

Understanding poor help-seeking rates for Major Depressive Disorder

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ABSTRACT

The principal aim of this thesis was to further understanding of the factors influencing decisions to seek treatment for Major Depressive Disorder. A review of the literature (Chapter 2) revealed a number of factors associated with help-seeking for mental health disorders. However, there was no existing theoretical model of decisions to seek treatment for MDD, and there was limited understanding of the psychological and emotional processes involved in seeking treatment for depressive symptoms. In Study 1 (Chapter 3), a qualitative study explored participants' accounts of seeking treatment for MDD, which resulted in the development of a theoretical model of help-seeking. This model highlighted the role of identity and goals in decisions to seek treatment for MDD. Subsequent studies in this thesis sought to test predictions made by this model. Study 2 (Chapter 4) explored the relationship between identity and goal conflict and depressed individuals' acknowledgement of depressive symptoms and perceived need for treatment. Findings of this study suggested that greater identity conflict, but not goal, conflict was associated with reduced acknowledgement of depressive symptoms and less perceived need for treatment. Study 3 (Chapter 5) sought to replicate this relationship, and also tested the extent to which identity as a depressed person and socio-cognitive models of health behaviour could predict (i) intentions to seek treatment for depression and (ii) current treatment seeking. This study found that identity conflict was associated with reduced acknowledgement of depressive symptoms, but failed to replicate the relationship between identity conflict and perceived need for treatment for depression. However, greater identity as a depressed person was associated with both current treatment seeking and greater intentions to seek help. Analyses demonstrated that the Theory of Planned Behaviour and the Health Belief Model predicted current help-seeking and help-seeking intentions, but identity as a depressed person explained an additional significant proportion of the variance. A unified model, drawing on these two theories and incorporating identity was found to be the best fit in accounting for intentions to seek help for depression. The findings of Study 4 (Chapter 6) demonstrated that

identity as a depressed person was also a significant predictor of prospective help-seeking behaviour for MDD. In this study, the majority of factors from the Theory of Planned Behaviour and Health Belief Model, extended to include identity, predicted help-seeking behaviour indirectly via intentions to seek help. However, intentions to seek help only predicted a small proportion of the variance in help-seeking behaviour, and the findings revealed that a subsample of factors, including identity, directly predicted help-seeking behaviour. The final study sought to use an online focus group to develop a measure of symptom avoidance in depressed individuals. This study faced methodological difficulties, and Chapter 7 reflects on the use of online focus groups to explore patient experiences of illness. The findings of this study highlighted participant experiences of using an online focus group method to discuss personal experiences of MDD, and this chapter provides specific guidance for other researchers planning to use this method in the context of health research. The implications of the findings of this thesis are discussed in Chapter 8, alongside recommendations for future help-seeking research.

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STATEMENT OF THE CANDIDATE'S CONTRIBUTION TO CO-AUTHORED PAPERS

There are five studies in this thesis, two of which have been written up as manuscripts for publication. As detailed below, the substantial contribution to the co-authored papers presented in this thesis was made by the candidate. All chapters that have been written up as manuscripts are presented in the format requested by the respective journal. Efforts have been taken to reduce repetition of information in the thesis, however since each manuscript is meant to stand alone, some information will be redundant.

Paper 1: Chapter 3

Farmer, C., Farrand, P., & O'Mahen, H. (2012). 'I am not a depressed person': How identity conflict affects help-seeking rates for major depressive disorder. *Bmc Psychiatry*, 12, 164.

The first manuscript, presented in this thesis in Chapter 3, was submitted to the journal *BMC Psychiatry* and was accepted in September 2012. The candidate designed the methodology, obtained ethical approval, collected and analysed the data, and wrote the manuscript, with supervisory support and advice from Dr Paul Farrand and Dr Heather O'Mahen.

Paper 2: Chapter 5

Farmer, C., O'Mahen, H., & Farrand, P. (under review). Developing a unified model of help-seeking for major depressive disorder; Identity, health beliefs and attitudes to treatment. *British Journal of Clinical Psychology*.

The second manuscript, presented in Chapter 5, was submitted to the journal *British Journal of Clinical Psychology* in June 2013 and is currently under review. The

candidate designed the methodology, obtained ethical approval, collected and analysed the data, and wrote the manuscript, with supervisory support and advice from Dr Paul Farrand and Dr Heather O'Mahen.

CHAPTER 1 : INTRODUCTION

This PhD aimed to improve understanding of the reasons underlying poor help-seeking rates for Major Depressive Disorder (MDD). In accordance with Medical Research Council guidelines on the development of health interventions (Craig et al., 2008), this thesis also sought to develop a theoretical model of help-seeking decisions. This chapter will introduce the rationale and general background to the research. The first section of this chapter will define MDD and help-seeking. The second section will summarise help-seeking rates for MDD and outline the existing evidence for clinical interventions aimed at improving help-seeking for MDD.

1.1 Major depressive Disorder

Major Depressive Disorder is a disabling condition, which is characterised by a persistent low mood and a loss of interest or pleasure in normally enjoyed activities. Depressed individuals also experience symptoms including significant changes in appetite and sleep pattern, lethargy and extreme tiredness, and overwhelming feelings of hopelessness, worthlessness and guilt (DSM-IV-TR, 2000). To meet diagnostic criteria for MDD, symptoms should be present for most of the day for a period of at least two weeks. Symptoms should also have a significant impact on social and occupational functioning. Two thirds of individuals with MDD report severe reductions in their quality of life (Rapaport, Clary, Fayyad, & Endicott, 2005). Furthermore, MDD is associated with a high risk of mortality (Harris & Barraclough, 1998; Judd, Akiskal, & Paulus, 1997)

Major depressive disorder is a highly prevalent disorder. Research suggests that one in six individuals will experience an episode of MDD over the course of their lifetimes

(Hasin, Goodwin, Stinson, & Grant, 2005). Major depressive disorder is also often a recurrent illness; individuals frequently experience periods of relapse over the life course (Gilmer et al., 2005; Keller & Shapiro, 1981). The risk of relapse increases with each additional previous episode (Kupfer, Frank, & Warmhoff, 1996). Positive outcomes following treatment for MDD are associated with lower symptom severity at the start of treatment, reduced chronicity and fewer previous episodes (Hamilton & Dobson, 2002).

The health and economic costs of MDD are projected to continue rising, with predictions that MDD will become the second leading cause of disability in the world by 2020 (Hasin et al., 2005; Murray & Lopez, 1996). Improving the treatment of MDD has therefore been identified as a major research priority in the UK (NICE, 2004).

1.2 Definition of help-seeking

Within the mental health context, help-seeking has been defined as:

“an adaptive coping process that is the attempt to obtain external assistance to deal with a mental health concern” (p.180, Rickwood & Thomas, 2012).

This definition includes help-seeking for mental health difficulties from both formal and informal sources of support. Formal help-seeking refers to help-seeking from professional health services; including GP, counsellor, psychologist, psychiatrist or other mental health professional. Informal help-seeking refers to seeking support from one’s social network; such as support from friends and family. The use of online websites and forums, and seeking support from telephone support lines has been

defined as forms of self-help (Rickwood, Deane, Wilson, & Ciarrochi, 2005; Rickwood & Thomas, 2012).

Help-seeking statistics are based on rates of seeking treatment from formal sources of support (Rickwood & Thomas, 2012). Little is known about the extent to which depressed individuals rely on informal sources of support, and how successful these are in reducing depressive symptoms (Griffiths, Crisp, Barney, & Reid, 2011). Given the current state of knowledge, it would be a priority to focus on increasing formal help-seeking rates. For this reason, this thesis seeks to explore the reasons underlying low formal help-seeking rates for MDD. For the remainder of this thesis, formal help-seeking is referred to with the general term of 'help-seeking'.

1.3 Help-seeking for MDD

The National Institute for Clinical Excellence (NICE) in the UK recommends the treatment of MDD with antidepressant medication and/or psychological therapies (2004). There is a wide evidence base that these treatments can reduce the impact and chronicity of MDD (Persons, Thase, & Crits-Christoph, 1996; Shea, Elkin, Imber, Sotsky, & et al., 1992; Simons, Murphy, Levine, & Wetzel, 1986; Williams et al., 2000), and can also reduce the risk for relapse (Scott, Palmer, Paykel, Teasdale, & Hayhurst, 2003; Vos et al., 2004). However, efforts to treat MDD are undermined by poor help-seeking rates. Studies indicate that between a third and one half of those with MDD do not seek treatment (Andrews, Issakidis, & Carter, 2001; Bebbington et al., 2009; Bebbington, Meltzer, et al., 2000; Halgin, Weaver, Edell, & Spencer, 1987). Furthermore, long delays prior to seeking help are common; the majority of depressed individuals wait 12-months before seeking help (Bebbington, Brugha, et al., 2000; Christiana et al., 2000; Wang et al., 2005). However, longer delays are

common, and the average delay in seeking help is eight years (Bebbington, Brugha, et al., 2000; Christiana et al., 2000; Kessler, Olfson, & Berglund, 1998; Wang et al., 2005).

There is evidence that help-seeking delays may reduce the efficacy of treatments for MDD. Help-seeking delays prolong the length of illness and result in greater symptom severity at time of seeking help (Bebbington et al., 2009; Thompson, Issakidis, & Hunt, 2008). As chronicity and higher symptom severity are also predictors of relapse for depression (Keller & Shapiro, 1981; Solomon et al., 2000), longer help-seeking delays may also result in a higher risk of relapse. Furthermore, long delays in seeking treatment may lead to indirect costs to the economy, through loss of earnings and work productivity, and may damage social and family networks that may support recovery and quality of life (Thompson et al., 2008). Little research has investigated clinical outcomes amongst individuals who do not seek treatment, although evidence suggests that untreated depression is associated with poorer prognoses (Rost et al., 1998; van Beljouw, Verhaak, Cuijpers, van Marwijk, & Penninx, 2010). In summary, poor help-seeking rates undermine efforts to treat MDD contribute significantly to the unmet need for treatment (Cuijpers, 2011; Thompson et al., 2008). As researchers continue with efforts to develop increasingly effective treatments for MDD, concurrent research aimed at improving help-seeking rates for depression may therefore contribute significantly to reducing the health and economic burden of MDD.

1.4 Existing evidence for clinical interventions aimed at improving help-seeking for MDD

A recent systematic review of the literature identified six randomised controlled trial studies targeting help-seeking for MDD, anxiety, or general psychological distress (Gulliver, Griffiths, Christensen, & Brewer, 2012). Principally, help-seeking interventions have focussed on improving participants' knowledge of mental health problems and treatments, and on reducing stigma associated with mental health disorders, often in combination. Interventions have also included some contact between the research team and participants, with one trial providing cognitive-behavioural therapy (CBT) and personalised feedback on symptoms (Christensen, Leach, Barney, Mackinnon, & Griffiths, 2006). Three of these trials assessed help-seeking behaviour (Christensen et al., 2006; Costin et al., 2009; Sharp, Hargrove, Johnson, & Deal, 2006), while the remaining trials assessed attitudes towards help-seeking (Buckley & Malouff, 2005; Donohue et al., 2004) or 'willingness' to seek help (Han, Chen, Hwang, & Wei, 2006). The majority of these interventions were targeted at non-clinical populations, with only one intervention targeted at individuals with current symptoms of MDD (Christensen et al., 2006). All trials reported at least one significant improvement in attitudes towards seeking treatment. However, only one of three studies measuring behaviour found an effect of the intervention on help-seeking behaviour. That study (Christensen et al., 2006) found a small effect of an online cognitive-behaviour therapy (CBT) intervention on increasing seeking CBT treatment for depressive symptoms.

Overall, these findings suggest that attitudes towards help-seeking may be modifiable, and that improving mental health literacy may result in more positive attitudes towards seeking treatment. However, there is limited evidence that psycho-

education has an impact on actual help-seeking behaviour. Unfortunately, limited conclusions can be drawn concerning the 'active ingredients' in the interventions, due to the multiple components incorporated in each. Furthermore, the use of non-clinical populations in all but one study limits the generalisability of the findings to a depressed population. Further research is needed to identify factors influencing help-seeking for MDD. However, Gulliver and colleagues (2012) argue that the lack of a theoretical framework of help-seeking decisions for mental health disorders is needed to inform the further development of help-seeking interventions.

This recommendation is consistent with guidance provided by the Medical Research Council (MRC) for the development, evaluation and implementation of complex interventions to improve health outcomes (Craig et al., 2008). According to these guidelines, interventions should be developed systematically, grounded within appropriate evidence and theory, and evaluated using a series of pilot studies. To contribute to the development of an intervention for help-seeking for MDD and in line with MRC guidance, this thesis will firstly summarise a literature review conducted to identify the existing evidence base for factors influencing help-seeking rates for MDD. This review also sought to identify an appropriate theory of help-seeking for MDD from the existing literature, to be used to inform the development and piloting of a help-seeking intervention. As no appropriate theory of help-seeking could be derived from the existing evidence base, this thesis sought to improve understanding of help-seeking for MDD in order to inform the development of a theory of help-seeking which may be used in the future development of a help-seeking intervention.

CHAPTER 2 : LITERATURE REVIEW

Consistent with conclusions drawn in a recent review of the help-seeking literature (Gulliver et al., 2012), a literature review conducted as part of this thesis revealed that there is no established theoretical model of help-seeking for mental health difficulties. As the development of a theoretical framework of help-seeking decisions is important for the development of help-seeking interventions (MRC; Craig et al., 2008), I sought to identify evidence to inform the development of a theory of help-seeking decisions for MDD. As little research has directly examined help-seeking for MDD, I broadened this review to include research investigating help-seeking for mental health disorders or non-specified psychological distress. There are four main sections to this review. The first section (Section 2.1.) provides an overview of the existing research examining help-seeking decisions for mental health disorders, and summarises the empirical and theoretical understanding of factors associated with decisions to seek help. The second section (Section 2.2) provides an overview of the scope and limitations of existing help-seeking research. Section 2.3 reviews existing theoretical models of health behaviour that have been applied to understanding help-seeking in the existing literature. Finally, in Section 2.4., I will summarise the conclusions of the review.

2.1 Individual factors associated with help-seeking for mental health disorders

2.1.1 *Symptoms of Depression*

Despite the significant impact of depressive symptoms on daily functioning (DSM-IV-TR, 2000; Judd et al., 1997; Spitzer et al., 1995), there is limited evidence that depressive symptoms delay or prevent individuals from seeking treatment. In several studies, individual symptoms of MDD, such as weight loss (Henderson, Pollard, Jacobi, & Merkel, 1992), sleep difficulties and loss of energy (Dew et al., 2007) have been associated with reduced help-seeking. Furthermore, several researchers have suggested that depressed individuals may decide not to seek treatment due to an inclination to avoid additional sources of distress (Halgin et al., 1987). However, in a sample of individuals with mood and anxiety disorders, only 5.8% of respondents reported that their symptoms interfered with their ability to seek treatment (Thompson, Hunt, & Issakidis, 2004). Indeed, the majority of research suggests that higher symptom severity is associated with more positive attitudes (ten Have et al., 2010) and an increased likelihood of seeking treatment (Bebbington et al., 2009; Bebbington, Brugha, et al., 2000; Cepeda-Benito & Short, 1998; Goodman, Sewell, & Jampol, 1984; Halgin et al., 1987; Henderson et al., 1992). An increase in symptom severity is also one of the main prompts for seeking help (Thompson et al., 2004).

The exact mechanism through which symptom severity influences decisions to seek treatment is as yet unclear. It may be that individuals perceive a greater need for treatment at more severe levels of MDD (Meadows et al., 2002; Mojtabai, Olfson, & Mechanic, 2002). Depressed individuals' frequently report a preference to manage symptoms alone or through informal sources of support for less severe symptoms of

MDD (Jorm, Griffiths, Christensen, Parslow, & Rogers, 2004), and evidence suggests that individuals may only seek psychological help when symptoms overwhelm their ability to cope (Cepeda-Benito & Short, 1998; Kelly & Achter, 1995; Khan, Bower, & Rogers, 2007; Rickwood & Braithwaite, 1994). Higher symptom severity may also be associated with greater negative consequences of depressive symptoms, which may act as a prompt to seek treatment. A meta-synthesis of patient experiences of using guided self-help for MDD revealed that the consequences of their symptoms on functioning and for their significant others was a primary motivation for seeking treatment (Khan et al., 2007). While there is widespread support for a relationship between higher symptom severity and help-seeking for MDD, further research on the way in which individuals make decisions about seeking help is needed to understand how help-seeking interventions can encourage individuals to seek treatment earlier in the course of illness.

2.1.2 Symptom recognition

Some researchers have suggested that help-seeking delays may be prolonged due to delays in symptom recognition. Despite the significant impact of depressive symptoms, depressed individuals report that they experience difficulties in recognising the cause of their symptoms (Elwy, James, Jason, & Susan, 2011; Gulliver, Griffiths, & Christensen, 2010; Thompson et al., 2008). Indeed, some evidence suggests that delays in symptom recognition may account for up to two-thirds of the delay in seeking help for mental health difficulties (Thompson et al., 2004; Thompson et al., 2008).

The reasons underlying poor symptom recognition are poorly understood. Some researchers have suggested that poor mental health literacy may reduce individuals'

ability to correctly identify the cause of their symptoms (Thompson et al., 2008). However, one study reported that members of the public were able to correctly identify symptoms of depression presented in a vignette 97% of the time (Lees-Haley & Dunn, 1994). It may be that the process of symptom recognition is more complex than labelling symptoms based on pre-existing knowledge. For example, a recent study that investigated identification of depressive symptoms in a vignette reported that participants rated symptoms as being less severe when the target person in the vignette was the self, rather than someone else (Care & Kuiper, 2012). The authors suggest that these findings are consistent with a self-positivity bias in the interpretation of depressive symptoms. Furthermore, a qualitative study investigating attitudes towards treatment amongst depressed individuals found that the recognition of symptoms as 'abnormal' (i.e. as opposed to the belief that most other people experience the same symptoms) was needed for people to seek treatment (Elwy et al., 2011). As delays in problem recognition may significantly contribute to help-seeking delays for MDD, further research is needed to explore the way in which individuals experience and recognise the onset of depressive symptoms (Henshaw & Freedman-Doan, 2009; Wills & Gibbons, 2009).

2.1.3 Past help-seeking

Research indicates that having past experience of seeking treatment may influence individuals' decisions to seek treatment for subsequent episodes of MDD. The majority of research suggests that individuals who have sought treatment for depression in the past have more positive attitudes towards seeking treatment; including greater perceived need for treatment, more confidence in mental health practitioners, and more tolerance of stigma (Cash, Kehr, & Salzbach, 1978; Figueroa, Calhoun, & Ford, 1984; Halgin et al., 1987). This relationship has been

found to be irrespective of whether treatment was successful at resolving symptoms (Surgenor, 1985). Individuals who have sought treatment in the past may also be more likely to seek treatment again (Halgin et al., 1987; Jorm et al., 2000). Past episodes of untreated depression are not associated with an increased likelihood of seeking treatment; suggesting that it is the experience of having received treatment in the past, rather than the experience of depressive symptoms, that is associated with a greater likelihood of seeking treatment (Jorm et al., 2000).

However, other research reports that individuals who have negative or distressing experiences of treatment may be less likely to seek treatment for subsequent episodes of MDD (Gulliver, Griffiths, & Christensen, 2012; Skogstad, Deane, & Spicer, 2006). There is also evidence that past help-seeking may be associated with more negative beliefs about the efficacy of treatment (ten Have et al., 2010). These conflicting findings may be due to whether individuals have positive or negative experiences of seeking treatment in the past. Research indicates that past help-seeking informs individuals' expectations for treatment. Halgin and colleagues (1987) reported that individuals who had sought treatment in the past were less likely than others to believe that treatment for mental health disorders would be costly or leave them unable to cope, but were more likely to report that help-seeking would involve needing to confront difficult emotions. In conclusion, research suggests that past experiences of help-seeking inform patient expectations of treatment, and that overall past help-seeking is associated with an increased likelihood of seeking treatment again.

2.1.4 Demographics

The following section will now address demographic differences in attitudes towards and rates of help-seeking for mental health disorders. Demographics are thought to influence help-seeking behaviour indirectly; through influencing attitudes towards seeking help and varying access to treatment across demographic groups (Ajzen & Fishbein, 2005; Andersen, 1995). Although demographic differences may not be easily modifiable (Andersen, 1995), variations in help-seeking rates between demographic classifications may inform understanding of the factors influencing help-seeking behaviour.

2.1.4.1 Gender

Evidence suggests that there are gender differences in help-seeking rates for mental health difficulties. Research indicates that men are more likely to express negative attitudes towards seeking treatment than women (Courtenay, 2003; Fischer & Turner, 1970), and are less likely to seek treatment for psychological difficulties (Bebbington, Brugha, et al., 2000; Courtenay, 2003; Kessler, Brown, & Broman, 1981; Moller-Leimkuhler, 2002). Although there is no evidence for any gender differences in the length of help-seeking delays (Christiana et al., 2000).

Research suggests that gender differences in help-seeking may be due to variations in the experience of mental health difficulties. While a gender difference in help-seeking rates has been found to be independent from differences in symptom severity (Bebbington, Meltzer, et al., 2000), some research suggests that women may experience higher overall rates of illness and comorbidity (Bebbington et al., 2009; Meadows et al., 2002). Men may also have experienced fewer and more negative past help-seeking experiences (Van Voorhees et al., 2006; Vogel, Wade,

Wester, Larson, & Hackler, 2007). Some research suggests that women may also be more likely to know someone who has sought treatment for mental health problems, and more likely to be prompted by someone to do so (Vogel et al., 2007).

However, a review of this literature concluded that poor help-seeking rates amongst men may be caused by conflict between seeking help for emotional difficulties and the male gender role in industrialised societies (Moller-Leimkuhler, 2002). This is based on evidence that men who identify more strongly with characteristics associated with the male gender role (e.g. muscularity, emotional restriction, self-reliance) express more negative attitudes about treatment and are less likely to seek treatment (Good, Dell, & Mintz, 1989; Robertson & Fitzgerald, 1992; Shepherd & Rickard, 2012).

In sum, research suggests that gender differences in help-seeking may partly result from differences in attitudes towards and experiences of help-seeking. While gender itself is not modifiable, these studies suggest that there are modifiable factors that may be useful targets for interventions designed to increase help-seeking amongst men. More research is needed to explore these factors specifically for help-seeking for MDD, and to examine to what extent these intermediary factors predict help-seeking behaviour.

2.1.4.2 Age

While multiple studies report age differences in help-seeking rates for mental health difficulties, there is no clear direction in the relationship between age and help-seeking. Some evidence suggests that older adults may be less likely to express positive attitudes about seeking treatment compared to younger generations (Currin, Hayslip, Schneider, & Kooken, 1998) and less likely to seek treatment (Gatz &

Smyer, 1992; Kaskutas, Weisner, & Caetano, 1997; Leaf et al., 1985). However, several other studies report that those in the 45-54 age group have higher help-seeking rates than other age groups, with the exception of those in their late teens and twenties (Bebbington, Meltzer, et al., 2000; Issakidis & Andrews, 2002; Mojtabai et al., 2002). Adolescents also represent an at-risk group due to high risk of mental health disorders with comparably low help-seeking rates (Essau, 2005; Rickwood, Deane, & Wilson, 2007; Zachrisson, Rodje, & Mykletun, 2006). It may be that associations between age and help-seeking for mental health disorders are informed by variations in attitudes towards mental health across different generations. However, while age is frequently associated with help-seeking outcomes, there is no clear consensus in the literature about how to interpret these findings.

2.1.4.3 Ethnicity

Help-seeking studies report that participants from ethnic minorities may be less likely to seek treatment for mental health difficulties (Bebbington, Brugha, et al., 2000; Mojtabai, 2005). However, the prevalence and reasons underlying these findings are not well understood, owing to help-seeking studies frequently having too little statistical power to detect differences amongst a minority sub-sample (Bebbington, Brugha, et al., 2000; Bebbington, Meltzer, et al., 2000). Research indicates that individuals from ethnic minorities report greater financial barriers to treatment (Mojtabai, 2005; Thompson, Bazile, & Akbar, 2004), and language barriers amongst individuals who do not speak the national language (Keefe & Casas, 1980; Ruiz, 2002). There is some evidence that individuals from ethnic minorities also report poorer knowledge of where to access treatment (Uba, 1992).

