes are more or less evident across modalities which use the therapeutic relationship differently. That is not to take away from the *validity*

of the findings of this research. It is simply an acknowledgement that those findings could be enriched with a more detailed assessment of participants' therapy experiences.

5.6.3 Directions for future research

The social identity approach to depression is currently in its infancy (Cruwys et al., 2014). As such, there are many directions for future researchers to take, some of which will be considered here. Firstly, the above limitations of the current study should be considered when designing future projects. For example, experimental or longitudinal studies in which the salience or content of various identities are manipulated and measured over time would allow for clearer conclusions to be made with regards to causality within the models. In addition, studies which measure optimism pre- and post-identity manipulation would give a clearer indication of the extent to which social identification processes or group memberships can be associated with changes in optimism.

It would also be interesting to run smaller, more focussed studies exploring each of the different models identified within the current analysis. For example, a study which focussed solely on the role of strength of identification through social support and optimism would allow for the use of longer, more detailed measures of social identification. Whilst it is common practice to use single item measures of social identification (Postmes et al. 2013), it would be interesting to explore whether different components of social identification (see Leach et al. 2013) have different impacts on depression through the specified mediators. Likewise, a study which focussed on social identity processes within the therapeutic relationship would allow for more detailed measures of therapy experiences or tighter controls over sample characteristics in relation to the therapy they have experienced.

Finally, and perhaps most important in terms of the clinical application of the SIA to depression would be to design a series of randomised control trials (RCTs). Well-designed RCTs could compare therapeutic interventions, which are specifically designed to enhance social identification both within and outside of the therapeutic relationship, with conventional therapeutic approaches. Of course, this would require

a series of preliminary studies to develop a series of reliable, valid tools or protocols based on social identity processes, and would be a complex project. However, it would provide much-needed evidence to assist with highlighting the usefulness of a social identity based understanding of depression to both clinicians and policy makers.

5.7 Conclusion

The results of this study demonstrate that in support of a new and growing body of research, involvement with an increasing number of groups and stronger identification with an important group is associated with lower depression. Within this study, the key variables through which the relationship between social identity processes and depression operated were social support and optimism. The apparent social component of optimism offers a potentially new perspective on a personality 'trait' which was previously conceptualised purely in individualistic terms, and as resistant to change. In addition, the findings of this work suggest that social identity processes make an important contribution to the impact of the therapeutic relationship on depression. This contributes to a new insight into the ingredients of the therapeutic relationship which might be important for bringing about change (c.f. Cruwys et al., 2014a). Whilst the implications of these findings and the mechanisms through which they operate would befit from further elaboration, this research advances our understanding of a social identity approach to depression. In doing so, it lends further support to the idea that in order to gain a thorough understanding of the causes, maintaining factors, and potential routes towards depression recovery, it is essential to continue to learn from, and develop our understanding of group processes.

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Appendix 1: Literature Search Strategy

Overview of Procedure

Owing to my background as a social psychological researcher, I came to this project with extensive knowledge of the literature on the social identity approach, which shaped my starting point for the current literature review. Once the final research questions had been established, a systematic review of the literature was conducted using databases, including PsychINFO, PubMed, Google Scholar, ScienceDirect, Scopus, APA PsycNet, and Web of Science. Journal publisher sites were also searched using key terms. When relevant articles had been identified, they were read and used to expand the literature search by providing relevant references to related literature. Where articles or books could not be located online or in the University of Hertfordshire Resource Centre, they were requested via an inter-library loan.

The following search terms were used:

Depression, low mood, dysthymia, affective disorders, mood disorder, unipolar depression, clinical depression.

Depression (and) aetiology, causes, biological, genetic, social, cognitive, approaches, theories, explanations, statistics, epidemiology, numbers, frequency, diagnosis, gender, ethnicity, socio-economic, demographics, treatment, interventions, treatment approaches, personality, optimism, pessimism, traits, states.

Depression (and) social relationships, social connections, identity, identification, social identity, togetherness, connectedness, loneliness, exclusion, inclusion, community, relational factors, groups, group memberships, group belonging, sociality, group interventions.

Optimism/pessimism (and) social relationships, groups, identity, depression, mental health, health, outcomes, wellbeing, predicts, measurement, personality.

(additional search) **Social identity** (and) mental health, health, wellbeing.