Evidence further suggests that individuals from specific ethnic groups hold more negative and stigmatising attitudes towards seeking treatment for mental health disorders, which may influence their decisions to seek treatment (Chen & Mak, 2008; Constantine, Myers, Kindaichi, & Moore, 2004; Thompson et al., 2004). Negative attitudes may stem from cultural beliefs about the cause of mental health difficulties (Meyer & Garcia-Roberts, 2007). For example, one study found that black African-American participants were more likely than white participants to endorse 'bad character' as a cause of mental illness, and that these beliefs predicted more negative attitudes towards treatment (Schnittker, Freese, & Powell, 2000). It has also been reported that lower perceived need for treatment amongst African and Latino Americans was accounted for by more negative attitudes towards medication and stronger belief in the helpfulness of prayer (Van Voorhees et al., 2006). Overall, there is evidence that variations in help-seeking rates across ethnic groups may be caused by differences in attitudes and beliefs towards mental health difficulties and treatment. However, further research with sufficient statistical power to investigate patterns in help-seeking across ethnic groups is required to investigate these issues further.

2.1.5 Barriers to help-seeking

Thus far this review has addressed how demographic classifications and the symptoms of MDD may influence help-seeking rates. Research indicates that these factors may influence decisions to seek treatment indirectly; through their impact on various barriers to treatment. Previous research has broadly distinguished between three types of barriers; attitudinal, structural, and knowledge barriers (Thompson et al., 2004). This review will now look more broadly at the evidence for the impact of these barriers on individuals' decisions to seek treatment for MDD.

2.1.5.1 Structural barriers

Structural barriers can be defined as environmental demands that prevent or reduce access to treatment; including lack of time, cost, and availability of treatment (Thompson et al., 2004; Wells, Robins, Bushnell, Jarosz, & Oakleybrowne, 1994).

Research indicates that a significant number of individuals report that they experience structural barriers while seeking treatment for mental health difficulties (Bilszta, Ericksen, Buist, & Milgrom, 2010; Fox, Blank, Rovnyak, & Barnett, 2001; Kravitz et al., 2011; Leaf et al., 1985). For example in one study, 83% of individuals who did not seek treatment for a past mental or emotional problem reported at least one structural barrier; including cost, lack of medical insurance, time, and language barriers (Leaf et al., 1985). However, only a minority of individuals report that structural barriers prevented them from accessing treatment (Meltzer et al., 2000; Thompson et al., 2004), and researchers have suggested that structural barriers may have less impact on help-seeking rates than other barriers (Thompson et al., 2004).

A notable exception to this is the impact of the cost of treatment on decisions to seek help. Some studies indicate that concern about the cost of treatment, mostly in countries with privatised healthcare, is associated with lower help-seeking rates. Cost of mental health treatment, or lack of medical insurance, has been found to be the most commonly reported barrier to treatment for mental health disorders in studies based in the US (Fox et al., 2001; Wells et al., 1994), and those without medical insurance in countries with private healthcare are less likely to seek treatment (Green-Hennessy, 2002; Mojtabai, 2005; Wells et al., 1994; Wells, Manning, Duan, Newhouse, & Ware, 1986). Those without medical insurance report a lower perceived need for treatment (Mojtabai et al., 2002), and financial concerns are associated with longer help-seeking delays (Christiana et al., 2000). However,

while the number of people experiencing psychological distress in the US who could not afford treatment grew from 15.6% to 20.0% between 1997-2002, the overall number of people seeking mental health treatment increased significantly (Mojtabai, 2005). Furthermore, although the UK has the lowest personal health expenditure, help-seeking rates for mental health disorders are comparable with the US, Canada, and the Netherlands (Alegria, Bijl, Lin, Walters, & Kessler, 2000; Bebbington, Brugha, et al., 2000). Therefore it's unclear to what extent the cost of treatment influences overall help-seeking rates. It may be that financial barriers have a disproportionate impact on help-seeking rates for minority groups; such as those without insurance and those from lower socio-economic groups. However, further research is needed to establish to what extent financial barriers to treatment influence decisions to seek treatment for MDD.

2.1.5.2 Knowledge barriers

Knowledge barriers refer to difficulties in seeking treatment due to poor knowledge of mental health difficulties and how to seek treatment. A study of individuals with mental health difficulties in Australia revealed that one in ten individuals did not know where to seek treatment (Thompson et al., 2004). Not knowing where to seek treatment is associated with longer help-seeking delays for mood or anxiety disorders (Christiana et al., 2000; Thompson et al., 2004), and lower treatment seeking for mental health disorders more broadly (Meltzer et al, 2003; Wells, et al., 1994; Issakidis & Andrews, 2002). However, interventions that have successfully increased knowledge of mental health symptoms and treatments have had little impact on help-seeking rates (Gulliver et al., 2012; Fox et al., 2001), suggesting that other factors may have a more critical role in help-seeking.

A lack of consistency in the literature between the definitions for knowledge and attitudinal barriers makes it difficult to assess the independent relationship of knowledge to help-seeking rates. For example, Thompson and colleagues (2004) classify the barrier 'I thought nothing could help' as a knowledge barrier, while beliefs about the effectiveness of treatment are regularly conceptualised as an attitudinal barrier in other studies. This lack of consistency is likely caused by the close relationship between knowledge and beliefs, and it may be that knowledge about mental health influences attitudes towards help-seeking (Vogel et al., 2007). Further research that is mindful of this distinction is needed to establish to what extent knowledge barriers influence help-seeking for mental health disorders.

2.1.5.3 Attitudinal barriers

Attitudinal barriers are attitudes towards mental health difficulties or treatment that may influence decisions to seek treatment. In contrast to structural and knowledge barriers, there is greater evidence for the role of attitudes towards mental health difficulties and seeking treatment in influencing decisions to seek treatment (Thompson et al., 2008). Attitudes associated with help-seeking decisions include beliefs about the cause of mental health problems, beliefs about the appropriateness of seeking treatment, and outcome expectations for treatment.

Studies indicate that beliefs about the cause of mental health problems influence individuals' preferences for treatment (Prins, Verhaak, Bensing, & van der Meer, 2008). Individuals endorse a variety of beliefs about the cause of MDD, including biological and genetic causes, and social, personality, and psychological causes (Hansson, Chotai, & Bodlund, 2010). Individuals indicate a preference for treatments that are consistent with their causal explanations for their depression. For example,

those who believe that mental health difficulties are caused by issues during childhood have expectations that these issues will be addressed during treatment (Meyer & Garcia-Roberts, 2007). Beliefs in a biological cause for mental health problems are associated with a preference for antidepressant medication (Meyer & Garcia-Roberts, 2007) and a greater likelihood of formal help-seeking (Vanheusden et al., 2009). Conversely, beliefs in a social or psychological cause for mental health problems are associated with higher endorsement of informal help-seeking sources, such as speaking to a friend or self-help group (Angermeyer, Matschinger, & Riedel-Heller, 1999). Beliefs about the cause of symptoms may therefore influence attitudes towards the perceived appropriateness of seeking formal treatment (Scott, Walter, Webster, Sutton, & Emery, 2013). Further, the preference to manage symptoms alone without help, referred to as stoicism, predicts a lower likelihood of formal help-seeking and longer help-seeking delays (Andrews et al., 2001; Gulliver et al., 2010; Meltzer et al., 2000; Thompson et al., 2004; Wells et al., 1994).

Research indicates that attitudes towards the content and efficacy of treatments may also influence help-seeking rates for mental health difficulties. Positive attitudes towards seeking treatment predict higher intentions to seek treatment (Cramer, 1999; Leaf et al., 1985), and the belief that treatment will be effective at reducing symptoms of MDD is also associated with help-seeking (Fox et al., 2001; Vogel, Wester, Wei, & Boysen, 2005). Negative attitudes about treatment are associated with less help-seeking. For example, 28% of individuals reported that a belief that 'no one could help' influenced their decision to not seek treatment for an affective or anxiety disorder in the past 12-months (Meltzer et al, 2000).

Negative expectations for the content of treatment are also associated with lower rates of help-seeking (Vogel, Wester, Wei, & Boysen, 2005). For example, concerns

about discussing emotions and personal information are associated with more negative attitudes to treatment and lower help-seeking rates for mental health disorders (Cepeda-Benito & Short, 1998; Halgin et al., 1987; Hinson & Swanson, 1993; Kelly & Achter, 1995; Komiya, Good, & Sherrod, 2000; Kushner & Sher, 1989; Pipes, Schwarz, & Crouch, 1985). Depressed individuals also express concerns that GPs and mental health practitioners may lack empathy, expertise and trustworthiness (Kravitz et al., 2011). Negative expectations about the response of GPs have been associated with a reduced willingness to seek help (Cash et al., 1978; Rickwood & Braithwaite, 1994). A significant number of depressed individuals also report that fears about being prescribed medication may dissuade them from seeking treatment (Bell et al., 2011). Several researchers have suggested that concerns about the content of treatment may be particularly influential for depressed individuals, who may wish to avoid additional distress and further negative impact on the way they see themselves (Halgin et al., 1987; Khan et al., 2007).

In sum, a large body of research has associated help-seeking with attitudes to mental health difficulties and treatment. Given evidence that attitudes may be modifiable (Gulliver et al., 2012), attitudes towards help-seeking may therefore be a worthwhile target for help-seeking interventions. To this end, further research should investigate which attitudes are most associated with help-seeking decisions for MDD, and to what extent attitudes predict help-seeking behaviour.

2.1.6 Stigma

Stigmatising attitudes towards depression include an individual's beliefs about how others view depression (social stigma), personal beliefs about others with mental health difficulties (personal stigma), and negative attitudes towards the self because

of a mental health disorder (self-stigma; Corrigan & Watson, 2002). The following section will address evidence that stigmatising views influence help-seeking for mental health difficulties.

Research suggests that a significant number of depressed individuals expect to encounter social stigma towards their symptoms. One study investigating attitudes towards help-seeking for MDD in a general population in Australia reported that 29% of respondents (N = 1312) thought others would think less of them for seeking help for depression from a GP, and 17% thought their GP would think them 'unbalanced' or 'neurotic' (Barney, Griffiths, Jorm, & Christensen, 2006). There is evidence that expectations of social stigma influence help-seeking for mental health, although few studies have explored this (Corrigan & Rüsch, 2002). The belief that others would react negatively has been shown to predict lower help-seeking intentions and reduced help-seeking behaviour in depression (Barney et al., 2006) and in a collapsed sample of people with anxiety or mood disorders (Christiana et al., 2000). This has also been shown to be the case when the potential consequences of not seeking help are identified by participants as being severe (Sibicky & Dovidio, 1986). Social stigma has also been shown to predict medication compliance in mood disorders (Cohen, Parikh, & Kennedy, 2000).

Personal stigma has also been associated with perceived need for treatment (Schomerus et al., 2012) and willingness to seek treatment for mental health concerns (Mojtabai, 2010). The association between personal stigma and help-seeking varies depending on the individuals' beliefs. For example, a belief that the mentally ill are dangerous is associated with higher willingness to seek treatment (Mojtabai, 2010). Conversely, a belief that individuals with mental health problems

are to blame for their problems is associated with reduced willingness to seek treatment (Mojtabai, 2010).

More than one in five people with affective disorders report moderate to high levels of self-stigma (Brohan, Gauci, Sartorius, & Thornicroft, 2011; Chowdhury et al., 2001). Furthermore, nearly a third of people in the general public said that they would personally feel embarrassed if they went to seek help from their GP for depression (Barney, Griffiths, Jorm, & Christensen, 2006). Embarrassment has been shown to predict likelihood of help-seeking for mental health problems with a sample from mental health advocacy groups (Christiana, et al., 2000) and in a systematic review of help-seeking amongst young adults (Gulliver et al., 2010). Individuals also report beliefs that seeking help for their symptoms would have a negative impact on their self-esteem (Vogel, Wade, & Haake, 2006). Self-stigma is associated with increased avoidance behaviours (Kanter, Rusch, & Brondino, 2008; Manos, Rusch, Kanter, & Clifford, 2009), more negative attitudes towards seeking help (Conner et al., 2010), and lower treatment compliance (Fung, Tsang, Corrigan, Lam, & Cheung, 2007). Although self-stigma is thought to be the internalisation of social stigma, self-stigma has been shown to predict help-seeking behaviour independently from social stigma (Barney, et al., 2006). This suggests that self-stigmatising attitudes may be distinct from perceived normalised attitudes towards mental health disorders.

Stigma may also influence help-seeking decisions indirectly, by affecting attitudes towards treatment. Research indicates that attitudes towards help-seeking amongst men mediated the relationship between self-stigma and help-seeking (Shepherd & Rickard, 2012). Attitudes to seeking treatment also mediated the relationship between belief in the 'traditional' male gender role and help-seeking (Smith, Tran, & Thompson, 2008). Three help-seeking interventions discussed in Section 1.5.

included content to reduce stigmatising beliefs about mental health disorders. Of these, two of the interventions reported a positive effect of the intervention on attitudes towards seeking treatment (Buckley & Malouff, 2005; Sharp et al., 2006). However, due to the limitations in these studies, further research is needed to investigate to what extent addressing stigma may influence help-seeking rates for MDD.

2.1.7 Social support

There is evidence that social support can have a divergent impact on help-seeking for mental health disorders. Significant others can be a source of encouragement for seeking help. Research suggests that individuals who sought treatment from mental health services are more likely to name a significant other who had recommended they do so (Chadda, Agarwal, Singh, & Raheja, 2001; Reust, Thomlinson, & Lattie, 1999; Vogel et al., 2007). Social support and positive encouragement from significant others has also been identified as a facilitator of help-seeking amongst adolescents (Gulliver et al., 2010; Gulliver et al., 2012). However, some evidence suggests that individuals with a supportive social network may be less likely to seek help (Henderson et al., 1992) when they rely on their social support as an alternative to seeking formal treatment for mental health difficulties.

As significant others who support help-seeking may encourage individuals with MDD to seek help, social support may be a useful target for help-seeking interventions. The way in which social support can encourage help-seeking behaviour is as yet unclear. Significant others may be able to support help-seeking by sharing knowledge about mental health problems and services, changing attitudes to seeking treatment, reducing perceived stigma of MDD, or by supporting individuals

to overcome structural barriers. Further research is needed to examine to what extent social support influences individuals' decisions to seek treatment, with findings having implications for the development of help-seeking interventions. To investigate the divergent role of social support in help-seeking, measures should also distinguish between assessing the availability of social support (which may be used as an alternative to formal help-seeking) and the extent to which significant others support help-seeking.

2.1.8 Individual traits

A small number of studies have explored the relationship between trait characteristics and help-seeking for mental health disorders. Research suggests that individuals who score high on measures of neuroticism exhibit lower levels of help-seeking for mental health disorders (Issakidis & Andrews 2002). Some evidence also suggests that individuals who score high on measures of openness to experience express more positive attitudes towards seeking counselling (Kakhnovets, 2011). Further, individuals who exhibit lower trait emotional expression perceive greater risks and fewer benefits of seeking treatment (Vogel, Wade, & Hackler, 2008). Adult attachment style has also been associated with intentions to seek treatment for a personal problem, independently from levels of current distress (Vogel & Wei, 2005). In this study, individuals with higher levels of attachment anxiety reported higher intentions to seek counselling, while those with higher levels of attachment avoidance reported lower intentions. Both attachment styles were also associated with lower perceived available support.

Further research is needed to determine how personal traits may influence the help-seeking process. It may be that individual traits influence the formation of attitudes

towards help-seeking. Traits may also moderate the relationship between modifiable characteristics and help-seeking. For example, someone with avoidant attachment may be less open to suggestions from others to seek treatment, compared to someone with anxious or secure attachment (Mikulincer, 1998).

2.1.9 Experiential influences on help-seeking

The help-seeking literature has largely conceptualised help-seeking decisions as being based on expectancy-value judgements, where individuals make reason-based decisions after considering barriers to and benefits of treatment. In a commentary about help-seeking research, Wills and Gibbons (2009) criticise the paucity of research exploring factors that may influence help-seeking decisions beyond this framework; such as the role of emotions and heuristic processing in help-seeking decisions.

Recently, Hammer and Vogel (2012) suggested that help-seeking may be greatly influenced by 'willingness' to seek help; which may underlie help-seeking behaviour independently from reasoned decision-making processes. Rather than being based on the consideration of the consequences of seeking treatment (as in the formation of behavioural intentions), willingness is posited to represent a state of openness to an opportunity to access treatment. Help-seeking may then occur in response to situational and social cues. The authors report that willingness to seek treatment when presented with an opportunity to do so was a significant predictor of help-seeking for psychological distress, whereas intention to seek treatment was not (Hammer & Vogel, 2012). In this study, help-seeking was assessed as willingness to accept a prompt to seek help, and therefore there is limited evidence that willingness predicts actual help-seeking behaviour. However, the results are consistent with

findings that only 6% of participants who had experienced a mental health disorder in the previous 12-months refused help that was offered by others (Meltzer et al., 2003).

Further research is needed to explore the extent to which heuristic processing is involved in help-seeking behaviour. This should include greater understanding of the way in which prompts to seek help may facilitate help-seeking, and what factors may contribute to greater willingness to seek treatment. As seeking treatment for mental health difficulties may have a significant emotional and psychological impact on individuals' wellbeing, better understanding of these processes may explain additional variance in help-seeking for MDD (Wills & Gibbons, 2009). This approach has largely been neglected by existing help-seeking research, and further research that explores patient experiences of help-seeking may improve understanding of the way these factors may influence help-seeking behaviour (Cuijpers, 2011).

2.2 Limitations of existing research exploring help-seeking for mental health disorders

Thus far, this literature review has summarised the existing help-seeking research that has identified individual factors associated with decisions to seek help for mental health disorders. This review revealed that the literature on help-seeking is characterised by a lack of clear definition on help-seeking for specific problems. While a significant minority of the research exploring help-seeking for mental health disorders has specifically examined help-seeking for MDD, the majority of help-seeking research has conflated mental health disorders; for example by exploring help-seeking for 'common mental health disorders', or help-seeking for a 'personal problem' or general psychological distress (Rickwood & Thomas, 2012). As help-seeking rates vary across mental health disorders (Kessler et al., 1998), these studies may be unable to distinguish factors that specifically influence help-seeking for MDD. Furthermore, a large proportion of existing help-seeking research has explored help-seeking amongst a general population (Gulliver et al., 2012), and it is unclear to what extent help-seeking decisions in healthy populations translate to understanding help-seeking amongst individuals with MDD.

Previous research has employed a variety of outcome measures to assess help-seeking. The majority of research has focussed on attitudes and intentions towards seeking treatment, with a smaller proportion of research having assessed help-seeking behaviour (Rickwood & Thomas, 2012; Meadows et al., 2002). A review of help-seeking interventions provides evidence that attitudes towards help-seeking are modifiable (Gulliver et al., 2012). As attitudes to help-seeking are associated with intentions to seek treatment (Thompson et al., 2008), and past help-seeking behaviour (Vogel et al., 2005), attitudes may therefore be useful targets for

intervention. However, little is known about the extent to which attitudes and intentions to seek treatment predict actual help-seeking. Moreover, much of the research assessing help-seeking behaviour has done so retrospectively. In these studies, cross-sectional measures are used to predict help-seeking behaviour in the previous 12-months (e.g. Andrews et al., 2001; Bebbington, Brugha, et al., 2000; Green-Hennessy, 2002). This approach is significantly limited, as it remains unclear whether factors associated with help-seeking in these studies increase the likelihood of seeking treatment, or whether these factors may have changed following the receipt of treatment. This limitation is also present in studies that do not differentiate between attitudes towards treatment expressed by participants who are and are not receiving treatment for depression at the time of study (e.g. Angermeyer et al., 1999). While it may be important to investigate outcomes across the help-seeking process, further research is needed to assess the relationship between attitudes and intentions to seek treatment and prospective help-seeking behaviour.

2.3 Models of Help Seeking Behaviour

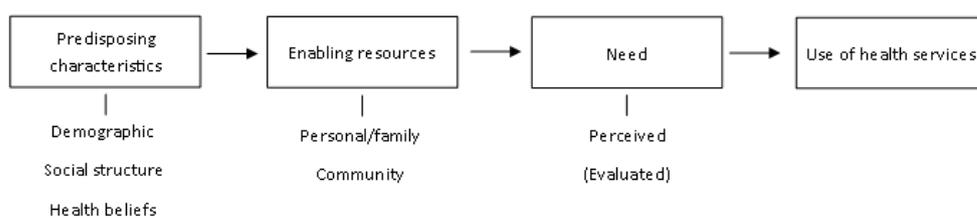
Thus far this literature review has addressed individual factors that have been associated with decisions to seek treatment for MDD and other mental health disorders. Whilst a large number of factors have been identified, little is known about the relative importance of these factors in influencing help-seeking decisions. Although there is no established theoretical model of help-seeking decisions for mental health difficulties (Gulliver et al., 2012), there are a number of existing theoretical models in the wider literature that incorporate factors associated with help-seeking for mental health disorders. Several of these models were developed specifically to understand patient engagement in treatment. Others were principally intended to be used to understand health behaviour within healthy populations, however have since been applied and recommended as models for understanding behaviour amongst patients. The utility of these models in understanding help-seeking, and the extent to which they have been used to account for help-seeking behaviour, will now be discussed.

2.3.1 Andersen's Sociobehavioural Model

Andersen's model of help-seeking (Andersen, 1968; Andersen & Newman, 1973) was developed as a method of defining and measuring access to medical care, with an aim to support policies to increase equitable access. The model posits that healthcare use is determined by demographics (e.g. biological needs for healthcare) and societal influences, such as availability of healthcare and government policy. Social support is also posited to facilitate healthcare use, in addition to individual determinants such as beliefs about healthcare and perceived need for treatment. Since its original conceptualisation in the 1960s (see Figure 2.1; Andersen, 1968),

the model has since been through several iterations (for an overview see Andersen, 1995). Adaptations to the model have placed greater emphasis on the role of healthcare policy and methods of evaluating patient satisfaction with healthcare services (Andersen & Newman, 1973; Andersen, Davidson, & Ganz, 1994). Whilst Andersen's model has never been applied to understanding help-seeking for MDD, the model has however been applied to predicting treatment use in individuals with panic disorder (Goodwin & Andersen, 2002) and help-seeking for mental health problems amongst refugees (Portes, Kyle, & Eaton, 1992). In these studies, only demographic variables and perceived need for treatment were found to be associated with help-seeking, with limited support for the role of knowledge barriers, treatment availability and social support in enabling treatment use. However, it should be noted that neither study included a measure of attitudes to help-seeking, for which there is greater support in the help-seeking literature.

Figure 2.1: Andersen's Sociobehavioural model (Andersen, 1968)



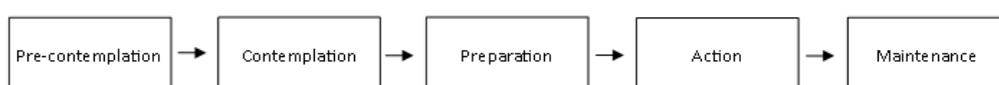
A difficulty with applying the model to predicting help-seeking behaviour is the broad definition of constructs in the model. For example, health beliefs may include a vast number of attitudes towards symptoms, health services and specific treatment options. There is also an unclear definition of the way in which social structure and

social support may enable treatment seeking. Reflecting this, studies that have applied the SBM model have varied in their interpretation and assessment of model constructs. This limitation may be due to the original intention of the model; which was to provide a descriptive model of the factors associated with public use of health services, as opposed to furthering understanding of individuals' decisions to seek treatment (Andersen, 1995). Prior to the application of the SBM model with any one patient group, further research is needed to establish in what way, and to what extent, each of the constructs in the model are relevant to a particular population.

2.3.2 The Transtheoretical Model

The Transtheoretical Model (TTM; Prochaska, Diclemente, & Norcross, 1992; Prochaska, Velicer, Diclemente, & Fava, 1988) is a stage-based model originally developed to explain variance in outcomes following psychotherapy. The model posits that individuals move through a number of stages of increasing 'readiness' prior to enacting behaviour. The stages include pre-contemplation (where individuals are unaware of a health problem), contemplation (where individuals are aware of a problem, and begin to weigh the costs and benefits of action), preparation (individuals have a plan of action, but may not be fully committed), action (individuals engage in action), and maintenance (when behaviour is maintained over a period of time, usually assessed as 6-months; Figure 2.2).

Figure 2.2: Stages of change in the Transtheoretical Model



The TTM has been particularly prominent in explaining the process of recovery of individuals with addictive disorders. A number of studies have demonstrated that patients' stage of change when entering therapy for addiction is a significant predictor of their clinical outcome (Pantalon, Nich, Franckforter, & Carroll, 2002). Furthermore, using patients' pre-treatment stage of change and their beliefs involved in the process of change, the model predicted, with 92% accuracy, those patients who would drop out of treatment (Prochaska et al., 1992). Although the TTM has not been applied to predicting help-seeking behaviour, the concept of readiness may be applicable to understanding decisions to seek help (Reust et al., 1999). Evidence for the utility of the model include findings that one in four individuals who miss their first appointment with a mental health professional report low motivation to attend (Reust et al., 1999). Further research is needed to establish whether readiness is also associated with decisions to seek treatment.

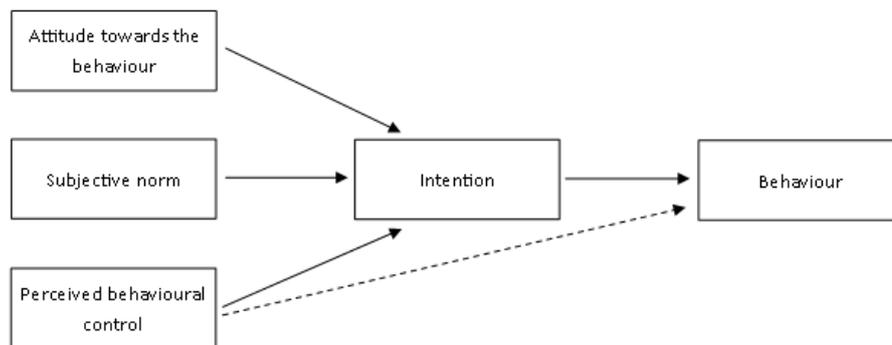
Whilst the utility of the TTM has been empirically supported for predicting a variety of health behaviours (e.g. healthy eating; O'Connell & Velicer, 1988; smoking cessation; Schumann et al., 2005), the model has been the target of criticism. As the majority of studies using the TTM have employed a cross-sectional design, it is difficult to assess the predictive utility of the model (Armitage & Conner, 2000). Further, difficulties in operationalising the constructs of the model have been blamed for inconsistent findings across different health behaviours (Derisley & Reynolds, 2002). Most relevant for this thesis, is that there has been inconsistent support for processes posited to move individuals through the stages of readiness (Armitage & Conner, 2000; Rosen, 2000). Without clearer definition of the process of change, the TTM is essentially a descriptive model, and it's unclear how the model could be used to inform the development of help-seeking interventions.

Although the model may provide insight into the processes underlying long help-seeking delays for MDD, further development of the theory and constructs of the model is needed to apply the TTM to understanding help-seeking behaviour. This should include the development of more detailed predictions through which to assess the model, and greater understanding of the processes underlying increasing 'readiness' in order to provide a useful framework for the development of help-seeking interventions.

2.3.3 Theory of Reasoned Action and Theory of Planned Behaviour

The Theory of Reasoned Action (TRA; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) is a socio-cognitive model encompassing factors posited to influence individuals' motivation to engage in health behaviour. The TRA utilises an expectancy-value framework of health decisions, and posits that behavioural intentions are the precursor to behaviour. Intentions to engage in behaviour are theoretically informed by attitudes about the behaviour and its outcome (attitude), and perceived support for the behaviour by society and significant others (descriptive and subjective norm). An extended form of the TRA, the Theory of Planned Behaviour (TPB; Ajzen, 1991; Figure 2.3) was developed to incorporate perceived self-efficacy to accomplish the behaviour (perceived behavioural control). Perceived behavioural control is posited to influence both the formation of intentions and the likelihood that intentions will be translated into action.

Figure 2.3: The Theory of Planned Behaviour (Ajzen, 1991)



Several reviews provide support for the ability of the TPB to predict a variety of health behaviours (Ajzen, 1991; Armitage & Conner, 2001; Godin & Kok, 1996), with one meta-analysis of 87 studies indicating that the TPB accounted for an overall 41% of variance in intentions and 34% of the variance in behaviour (Godin & Kok, 1996). The TPB has also been applied to help-seeking for mental health difficulties. A study using the TPB to predict compliance with GP recommendations to see a psychiatrist in relation to a depression vignette found that the TPB predicted over half of the variance in intentions to comply amongst depressed participants (Schomerus, Matschinger, & Angermeyer, 2009). This study found that attitudes and subjective norm accounted for the largest proportion of variance in intentions. Attitudes were also the largest predictor of intentions to seek treatment for a personal or emotional problem amongst prisoners (Skogstad, et al., 2006). As research indicates that social support and attitudes towards treatment are associated with help-seeking for mental health difficulties, the TPB may offer a useful model for understanding decisions to seek treatment for MDD. However, a significant number of studies employing the TPB report non-significant predictors in the model, most

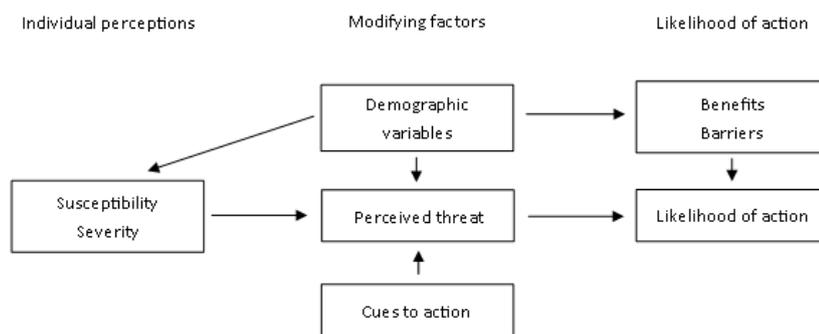
commonly subjective norm (Ogden, 2003). Several researchers have also suggested that the emphasis on reason-based decision making may undermine the utility of the model, and have suggested extensions to the model to incorporate constructs related to heuristic processing in health decisions (Armitage & Conner, 2000; M. Conner & Armitage, 1998).

2.3.4 The Health Belief Model

The Health Belief Model (HBM; Becker, 1974; Figure 2.4) is another well-established socio-cognitive model of health behaviour, also based on an expectancy-value framework of health decisions. The model was principally developed to understand behaviour to prevent illness amongst healthy populations; however, the model can also be applied to understanding behaviour to resolve current illness (Becker & Maiman, 1980). The model conceptualises health decisions as based on individuals' perception of symptoms, expectations of treatment, and the presence of cueing events, which lead to the initiation of behaviour. According to the model, individuals will be more likely to seek treatment for MDD if they believe that they are likely to develop MDD (including acceptance of the diagnosis; perceived susceptibility), believe that MDD will have severe consequences for their lives (perceived severity), believe that treatment will be effective (perceived benefits), and perceive fewer barriers to treatment (perceived barriers). Cues to action could include seeing an advert about MDD, or being encouraged by significant others to seek help (Becker & Maiman, 1980; Henshaw & Freedman-Doan, 2009). The model has never been fully applied to help-seeking for mental health disorders. However, as the model incorporates factors associated with help-seeking, there have been

recommendations in the field to do so (Gulliver, Griffiths, Christensen, et al., 2012; Henshaw & Freedman-Doan, 2009; Rosenstock, 2005).

Figure 2.4: The Health Belief Model (Becker & Maiman, 1975)



The HBM has received criticism for a lack of clarity about the way in which constructs in the model relate to each other and to those in other health behaviour models (Sheeran & Abraham, 1996). There has also been little study of the role of cues to action in health behaviour, with few studies employing the HBM having assessed this construct (Harrison, Mullen, & Green, 1992; Henshaw & Freedman-Doan, 2009). Furthermore, several reviews of the HBM report only weak correlations between model constructs and health behaviour (Harrison et al., 1992; Ogden, 2003; Sheeran & Abraham, 1996), and studies frequently report one or more constructs in the model to be non-significant predictors (Ogden, 2003). These limitations have contributed to calls in the literature for the model to be extended and integrated with other models of health behaviour, to improve the predictive utility of the model (Noar & Zimmerman, 2005; Weinstein, 1993).

2.3.5 Self-regulation model

Leventhal's 'common-sense' Self-Regulation Model (SRM; Leventhal, 1980; Leventhal, Nerenz, & Steele, 1984) was developed to understand patient responses to cope with chronic illness. While the majority of research utilising the SRM has done so with individuals with physical illness, the SRM may also be applied to mental health difficulties (Lobban, Barrowclough, & Jones, 2003). The SRM theory posits that individuals use cues from their illness and their existing knowledge to develop 'common-sense' beliefs about their illness. These beliefs are used as a source of information, which are associated with illness outcome and patient response (Leventhal, 1980). Leventhal identifies five constructs that form the basis of illness beliefs; the perceived illness *identity* (including its label and symptoms), the perceived *cause*, *timeline* and *consequences* of the illness, and the perceived potential for *cure or control*.

The SRM has been most successful in predicting illness course, and is able to explain a large proportion of variance in illness outcomes (Hagger & Orbell, 2003; Lobban et al., 2003). However, limited research has applied the model to understanding treatment seeking behaviour. The SRM was found to explain a significant proportion of the variance in help-seeking for symptoms of breast cancer, however only 'identity' in the model was an independent predictor of help-seeking (Hunter, Grunfeld, & Ramirez, 2003). Furthermore, only attitudes towards treatment and perceived severity of symptoms were found to be associated with treatment adherence for diabetes (Hampson, Glasgow, & Toobert, 1990). The SRM has been applied to understanding differences between those receiving and not receiving treatment for MDD (Brown et al., 2001). However, those receiving treatment were only found to differ on their perceived chronicity of MDD; with those in treatment

significantly more likely to rate MDD as being a chronic disorder. There were no differences between those receiving and not receiving treatment for MDD on any other of the constructs in this study. As a consequence, while the SRM may incorporate several factors associated with help-seeking, as yet further research is needed to investigate whether the SRM is able to account for decisions to seek treatment for MDD.

2.4 Conclusion

Major Depressive Disorder is a common mental health condition that results in reductions in quality of life and increased risk of mortality (Judd et al., 1997; Rapaport et al., 2005). While treatments for MDD are available, poor help-seeking rates and prolonged delays may undermine effective treatment, and contribute to the health and economic burden of depression (Thompson et al., 2008). Previous research has identified a range of individual factors that may influence decisions to seek treatment for MDD and other mental health difficulties. However, little is understood about the relative strength of these factors in predicting help-seeking for MDD, and further research is required to develop a theoretical model of help-seeking decisions (Gulliver, Griffiths, Christensen, et al., 2012).

This review has summarised a number of health behaviour models that were either developed to understand use of health services, or have been applied to understanding help-seeking in other populations. Overall, several of the models incorporate individual factors that have been associated with help-seeking for mental health disorders. In particular, the Theory of Planned Behaviour and the Health Belief Model have received empirical support for their utility in predicting a wide range of health behaviours, and have been recommended as approaches through which to understand help-seeking for MDD. Research is needed to test the utility of these models in predicting help-seeking for MDD. However, the expectancy-value framework adopted by the models may not account for other influences on decisions to seek treatment for MDD, such as emotions and heuristic processes (Wills & Gibbons, 2009). Greater understanding of the heuristic processes associated with recognising and seeking treatment for MDD may identify ways in which health behaviour models may be extended for use with this population. In particular,

research that explores the patient perspective is essential for a better understanding of help-seeking decisions in depression (Cuijpers, 2011).

CHAPTER 3 : EXPLORING PATIENT EXPERIENCES OF SEEKING TREATMENT FOR MDD

Following the conclusions of the literature review, summarised in Chapter 2, the primary aim of the first thesis study was to explore depressed individuals' experiences of seeking treatment for Major Depressive Disorder (MDD). This study employed a qualitative, bottom-up approach to investigate the overall help-seeking process in individuals suffering from MDD, and to examine whether there were unique factors in help-seeking for depression not present in previous help-seeking research. In particular, this approach was taken to identify factors that may influence help-seeking decisions beyond an expectancy-value framework. The results of this study have been published in BMC Psychiatry (Farmer, Farrand, & O'Mahen, 2012).

The results of Study 1 identified a number of key factors that influenced participants' decisions to seek help for MDD that have not been identified by previous research in this area. These key factors were identity, goals and avoidance coping. An additional literature review investigating these three factors, supplementary to that provided in the publication of these findings, is included below (Section 3.1). This is then followed by the publication of the study findings (Section 3.2). Study 1 generated a large amount of qualitative data providing an in-depth account of participants' experiences in seeking treatment. Due to constraints on the word count specified by BMC Psychiatry, not all of the findings that were relevant to the study aims were included in the publication. An additional results and discussion section, supplementary to those included in the publication of Study 1, is presented at the end of this chapter (Section 3.3 and 3.4).

3.1. Additional literature review

3.1.1 Identity

Identity processes have not been identified as influencing decisions to seek help for mental health disorders in previous help-seeking studies. However, research in the wider literature suggests that identity may play an important role in patients' experiences of illness. Research suggests that the onset of illness is associated with significant implications for the way patients see themselves. The onset of illness has been associated with a loss or change in individuals' identity; a process that has been described as a "biographical disruption" of the self (Bury, 1982, p. 167). The change in identity experienced by individuals may include the loss of the self as a healthy, independent person (Baumgartner, 2007; Gibson, Placek, Lane, Brohimer, & Lovelace, 2005; Goldman & Maclean, 1998), and also with the actual or expected loss of various valued roles and responsibilities (Charmaz, 1995; Goldman & Maclean, 1998). Further, research suggests that the onset of illness undermines feelings of stability and self-control, which are important for self-esteem (Baumgartner, 2007; Fife, 1994). Qualitative research exploring patients' experiences following the onset of chronic illness reveals that patients associate their symptoms with negative identity characteristics; for example patients report concerns that their symptoms imply that they are ill, weak, and incapable (Adams, Pill, & Jones, 1997; Bury, 1982; Carricaburu & Pierret, 1995; Fife, 1994; Goldman & Maclean, 1998; Mathieson & Stam, 1995). Based on such qualitative findings, researchers have suggested that the onset of illness has a destructive impact on patients' current and desired identity, and that rebuilding identity is an essential part of the recovery process (Andresen, Oades, & Caputi, 2003; Baumgartner, 2007).

Identity has been described as a 'theory about the self'; a collection of characteristics that individuals use to describe the self (Greenwald, 1980). The negative characteristics associated with illness contrast with the positive identity that individuals generally seek to maintain. Identity theories propose that people are driven to maintain a positive, competent and stable self-identity (Alicke & Govorun, 2005; Baumeister, Dale, & Sommer, 1998; Breakwell, 2010; Festinger, 1954; Gollwitzer, Wicklund, & Hilton, 1982). Maintaining this self-view is important as it helps to support self-esteem and a feeling of self-control (Greenwald, 1980; Markus & Nurius, 1986). Environmental changes that have relevance for the self (e.g. symptoms of illness) are immediately evaluated for their meaning for identity (Levine, 1999), and the confirmation of identity is highly valued (Stryker & Stratham, 1985). So while people may make changes in their identity, theorists suggest that this is preferentially done to maintain a consistent and positive view of the self (Breakwell, 1986; Swann Jr, 1983; Timotijevic & Breakwell, 2000). Research indicates that individuals exhibit biases consistent with maintaining this view in the way they interpret changes in their environment (Alicke & Sedikides, 2009; Greenwald, 1980; Swann Jr, 1983; Swann Jr & Read, 1981). This includes biases in the way information is interpreted and a resistance to, particularly negative, changes in identity (Greenwald, 1980).

Research indicates that encountering information that threatens a consistent and positive self-view is aversive and results in emotional distress (Higgins, 1987; Markus & Nurius, 1986; Timotijevic & Breakwell, 2000). Higher levels of distress are expected for larger discrepancies with identity and when there is a threat to desirable identity goals (Higgins 1987; Markus & Nurius, 1986). High levels of distress are also

associated with threats that are indicative of a feared view of the self (Carver, Lawrence, & Scheier, 1999). In this way, identity theories share common predictions with goal theories (Section 3.1.2.).

Researchers have distinguished between two alternate responses to identity conflict; primary control (where individuals will attempt to make changes to the environment or the source of the discrepancy) or secondary control (where individuals will use psychological mechanisms to change their interpretation of the environment or the source of the discrepancy; Alicke & Sedikides, 2009; Rothbaum, Morling, & Rusk, 2009). Primary control, which may include help-seeking behaviour and problem-focussed coping, is usually preferable to secondary control strategies, as it resolves the source of the problem and the associated emotional distress. However, secondary control may be initiated when individuals perceive primary control methods to be ineffective at resolving the discrepancy and when information has negative (rather than positive) implications for the self (Alicke & Sedikides, 2009; Breakwell, 1986; Guenther & Alicke, 2008; Higgins, Roney, Crowe, & Hymes, 1994). This is consistent with findings that negative feedback towards more valued identities results in stronger and more persistent avoidance strategies (Eisenstadt & Leippe, 1994). A more detailed introduction to avoidance coping strategies is included below (Section 3.1.3).

Research suggests that patients may use secondary control strategies in response to conflict between illness and identity (Adams, et al. 1997; Bury, 1982; Carricaburu & Pierret, 1995; Fife, 1994; Goldman & Maclean, 1998; Mathieson & Stam, 1995). For example, patients who experienced conflict between their identity and their

diabetes report using strategies to deny or distract themselves from their diagnosis (Goldman & Maclean, 1998). Consistent with identity theories, patients report that their use of avoidance strategies helps them to retain confidence in their identity (Alicke & Sedikides, 2009; Baumeister et al., 1998; Hepper, Gramzow, & Sedikides, 2010).

In the wider literature, evidence suggests that identity processes may be relevant for understanding help-seeking behaviour. Research has demonstrated that individuals may be more likely to engage in behaviour that is consistent with their identity; including, blood donation, environmental activism, and entering further education (Biddle, Bank, & Slavings, 1987; Charng, Piliavin, & Callero, 1988; Fielding, McDonald, & Louis, 2008). Health directed behaviour, such as treatment adherence and help-seeking, also increase in likelihood as illness becomes more incorporated into identity (Adams et al., 1997; Bury, 1982; Carricaburu & Pierret, 1995; Goldman & Maclean, 1998; Mathieson & Stam, 1995; Yoshida, 1993). For example, individuals with asthma express more positive attitudes towards treatment and use treatment more regularly when they have incorporated their asthma diagnosis into the way they see themselves (Adams et al., 1997). However, incorporating illness into identity can also lead to the reinforcement of maladaptive behaviour; for example disordered eating behaviours in individuals with anorexia nervosa (Fairburn, Shafran, & Cooper, 1999). Findings that individuals are more likely to engage in behaviour that is consistent with identity are consistent with conceptions of identity as being a schema of knowledge about the self. This knowledge can be used to inform interpretations of self-relevant events, give a sense of structure and coherence, and guide behaviour in pursuit of positive and desirable identity traits (Fife, 1994; Greenwald & Pratkanis,

1984; Kihlstrom & Cantor, 1984; Markus & Nurius, 1986; Rogers, 1981). These findings have recently led some researchers to suggest that models of health behaviour should be extended to include a measure of identity (Armitage & Conner, 2000; Conner & Armitage, 1998). Furthermore, there is growing awareness that efforts to change behaviour may benefit from facilitating change in identity (Baumgartner & David, 2009; Markus & Nurius, 1986; Rabinovich, Morton, Postmes, & Verplanken, 2012).

3.1.2 Goal theories

Goal theories have not previously been applied to understanding decisions to seek treatment for mental health difficulties. However, as goal theories seek to provide a theoretical account of the way in which individuals identify and initiate behaviour, these theories may be useful in this context. There is also considerable overlap between goal and identity theories, as both theories suggest that identity may influence behaviour.

Goal theories posit that all behaviour is essentially goal-directed. At any one time, individuals are pursuing a number of goals; including both short- and long-term goals (Klinger, 1977; Pervin, 1989; Tolman, 1932). These are conceptualised as existing along a hierarchy; ranging from lower order to higher order goals. While there is some variation between goal theories, higher order goals are generally thought to include essential drives and needs (e.g. satiety, safety). This definition also includes identity, where individuals seek to maintain and pursue desired identity characteristics (Carver & Scheier, 1982; Powers, 1973a). Lower order goals include more immediate goal pursuits, ranging from simple motor action (at the most concrete level) to other short- and long-term goals. These goals are chosen and

performed to support individuals to reach their higher order goals (Carver & Scheier, 1982; Powers, 1973a, 2008). For example, individuals will have many lower order goals oriented towards maintaining employment (e.g. arrive at work on time), all of which support individuals to meet higher order goals (e.g. satiety and a positive identity). Consistent with identity theories, goal theories therefore posit that individuals will act in ways that is consistent with their current identity and in ways that allow them to achieve their desired identity goals (Carver & Scheier, 1982).

Also analogous to identity theories, goal theories posit that goal discrepancies and unsatisfactory progress towards a goal is associated with emotional distress. Goal theories suggest that discrepancies are detected via a negative feedback loop, where negative affect draws attention to the goal threat (Carver & Scheier, 1982; Powers, 1973b; Pyszczynski & Greenberg, 1987). The negative feedback loop detects discrepancies in goal progress through comparisons between actual and expected progress. Discrepancies that indicate insufficient progress towards a goal, or indicate a threat to goal pursuit, elicit negative affect. In this context, negative affect can be adaptive at motivating behaviour to resolve the discrepancy (Carver & Scheier, 1982; Powers, 1973b). This may include an increase in effort towards achieving the goal. However, secondary control strategies (such as avoidance) may be used when individuals do not wish to relinquish their goal, and feel unable to resolve the cause of their discrepancy (Carver & Scheier, 1982; Powers, 1973b; Schmidt, Tinti, Levine, & Testa, 2010). As individuals may be less inclined to relinquish higher order goals, it follows that individuals may be more likely to use secondary control strategies when they experience a threat to highly valued goals, including identity.

Research indicates that threats to goal progress, particularly for higher order goals, result in negative affect and rumination (Martin & Tesser, 1989, 1996; Watkins, 2011). Chronic goal discrepancies have also been associated with psychopathology; such as depression and anxiety (Carey, 2008; Mansell, 2005). Conflict between two concurrently pursued goals is also associated with negative affect, poorer life satisfaction and functioning (Emmons & King, 1988; Riediger & Freund, 2004). Consistent with findings that behaviour is more likely when it is consistent with identity, research also indicates that facilitation between goals predicts an increased likelihood of goal pursuit (Emmons & King, 1988; Riediger & Freund, 2004).

3.1.3 Avoidance

As summarised in Sections 3.1.1 and 3.1.2, identity and goal theories posit that individuals may use avoidance coping strategies in response to threats to identity and pursued goals. As opposed to primary control strategies, which seek to resolve the source of discrepancies and may include problem-focussed coping strategies such as help-seeking, avoidance is primarily concerned with reducing negative affect (Folkman, 1992; Higgins, 1997; Moos & Schaefer, 1993). Avoidance is primarily conceptualised as a situation-specific coping strategy, and varies more within-, than between-person (Roesch et al., 2010).

Previous research has distinguished between cognitive and behavioural forms of avoidance. Cognitive forms of avoidance include denial, thought suppression, and suppression of emotional expression, while behavioural avoidance involves engaging in activities to distract from distress, including unrelated activities and substance use (Gross, 1998; Gross & Thompson, 2007; Lazarus & Folkman, 1984; Wegner, Schneider, Carter, & White, 1987; Wenzlaff & Wegner, 2000). Other forms

of avoidance coping, such as rumination and emotion-focussed coping strategies, are also thought to allow individuals to avoid problem-solving and actively engaging with the cause of their problem (Cribb, Moulds, & Carter, 2006; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Martell, Addis, & Jacobson, 2001).

The use of avoidance coping strategies is often reinforced as it temporarily results in the alleviation of distress, allowing individuals to turn their attention away from their problems and their negative emotions (Jacobson, Martell, & Dimidjian, 2001; Martell et al., 2001; Ottenbreit & Dobson, 2008). This means that avoidance may be adaptive for use with short-term problems that resolve themselves without action (Carver, Scheier, & Weintraub, 1989). However, avoidance is seen as maladaptive for longer term problems as it supplants the use of problem-focussed coping, and can add to or exacerbate the problem (Jacobson et al., 2001; Martell et al., 2001; Ottenbreit & Dobson, 2008). For example, research indicates that the suppression of unwanted thoughts results in a paradoxical increase in the avoided thoughts (Wegner, 1994; Wegner et al., 1987). Research also indicates that avoidance coping can lead to increases in negative affect (Aldao, Nolen-Hoeksema, & Schweizer, 2010; Campbell-Sills, Liverant, & Brown, 2004; Carver et al., 1989; Hundt, Nelson-Gray, Kimbrel, Mitchell, & Kwapil, 2007; Lazarus & Folkman, 1984). Without being addressed, some problems may also be exacerbated over time.