Therapeutic relationship (and) ingredients, factors, non-specific factors, empathy, identity, internalisation, human factors, group formation, ethic matching, demographic matching, matching.

Appendix 2. Center for Epidemiological Studies Depression (CES-D) Scale

	Rarely or none of the time (less than 1 day)	**Some or a little of the time (1-2 days)**	**Occasionally or a moderate amount of the time (3-4 days)**	**Most or all of the time (5-7 days)**
During the past week:	0	1	2	3
1) I was bothered by things that usually don't bother me	0	1	2	3
2) I did not feel like eating; my appetite was poor	0	1	2	3
3) I felt that I could not shake off the blues even with help from my family and friends	0	1	2	3
4) I felt that I was just as good as other people	0	1	2	3
5) I had trouble keeping my mind on what I was doing	0	1	2	3
6) I felt depressed	0	1	2	3
7) I felt that everything I did was an effort	0	1	2	3
8) I felt hopeful about the future	0	1	2	3
9) I thought my life had been a failure	0	1	2	3
10) I felt fearful	0	1	2	3
11) My sleep was restless	0	1	2	3
12) I was happy	0	1	2	3
13) I talked less than usual	0	1	2	3
14) I felt lonely	0	1	2	3
15) People were unfriendly	0	1	2	3
16) I enjoyed life	0	1	2	3
17) I had crying spells	0	1	2	3
18) I felt sad	0	1	2	3
19) I felt that people disliked me	0	1	2	3
20) I could not get "going"	0	1	2	3

Appendix 3. Life Orientation Test – Revised

In the following section, Please be as honest and accurate as you can. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers.

1. In uncertain times, I usually expect the best.

Do not agree 1 2 3 4 5 6 7 Agree completely

2. It's easy for me to relax. (Filler)

Do not agree 1 2 3 4 5 6 7 Agree completely

3. If something can go wrong for me, it will. (Reversed item)

Do not agree 1 2 3 4 5 6 7 Agree completely

4. I'm always optimistic about my future.

Do not agree 1 2 3 4 5 6 7 Agree completely

5. I enjoy my friends a lot. (Filler)

Do not agree 1 2 3 4 5 6 7 Agree completely

6. It's important for me to keep busy. (Filler)

Do not agree 1 2 3 4 5 6 7 Agree completely

G.7. I hardly ever expect things to go my way. (Reversed item)

Do not agree 1 2 3 4 5 6 7 Agree completely

G.8. I don't get upset too easily. (Filler)

Do not agree 1 2 3 4 5 6 7 Agree completely

G.9. I rarely count on good things happening to me. (Reversed item)

Do not agree 1 2 3 4 5 6 7 Agree completely

G.10. Overall, I expect more good things to happen to me than bad.

Do not agree 1 2 3 4 5 6 7 Agree completely

Appendix 4. Participant information sheet

Title of Research

A social identity understanding of depression: Implications for onset, maintenance and recovery

Introduction

You are being invited to take part in a research study. Before you decide whether to do so, it is important that you understand what your involvement will include. Please take some time to read the following information carefully and discuss it with others if you wish. Do not hesitate to ask us to clarify if anything is unclear or to provide any further information that you might require to help you to decide whether to take part. Please do take your time to decide whether or not you wish to proceed.

What is the purpose of this study?

The purpose of this study is to learn more about depression. Of particular interest is the impact of social relationships on depression, and how they might influence the onset of symptoms. We are also interested in how social relationships might influence recovery.

Do I have to take part?

It is completely up to you whether or not you decide to take part in this study. At the bottom of this information sheet there is a sentence that reads 'After having read the information above would you be willing to take part in the outlined survey?' If you do decide to take part you will be required to click the YES button which will automatically direct you to the beginning of the survey. By clicking YES we assume you are giving consent to participate. Agreeing to join the study does not mean that you have to complete it. You are free to withdraw at any stage without giving a reason. A decision to withdraw at any time, or a decision not to take part at all, will not have any negative consequences for you.

What will happen to me if I take part?

If you decide to take part in this study, you will be asked to complete an online survey which will take approximately 20-30 minutes.

The survey will start by asking you about your experiences of depression and psychological therapy. You with then be asked a series of questions about various groups which you may, or may not have belonged to. Finally, you will be asked to provide some personal information. However, you will not be asked for your name or any other information which will compromise your anonymity.