In recent years, several researchers have used the term 'experiential avoidance' to characterise avoidance coping strategies that are specifically intended to avoid the experience of 'private experiences'; for example bodily sensations, emotions, thoughts and memories (Gamez, Chmielewski, Kotov, Ruggero, & Watson, 2011; Hayes et al., 2004; Hayes et al., 1996). This may also include the avoidance of

symptoms of illness (Hayes et al., 1996). However, this research has assessed experiential avoidance strategies as a trait form of coping, and individuals are thought to differ in overall levels of experiential avoidance. As such, these theories have not explored how specific situations or events may trigger experiential avoidance strategies. Furthermore, little of this research has focussed on the role of symptom avoidance in mental and physical health. Much of the research exploring this has been conducted with schizophrenic patients; where evidence suggests that a lack of insight towards symptoms is a manifestation of the illness, rather than a coping strategy (DSM-IV-TR, 2000). In this population, avoidance of symptoms including denial is associated with poor treatment engagement (Aldebot & de Mamani, 2009; Buchanan, 1992). While this research suggests that symptom avoidance may influence treatment use, further research is needed to investigate this in other patients with mental health difficulties.

'I am not a depressed person': How identity conflict affects help-seeking rates for
Major Depressive Disorder

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3.2 Abstract

Background. There is a significant treatment gap for patients with depression. A third of sufferers never seek help, and the vast majority of those who do only do so after considerable delay. Little is understood regarding poor help-seeking rates amongst people with depression, with existing research mainly focussed on the impact of barriers to treatment. The current study explored psychological factors affecting help-seeking behaviour in clinically depressed individuals.

Methods. Semi-structured interviews were conducted with 20 current or previously clinically depressed participants who either had or had not sought professional help. Thematic analysis was used to analyse results.

Results. The onset of depressive symptoms created conflict with participants' identity and personal goals. Delays in seeking help were primarily attributed to the desire to protect identity and goals from the threat of depressive symptoms. Participants used avoidance strategies to reduce the perceived threat of depressive symptoms on identity. These strategies interfered with help-seeking. Help-seeking was only undertaken once participants reached a point of acceptance and began to make concessions in their identity and goals, at which time they reduced their use of avoidance.

Conclusions. Difficulties resolving conflict between identity and depressive symptoms may account for significant delays in seeking help for depression. The results have implications for predicting health behaviour and improving treatment uptake for depression, and may inform existing help-seeking models.

Key Words. Help-seeking; depression; goals; goal conflict; identity; identity conflict; barriers to treatment

3.3 Introduction

Major depressive disorder (MDD) affects between 10-15% of people over the course of their lives, and is expected to become the second leading cause of disability in the world by 2020 (Hasin et al., 2005; Murray & Lopez, 1996b). Depressive symptoms lead to ill health, increased mortality and have a significant impact upon social and occupational functioning (Judd et al., 1997). Improved understanding and treatment of MDD has therefore become a significant research priority (NICE, 2004).

Despite the strong evidence base for the effective treatment of depression with antidepressant medication and psychological therapies e.g. CBT, IPT (Persons et al., 1996; Shea et al., 1992; Williams et al., 2000), efforts to treat depression are undermined by poor help-seeking rates. Between a third and a half of those with depression do not seek treatment (Bebbington, Brugha, et al., 2000). Furthermore, less than half of all patients seek help within the first year of symptoms (Kessler et al., 1998), despite quality of life reductions occurring immediately in the transition between normal and low mood (Nuevo et al., 2010). Average help-seeking delays for depression are as high as eight years (Bebbington, Brugha, et al., 2000; Christiana et al., 2000; Wang et al., 2005). There is growing evidence that these long delays in seeking help contribute significantly to the unmet need for treatment, and contribute to increased illness length and higher symptom severity at the start of treatment (Thompson et al., 2008).

The reasons underlying such long delays in seeking treatment for depression are not well understood. The majority of the research to date has highlighted barriers to treatment that may influence cost-benefit decisions about seeking help. These include attitudinal (beliefs and attitudes towards mental illness and treatment),

structural (lack of time, cost and treatment availability), and knowledge barriers (patient knowledge of illness and treatment availability; Thompson et al., 2004). Overall, research suggests that attitudes towards mental health and treatment are the most influential of these in predicting help-seeking intentions and behaviour (Andrews et al., 2001; Leaf, Bruce, & Tischler, 1986; Leaf et al., 1985; Meltzer et al., 2000; Mojtabai et al., 2002; Vogel et al., 2005; Wells et al., 1994). As a consequence, models driven by the assumption that health care decisions are driven by a rational analysis of costs and benefits have been criticised for not putting enough emphasis on the psychological and emotional influences involved in seeking help (Wills & Gibbons, 2009).

Despite the evidence supporting the role of psychological factors in influencing help-seeking, there has been surprisingly little research exploring how these factors influence help-seeking for depression (Henshaw & Freedman-Doan, 2009). A significant proportion of people with depression who have not sought help report they perceive no need for treatment (Andrews et al., 2001; Fox et al., 2001; Mojtabai et al., 2002). Previous studies also suggest that up to two thirds of the delay in seeking help for depression may be due to individuals not recognising the cause of their symptoms (Reust et al., 1999; Thompson et al., 2004; Thompson et al., 2008). Furthermore, individuals often express a preference to manage their symptoms alone (Christiana et al., 2000; Meltzer et al., 2000; Thompson et al., 2004; Wells et al., 1994), and suggest that seeking help for their symptoms would negatively impact their self-esteem (Vogel et al., 2006). Research is therefore needed to explain how individuals recognise and explain changes in their mood that occur with the onset of depression, and how the interpretation of mood influences decisions to seek help. To further our understanding of help-seeking decisions, research which explores the

patients' perspective is essential (Cuijpers, 2011). This study employed a qualitative methodology to provide a detailed account of individuals' experiences following the onset of depressive symptoms. Interviews were conducted with currently and formally depressed individuals. The analysis sought to identify common factors that influenced participants' decisions to seek treatment for depression or that contributed to help-seeking delays. Further understanding of these issues can be used to identify important influences on help-seeking rates, and improve appropriate and earlier help-seeking in depressed individuals.

3.4 Methods

3.4.1 Recruitment

Participants were included in the study if they either had current Major Depressive Disorder (MDD), or met diagnostic criteria for MDD within the 12-months prior to interview. Recruitment procedures sought to include both people who had, and people who had not, sought help for depression. Various recruitment methods were used; an article placed in a local newspaper, advertising the study via a local self-help support group for depression, a general university email distribution list for people interested in research participation, and via a social networking website. As previous research has indicated that not all people with depression may recognise the cause of their symptoms (Reust et al., 1999; Thompson et al., 2004; Thompson et al., 2008), adverts specified an interest in also talking to people who had experienced a period of pervasive low mood. It was also stressed that a diagnosis of depression or the receipt of treatment was not required.

3.4.2 Procedure

Interested participants followed a web link in adverts that directed them to further information about the study. Those consenting to participate were then directed to an online questionnaire that included the PHQ9 (Kroenke, Spitzer, & Williams, 2001) to screen for current depressive symptoms and questions about past episodes of low mood and past help-seeking for low mood.

Respondents who indicated that they had experienced a period of pervasive low mood within the previous 12-months, or scored 10 and above on the PHQ9

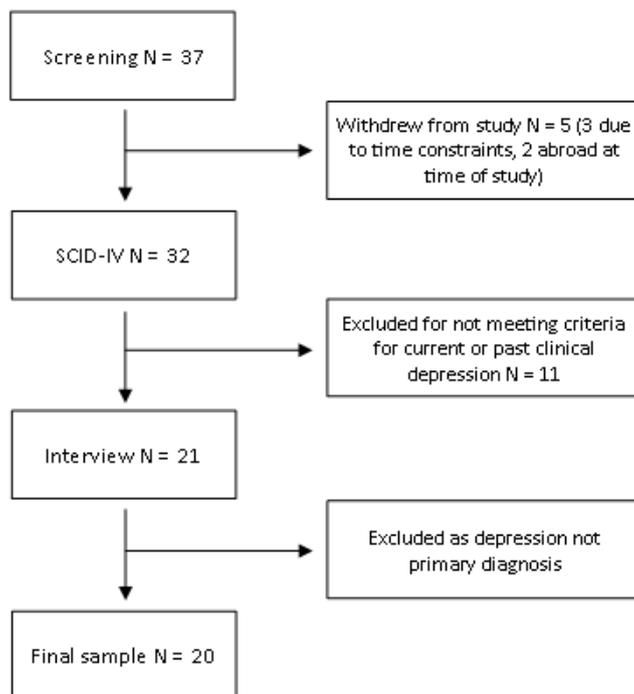
(indicating current symptoms of depression), were contacted to participate in the interview.

Interviews were conducted over the telephone or in person, based on participant preference. To determine the presence or absence of current and/or past episodes of major depression, participants were administered the screening component and the mood section of the SCID I (First, Spitzer, Gibbon, & Williams, 2002) at the start of the interview. The SCID I is a structured interview schedule that has been found to have good reliability and validity in the diagnosis of Axis I disorders. Participants who gave positive responses to items in the screening component were asked to complete the mood disorders section of the SCID I. Participants who completed the mood disorders module of the SCID I were discussed within the research team to establish whether depression was the primary diagnosis. Author HO is a clinical psychologist, PF is an accredited CBT therapist. All participants who met SCID-I criteria for current MDD or MDD in the past 12-months completed the semi-structured qualitative interview.

3.4.3 Sample

Figure 3.1. displays the progress of participants through the recruitment for the study. A final sample of twenty participants (17 female, 3 male) aged between 18-69 years (mean = 41.8, SD = 19.2) were included in the analysis.

Figure 3.1: Participant recruitment



3.4.4 Interview Schedule

A semi-structured interview schedule was developed by the research team with the goal of understanding participants' help-seeking decisions following symptom onset. The schedule was based on a review of the literature and the clinical experience of the research team, and was guided by the following questions; 'can you tell me about the time in which you started to notice a change in your mood?', 'how have/had you been coping with symptoms over this period of time?' and 'can you explain the decision-making process you went through in choosing to seek/not seek help?'. The interview schedule was modified iteratively, as the interviews and concurrent data analysis proceeded, to incorporate new information and focus progressively on emerging themes. As participants described some difficulty in

recognising and labelling their symptoms as depression, additional questions about how participants recognised and interpreted their symptoms were included in the interview schedule. As avoidance of symptoms began to emerge as a strong theme, the schedule was further modified to incorporate further questions about coping strategies participants were using prior to seeking help. Further probing of factors that influenced participants' decisions to seek help were also included to give more depth to the transcripts.

Interviews were conducted by CF following guidance by Weiss (1994), and lasted between 40-75 minutes. All interviews were recorded and transcribed verbatim. A portion of each transcript (approximately 10%) was reviewed for accuracy following transcription.

3.4.5 Data analysis

We employed a thematic analysis approach (Braun & Clarke, 2006), drawing on principles of grounded theory to identify themes within participants' accounts of their decisions to seek help for depression. This included constant comparison of participant transcripts, concurrent with data collection and identification of themes from the data. Study findings were developed through a group consensus process within the research team (2 psychologists, 1 clinical doctoral student). This process enhanced data interpretation. We began by developing codes from the raw data, based on common themes identified as analytically relevant to addressing the study research questions. As coding development proceeded, code definitions were influenced by useful concepts from the literature, in addition to those emerging from the data. Interview transcripts were read by CF. A coding reliability check was provided by HO and PF, who independently read and coded transcripts. An iterative

process was used to compare results until agreement was reached on code definitions and application of codes to interviews. The final coded transcripts were entered into NVIVO8 software (2010) to assist with data analysis, with code reports produced and summarised by the investigators. The research team met regularly to review the code summaries and discuss and interpret the data in light of the original study purpose, with a focus on informing the process of help-seeking in persons who have experienced clinical depression.

3.4.6 Ethical Considerations

This study was approved by the University of Exeter ethics committee, and complied with British Psychological Society Code of Conduct and the University of Exeter procedures for data protection. Informed consent for participation in the study was obtained from each participant. All depressed participants, including three participants who had not sought help at the time of the interview, were offered information on formal and informal sources of support for MDD following completion of the study.

3.5 Results

3.5.1 Demographics

Twelve participants met criteria for MDD and eight participants had MDD within the past 12-months. Three participants had not ever sought help. Thirteen participants had experienced more than one episode of depression. Eleven of these participants failed to seek help for at least one of their previous episodes of MDD. Fourteen participants reported experiencing symptoms of a comorbid psychological disorder, most often anxiety-related, occurring at the time that they were depressed.

Help-seeking delays ranged between 2 weeks and 30 years for participants' most recent episode of depression (Mean = 8.24 years; SD = 9.10). Four participants reported help-seeking delays of longer than 10 years. Participants (N = 7) who had sought help for at least one previous episode of depression sought help more quickly in their most recent depressive episode (Mean delay = 4.28 years, SD = 7.27) than those who had no history of help-seeking (Mean delay = 8.06 years, SD = 8.78). Of all participants, only one participant who met diagnostic criteria for depression had not recognised that her symptoms were caused by depression at the time of interview.

3.5.2 Qualitative analysis

Three themes emerged regarding participants' accounts of their help-seeking decisions (see Table 3.1). These themes were; 'Depressive symptoms create conflict', 'Avoidance', and 'Acceptance'. Two disconfirming cases in 'Avoidance' are also discussed.

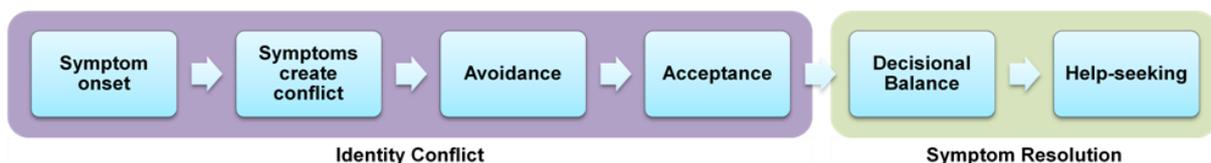
Table 3.1

Description of common themes

Themes	Description
DEPRESSIVE SYMPTOMS CREATE CONFLICT	Symptoms are identified as abnormal. Participants express fears that symptoms threaten their identity and important goals
AVOIDANCE	Participants cope with identity and goal conflict by avoiding their symptoms and using psychological strategies to reduce the perceived threat to goals. The avoidance of symptoms was the primary cause of help-seeking delay
ACCEPTANCE	Participants stop avoiding their symptoms and begin to make decisions about seeking help. Identity and goals begin to change to accommodate the experience of depression.

As illustrated in Figure 3.2, the three themes were found to appear sequentially across participants' accounts. Following symptom onset, participants described feeling that their DEPRESSIVE SYMPTOMS CREATED CONFLICT with their identity and the goals they wanted to achieve. The onset of conflict prompted the use of AVOIDANCE strategies, which extended help-seeking delays. ACCEPTANCE represented the end of avoidance strategies, and the beginning of cost-benefit decisions to seek help for depression.

Figure 3.2: The Progression of themes over time



Theme 1 – Depressive symptoms create conflict

Participants discussed becoming aware of symptoms approximately two weeks after onset. This included recognition that their mood, thoughts and behaviour had changed and were impacting on their functioning, however they did not necessarily label their symptoms as depression at that time. Participants recognised the onset of their symptoms by comparing their current state with their past self, and by making comparisons with those around them. These comparisons were important in symptom recognition, as they helped participants to decide whether the change they were experiencing was 'normal'.

"I felt really awful and I thought this can't be how people feel normally when they are a bit sad" (Female 2)

Recognising that symptoms were abnormal was an essential stage prior to seeking help. There were a small number of participants who failed to notice their symptoms were abnormal, and therefore experienced extended help-seeking delays.

"I didn't really talk to people...so to me that was normal and I didn't I suppose realise that feeling unhappy wasn't necessarily a normal way of life" (Female 15)

The recognition that participants were experiencing an abnormal change in functioning was highly distressing. This distress was primarily caused by concerns that symptoms threatened participants' identity and their related goals. In particular, participants worried about the impact of this change on their identity, reporting concerns that they were becoming someone they did not want to be.

"I want to be a doctor and I want to be seen as someone who could do it as opposed to people look at me and go 'oh no, she has problems'" (Female 8)

“I’m not a control freak but I do like to know that I’m in charge...But of course when you’re depressed you’re not, and facing up to that was something I didn’t like having to do”(Female 7)

The type of symptoms experienced early in their depression influenced the speed with which participants recognised their symptoms as abnormal. Participants found it easier to compare changes to their behaviour as a result of physical symptoms with the observable behaviour of others. However, participants felt much less knowledgeable about whether changes to their thoughts and emotions were normal, finding these much more difficult to compare. As a consequence, those participants who reported fewer physical symptoms at the beginning of the illness experienced longer delays in symptom recognition.

Theme 2 – Avoidance

The onset of depressive symptoms was interpreted by participants as a threat to their identity. Acknowledging symptoms, and acting to resolve them, involved accepting that their identity had changed in a negative way. Rather than accept this change, participants discussed how avoiding symptoms allowed them to reduce the perceived threat of symptoms.

“I think to me depression was kind of, being weak, wallowing and just being generally mental, crazy, and I just, I’m not any of those, I’m perfectly fine” (Female 6)

Participants used distraction to ignore their symptoms and their impact on functioning. In addition, participants used psychological mechanisms to reduce the perceived threat of symptoms. This included misattribution (blaming symptoms on

external, short-term causes), and bargaining (ignoring deficits in functioning in favour of evidence that symptoms were normal).

“you think well, something’s not right here...and then you kind of turn and think ‘oh it must be the course’, ‘it must be the group of people’...not ‘why do I feel like this, let’s go find out’. It’s there’s something wrong with the situation as opposed to me”

[misattribution] (Female 3)

“I kept saying ‘there is nothing wrong with me...look I’m working all these hours, what can be wrong with me” [bargaining] (Female 15)

Reducing conflict through avoidance led to a short-term reduction in emotional distress. However, participants reported that this was only temporary and did not resolve their symptoms. As symptoms increased in severity, participants found it more difficult to use distraction, and misattribution and bargaining strategies became more difficult to justify. Avoidance strategies would also frequently fail when environmental cues (e.g. comments by friends and family) would remind participants of their symptoms and their reduced functioning.

‘when I had depression...it was easier if people didn’t ask me: “How are you now, are you feeling better?”... I used to find that a very...unhelpful question’ (Male 1)

Disconfirming cases

Three participants were able to resolve identity conflict sooner than other participants in the sample, reporting less use of avoidance strategies and much shorter help-seeking delays. These participants discussed how reduced conflict between symptoms and their identity led to less emotional distress, and facilitated their

decision to seek help sooner. Significant others were central in reducing conflict for all three participants, although in different ways.

Two of the participants discussed how they received non-judgemental support and reassurance from significant others after disclosing their symptoms. This support gave them confidence that their identity and related goals could be retained despite their symptoms, therefore reducing conflict.

For the third participant, it was the unsupportive response of significant others that facilitated a reduction in identity conflict. Following the onset of symptoms, this participant's family were highly critical of the change in her mood and behaviour, blaming her for her symptoms, and accusing her of being a weak and lazy person. This participant discussed how being someone with depression was a more positive identity than being a weak and lazy person. In this case, symptoms of depression became congruent with pursuing a more positive identity, and therefore reduced the conflict between symptoms and goals.

Theme 3 – Acceptance

Avoidance became more difficult as symptoms worsened, leading to rising levels of emotional distress. Increasing symptoms also led to further reductions in functioning, which created more conflict between symptoms and participants' identity and related goals. At a time when levels of conflict and emotional distress were at their highest, participants often discussed reaching a point of acceptance towards their symptoms. Participants acknowledged that they may no longer be able to achieve some of their goals, and often expressed feeling a subsequent loss or confusion about their identity. Acceptance represented a large reduction in avoidance coping, and it was

often at this time that participants discussed an acknowledgement that they were depressed.

“it just got to the point I just thought Christ enough is enough, if I don’t do something about this or find out...why it’s happening then I’m gonna go round this circle forever in my life, I’m not gonna have any friends, I’m not gonna get anywhere in my life” (Female 3)

“it just wasn’t who I wanted to be so yeh that was the trigger, that was when I decided I’d go and sort it out” (Female 12)

Acceptance also emerged at times when a particularly important goal was threatened and the consequences of not seeking help increased suddenly. These events increased the incentive for participants to resolve their symptoms so as to best pursue their goals. Most participants reported a negative cueing event (e.g. a partner threatening to leave), although occasionally positive events (e.g. a new job offer) were reported.

Following acceptance, participants discussed beginning to assimilate their symptoms into their identity.

‘I am sort of... finding myself again, you know over the last year, trying to get back to who I think I am’ (Female 3)

Participants discussed a clearer understanding of whether their short term goals would need to be abandoned or delayed while continuing to experience symptoms. In addition, uncertainty about how symptoms may affect long term goals and their identity was also a concern. Over time, longer-term goals were adjusted to

accommodate for their experience with depressive symptoms. This was a long term transition, in most cases continuing after participants sought help.

Following acceptance, participants began to consider actions that could resolve their symptoms. Most participants felt that seeking help from their own doctor was the most suitable course of action, and considered this before alternatives such as local support groups, self-help and self-education.

Decisions about help-seeking were guided by the weighing of costs and benefits of seeking help, including the consideration of various barriers to help and beliefs about depression. Common barriers reported by participants incorporated attitudinal, structural and knowledge barriers (displayed in Table 3.2). Barriers were often interrelated, for example beliefs about the efficacy of treatment were informed by participants' knowledge of MDD and treatment. At times when the weighing of costs and benefits did not support help-seeking or other action, participants returned to using avoidance coping to manage their symptoms.

Most participants who decided not to seek help at this point did eventually seek help when the costs and benefits of seeking help changed, for example when their symptoms worsened. However, two participants reported having made the decision to never seek help for their symptoms and expressed a lack of interest in receiving information about treatment options following the interview. This decision was based on having weighed the costs and benefits of seeking help, and concluding that their symptoms were permanent and treatment would be ineffective. Both participants discussed having adapted their identity and goal structures to account for ongoing depressive symptoms.

“I got used to the fact that it’s probably going to be a problem somewhere and over the years I have learnt to cope with it I suppose I...probably look at that now and see normal” (Male 2)

Table 3.2

Factors influencing help-seeking decisions at the decisional balance stage

		N Participants (%)
Knowledge and attitudes to treatment	Beliefs about the appropriateness of treatment	12 (60%)
	Beliefs about the availability and accessibility of treatment	9 (45%)
	Fears of an unhelpful or non-empathic response from doctor/medical professional	6 (30%)
	Beliefs about the effectiveness of treatment	5 (25%)
	Fears that seeking help/receiving treatment will be uncomfortable or distressing	4 (20%)
Depressive symptoms	Increased symptom severity influenced beliefs about the appropriateness of treatment and increased the costs of not seeking help	10 (50%)
	General feelings of low self-worth and hopelessness	6 (30%)
Structural barriers	Time commitments	3 (15%)
	Finance	2 (10%)
Other	Expectations of social stigma	9 (45%)
	Stoic attitude – preference to manage symptoms alone	4 (20%)
	Other costs/benefits, e.g. fears about outcome for medical record, to achieve important goals	10 (50%)

3.6 Discussion

Existing theories of help-seeking for depression have had mixed results and emphasised logistical and practical rather than psychological factors affecting help-seeking (Cuijpers, 2011; Henshaw & Freedman-Doan, 2009; Wills & Gibbons, 2009). This study took a patient-centred approach and sought to get direct accounts of the help-seeking process from individuals who had experienced depression. Our results suggest that help-seeking for depression is a two-stage process where the balance of costs and benefits for seeking help is preceded by an identity conflict process marked by the avoidance of depressive symptoms. Participant accounts indicated that attempts to manage conflict through avoidance accounted for a significant proportion of delays in help-seeking. We identified three themes in the analysis, which together describe the onset and resolution of conflict between participants' sense of identity and their depressive symptoms prior to seeking help.

The results of this study support findings that the costs and benefits of seeking help influence individuals' help-seeking decisions (Thompson et al., 2004), and suggest that all three barriers (structural, knowledge and attitudinal) may be helpful targets for intervention. However, as participants in this study did not begin to consider the costs and benefits of seeking help until late in the help-seeking process these interventions may have limited impact on reducing help-seeking delays. Rather, they may be most applicable to a sub-section of depressed individuals who have reached acceptance about their symptoms, and therefore may already have some intention to act to resolve these symptoms.

In contrast to prior research that suggested that individuals may have difficulty in recognising the cause of their symptoms (Reust et al., 1999; Thompson et al., 2004;

Thompson et al., 2008), this did not cause significant delays in this sample. When lack of symptom recognition did occur, it was most prevalent in those individuals who had fewer physical symptoms and therefore had greater difficulty comparing themselves against the functioning in others. Regardless, the majority of the delay before seeking help was due to the denial and avoidance of symptoms, used by participants to cope with identity conflict.

Our understanding of the conflict process described by participants may be informed by identity and goal theories. These theories propose that people are driven to maintain a positive and stable view of themselves, including a belief that they are self-reliant and capable (Alicke & Sedikides, 2009; Baumeister et al., 1998; Hepper et al., 2010; Pervin, 1989). They posit that individuals pursue goals that maintain this self-view, as well as working towards desired future identities (Carver & Scheier, 1982; Powers, 1973a). Participants in this study discussed how experiencing depressive symptoms threatened their ability to perceive themselves in a positive way, both in terms of their short and long term goals, and the ways in which these related to their perceived identity. Participants described how they struggled with beliefs that they were incapable and weak, and worried that their symptoms would prevent them from achieving desired future goals. The threat symptoms posed to individuals' identity was particularly distressing, and identity conflict was the primary cause of avoidance behaviour. Participants attempted to protect their identity by using strategies to deny or avoid their symptoms. This temporarily enabled them to preserve their identity, but resulted in help-seeking delays.

Participants used both behavioural (e.g. distraction) and cognitive techniques (e.g. misattribution and bargaining) to avoid their depressive symptoms during the delay period. These strategies have been commonly reported in experimental studies of

individuals who experience a conflict between their beliefs and behaviour (Alicke & Govorun, 2005; Eisenstadt & Leippe, 1994; Greenwald, 1980; Guenther & Alicke, 2008) and are consistent with the broader literature on conflicts between illness and identity (Adams et al., 1997; Bury, 1982; Carricaburu & Pierret, 1995; Fife, 1994; Goldman & Maclean, 1998; Mathieson & Stam, 1995; Tilden, Charman, Sharples, & Fosbury, 2005; Yoshida, 1993). This study suggests that avoidance coping may therefore be significant for individuals experiencing conflict between depressive symptoms and identity.

Also consistent with identity theories, participants reported that their use of avoidance strategies helped them to retain confidence in their ability to pursue their desired identity and goals (Alicke & Sedikides, 2009; Baumeister et al., 1998; Hepper et al., 2010). However, as predicted by goal theory, which states that avoidance strategies work best with time-limited conflicts (Carver & Scheier, 1982; Powers, 1973a), avoidance often did not resolve their conflict and resulted in prolonged help-seeking delays. Participants reported increasing symptom severity and emotional distress as the delay period progressed. This is consistent with previous research that has identified help-seeking delays as a predictor of longer illness length and increased symptom severity at the start of treatment (Thompson et al., 2004).

As avoidance became less effective at managing increasing symptoms and emotional distress, participants often discussed reaching a point of acceptance. At that point participants reduced their use of avoidance, and instead began to acknowledge the impact depression was having on their lives. Crucially, the acceptance process involved making concessions in identity and goals in order to incorporate depressive symptoms as part of identity (e.g., 'I am someone who is

depressed'). This reduced the conflict caused by symptoms, and it was at this time that participants first considered seeking help. These findings raise the possibility that individuals with depression may need to make concessions in their identity and goals before seeking help. This process is consistent with studies which have demonstrated that people are more likely to enact behaviour that is congruent with their personal goals (Presseau, Sniehotta, Francis, & Gebhardt, 2010; Riediger & Freund, 2004). Further, in the identity literature the ability to incorporate illness into identity has been shown to predict help-seeking behaviour (Adams et al., 1997; Bury, 1982; Carricaburu & Pierret, 1995; Goldman & Maclean, 1998; Mathieson & Stam, 1995; Tilden et al., 2005; Yoshida, 1993).

This may be an important consideration for interventions intended to encourage individuals to seek help. However, while goal theories predict that individuals will reorganise identity and goals and take action to resolve conflicts when they are long-lasting (Carver & Scheier, 1982; Powers, 1973a), very little is known about the way that individuals make the decision to do this. In this study, participants who had a history of previous help-seeking were able to resolve identity conflict more quickly than those without that history, and were able to seek help earlier. Several participants also reported that social support was instrumental in the resolution of identity conflict, and was predictive of earlier help-seeking. However, these were a small number of participants, reporting both supportive and unsupportive experiences with social support, and it is unclear from these results how social support was able to reduce identity conflict in these participants. It was interesting to note that social support did not emerge as having influenced help-seeking decisions in other participants, as previous research indicates that social support can facilitate help-seeking for mental health problems (Vogel et al., 2007). One way in which

social support is thought to influence help-seeking is through changes in attitudes towards seeking help (Bilszta et al., 2010; Sheffield, Fiorenza, & Sofronoff, 2004; Vogel et al., 2007). Future research exploring how individuals form and make changes in their attitudes to seeking help, and decide to make changes in their identity and goals, may reveal how help-seeking interventions can use social support and other mechanisms to increase help-seeking behaviour.

3.6.1 Clinical Implications

Help-seeking interventions that focus on reducing the costs and barriers of seeking treatment for depression may only be effective at increasing help-seeking behaviour in a sub-section of depressed individuals. Health care professionals and clinicians interacting with depressed individuals may benefit from talking to the individual about their concerns that receiving treatment may conflict with their goals and identity. Providing reassurance around these issues, and pointing out how treatment can help the individual retain and re-engage in important goals that support their identity may reduce emotional distress and improve willingness to engage in treatment. Likewise, future help-seeking interventions may benefit from incorporating mechanisms intended to reduce identity conflict, such as those that can support individuals to continue to pursue valued goals and maintain a positive identity alongside seeking treatment. Similar strategies are components of some psychological therapies, such as CBT, Behavioural Activation, and Acceptance and Commitment Therapy. Extending these into help-seeking interventions in public health campaigns may contribute to reductions in help-seeking delays, and improve the effectiveness of cost-benefit interventions.

3.6.2 Limitations

This is an exploratory, qualitative study that provides an insight into the patient perspective on seeking help for depression. Future research is needed to investigate these findings further, including the use of quantitative methods, to identify specific mechanisms involved in the identity conflict process and assess the importance of identity in predicting help-seeking rates.

Future research should also seek to investigate these findings in a wider population of individuals. In particular, very few men volunteered to participate in this research, and their help-seeking narratives are therefore under-represented. As research frequently indicates that men are less likely to seek help for depression, greater understanding of the help-seeking process in men is greatly needed (Courtenay, 2003; Kessler et al., 1981; Moller-Leimkuhler, 2002; Rickwood & Braithwaite, 1994).

A recent review of this literature has argued that poor help-seeking rates may be in part due to men struggling to reconcile experiencing emotional difficulties with the expectations for the male gender role in industrialised societies (Moller-Leimkuhler, 2002). Therefore the resolution of identity conflict following symptom onset may be a useful framework through which to understand poor help-seeking rates in men.

Future research should therefore explore the extent to which men incorporate gender roles into their identity, and whether enhanced difficulties in resolving identity conflict contribute to poorer help-seeking behaviour in men. Due to greater interest from women in participating in this study, future research may therefore benefit from using purposive sampling to overcome difficulties in recruiting male participants.

Four participants in this study reported help-seeking delays of longer than ten years, which is not uncommon for help-seeking delays for MDD and other mental health

disorders (Bebbington, Brugha, et al., 2000; Christiana et al., 2000; Wang et al., 2005). However, it should be noted that participants' accounts, particularly when there is a long delay period, may contain some inaccuracies. Furthermore, only three participants in the sample had not sought help for depression at the time of interview, and so the findings may also have limited generalisability for individuals who do not seek help. These issues may represent inherent difficulties in recruiting participants to help-seeking research, and future researchers should therefore be mindful of these limitations when designing and interpreting the results of help-seeking studies.

Semi-structured interviews were employed to encourage participants to discuss their personal experiences in seeking help for MDD, as well as to facilitate discussion of factors suggested by the existing literature (e.g. difficulties recognising depressive symptoms). However, this approach, as well as the iterative adaptation of the schedule to focus on emerging themes, may have influenced the direction of the interviews and the analysis. Future studies may consider using an unstructured interview approach, which can also have the benefit of providing greater detail of participants' experiences and their own terminology.

3.6.3 Conclusions

This study presents a patient perspective of factors influencing the decision to seek help for depression. Participant accounts describe the way in which individuals recognise the onset of depressive symptoms, and provide support for a two-stage process model of help-seeking. These results enhance our understanding of the reasons that may underlie widespread help-seeking delays, and can be used to inform future research aimed at improving treatment access for depression.

3.7 Additional results

3.7.1 Theme 1 – Symptom Recognition

A small number of participants discussed how knowledge about depression had influenced their ability to recognise their symptoms. Two participants discussed how they had knowledge of depression through university courses and from knowing family members who had experienced depression. However, this knowledge was reported to have had little effect on their ability to recognise, and accept, their symptoms.

“I have been depressed since about 12 I think, and I did not notice really which is odd because my dad is a GP and depression runs through my family; my mother is depressed [and] takes medication, her sister was depressed and killed herself, [and] my uncle and my grandmother exhibit classic depressive symptoms”

“We’d studied depression but to me that was what someone else had, that wasn’t me. And I didn’t want the doctor, well I didn’t want anyone to think it”

However, two participants described how having experienced a previous episode of depression enabled them to recognise their most recent episode of depression sooner.

“I could sense that my mood and my energy was less each day than it was the day before or the week before. Because I’d been on that train journey before, I knew where it was going to take me”

3.7.2 Theme 2 – Avoidance

Alongside using avoidance coping strategies following acceptance, participants also reported using other emotion-focussed coping strategies (Folkman, 1992) prior to seeking treatment. This included rumination, self-blame, substance use and self-harm. Some of these strategies were able to temporarily reduce emotional distress, while others (such as rumination) were associated with increased emotional distress. However, there was no evidence that these other emotion-focussed coping strategies influenced individuals' decisions to seek treatment.

“Just [keep thinking] why am I so boring you know, umm... like why do I even have this low mood that I am in because it can just be it doesn't have to be anything I just wake up and it's there and I don't know when it's going to happen or why it happened so, it's just a bit why, why is this happening to me?” [Rumination]

“I tend to eat more, errm I want to just like I say comfort eating I suppose, I guess it's something to do, haha, you know if you're like on edge you just like oh I'll have something to eat, or I'll make something to eat”

“if I was the old me I would be cutting myself right now... i think it just made me feel better...I just kind of liked laying blame on myself for everything, so I...did it cuz it made me feel like I was punishing myself, and feel better I guess”

“Well I was relying on alcohol to raise my mood”

“I think I was quite consciously not doing anything to help myself, haha, I think I was wallowing. Um so before...the trigger and before I went to the Dr I...just wallowed in pain and anger, and frustration, and I think I kind of embraced that feeling for some time”

“you get sad you get frustrated, you get sort of snappy with people around you, like my partner will tell you, haha, he can always tell when I’m in that sort of period because I’m really short tempered”

“he used to tell me all the time, but he used to get back lash off that then because I was so annoyed with myself I used to shout at him for it ‘there’s nothing wrong with me, it’s them’ or you know, it was really, it was always other people’s fault”

One component of the avoidance coping strategies used by participants was to generate alternative, less threatening explanations for symptoms. For example, participants attributed their symptoms to a lack of sleep, recent eating pattern, symptoms of cold and flu, and recent stress at home or work. Explanations chosen were consistent with a less severe, less threatening perception of depressive symptoms, and participants sought to verify their chosen explanations by using avoidance strategies to ignore any signs or symptoms that were inconsistent.

“I think I was actually blocking out the fact that it was anything to do with my mental state and I was concentrating on it being something to do with the fact that I was diabetic and that I had this heart problem and that it was all to do with that. And I think also probably I was thinking that the reason I was unhappy was because I couldn’t do this job as well as my boss wanted me to do it”

“I was hoping that umm..., that the doctor would say ‘ooh... you are short of some kind of mineral and so here’s a little mineral tablet and you will feel much much more awake’ that’s what I was hoping for”

Participants would also use their chosen explanations to inform their use of coping strategies, for example reducing their hours at work, eating more healthily, getting

more sleep, and changing jobs. Such efforts were generally unsuccessful, as problem-focussed coping strategies chosen by participants were only appropriate for the less severe, less threatening perception of symptoms acknowledged by participants. These strategies therefore did not resolve the real cause of participants' symptoms, however participants often reporting hoping that they would.

“He wanted me to go to the Dr or speak to someone in the family... But for a long time I didn't I just kind of thought no if I can just find something that's right for me, job or something, if I can find a new job I'll be fine, haha, you know that kind of thing, but it never sort of was”

Participants often needed to abandon, and find new, explanations for their symptoms over time. This was because some explanations, such as lack of sleep, became more difficult to justify as symptoms continued and increased in severity. This led to a pattern where symptoms were attributed to increasingly long lasting and complex causes, often with greater implications for participants' goals and identity. For example, one participant originally blamed her symptoms on a period of poor sleep, but as symptoms continued she began to consider whether symptoms were attributed to difficulties in her marriage. Participants reported feeling heightened distress if they did not have an explanation for their symptoms.

“there was nothing I could do to cheer myself up...cuz I didn't understand why I was crying. So I couldn't tell myself things were ok because ...there was no reason for me to be so you know, I just felt completely hopeless”

3.7.3 Theme 3 – Acceptance

Several participants discussed the responses of significant others to their depressive symptoms prior to seeking treatment. Several participants discussed having experienced positive social support, with significant others having encouraged them to seek treatment. In three cases, family members made GP appointments and supported participants to attend. Two participants reported that these experiences allowed them to reach acceptance and consider seeking treatment.

“I think he [husband] said well perhaps you ought to go to the Dr and I suppose that was the point where I thought well yes I must...whether if...if he hadn't had been around whether I would have gone or not I don't know. Um that was...the conversation that we had that resolved me that I should go to the Dr”

“I think I was probably encouraged by my family actually because I always thought oh I should be able to cope with it all myself but I think if I remember my husband particularly said look I think you need to go and get some advice about this”

However, another participant reported that this did not affect their decision to seek treatment.

“I basically just had like a meltdown haha and got dragged off to gp by my boyfriend but I I don't think I was really ready to accept whatever they were gonna tell me then”

Several participants reported having experienced unsupportive reactions from friends and family, which discouraged them from seeking treatment.

“he didn't really want the pill thing going on because I don't think he wanted a diagnosis of depression he didn't want to think his girlfriend was depressed”

Decisional balance

Participants reported how a number of cost-benefit factors influenced their decision to seek treatment. However, the degree to which costs and benefits affected decisions to seek treatment was influenced by their perceived value. For example, some costs were seen as acceptable to some participants.

“I didn’t actually consider help at all really, because as I said it wasn’t that I couldn’t function...you know you can still get some stuff done, which you have to do... not the things like posting things, cleaning, and I let the house get into a state, but it’s fine... just that kind of thing”

3.7.4 Experiences with seeking treatment for MDD

Many participants reported having negative experiences of seeking treatment for MDD. Some participants reported having previously received treatment that was ineffective at reducing their depressive symptoms. A number of participants also reported having received a poor standard of care when seeking treatment in the past. This included reports of consultations with unknowledgeable or un-empathic GPs, misdiagnosis, being prescribed medication incorrectly, and poor experiences with counsellors and psychologists. Some participants reported that this prevented them from accessing treatment.

“if I went to the doctor I was never offered to be referred anywhere”

“he said to me...that he thought I were just agoraphobic...and sent me on to CBT, but then I were like...‘no that’s wrong, that’s a load of crap’ and I’d got an appointment and I just didn’t go, I just cancelled it and didn’t go”

Negative past experiences of seeking treatment influenced outcome expectations for treatment and participants' willingness to seek treatment.

"I have been trying with the pills and going to the talky therapy... but I suppose because it wasn't terribly helpful... I kind of think that no one can help me with that any way really"

"some of the things I told her she actually told me she was very shocked, so that completely put me off because I just felt like no-one would be able to deal with it, almost, so I stopped after that"

"I'd been to the Dr [previously]... and nothing had come of it, I did have it at the back of my mind that I was just wasting somebody's time if I went"

3.8 Additional discussion

3.8.1 Symptom recognition

The results provide an insight into how individuals recognise symptoms of MDD. Consistent with findings that individuals may experience a reduction in quality of life immediately in the transition between normal and depressed mood (Nuevo et al., 2010), participants reported that depressive symptoms were noticeable approximately 2-3 weeks following onset. Previous research has suggested that individuals experience difficulties in symptom recognition, however these studies have conceptualised recognition as the time at which individuals label their symptoms as being caused by depression (Reust et al., 1999; Thompson et al., 2004; Thompson et al., 2008). The results of this study suggest that symptom recognition may be best understood as a two-part process; noticing the onset of symptoms and acknowledging symptoms may be caused by depression. While individuals may notice the onset of symptoms quickly, participants' accounts suggest that labelling symptoms as depressive may only occur at acceptance. Participants reported how acceptance occurred late on in the help-seeking process, which is consistent with previous research that has suggested that a delay in labelling symptoms as depression/anxiety accounts for two thirds of help-seeking delays (Reust et al, 1999; Thompson et al., 2004, 2008). Future research should therefore make a clear distinction between acknowledging symptoms and labelling symptoms. Participants discussed how they acknowledged the onset of symptoms by comparing their current state with others around them. Participants also compared their current state with their usual self and with their beliefs about 'normal' emotions and behaviour. Recognising symptoms as abnormal was an essential process prior to

seeking treatment, as individuals were unlikely to try to resolve symptoms they perceived as normal. A number of studies have indicated that social comparisons (comparing the self with others) and temporal comparisons (comparing the self with past selves) are used for self-evaluation; providing information on identity and abilities (Albert, 1977; Festinger, 1954). Furthermore, comparing the self with a standard, including others, for self-evaluation is a key prediction of goal theories (Carver & Scheier, 1982). These findings indicate that comparison theories may be useful in understanding how individuals recognise changes within the self, such as the onset of illness.

3.8.2 Causal attributions

The results revealed that participants generated causal explanations for their symptoms that were less threatening for their identity and goals. Avoidance coping was also used as a method to reinforce chosen explanations. Previous research indicates that individuals exhibit biases in the way they interpret events in order to protect their identity, which may include using avoidance to reject or ignore evidence that is inconsistent with their identity and beliefs (Alicke & Sedikides, 2009; Festinger, 1954; Greenwald, 1980; Swann Jr, 1983; Swann Jr & Read, 1981). These findings are also consistent with previous research that suggests individuals may exhibit a self-positivity bias when interpreting symptoms of ill health. Individuals have been shown to rate symptoms in a vignette as being more severe when the target person was someone else, compared to when they were asked to imagine that they were the person in the vignette (Care & Kuiper, 2012). These findings are also comparable with studies investigating symptom recognition amongst patients with cancer (Andersen & Cacioppo, 1995). Following symptom onset, Andersen and colleagues report that individuals exhibit a bias towards less threatening

explanations for their symptoms. Patients were more likely to accept transient and less serious causes for symptoms, and were more likely to search for alternative explanations rather than accepting a threatening explanation. In conclusion, the results of Study 1 are consistent with depressed individuals exhibiting a bias in the interpretation of depressive symptoms, towards explanations that are less threatening to their identity and goals. This bias may reduce the emotional distress that is associated with more serious explanations for symptoms, but also contributes significantly to delays in addressing the true cause of symptoms.

3.8.3 Acceptance

As acceptance may be an essential process prior to help-seeking decisions, it would be useful to investigate factors predicting acceptance, as this may provide greater understanding of the reorganisation process and how help-seeking interventions could reduce help-seeking delays. The publication of Study 1 described how participants may reach acceptance when the costs of not seeking help for identity and goals exceeded those for not seeking treatment. These findings are consistent with goal theories, which posit that individuals enter reorganisation in order to better pursue their valued goals (Powers, 1973b). Likewise, the loss of valued control model (Schauman & Mansell, 2012) predicts that individuals may decide to seek treatment in order to regain control over important aspects of their lives. This is consistent with findings that individuals with mental health disorders report seeking treatment because their symptoms are interfering with their functioning and social roles (Cepedo-Benito & Short, 1998; Kelly & Achter, 1995; Khan, Bower & Rogers, 2007; Rickwood & Braithwaite, 1994).

Little is understood about the process of reorganisation of identity and goals. It may be that reorganisation is not an all-or-nothing process; but rather that the incorporation of symptoms into identity and goals may occur along a continuum. Research with patients with HIV revealed that patients could be split into 'accepters' and 'non-accepters', although 'accepters' varied the way they accepted the HIV/AIDS identity. Some incorporated their illness into their identity so that this identity became primary and dominated over other aspects of the self. However, others incorporated it as one identity amongst others (Baumgartner, 2007). The results of Study 1 suggest that depressive symptoms may also be incorporated into identity on either a temporary or permanent basis; with two participants in the sample discussing having made symptoms a permanent feature of the way they see themselves. The extent to which individuals make changes in their identity and goals may be informed by beliefs about depressive symptoms. For example, those participants who changed their identity permanently also believed that their symptoms would be long-term and would be unresponsive to treatment. The results of this study suggest that incorporating symptoms into identity may be essential prior to considering seeking treatment. However, further research should seek to establish whether differences in the way individuals incorporate symptoms into identity influences help-seeking choices. For example, if the change is perceived a permanent or a temporary change may influence whether individuals act to resolve their symptoms.

3.8.4 Symptom severity

Previous research has demonstrated that higher symptom severity is associated with an increased likelihood of seeking treatment for MDD (Bebbington et al., 2009;

Bebbington, Meltzer, et al., 2000; Cepeda-Benito & Short, 1998; Goodman et al., 1984; Halgin et al., 1987; Henderson et al., 1992). The results of this study suggest that symptom severity influences help-seeking indirectly in two key respects. Firstly, higher symptom severity undermined effective use of avoidance coping, and therefore increased the likelihood that participants would reach acceptance. Secondly, higher symptom severity contributed to higher perceived benefits of seeking treatment, and increased costs of not seeking treatment.

However, some depressive symptoms were also reported to undermine help-seeking decisions. Participants discussed how feelings of hopelessness undermined their belief that treatment would be effective, therefore reducing the perceived benefits of seeking treatment. Feelings of low self-worth also undermined help-seeking, as participants reported feeling that they didn't deserve help. These findings emphasise the importance of perceived costs and benefits in forming intentions to seek treatment, and suggest that depressive symptoms can influence help-seeking decisions both positively and negatively, and at both stages of the help-seeking process. These findings therefore provide support for the role of depression severity in decisions to seek treatment, although suggests that symptoms may influence help-seeking indirectly.

3.8.5 Past help-seeking

Consistent with previous research (Halgin, et al., 1987; Jorm et al., 2000), participants who had sought help for MDD in the past reported shorter help-seeking delays. The results suggest that previous episodes of depression may enable individuals to recognise the symptoms of depression earlier in a subsequent depressive episode. It may also be that past help-seeking influences the acceptance

process. Those who had sought treatment in the past still discussed experiencing acceptance before seeking treatment for their most recent episode, suggesting that these participants still needed to make changes in their identity and goals prior to seeking treatment again. It may be that having been diagnosed with MDD in the past, and having made changes in identity accordingly, individuals need to make fewer changes to identity if becoming depressed again. This could contribute to shorter help-seeking delays in individuals who have previously sought treatment. However, experiencing another episode of depression after having been treated previously may also involve additional implications for identity (e.g. 'I am depressed *again*' or even 'I am someone who is frequently depressed'). Therefore, those who have sought treatment in the past may still experience delays in acceptance. It would be interesting for future research to explore differences in the acceptance process between individuals who have and have not sought help previously. This may elucidate ways in which individuals' experiences and attitudes towards symptoms may influence the acceptance process.

As discussed in Chapter 1, previous research also suggests that a history of help-seeking may affect help-seeking by influencing the perceived costs and benefits of seeking treatment (Bram, 1997; Figueroa et al., 1984; Halgin et al., 1987). This did not emerge as a strong theme in this study, although the interview schedule did not probe individuals to explain what influenced their beliefs about the costs and benefits of seeking treatment in any detail. Therefore, research exploring how individuals form beliefs about the costs and benefits of treatment may contribute to our understanding of shorter help-seeking delays in individuals who have sought treatment in the past.