What are the possible disadvantages, risks or side effects of taking part?

There are no disadvantages in completing the survey. However if you experience any distress or anxiety after completing the survey and you wish to talk to someone concerning this, contact details for MIND are presented below. MIND is a mental health charity which offers free and confidential advice:

MIND *www.mind.org.uk*
Call 0300 123 3393 for free confidential advice. Helplines are open Monday to Friday 9am-6pm.
Or email info@mind.org.uk

What are the possible benefits of taking part?

Participation in this survey will help to inform our understanding of depression. In turn, this could have an impact on the design of preventative policies and treatments for depression, which could be of future use to you and others who experience similar difficulties
.
On request we are willing to send you a summary of the findings from this study.

How will my taking part in this study be kept confidential?

At no point within the survey will you be asked for your name. All information you do provide will be stored electronically and kept securely via password access. Only the researchers working directly on the study will have access to these passwords and your data. After completion of the study all data will be stored for up to two years and thereafter securely destroyed.

What will happen to the results of the research study?

The findings of this study will be presented in a doctoral thesis written by a trainee clinical psychologist at the University of Hertfordshire. The findings might also be presented at academic conferences or in academic journals.

If requested a summary of the findings will also be presented to the participants of the survey and the forums used to advertise the study.

Who has reviewed this study?

This study has been reviewed and approved by the ethical panel of the University of Hertfordshire.

Who can I contact if I have any questions?

If you would like further information or would like to discuss any details personally, please get in touch with me, by email: d.novelli@herts.ac.uk

Although we hope it is not the case, if you have any complaints or concerns about any aspect of the way you have been approached or treated during the course of this study, please write to the University of Hertfordshire Secretary and Registrar.

Thank you very much for reading this information! By pressing the Continue button below you are giving consent to taking part in this study.

Continue >>>

Appendix 5. Participant debrief

Your participation in this survey has helped to provide information to improve knowledge about the impact of group memberships on the experience of depression. It has also helped to enhance our understanding of the impact that identifying with a therapist can have on the effectiveness of psychological therapy.

It is hoped that the findings of this survey can be used to improve therapeutic interventions for depression and to inform government policy on how to reduce the likelihood of 'at risk' groups developing depression symptoms.

We would like to thank you for taking part in the survey and making this research possible. If you would like to receive a summary of the findings of this research please contact David Novelli at the email address below

If you have any other questions or queries about the survey please contact David Novelli via email: d.novelli@herts.ac.uk

Free confidential advice
If you experience any distress or anxiety after having completed this survey and you wish to talk to someone regarding this, contact details for MIND can be found below. MIND is a mental health charity which offers free and confidential advice:

MIND www.mind.org.uk

Call 0300 123 3393 for free confidential advice. Helplines are open Monday to Friday 9am-6pm.

Or email info@mind.org.uk

Appendix 6. Ethics approval notification

UNIVERSITY OF HERTFORDSHIRE

HEALTH & HUMAN SCIENCES

ETHICS APPROVAL NOTIFICATION

TO David Novelli

CC Joerg Schulz

FROM Dr Richard Southern, Health and Human Sciences ECDA Chairman

DATE 15/10/14

Protocol number: **LMS/PG/UH/00292**

Title of study: A social identity understanding of depression: Implications for onset, maintenance and recovery

Your application for ethical approval has been accepted and approved by the ECDA for your school.

This approval is valid:

From: 15/10/14

To: 03/05/15

Please note:

Approval applies specifically to the research study/methodology and timings as detailed in your Form EC1. Should you amend any aspect of your research, or wish to apply for an extension to your study, you will need your supervisor's approval and must complete and submit form EC2. In cases where the amendments to the original study are deemed to be substantial, a new Form EC1 may need to be completed prior to the study being undertaken.

Should adverse circumstances arise during this study such as physical reaction/harm, mental/emotional harm, intrusion of privacy or breach of confidentiality this must be reported to the approving Committee immediately. Failure to report adverse circumstance/s would be considered misconduct.

Ensure you quote the UH protocol number and the name of the approving Committee on all paperwork, including recruitment advertisements/online requests, for this study.

Students must include this Approval Notification with their submission.