3.8.6 Attitudinal barriers

The results provide strong support for the role of attitudinal barriers in influencing decisions to seek treatment. In particular, the perceived appropriateness of treatment was discussed as influencing help-seeking decisions by the majority of participants. Beliefs about appropriateness may incorporate attitudes about both symptoms and treatment; e.g. beliefs about the type and severity of symptoms appropriate for treatment, and whether one has those symptoms. Further research is needed to investigate the factors that influence depressed individuals' beliefs about the appropriateness of treatment.

Stoic beliefs may represent a belief that treatment is not appropriate. Notably, one in four participants reported that a preference to manage symptoms themselves influenced their decision to seek treatment. Stoic beliefs are frequently reported as barriers to help-seeking for mental health problems (Andrews et al., 2001; Meltzer et al., 2000; Thompson et al., 2004). Some researchers have suggested that stoic attitudes may underlie the poor help-seeking rates amongst depressed men, who frequently report stoic beliefs (Murray et al., 2008). Little is understood about the formation of stoic attitudes, and to what extent these are influenced by the perceived costs of formal treatment. Some researchers have suggested that stoic attitudes amongst men may be created due to conflict between seeking help and the male gender role; typified by characteristics such as self-reliance, strength and self-control (Moller-Leimkuller, 2002).

3.8.7 Relevance of health behaviour models

The results of Study 1 informed the development of a theoretical model of participants' accounts of seeking help for MDD. The model represents the process

experienced by participants between symptom onset and deciding whether to seek treatment. The model posits two phases of help-seeking; (i) recognition and acceptance of symptoms, and (ii) the weighing of the costs and benefits of seeking help. The final stage of the model, decisional balance, is consistent with socio-cognitive models of health behaviour, such as the Health Belief Model (HBM; Becker, 1974) and the Theory of Planned Behaviour (TPB; Ajzen & Fishbein, 1980; Ajzen, 1991). As discussed in Chapter 2, socio-cognitive models aim to provide a parsimonious account of health behaviour and have been used widely to predict a variety of health behaviours (Armitage & Connor, 2000; Rosenstock, 2005). However, the models receive criticism for conceptualising health decisions as being based on a rational decision-making process, and several researchers have suggested that the models may be improved by incorporating non-rational influences on health behaviour (Conner & Armitage, 1998; Armitage & Conner, 2000). The results of this study suggest that, in order to apply socio-cognitive models to predicting help-seeking behaviour, the models should incorporate factors addressing individuals' identity.

The help-seeking process model also shares similarities with the Transtheoretical Model of health behaviour (TTM; Prochaska, & DiClemente, 1982; Prochaska, DiClemente, Norcross, 1992), which posits that individuals move through stages of increasing readiness to engage in health behaviour. The stages in the TTM (pre-contemplation, contemplation, preparation, action) describe a process where individuals become increasingly aware of a health problem, and then begin to consider and weigh the costs and benefits of action. Similar to participants in Study 1 who avoided their symptoms, the pre-contemplation stage of the TTM characterises a time when individuals report low awareness of a health problem and low intentions

to seek treatment. Questionnaire items measuring pre-contemplation (URICA; Pantalon et al., 2002) include items which allude to avoidance strategies; such as thought suppression (e.g. “All this talk about psychology is boring. Why can’t people just forget about their problems?” and “I have worries but so does the next person. Why spend time thinking about them?”).

The process of readiness as conceptualised by the TTM does not include reference to identity processes. However, despite wide application of the TTM, there is no clear understanding of how individuals move through stages of readiness towards intentions (Armitage & Connor, 2000; Rosen, 2000). Identity may therefore be a relevant factor for understanding readiness to seek treatment for MDD.

In conclusion, the results suggest that existing health behaviour models are not sufficient to explain help-seeking decisions for MDD. Rather, the help-seeking process model seems to provide an integration of socio-cognitive and multi-stage models of health behaviour, while building on these models to incorporate a novel factor influencing decisions to seek treatment for MDD. Further testing of the model will provide greater detail of each of the stages in the model, and how help-seeking interventions could be employed to move individuals through the process and seek treatment.

3.8.8 Implications for help-seeking interventions

The results of Study 1 provide an account of the reasons underlying poor help-seeking rates for MDD. Overall, the help-seeking model suggests that individuals move through a number of stages prior to seeking treatment for MDD. As a consequence, depressed individuals may become delayed at a number of different points in the help-seeking process. This therefore suggests that improving help-

seeking rates may require an intervention that is able to support individuals at various stages of the model. This may include targeting interventions at individuals based on an assessment of where they are in the help-seeking process. Importantly, participant accounts suggest that a large proportion of help-seeking delays are accounted for by avoidance strategies, used to cope with conflict between depressive symptoms and individuals' identity and goals. As help-seeking delays may contribute significantly to the disease and economic burden of MDD (Thompson et al., 2008), it would be useful for help-seeking interventions to support individuals to manage conflict and reach acceptance. This suggests an important extension to existing help-seeking interventions, which have mainly focussed on knowledge and attitudinal barriers to help-seeking (Gulliver et al., 2012). Little is understood about the way in which individuals begin reorganisation of identity and goal structures, and it is currently unclear how an intervention would be able to support individuals through this process. Further research is needed to explore the relationship between identity conflict and avoidance and identify the mechanisms that could be employed by interventions to lead individuals to reach acceptance.

3.9 Future research goals

The reasons underlying poor and delayed help-seeking for MDD are not well understood. Previous research has identified factors that may influence decisions to seek help for MDD and other mental health disorders. However, this approach has neglected some of the emotional processes involved in help-seeking decisions (Wills & Gibbons, 2009). Existing research has also failed to account for the reasons underlying help-seeking delays. The results of Study 1 also suggest that no single health behaviour model fully represents participants' accounts of seeking treatment for MDD. The role of identity and goal conflict in help-seeking decisions was an unexpected finding in this study, as no previous studies in the help-seeking literature have identified either factor previously. However, there is support in the wider literature for the role of identity and goals in the onset of illness and in behaviour (additional literature review, Section 3.1).

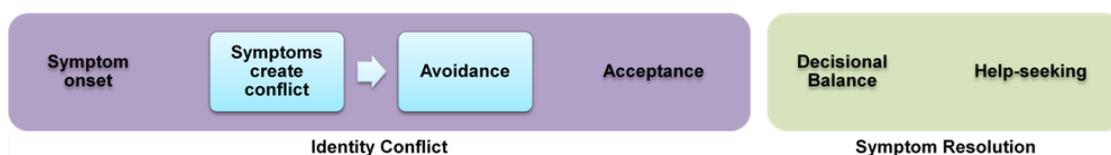
While the identity and goal processes suggested by the model are supported by theory, little research has explored these constructs in practice. Further research is needed to confirm whether identity conflict and the incorporation of depressive symptoms into identity play an important role in help-seeking for MDD. Research is also needed to investigate the factors that influence individuals' decision to seek treatment at the decisional balance stage of the model. Despite previous help-seeking research having identified a number of individual factors, further research is needed to establish the relative importance of these factors in predicting help-seeking. The integration of important factors associated with help-seeking for MDD into a model of help-seeking decisions has useful implications for the development of help-seeking interventions (Gulliver et al, 2012).

The results of Study 1 propose a preliminary model for help-seeking in depression. Further research is needed to support this model. As will be discussed in Chapter 4, testing of the model is complicated by the lack of available methods or procedures to investigate identity and goal conflict and symptom avoidance. Furthermore, little is known about the way in which individuals incorporate depressive symptoms into their identity at acceptance. Within the time-frame of this thesis, it was not possible to complete full testing of the help-seeking model proposed in Study 1. Instead, this thesis focused on providing an initial test of key components in this model, including identity conflict and acceptance, and factors associated with the decisional balance phase of the model. The findings of studies in this thesis informed recommendations for future research, as well as identified key implications of the results for help-seeking interventions. The following chapter will begin by exploring the relationship between identity and goal conflict and depressed individuals' attitudes towards their symptoms and seeking treatment.

CHAPTER 4 : IDENTITY CONFLICT AND SYMPTOM AVOIDANCE

The results of Study 1 (Chapter 3) suggested that conflict between depressive symptoms and identity contribute to delays in seeking treatment for MDD. This is due to the unwillingness to accept depression as a part of one's identity and to the subsequent use of avoidance strategies, which are used to reduce the perceived threat of symptoms to identity and goals. As a consequence, participants described experiencing delays in acknowledging their symptoms. They therefore reported that they did not perceive a need to seek treatment until they acknowledged and accepted their symptoms. Chapter 4 presents the findings of Study 2, which aimed to provide a quantitative test of the findings of Study 1 by investigating whether conflict between depressive symptoms and identity and goals predicted symptom avoidance and perceived need for treatment in depressed individuals (Figure 4.1). The report of this study is preceded by a literature review (Section 4.1) conducted to identify measures of symptom avoidance and identity and goal conflict in the existing literature that could be used to assess factors arising from the qualitative findings of Study 1.

Figure 4.1: Help-seeking process described by participants in Study 1. Study 2 tested the relationship between identity and goal conflict and symptom avoidance.



4.1 Literature review

In order to test the relationship between identity and goal conflict and symptom avoidance in a wider sample, we sought to identify measures of identity and goal conflict and a measure of symptom avoidance. A review of the literature was conducted to find existing measures that could be used to assess (i) conflict between depressive symptoms and identity and goals (Section 4.1.1), and (ii) use of avoidance coping strategies for managing current symptoms of depression (Section 4.1.2).

4.1.1 Measures of identity and goal conflict

Few studies have explored the nature and consequences of conflict between illness and identity. Studies that have done this have employed qualitative methods, and there are no studies in the existing literature that have quantitatively assessed conflict between ill health and identity. Assessing these constructs quantitatively would be useful in replicating qualitative research findings, and examining the importance of these factors in help-seeking decisions. Identity conflict has been assessed quantitatively in the wider literature. Some of this research has been to test the predictions of Self-discrepancy theory (SIT; Higgins, 1987; Higgins, Klein, & Strauman, 1985; Higgins et al., 1994), which posits that discrepancies between different domains of the self have implications for wellbeing (Carver, Lawrence & Scheier 1999; Eisenstadt & Leippe 1994; Higgins, 1987; Markus & Nurius, 1986). In these studies, identity conflict was assessed as conflict between individuals' actual, ideal, ought and feared selves. In this measure, participants are asked to list characteristics that describe each of the different domains of the self (The Selves Questionnaire; Higgins et al, 1985, 1987). Conflict between domains is then

assessed by the research team by summing the number of characteristics in each domain that are matched (i.e. contain the same characteristic), minus those that are unmatched (i.e. characteristic is an antonym of that in another domain). This procedure results in a score reflecting the extent to which different domains are consistent or inconsistent with each other. The magnitude of the discrepancy as assessed using this method is a reliable predictor of emotional states (Higgins et al., 1987). However, a limitation of this measure is that conflict is measured according to the research team's ratings, as opposed to asking participants to indicate the extent to which they perceive conflict between their identity characteristics. This approach may limit the extent to which the measure accurately represents conflict as experienced by participants. For example, the measure is unable to take into consideration the strength of conflict between characteristics.

This limitation has recently been overcome by a measure that seeks to assess conflict between multiple social identities (Sonderlund, Ryan, & Morton, in prep). Sonderlund and colleagues ask participants to provide a list of group memberships, and then select those that best represent their identity. Participants are then presented with pairs of the selected group memberships, and asked to indicate on a likert scale the extent to which they feel it is difficult to be a member of both groups at the same time. By using this approach, this measure is able to assess participants' own perceptions of conflict between identities, in addition to accounting for the personal significance of each group membership. As research indicates that individuals may be most protective of characteristics that are important to their self-view and the way they are perceived by others (Eisenstadt & Lieppe, 1994), conflict with important identity characteristics may therefore lead to greater symptom avoidance.

A number of previous studies have used participant ratings to assess conflict between goals. This research has focussed on understanding the impact of conflict between two currently pursued goals; e.g. completing a PhD and eating healthily (Dickson, Moberly, & Kinderman, 2011; Emmons & King, 1988; Riediger & Freund, 2004). In the Striving Instrumentality matrix (SIM; Emmons & King, 1988) and Intergoal Relations questionnaire (IRQ; Riediger & Freund, 2004), participants are asked to provide a list of currently pursued goals. These are subsequently presented in a matrix in which participants rate on a likert scale the extent to which pursuing each goal is incompatible with or distracts resources from the pursuit of the others (Emmons & King, 1988; Riediger, 2001; Riediger & Freund, 2004). The SIM has excellent internal reliability ($r_s = .91$) and is associated with negative affect and poorer psychological and physical wellbeing (Emmons & King, 1988). The IRQ also has excellent internal reliability ($\alpha = .94$) and has been shown to predict life satisfaction and positive and negative affect (Riediger & Freund, 2004). By allowing participants to directly rate perceived conflict between goals, these measures may provide a close representation of conflict experienced between goals.

In conclusion, no previous research has quantitatively assessed conflict between goals and identity and illness. However, there are related measures that have been used to assess conflict between identities and between goals. These measures may be adapted to assess constructs of interest in this thesis. For instance, the matrix rating format used by the SIM and IRQ to rate conflict between goals may easily be adapted to rate conflict between goals and other factors; such as symptoms of illness. Consistent with the original measures, participants could be asked to provide a list of currently pursued goals, and asked to rate the extent to which participants believe that depressive symptoms would conflict with these. This method could also

be used to assess conflict between symptoms of depression and identity. Consistent with studies of identity conflict (Higgins et al., 1985; Rathbone, Moulin, & Conway, 2008; Sonderlund et al., in prep), this measure could also account for the perceived importance of identity characteristics; for example by asking participants to provide a list of identity characteristics that best define the way they see themselves (e.g. Higgins et al, 1985, 1987; Rathbone et al., 2008). Characteristics provided by participants could then be presented in the matrix for participants to rate perceived conflict with depressive symptoms. This method may represent a useful extension of previous measures of identity and goal conflict (Higgins et al, 1985, 1987; Emmons & King, 1988; Riediger, 2001; Riediger & Freund, 2004) to explore the impact of conflict between identity, goals and other factors. Consistent with the measure of group identity conflict developed by Sonderlund and colleagues (in prep), assessing the relative importance of identity characteristics may allow us to test the prediction that the significance of identity characteristics moderates the relationship between identity conflict and symptom avoidance.

4.1.2 Measures of symptom avoidance

To test whether conflict between depressive symptoms and identity and goals is associated with the use of avoidance coping strategies to manage symptoms, we also sought to find a measure of symptom avoidance. According to the results of Study 1, this measure should assess the extent to which individuals use cognitive and behavioural avoidance strategies to reduce the perceived severity of symptoms. As discussed in Chapter 3, little of the research exploring the avoidance of internal feelings and experiences has explored symptom avoidance in mental and physical illness. No previous research has investigated the prevalence and impact of symptom avoidance in depressed individuals. Furthermore, while qualitative

research suggests that individuals use avoidance strategies in response to conflict and symptoms of ill health (e.g. Adams et al., 1997; Goldman & Maclean, 1998), to date no quantitative measures have been developed on the basis of this literature.

A review of the literature revealed two measures that assess experiential avoidance; the Acceptance and Action questionnaire (AAQ; Hayes et al., 2004) and the Multidimensional Experiential Avoidance questionnaire (MEAQ; Gamez et al., 2011). Experiential avoidance is defined as avoidance of 'internal experiences'; such as bodily sensations, emotions, and thoughts (Gamez, 2011; Hayes et al., 1996; Hayes et al., 2004). Consistent with the findings of Study 1, Hayes and colleagues suggest that experiential avoidance may result in an increase in negative thoughts and may delay beneficial action, such as engagement in health behaviour (Hayes et al., 1996). Experiential avoidance may therefore encompass the avoidance of ill health. However, the AAQ and MEAQ conceptualise experiential avoidance as a trait form of coping, rather than a method of coping initiated in response to a specific event or situation (Gamez et al., 2011; Hayes et al., 2004). As a consequence, items in the measures (e.g. "It's ok to feel depressed or anxious"; AAQ; Hayes et al., 2004) may be difficult to interpret when applied outside of a trait context

There are a number of measures that assess coping strategies in response to specific events. Two of these measures, The COPE (Carver et al., 1989) and the revised Ways of Coping revised questionnaire (WCR; Folkman & Lazarus, 1985), are widely used and assess a variety of coping strategies, including items assessing the use of avoidance. The COPE contains scales measuring denial (e.g. "I pretend that it hasn't really happened"; $\alpha = .71$) and mental disengagement (e.g. "I turn to work or other substitute activities to take my mind off things"; $\alpha = .45$). The WCR includes scales assessing distancing (e.g. "I went on as if nothing had happened"; $\alpha = .61$)

and escape-avoidance (e.g. “wished that the situation would go away or somehow be over with”; $\alpha = .72$). However, the COPE and WCR only assess a small number of avoidance strategies, which do not include the ‘bargaining’ and ‘misattribution’ strategies that formed a large component of participants’ accounts of symptom avoidance in Study 1. Given the lack of prior research in this area, it is unclear which strategies of avoidance may be most relevant for avoiding symptoms of ill health. Therefore, it is unclear to what extent scales taken from the COPE and WCR represent symptom avoidance amongst depressed individuals.

As existing measures may not fully represent the specific strategies individuals use to avoid symptoms, a measure that can account for the overall use of avoidance towards symptoms may be a useful approach. The Self-Appraisal of Illness Questionnaire (SAIQ; Marks, Fastenau, Lysaker, & Bond, 2000) was developed to measure attitudes towards symptoms amongst individuals with schizophrenia, many of whom exhibit a lack of insight towards their symptoms. The measure includes scales that assess patients’ acknowledgement of their symptoms (Presence/Outcome scale; 4 items $\alpha = .72$; e.g. “how ill do you think you are?”) and also includes a scale that assesses patients’ perceived need for treatment (6 items $\alpha = .86$; e.g. “I think my condition requires psychiatric treatment”). Based on participants’ accounts in Study 1, avoidance strategies are used to reduce the perceived severity and threat of symptoms. Therefore, greater use of avoidance may result in less acknowledgment of symptoms and reduced perceived need for treatment. By assessing these constructs, the SAIQ may therefore be a useful method for indirectly assessing symptom avoidance in depression, while overcoming some of the limitations of existing measures of avoidance.

4.1.3 Conclusion of Literature review

Surprisingly little research has explored the prevalence and impact of symptom avoidance in illness. There are a small number of scales that measure specific avoidance strategies in response to stressful events. However, it is unclear whether these scales can be used to assess the avoidance of depressive symptoms due to identity and goal conflict. As the results of Study 1 suggest that symptom avoidance strategies result in reduced acknowledgment of symptoms and lower perceived need for treatment, SAIQ scales that measure these two constructs may be a useful proxy measure to initially test the relationship between identity and goal conflict and symptom avoidance.

While there are no existing measures of conflict between symptoms of ill health and identity or goals, there are several measures in the wider literature that could be adapted to measure identity and goal conflict. Study 2 therefore sought to adapt those measures identified in the literature to test the relationship between identity and goal conflict and symptom avoidance identified in Study 1.

4.2 Method

4.2.1 Participants and Procedure

The sample for this study consisted of 105 participants (17 males and 88 females). Ages ranged from 18 to 42 years old (Mean = 21.45, SD = 4.75). Participants were recruited to an online survey study using a general university email distribution list for people interested in research participation and via a social networking website. The study was described as exploring attitudes to low mood, and adverts specified that participants do not need to have a diagnosis of depression or know anything about depression to take part. Individuals interested in participating followed a web link in advertising material to read information about the study and to consent to participate. Following consent, participants completed the PHQ9 as a screen for current depressive symptoms. All participants who scored ≥ 5 (indicating mild symptoms of depression; Kroenke et al., 2001) continued to complete all further measures online.

4.2.2 Measures

Independent Variables

Dysphoria. The Patient Health Questionnaire (PHQ9; Kroenke et al., 2001) was used as a measure of depressive symptoms. The PHQ9 is a 9-item self-report measure of depression symptom severity, and has been widely used in clinical and research settings. The PHQ9 has excellent test re-test reliability and high internal consistency ($\alpha = .89$).

Goal conflict. We developed a measure of conflict between depressive symptoms and personal goals, based on the Striving Instrumentality matrix (SIM; Emmons & King, 1988) and Intergoal Relations questionnaire (IRQ; Riediger & Freund, 2004).

Consistent with these measures, participants were asked to provide a list of ten personal goals that they were currently pursuing. These goals were subsequently presented in a matrix, and participants were asked the following question: ‘thinking about your own life, how much would being depressed affect your goal to...’.

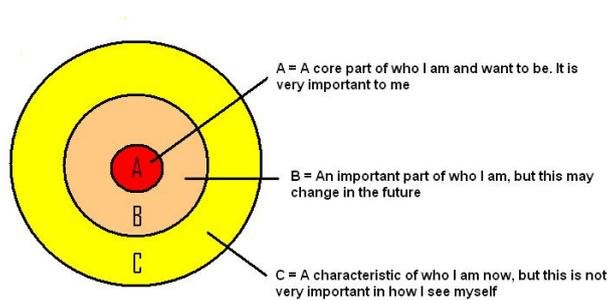
Participants then rated perceived conflict between depression and their ten personal goals. Responses were measured on a 5-point likert scale, ranging from ‘not at all’ to ‘would prevent me from achieving this’. As goals that are long term may be of higher importance to individuals (Carver & Scheier, 1982; Martin & Tesser, 1989, 1996), we also sought to explore whether the effect of goal conflict on outcome measures was influenced by whether the goal was short or long term. To do this, participants were directed to provide five short- and five long-term goals.

Identity conflict.

Conflict between depressive symptoms and identity was also measured using the adapted SIM and IRQ. Participants were asked to provide a list of identity characteristics that best defined their identity by completing ten sentences beginning with the prefix “I am”. This method has been previously used to identify identity characteristics that are personal and salient to each participant (Rathbone et al., 2008; Higgins et al., 1987), and is a variant of the Twenty-Statements Test (Cousins, 1989; Kuhn & McPartland, 1954). To investigate whether the effect of identity conflict would be influenced by the extent to which each identity characteristic was important to participants’ identity, we also assessed the relative importance of identity characteristics to the way participants saw themselves. Participants were asked to rate how integral each identity characteristic they provided was to their identity on a 3-point scale; ‘A core part of who I am and want to be. It is very important to me’; ‘An important part of who I am, but this may change in the future’; ‘A characteristic of

who I am now, but this is not very important in how I see myself'. Responses were presented to participants within a 'target' image (see Figure 4.2) to guide participants' responses.

Figure 4.2: Target image presented to participants to illustrate rating the importance of identity characteristics



To measure conflict between depression and identity, identity characteristics provided by participants were presented in a matrix and participants were asked to rate the extent to which being depressed would conflict with each. Participant responses were measured on a 5-point likert scale, ranging from 'not at all' to 'would prevent me from being this'. To investigate whether the importance of identity characteristics for the way participants saw themselves influenced the relationship between conflict and the dependent variables, we computed a second identity conflict variable; integral identity conflict. This variable was calculated using the sum product of the conflict and importance rating for each identity characteristic.

Dependent Variables

Participants completed two subscales of the Self-Appraisal of Illness Questionnaire (SAIQ; Marks et al., 2000). The 'Presence/Outcome of Illness' subscale is designed to measure patients' acknowledgement of psychiatric symptoms, while the 'Need for

Treatment' scale is designed to assess patients' perceived need for treatment. The SAIQ is a measure adapted from the Patient's Experience of Hospitalization (PEH; Carsky, Selzer, Terkelsen, & Hurt, 1992) to assess insight of psychiatric symptoms in a community setting. Items in the measure are closely related to the content of structured interviews used by clinicians and researchers to assess patient insight (Marks et al., 2000). The wording of items was adapted for use in a depressed population; reference to "condition" was replaced with "symptoms", and "psychiatric treatment" with "psychological treatment". Internal reliability for both scales was high (Need for treatment, $\alpha = 0.86$; Presence/Outcome, $\alpha = 0.72$).

4.3 Results

4.3.1 Demographics

Scores on the PHQ9 ranged from 5 to 22 (Mean = 9.30, SD = 4.18). Of the participants, 13.3% (N=14) were currently receiving treatment for depression, while 28.6% (N=30) had received treatment for depression in the past. The vast majority of participants who were currently receiving treatment for depression had also received treatment in the past (N = 13; 12.4% of total sample).

There were no significant differences between male and female participants on any variables (PHQ9; $F_{(1,99)} = 2.09$, $p = .152$; identity conflict $F_{(1,99)} = .19$, $p = .66$; short term goal conflict $F_{(1,99)} = .96$, $p = .33$; long term goal conflict $F_{(1,99)} = .27$, $p = .60$; acknowledgement of symptoms $F_{(1,99)} = .01$, $p = .94$; perceived need for treatment $F_{(1,99)} = .01$, $p = .93$; past treatment-seeking $\chi^2 = .25$ $df = 1$ $p = .62$; current treatment seeking $\chi^2 = .33$ $df = 1$ $p = .57$).

Age was significantly correlated with acknowledgement of symptoms ($r = .253$, $p = .009$) and perceived need for treatment ($r = .268$, $p = .006$), with older participants reporting greater acknowledgement of symptoms and increased perceived need for treatment. Age was not significantly correlated with any other variables (PHQ9 $r = .04$, $p = .69$; identity conflict $r = .01$, $p = .95$; short-term goal conflict $r = .01$, $p = .89$; long-term goal conflict $r = .05$, $p = .64$) and there were no significant differences in current or past treatment seeking based on age (current treatment seeking $F_{(1, 101)} = 2.23$, $p = .14$; past treatment seeking $F_{(1,101)} = .33$, $p = .57$).

4.3.2 Measures of identity and goal conflict

Descriptive measures of the identity and goal measures are presented in Table 4.1.

All variables were normally distributed.

Table 4.1

Descriptive statistics of identity and goal conflict measures

	Mean	SD	Min	Max
Identity Conflict	25.31	7.46	10	44
Integral ID conflict	60.50	20.26	24	115
Short-term goal conflict	16.14	4.76	5	25
Long-term goal conflict	16.56	4.57	5	25

Note: Integral ID conflict – identity conflict controlling for rated importance of identity characteristics

Overall, results revealed that individuals were more likely to rate the identity characteristics they provided as highly integral to the way they saw themselves (see Table 4.2).

Table 4.2

Rated importance of identity characteristics provided by participants

	%	N
A core part of who I am and want to be. It is very important to me	51.71	543
An important part of who I am, but this may change in the future	36.00	378
A characteristic of who I am now, but this is not very important in how I see myself	14.19	149
	100	1050

4.3.3 Self-Appraisal of Illness Questionnaire

We conducted a factor analysis on the two subscales of the Self-Appraisal of Illness Questionnaire (SAIQ) using principal axis factoring. Principal axis factoring is

indicated in studies with smaller N¹ (de Winter & Dodou, 2011). As we anticipated that acknowledgement of depressive symptoms and perceived need for treatment would be correlated, direct oblimin rotation was used. Examination of the Kaiser-Olkin-Meyer (KMO = .892) and Bartlett's test of sphericity ($\chi^2 = 733.73$, $p < .001$) indicate a high degree of common variance between the variables and supports the use of factor analysis with this data.

Two primary factors with eigenvalues > 1.0 were extracted from the data, which together explained 70.75% of the variance. The first factor explained the greatest proportion of variance (60.23%; eigenvalue = 6.02), and included the items 'do you believe treatment for your symptoms to be necessary' (.840); 'if you do not receive treatment, how will your symptoms change' (.844); 'I can gain a lot from being in treatment' (.728); 'if I don't access treatment, I would do fine*' (.779); and 'I think my symptoms require psychological treatment' (.869). Although the items differ slightly from those included in the original SAIQ subscale, this factor was labelled 'Perceived need for treatment'. This scale was found to have excellent internal reliability ($\alpha = .92$). The scale was coded so that higher scores represent greater perceived need for treatment.

The second factor explained 10.53% of variance (eigenvalue = 1.05), and included the items 'I think my symptoms will go away by themselves' (.501); 'there's no doubt in my mind that my symptoms will go away' (.370); 'I have symptoms of a mental health problem' (.798); 'how ill do you think you are' (.760); 'how would you feel about feedback that you are depressed' (1.00). This factor was labelled 'Acknowledgement of symptoms', and also had excellent internal reliability ($\alpha = .84$).

¹ There is a lack of clear guidance in the literature about the reliability of FA strategies with smaller sample sizes (de Winter & Dodou, 2011). Following a series of FAs, de Winter & Dodou report that while max likelihood is a robust strategy, PAF is more reliable than max likelihood when used in smaller samples

The scale was coded so that higher scores represent greater acknowledgement of depressive symptoms.

4.3.4 Preliminary analyses

Table 4.3 presents the correlations between the main variables. Accounting for the perceived importance of identity characteristics ('integral identity conflict') did not strengthen or alter the strength of correlations between identity conflict and other key variables. As a consequence, identity conflict, without the rated importance of identity characteristics, was used for all subsequent analyses.

Neither short- or long-term goal conflict was significantly correlated with either the SAIQ subscales of acknowledgement of symptoms or perceived need for treatment. As such, goal conflict variables were not included in subsequent analyses to predict SAIQ subscales. SPSS diagnostics indicated that all VIF < 3, all tolerance statistic > .2, and the assumption of independent errors was met (Durbin Watson = 1.98–2.28).

Table 4.3

Correlations between all key variables

	1	2	3	4	5	6	7	8	9	10
1. PHQ9	-	-.05	.17	-.24*	-.14	-.14	-.11	-.02	-.48**	-.45**
2. Age		-	-.13	-.11	-.03	.04	.02	.13	-.30**	-.22
3. Gender			-	-.03	-.04	.02	.06	.00	.04	-.02
4. Past tx				-	.05	-.10	-.15	-.07	.53**	.39**
5. Identity conflict					-	.91**	.45**	.38**	-.20*	-.26*
6. Integral ID conflict						-	.40**	.34**	-.20*	-.23*
7. STgoal Conflict							-	.66**	-.14	.16
8. LTgoal Conflict								-	-.17	.14
9. Acknowledgement									-	.69**
10. Perceived need										-

Note: PHQ9 = log transformed PHQ9, Past tx – past treatment seeking, Integral ID conflict = Identity conflict x rated importance of identity characteristic, STgoal conflict = short-term goal conflict, LTgoal conflict = long-term goal conflict, Acknowledgement = SAIQ subscale Presence/Outcome of Illness, Perceived need = SAIQ subscale Perceived need for treatment

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

4.3.5 Does Identity conflict predict acknowledgement of symptoms?

A hierarchical regression analysis was used to predict participants' acknowledgement of depressive symptoms (Table 4.4). Control variables (PHQ9, age and past treatment seeking) were entered at Step 1, followed by identity conflict at Step 2. Three cases with standardised residuals greater than 2 SD from the mean were removed. The control variables explained a significant proportion of the variance in symptom acknowledgment ($F_{(3,98)} = 21.90, p < .001$). Greater acknowledgement of symptoms was significantly associated with higher depression severity, older age, and a lower likelihood of having sought treatment in the past. The addition of identity conflict significantly improved the model and the overall model was significant ($R^2 = .45; F_{(4,97)} = 20.01, p < .001$). Greater identity conflict was associated with reduced acknowledgement of symptoms.

Table 4.4

Summary of hierarchical regression analysis predicting acknowledgement of symptoms

Step	Predictor	β	t	R ²	ΔR^2
Step 1	PHQ9	.45	5.60***	.40	-
	Age	.22	2.81***		
	Past help-seeking	-.29	3.64***		
Step 2	PHQ9	.41	5.18***	.45	.05**
	Age	.24	3.12**		
	Past help-seeking	-.28	-3.60***		
	Identity conflict	-.23	-3.00**		

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

4.3.6 Does Identity conflict predict perceived need for treatment?

A hierarchical regression analysis was conducted to predict perceived need for treatment (Table 4.5). Control variables (PHQ9, age and past treatment seeking) were entered at Step 1, followed by identity conflict at Step 2. Six cases with standardised residuals greater than 2 SD from the mean were removed. The control variables explained a significant proportion of the variance in perceived need for treatment ($F_{(3,95)} = 33.45, p < .001$). Perceived need for treatment was significantly associated with greater symptom severity and a lower likelihood of having sought treatment in the past. The addition of identity conflict significantly improved the model, and the final model was significant ($F_{(4,94)} = 28.50, p < .001$). Greater identity conflict was associated with less perceived need for treatment.

Table 4.5

Summary of hierarchical regression analysis predicting perceived need for treatment

Step	Predictor	β	t	R ²	ΔR^2
Step 1	PHQ9	.56	7.60***	.51	-
	Age	.12	1.63		
	Past help-seeking	-.34	4.60***		
Step 2	PHQ9	.52	7.07***	.55	.03**
	Age	.12	1.74		
	Past help-seeking	-.32	-4.52***		
	Identity conflict	-.19	-2.67**		

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

4.4 Discussion

The aim of this study was to test whether conflict between depressive symptoms and identity and goals is associated with increased avoidance of symptoms. Using the Self-Appraisal of Illness Questionnaire (SAIQ), we hypothesised that greater identity and goal conflict would be associated with reduced acknowledgement of symptoms and less perceived need for treatment. Consistent with these hypotheses, the results indicate that identity conflict predicted the extent to which participants acknowledged the presence of symptoms and perceived a need for treatment. Further, the results revealed that this relationship was independent from the severity of participants' symptoms of depression. However, while goal and identity conflict were significantly correlated, goal conflict was not associated with either symptom acknowledgment or perceived need for treatment.

This study provides the first quantitative evidence that conflict between illness and identity may be associated with increased avoidance of depressive symptoms and reduced likelihood of seeking treatment. These results therefore support the findings of Study 1, which suggest that identity conflict may play a role in influencing help-seeking for MDD. In this study, greater conflict between symptoms and identity was associated with reduced acknowledgment of the presence of symptoms. This may reflect increased use of avoidance strategies described by participants in Study 1, which were used to reduce the perceived severity of symptoms. As a consequence, these strategies also resulted in lower perceived need for treatment. Perceived need for treatment is a predictor of actual help-seeking behaviour (Lin & Parikh, 1999), and is an essential part of the help-seeking process (Mojtabai et al., 2002; Veroff, 1981). These findings

therefore provide further support that identity conflict may significantly contribute to help-seeking delays for MDD.

It was also interesting to note that depression severity was not correlated with identity or goal conflict, suggesting that higher symptom severity does not necessarily lead to increased perceived conflict between depressive symptoms and identity and personal goals. These findings may indicate that depressive symptoms themselves, independent from their severity, have meaning for individuals that may threaten their identity and goals. This leads to the possibility that even mild symptoms of depression may lead to identity and goal conflict. These results therefore provide evidence to suggest that identity conflict may influence symptom acknowledgement and perceived need for treatment completely independently from levels of depression severity.

Interestingly, goal conflict was not associated with acknowledgement of depressive symptoms or perceived need for treatment in this sample. However, while participants in Study 1 discussed how conflict between symptoms and personal goals was associated with emotional distress, conflict with identity emerged as the stronger influence on avoidance coping. In this study, goal and identity conflict were significantly correlated; which may reflect that depressive symptoms conflict with both identity and goals, but that identity and goal conflict may have a different relationship with symptom avoidance. Findings that identity conflict may be more strongly associated with the avoidance of symptoms are consistent with identity and goal theories. Identity is of high personal importance, with important implications for maintaining self-esteem and wellbeing (Powers, 1973). Studies indicate that threats to identity may therefore lead to heightened distress compared with less important goals (Eisenstadt &

Lieppe, 1994). Furthermore, goal theories predict that individuals may be less likely to disengage from goals that are of greater personal importance, and may therefore be more likely to use avoidance strategies in response to conflict (Carver & Scheier, 1982; Powers, 1973).

It was interesting to note that accounting for the perceived importance of identity characteristics did not influence the extent to which conflict with symptoms impacted on symptom acknowledgement and perceived need for treatment. This may reflect the overall importance of identity to individuals, and suggests that conflict between depressive symptoms with any aspect of identity may influence individuals' response to their symptoms. This is consistent with findings that the majority of identity characteristics provided by participants were rated as a 'core' part of their identity.

4.4.1 Limitations

This study represents the first test of the SAIQ and the adapted identity and goal conflict measures to investigate the impact of identity and goal conflict on responses to symptoms of MDD. Although these measures have been derived from related areas of research, further research is needed to replicate these findings to investigate the reliability of these findings.

Furthermore, this is a cross-sectional study investigating the relationship between identity and goal conflict, acknowledgement of depressive symptoms, and perceived need for treatment. Further research that employs a longitudinal or experimental design is needed to investigate a causal relationship between conflict and acknowledgement of symptoms.

CHAPTER 5 : INTENTIONS AND CURRENT TREATMENT SEEKING FOR MDD

In testing the help-seeking model developed in Study 1, the results of Study 2 suggested that conflict between depressive symptoms and identity is associated with symptom acknowledgement and perceived need for treatment. The findings also suggest that measures adapted for Study 2 may be able to assess concepts identified in Study 1 and may be used in future studies to replicate and investigate further the role of identity conflict in help-seeking for MDD. The results of Study 1 also suggested that individuals reach a point of acceptance prior to seeking treatment. At this stage, participants made concessions in their identity, and began to depressive symptoms into the way they saw themselves. Help-seeking for MDD was also dependent on a decisional balance process; where individuals consider various barriers to treatment. In Study 3, I sought to examine whether the incorporation of depressive symptoms into identity was associated with a higher likelihood of seeking treatment for MDD. I also sought to investigate the extent to which individual factors associated with the decisional balance stage of the help-seeking process influence help-seeking decisions.

While a large number of individual factors have been associated with help-seeking for mental health difficulties, little research has tested the relative importance of these factors. Refining this list of factors, and identifying strong predictors of help-seeking, is important in the development of an established theory of help-seeking for MDD. As discussed in Chapter 2, there are a number of existing health behaviour models that incorporate factors that evidence suggests are associated with help-seeking for mental health difficulties, and have also been applied to predicting a broad range of health behaviour. In

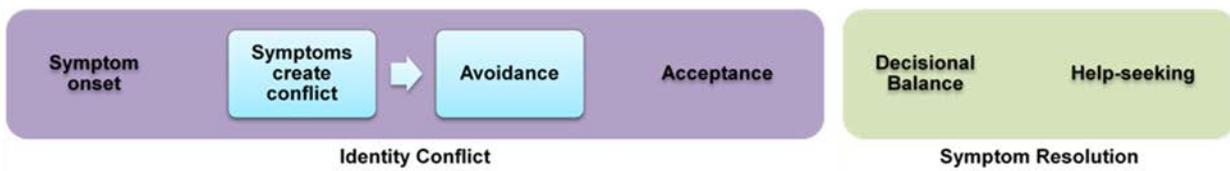
Study 3, I investigated whether factors included in two established models of health behaviour could account for decisions to seek treatment for MDD. Based on the results of Study 1 and in addition to previous research that has identified a relationship between incorporating symptoms of illness into identity and help-seeking (Adams et al., 1997; Baumgartner, 2007), I also extended these models to incorporate a measure of identity acceptance. The study has two primary aims (i) to examine whether the Theory of Planned Behaviour (TPB) and Health Belief Model (HBM) extended to incorporate identity acceptance was able to predict intentions to seek treatment for MDD (Section 5.1.) and (ii) to examine whether the TPB and HBM extended to incorporate identity as a depressed person was able to predict current treatment seeking in depressed individuals (Section 5.9; see Figure 5.1). A publication of the analyses for the first of these aims has been submitted and is currently under review at the British Journal of Clinical Psychology. The submitted manuscript is presented below, followed by an additional results and discussion section that was excluded from the submitted manuscript due to word constraints. The analyses addressing aim (ii) are presented thereafter.

Figure 5.1: The help-seeking process as described by participants in Study 1. Study 3 tested the relationship between identity acceptance, reasoned decision-making processes and help-seeking for MDD.



A secondary aim of this study was to replicate the findings of Study 2, examining the relationship between identity conflict and symptom avoidance and perceived need for treatment (see Figure 5.2). These analyses are presented at the end of this chapter (Section 5.13.).

Figure 5.2: Study 2 results indicate that greater identity conflict was associated with reduced acknowledgement of symptoms and perceived need for treatment. Study 3 sought to replicate these findings



5.1 Identity, health behaviour models and intentions to seek treatment

Developing a unified model of help-seeking for Major Depressive Disorder;

Identity, health beliefs and attitudes to treatment

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5.2 Abstract

Objectives: Efforts to increase access to evidence based treatments for depression are undermined by poor help-seeking rates (Bebbington et al., 2000). This study sought to develop a model predicting intentions to seek treatment using socio-cognitive factors of health behaviour and identity.

Design: Cross-sectional online study with 400 dysphoric individuals not currently receiving treatment for depression

Methods: 400 individuals who scored ≥ 5 on the PHQ9 and not receiving treatment for depression were recruited using online sampling. Using structural equation modelling (SEM), a model of factors that influence intentions to seek treatment for depression was developed drawing on the Theory of Planned Behaviour (TPB; Ajzen, 1988, 1991) and the Health Belief Model (HBM; Janz & Becker, 1984; Rosenstock, 1974) extended to incorporate identity.

Results: A unified model comprising including factors from both the TPB and HBM, in addition to identity was related to intentions to seek treatment for depression and was an excellent fit to the data.

Conclusions: A unified model including factors from the HBM, TPB and identity predicts intentions to seek treatment for depression. Our results suggest that efforts to increase treatment engagement should seek to manage beliefs about symptoms and treatments for depression, and address the way in which identity influences treatment engagement.

Clinical implications of the work

- * The development of a parsimonious model of help-seeking for depression
- * Identifies modifiable socio-cognitive factors associated with decisions to seek treatment for depression
- * Provides evidence that identity is an important factor in help-seeking decisions for depression

Cautions or limitations of the study.

- * A cross-sectional design precludes directional conclusions
- * The unified model accounts for intentions to seek treatment. Further research is needed to establish whether these factors also predict help-seeking behaviour.

5.3 Introduction

Major Depressive disorder (MDD) is a highly prevalent mental health disorder (Hasin, et al., 2005), marked by a pattern of chronicity and relapse over the life course (Gilmer et al., 2005; Keller & Shapiro, 1981). The World Health Organization (WHO) has projected that MDD will become the second leading cause of disability in the world by 2020 (Murray & Lopez, 1996). Individuals with MDD experience significant reductions in daily functioning, with evidence suggesting that reductions in quality of life begin immediately following the transition between normal and low mood (Nuevo et al., 2010). Evidence-based treatments for MDD can reduce the severity and chronicity of the disorder (Persons et al., 1996; Shea et al., 1992; Williams et al., 2000). However, efforts to treat MDD are undermined by poor help-seeking rates, with less than two thirds of individuals with MDD seeking treatment (Bebbington et al., 2000). Furthermore, half of those seeking treatment will wait a year or more following symptom onset before doing so (Kessler, et al., 1998). Despite the prevalence of untreated depression (Thompson, et al., 2008), there has been little research about factors associated with help-seeking decisions for depression. Identifying factors related to help seeking may improve our understanding of decisions to seek treatment for depression and inform the way in which services can seek to increase treatment uptake.

Health behaviour models provide a potentially useful framework for understanding decisions to seek treatment for MDD (Gulliver et al., 2012; Henshaw & Freedman-Doan, 2009). Decisions to engage in health behaviour have been conceptualised as informed by value-expectancy judgements, influenced by a number of socio-cognitive factors (e.g. attitudes and beliefs).

Many of these factors are present in major theories of health behaviour, which have been applied widely to understand and predict health behaviours. These models are also useful as they can guide the development of health interventions (Armitage & Conner, 2000; Conner & Norman, 2005). Two of the most established health behaviour models, the Health Belief Model (HBM: Becker & Maiman, 1980; Janz & Becker, 1984; Rosenstock, 1974; Rosenstock, Strecher, & Becker, 1988) and the Theory of Planned Behaviour (TPB; Ajzen, 1988; Ajzen, 1991; Fishbein & Ajzen, 1975), have received empirical support for predicting decisions to seek help for health and general psychological problems (Akey, Rintamaki, & Kane, 2013; Halgin et al., 1987; Hunter et al., 2003; Moges & Amberbir, 2011; Schomerus et al., 2009; Smith et al., 2008; Waite & Killian, 2008). However, as yet neither model has been uniformly applied to depression, despite recommendations in the field (Gulliver et al., 2012; Henshaw & Freedman-Doan, 2009). Existing research exploring individual factors associated with the TPB and HBM have provided initial support for the validity of these factors as applied to help-seeking for MDD. For example, attitudes towards depressive symptoms and treatment have been associated with increased willingness and decisions to seek treatment for MDD (Andrews, Issakidis, & Carter, 2001; Bell et al., 2011; Cash, Kehr, & Salzbach, 1978; Christiana et al., 2000; Cramer, 1999; Meltzer et al., 2003; Thompson, Hunt, & Issakidis, 2004). Furthermore, decisions to seek treatment for depression have been associated with perceived social support (Chadda, et al., 2001; Reust, et al., 1999), and perceived self-efficacy to seek treatment (Chadda et al., 2001; Christiana et al., 2000; Fox, et al., 2001; Mojtabai, 2005; Thompson et al., 2004). Further research is needed, however, to establish whether the TPB or

HBM, when tested comprehensively, provides a useful model of help-seeking decisions for MDD.

There may be additional factors that also affect help-seeking for MDD that have been previously unconsidered in the context of health behaviour models.

Consistent with this approach, theorists have suggested that health behaviour models may be extended to incorporate theoretically supported constructs relevant to the health behaviour being studied (Conner & Armitage, 1998). In a previous qualitative study on help-seeking in depression, identity emerged as a strong factor in the help-seeking process (Farmer et al., 2012). In that study, decisions about seeking treatment for depression only occurred when individuals began to incorporate their symptoms into their identity. A similar process has been noted in the wider literature which suggests that the onset of illness has significant implications for the way individuals see themselves (Arman & Rehnsfeldt, 2003; Baumgartner, 2007; Baumgartner & David, 2009; Bury, 1982). In line with findings that individuals are more likely to engage in behaviour when it is consistent with their identity (Biddle et al., 1987; Oyserman & Destin, 2010; Pesseau et al., 2010; Riediger & Freund, 2004), the ability to incorporate illness into identity has been associated with adaptive responses to illness, including treatment seeking (Carricaburu & Pierret, 1995; Goldman & Maclean, 1998; Mathieson & Stam, 1995; Tilden, et al., 2005; Yoshida, 1993). Furthermore, resistance to incorporating symptoms into identity is associated with treatment seeking delays for depression (Farmer et al., 2012). Previous research in health domains has included identity as an extension of the TPB (e.g. Charng, et al., 1988; Fielding, et al., 2008), and has demonstrated that identity may independently predict health behaviour over and above some socio-cognitive factors (Conner & Armitage, 1998). We therefore sought to

extend the TPB and HBM models by incorporating and examining the impact of identity on help-seeking intentions for depression.

Lastly, in testing the utility of the TPB and HBM it is important to note that both models have a number of overlapping constructs. Several researchers have suggested that these models may therefore be combined to create a parsimonious model of health behaviour that accounts for similarity amongst the model constructs (Armitage & Conner, 2000; Gerend & Shepherd, 2012; Noar & Zimmerman, 2005). For example, the TPB posits that intentions to seek help will be influenced by personal attitudes about the outcome of the behaviour. Similarly, the HBM posits that beliefs about the benefits of behaviour, as well as beliefs about the need for the behaviour (i.e. the perceived risk of illness), influence its likelihood. Perceived risk of illness is calculated as a function of beliefs about the severity of illness and the likelihood that illness will develop (or, in cases where illness is already present, the extent to which the illness is recognised; (Becker & Maiman, 1980; Henshaw & Freedman-Doan, 2009). Both models also incorporate beliefs about perceived self-efficacy for performing the behaviour; the HBM distinguishes between self-efficacy and perceived barriers to the behaviour, while the TPB includes a measure of perceived behavioural control, which is theorised to comprise self-efficacy and perceived control over the behaviour. Testing a combined model may account for these similarities while also drawing on the unique features of the two models. For instance, unlike the HBM, the TPB posits that perceived normative attitudes will influence health decisions. The TPB also distinguishes between descriptive norms (whether others engage in the behaviour) and subjective norms (beliefs about whether significant others support the behaviour). The HBM uniquely posits that behaviour will be more likely when individuals experience cues-to-action;

events that remind them to engage in the behaviour. Thus, in addition to exploring the relative efficacy of the TPB and HBM, direct comparison allows researchers to combine the two models in order to account for overlapping constructs (Armitage & Conner, 2000; Noar & Zimmerman, 2005). This therefore allows for the development of a parsimonious model of decisions to seek treatment for MDD, while drawing on two dominant theories of health behaviour.

Using structural equation modelling, this study aimed to directly compare the utility of two established models of health behaviour in predicting intentions to seek treatment for depressive symptoms. We also added to the literature by extending the two models to incorporate identity, a theoretically meaningful predictor of help-seeking intentions in depression. Lastly, we sought to identify independent predictors of intentions to seek help for depression by examining a combined model using constructs from both the HBM and TPB simultaneously.

5.4 Method

5.4.1 Participant Recruitment and Procedure

Participants were recruited online using adverts placed on social networking websites and online forums, and circulated using email distribution lists to staff and students at UK universities and two district councils. Given that people with depression may fail to recognise or acknowledge the cause of their symptoms (Farmer et al., 2012; Thompson et al., 2008), adverts specified that the study was interested in attitudes to depression and low mood. Those interested in participating in the study followed a web link in the adverts to read information about the study and consent to participate. Following consent, participants completed a screening questionnaire to assess current symptoms of depression and current treatment seeking. Individuals who reported a PHQ9 score ≥ 5 (indicating mild and above symptoms of MDD; Kroenke, et al., 2001) were directed to complete all measures online. This study reports the data from participants not currently receiving treatment for depression.

5.4.2 Measures

Screening

Depressive Symptoms. The Patient Health Questionnaire (PHQ9; Kroenke, et al., 2001) was used as a measure of depressive symptoms. The PHQ9 is a 9-item self-report measure of current symptoms of depression, and has been widely used in clinical and research settings. The PHQ9 has excellent test re-test reliability and high internal consistency. Alpha for the PHQ-9 in this study was $\alpha = .89$.

Treatment use. Treatment use was measured with a single item; 'Are you currently receiving professional treatment for depression? (E.g. medication, counselling, psychotherapy)'. Participant responses were measured as a yes/no response.

Intentions to Seek Treatment

A 5-item scale was used to assess participants' intentions to seek help for depression. This included two items measuring general help-seeking intentions ('How likely are you to seek treatment for low mood in the next 6 months?' and 'I intend to seek help for my low mood') and three items pertaining to specific intentions to use common treatment routes for depression ('I intend to speak to my doctor about my low mood', 'I intend to take medication for my low mood', 'I intend to go to counselling for my low mood'). Participants indicated their agreement to the items on a 7-item scale, ranging from 'no intention' to 'strongly intend'. Internal reliability for the scale was high ($\alpha = .86$).

Independent Variables

Demographics. Participants were asked to provide their age and gender, and complete measures of current depressive symptoms and help-seeking behaviour.

Previous help-seeking. Past help-seeking was measured with a single item; 'Have you received professional treatment for depression in the past? (E.g. medication, counselling, psychotherapy)', responses were measured as a yes/no response.

Identity. Identity was measured using a 4-item scale developed by the authors based on previous measures of identity (Fielding et al., 2008; Jones et

al., 2010; Sparks & Guthrie, 1998). Items were intended to represent the extent to which participants saw having depression as being a part of their self-identity. Items included 'I am someone who has problems with low mood', 'I see myself as a person who has low mood', 'I am not the kind of person who has difficulties with my mood' and 'I am not the kind of person who needs help with my mood'. Participants indicated their agreement to items on a 6-item scale, ranging from 'strongly disagree' to 'strongly agree'. The scale has excellent test-retest reliability (.92) and demonstrated high internal reliability in this study ($\alpha = .77$).

Theory of Planned Behaviour and Health Belief Model. Specific items assessing TPB and HBM constructs were adapted for help-seeking in depression following guidance from previous research (TPB; Ajzen, 1991; Francis et al., 2004; HBM; Becker & Maiman, 1980; Henshaw & Freedman-Doan, 2009; Janz & Becker, 1984; Rosenstock, 1974). The HBM benefits and barriers constructs are designed to be flexibly adapted to the relevant behaviour under study. Specific item wording was oriented for participants to give their views on 'seeking help for low mood'. Items were informed by a qualitative study of help-seeking decisions for MDD (Farmer et al., 2012). Susceptibility in the HBM was originally developed to measure perceived risk of developing an illness in currently healthy individuals, and later reconceptualised to include acceptance of the diagnosis in individuals who have been diagnosed (Becker & Maiman, 1980). In this sample susceptibility was adapted to reflect the perceived likelihood that symptoms are caused by MDD. Cues to action is the least studied factor of the HBM (Harrison et al., 1992; Henshaw & Freedman-Doan, 2009) and there is no standardised measure of this construct. For the purposes of this study, we adopted a measure assessing cues to action used by Henshaw and colleagues (Henshaw, Flynn, O'Mahen, & Freedman-Doan,

unpublished) to assess cues relevant for seeking treatment for perinatal depression. Participants were asked to indicate whether various events (e.g. 'I saw a news programme or read an article about depression' and 'a friend or family member spoke to me about my symptoms') had occurred to them within the previous 3-months. For each event experienced, participants were asked to indicate to what extent they believed this event had influenced their thoughts about whether to seek treatment for their low mood. The product of cue frequency and impact was computed for each event, and a mean score across all events was computed for each participant. Table 5.1 provides example items of all TPB and HBM constructs.

Table 5.1

Example items used to assess Theory of Planned Behaviour (TPB) and Health Belief Model (HBM) constructs

Construct	Number of items	α	Example item (response options)
<u>Theory of Planned Behaviour</u>			
Attitude	9	.90	Seeking treatment for depression is... (1 = bad – 7 = good)
Subjective norm	5	.89	People who are important to me want me to seek help for my low mood (1 = strongly disagree – 7 = strongly agree)
Descriptive norm	1	-	Other people with low mood seek help from their GP for their low mood' (1 = strongly disagree – 7 = strongly agree)
Perceived behavioural control	6	.81	To what extent is seeking help for your low mood influenced by your own behaviour? (1 = extremely small – 6 = extremely large)
<u>Health Belief Model</u>			
Severity	9	.80	My current mood will interfere a great deal with my normal activities (1 = strongly disagree – 7 = strongly agree)
Susceptibility	3	.66	My current mood makes is quite likely that I have depression (1 = strongly disagree – 7 = strongly disagree)
Benefits	3	.94	If I seek treatment for my low mood my quality of life will improve (1 = not at all true – 4 = exactly true)
Barriers	9	.81	Do what extent would the following barriers prevent you from seeking help for your low mood; lack of time (1 = not at all true – 5 = exactly true)
Self-efficacy	1	-	I am confident that I could seek help for depression (1 = strongly disagree – 5 = strongly agree)
Cues to action	8	.67	A friend or family member spoke to me about my symptoms (0 = never, 1 = once, 2 = more than once). To what extent did this influence your decision to seek treatment for your low mood (1 = strongly discouraged – 5 = strongly encouraged)

5.4.4 Data analytic strategy

Structural Equation Modelling (SEM) was used to assess the utility of the HBM, TPB and identity in predicting intentions to seek treatment for depression. We also estimated a combined model that predicted intentions to seek treatment using identity and factors from TPB and HBM simultaneously. SEM enables the researcher to explore multiple relationships between observed variables as well as assessing the overall fit of the model to the data. SEM can be used in both a confirmatory and exploratory sense in order to test and develop models that are theoretically grounded and provide a good statistical fit to the data (Kline, 1998). SEM analyses were conducted using AMOS (Arbuckle, 2006). Analyses were conducted using Maximum Likelihood estimation.

Fit of the models was assessed with Chi-square, root mean square error of approximation (RMSEA; values < .05 indicate close fit, values <than .08 indicate reasonable fit; (Hu & Bentler, 1999) and the normed fit index and comparative fit index (NFI; CFI; adequate fit > .90; excellent fit > .95; Bentler, 1990; Bentler & Bonett, 1980; Hu & Bentler, 1999). We used Akaike's Information Criterion (AIC) in order to compare the relative fit and efficacy of each of the models in predicting intentions. AIC is a method of ranking non-nested models, with lower values indicating improved model fit (Kline, 1998).

5.5 Results

5.5.1 Demographics

A total of 1,027 participants completed the depression screen. Of these 56% (N = 580/1027) scored ≥ 5 on the PHQ9, and met the study inclusion criteria. Of these participants, 28% (161/500) who were currently receiving treatment for depression and 3% (19/580) who failed to disclose their treatment status were also excluded from the study. This resulted in a sample of 400 dysphoric participants who were not receiving treatment for depression. The majority of participants were female (83%; N = 329/398); 2 participants did not disclose their gender. The mean age of participants was 26.38 years (SD = 9.81).

5.5.2 Model Comparisons

Correlations between all variables are presented in Table 5.2. Age, depression severity and past help-seeking were all significantly correlated with intentions, and were included in all analyses.²

² SPSS diagnostics indicated that all VIF < 3, all tolerance statistic > .2, and there were no standardised residuals with an absolute value > .3

Table 5.2

Main variable correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. PHQ9	-	-.022	-.009	.145**	.251**	-.234*	.213**	-.093	-.271**	.403**	.298**	.253**	-.049	-.200**	.207**	.415**
2. Age		-	-.050**	.328**	.177**	.012	.067	.074	.078	.099*	.041	-.044	.044	.171**	.103*	.124*
3. Gender			-	-.018	-.029	.098	-.092	.012	.010	-.034	-.073	.022	-.037	.065	.031	-.036
4. Past tx				-	.292**	.045	.304**	.031	.048	.368**	.190**	.033	.040	.196**	.281**	.398**
5. Intention					-	.002	.486**	.003	.042	.440**	.240**	.082	.278**	.057	.345**	.376**
6. Attitude						-	.017	.096**	.554**	-.138**	-.240**	-.410**	.325**	.444**	.044	-.157**
7. Subj Norm							-	.060	-.170**	.497**	.402**	.154**	.176**	-.046	.330**	.351**
8. Desc Norm								-	.100	-.039	.041	-.092	.119*	.076	.047	.009
9. PBC									-	-.117*	-.228**	-.485**	.49**	.614**	.024	-.162**
10. Suscept										-	.429**	.165**	.039	-.071	.340**	.574**
11. Severity											-	.400**	.069	-.128	.310**	.361**
12. Barriers												-	-.017	-.432**	.051	.179**
13. Benefits													-	.158**	.111*	-.001
14. Self-efficacy														-	.072	-.119*
15. Cues															-	.313**
16. Identity																-

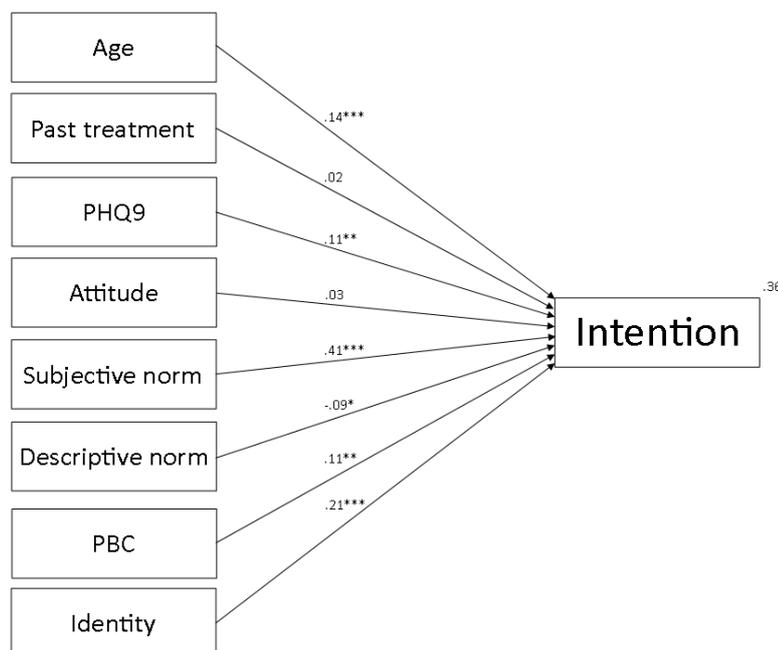
Note: Past tx = Having sought treatment in the past, Subj Norm = subjective norm, Desc Norm = descriptive norm, PBC = perceived behavioural control, Suscept = Susceptibility, Cues = Cues to action. All calculations including PHQ9, age, gender, past tx, intention, attitude, self-efficacy, cues to action and identity were conducted using Spearman's correlation coefficient. All remaining calculations were conducted using Pearson's correlation coefficient.

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

Theory of Planned Behaviour

To test the fit of the TPB adapted to include identity in predicting intentions to seek help for depression symptoms, we first estimated a model in which attitude, subjective norm, descriptive norm, perceived behavioural control and identity were specified to predict intentions to seek treatment alongside the demographic variables (age, depression severity, past help-seeking). The model provided a good fit to the data ($\chi^2(12) = 28.48, p = .005$; RMSEA = .059, NFI = .954, CFI = .971; AIC = 112.479; ECVI = .282; $R^2 = .36$). Significant predictors of intentions to seek treatment included subjective norm, PBC, and identity. In this model, attitude and past help-seeking did not independently predict intentions (Figure 5.3).

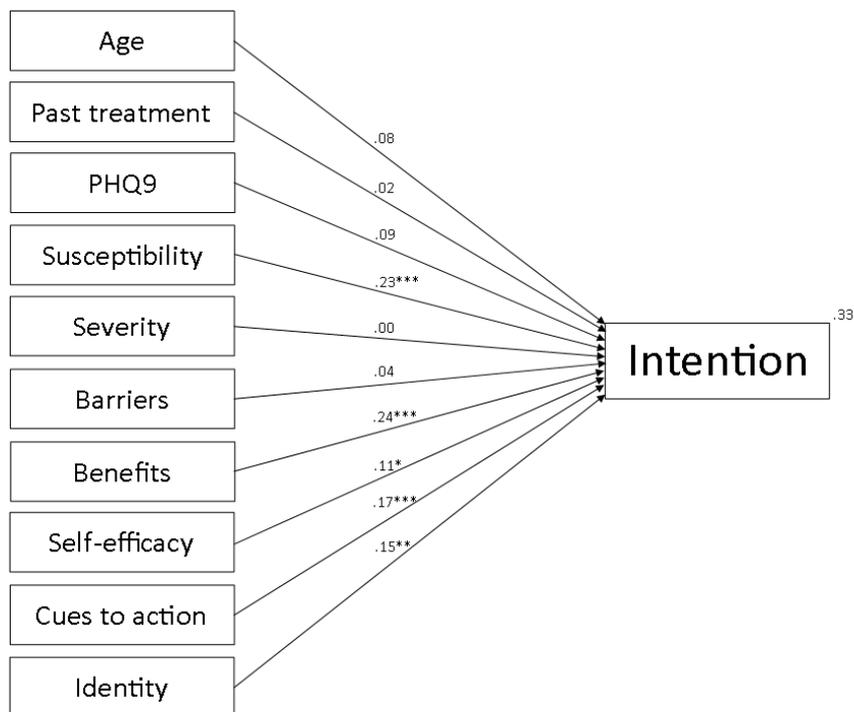
Figure 5.3: Standardised estimates of the TPB and identity constructs in predicting intentions to seek treatment for MDD



Health Belief Model

To test the HBM adapted to include identity, we first estimated a model in which susceptibility, severity, benefits, barriers, self-efficacy, cues to action and identity were specified to predict intentions to seek treatment alongside demographic variables (Figure 5.4). The model provided a good fit to the data ($\chi^2(15) = 50.09, p < .001$; RMSEA = .077, NFI = .946, CFI = .960), although was a slightly poorer overall fit compared to the TPB (AIC = 174.09; ECVI = .436; $R^2 = .33$). Significant predictors of intentions to seek treatment were susceptibility, benefits, self-efficacy, cues to action and identity. In this model, age, past treatment, depression severity, severity, and barriers did not independently predict intentions.

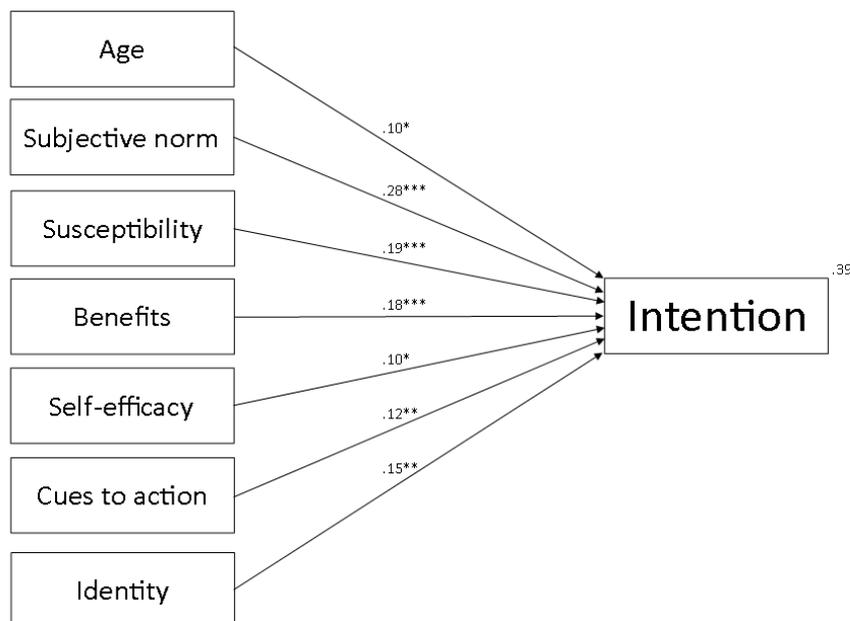
Figure 5.4: Standardised estimates of the HBM and identity constructs in predicting intentions to seek treatment for MDD



Combined Model

To test the combined effect of the TPB, HBM and identity, we estimated a model in which intentions to seek treatment were predicted by demographic factors, identity, TPB and HBM factors simultaneously. Non-significant pathways in the model were identified systematically and constrained until all pathways in the model were significant. The final model provided an excellent fit to the data ($\chi^2(6) = 9.22$, $p = .161$; RMSEA = .037, NFI = .984, CFI = .994), and was an improved fit compared to either of the separate models (AIC = 85.22, ECVI = .214; $R^2 = .39$). Significant predictors in the model were age, subjective norm, susceptibility, benefits, self-efficacy, cues to action and identity (Figure 5.5).

Figure 5.5: Unified model: Standardised estimates of TPB, HBM and identity constructs in predicting intentions to seek treatment for MDD. Non-significant pathways have been removed.



5.6 Discussion

The current study advances research in health behaviour in three ways: it developed and tested models of help seeking intentions in depression, compared two widely used theories of health behaviour, and examined the inclusion of identity help seeking models for depression. The results demonstrated that both the TPB and the HBM were good fits with the data, the TPB outperformed the HBM, and the unified model provided the best overall fit with the data. Significant predictors of intentions to seek help for depression included subjective norm, susceptibility, self-efficacy, benefits and cues to action. The results also demonstrated that identity was a significant predictor of help-seeking intentions, suggesting that a factor that captures the emotional and cognitive impact of depression on an individual's overall sense of self is an important factor in help-seeking models of depression.

Direct comparison of the models revealed that the TPB was a moderately improved fit to the data, as assessed using AIC. However, the AIC criterion is partially dependent on the number of manifest variables and may favour the TPB due to it having fewer variables. Rather, analyses revealed that the TPB only contained one strong predictor (subjective norm), in comparison to several moderate predictors within the HBM. The combination of the two models, which constrained unrelated factors and accounted for an overlap between self-efficacy and PBC, provided the best fit to the data as indicated across all of the fit indices and AIC. Overall, the findings suggest that health behaviour models may provide a good foundation for the understanding of help-seeking for MDD. However, the combination of models to remove overlapping and unrelated

constructs, while drawing on two dominant theories of health behaviour, provides a useful approach to the application of health behaviour models.

The findings also demonstrated the utility of extending models to incorporate theoretically relevant factors in predicting intentions to engage in health behaviour. Building on previous research (Farmer et al., 2012), the results of this study provides empirical support for the importance of identity in help-seeking intentions for depression; individuals who had adapted their identity to incorporate the identity of a depressed individual had stronger intentions to seek treatment. These results therefore contribute to growing evidence that assimilating illness into identity influences individuals' responses to illness (Carricaburu & Pierret, 1995; Goldman & Maclean, 1998; Mathieson & Stam, 1995; Tilden et al., 2005; Yoshida, 1993). However, as chronic illness is most associated with negative implications for the self (for example seeing the self as sick, out of control, or weak; e.g. Baumgartner, 2007; Farmer et al., 2012; Fife, 1994, although see Fairburn, Shafran, & Cooper, 1999), there is evidence that individuals may be resistant to incorporating negative characteristics into their identity (Adams, et al., 1997; Farmer et al., 2012; Goldman & Maclean, 1998; Tilden et al., 2005). Very little empirical research has explored precisely how individuals adapt their identity in response to negative experiences. However, qualitative data suggests that delays in doing this leads to maladaptive coping and delays in seeking treatment (Adams et al., 1997; Farmer et al., 2012; Goldman & Maclean, 1998; Mathieson & Stam, 1995; Tilden et al., 2005). Further research is needed to explore the way in which individuals make changes to identity to incorporate depressive symptoms prior to seeking treatment. In particular, it would be useful for studies to employ a longitudinal

design to examine whether changes in identity predict decisions to seek treatment for MDD.

It is interesting to note that attitudes towards help-seeking did not predict intentions to seek treatment for MDD in this study. Given the breadth of evidence that suggests that attitudes towards depression and treatments are strongly associated with willingness to seek treatment (e.g. Andrews et al., 2001; Bell et al., 2011; Thompson et al., 2004), this finding may be a result of the way attitudes are conceptualised and measured by the TPB. 'Attitude' in the TPB is a measure of generalised attitudes towards whether seeking treatment for MDD is a positive behaviour. However, it may be that attitudes towards seeking treatment for depression vary depending on whether individuals are endorsing help-seeking for others or for themselves. For example, some studies indicate that individuals may be more likely to seek help on behalf of a friend than for themselves (Rickwood, et al., 2005). Therefore, a measure of attitude that refers to personal help-seeking may be a better predictor of intentions to seek treatment than attitude as defined in the TPB.

Further, the results indicated that perceived barriers to treatment were not associated with higher intentions to seek treatment, while self-efficacy was. These results suggest that in this model, general confidence in one's ability to seek treatment is more influential in the formation of help-seeking intentions than the expectation of specific barriers. It may be that the barrier items included in this study, which were based on common barriers to seeking treatment discussed in a previous qualitative study (Farmer et al., 2012), were not fully representative of the barriers to treatment faced by individuals with depression. However, these results are broadly consistent with previous research that has

shown mixed support for the role of structural barriers in affecting help-seeking for mental disorders (Thompson et al., 2004). Future research is needed to explore the ways in which individuals form self-efficacy judgements towards seeking treatment, with findings having implications for the targeting of help-seeking interventions to increase self-efficacy.

The results provided little support for the role of age, past treatment seeking and depression severity in influencing intentions to seek treatment. Although these were significantly associated with intentions to seek treatment when considered individually, they were no longer significant when considered alongside factors in the unified model. As previous research has found that these factors predict help-seeking for depression (Andrews et al., 2001; Bebbington et al., 2000; Halgin et al., 1987), it may be that these variables influence help-seeking indirectly through other factors in the unified model. For example, correlation analyses suggest that increased depression severity is associated with increased susceptibility and higher perceived social support for seeking treatment.

5.6.1 Limitations

This is a cross-sectional study predicting intentions to seek treatment for MDD. Although intentions are thought to precede and predict health behaviour (Armitage & Conner, 2000), it is important to further test this relationship in future research. Research in other areas suggests that positive intentions may not necessarily be translated into behaviour, and that intentions may only account for 28% of the variance in behaviour (Sheeran, 2002). Further research is needed to explore the disparity between help-seeking intentions and behaviour, and examine whether the unified model is also able to account for

help-seeking behaviour. While health behaviour models are routinely used to predict health behaviour at a particular point in time (Armitage & Conner, 2000), it may be that several of the constructs affect help-seeking decisions at different times. For example, attitudes towards seeking treatment may change as illness progresses. Further, changes in identity and in the acknowledgement of symptoms may develop over time. It would therefore be useful for future studies to employ a longitudinal design to explore these relationships, in order to inform the targeting of help-seeking interventions.

Contrary to previous research, there was no difference in intentions to seek treatment between genders. However, a large proportion of participants in this study were female, and it is likely that the study had insufficient power to assess gender differences. As past research suggests that men may be less likely to seek treatment for MDD (Kessler, et al., 1981; Moller-Leimkuhler, 2002), it may be helpful for future research to employ purposive sampling to develop a greater understanding of difference in men's help-seeking decisions.

5.6.2 Conclusions

The development of a theoretical model of help-seeking for MDD has useful implications for improving understanding of help-seeking decisions, and may provide a valuable framework for the development of help-seeking interventions. The results of this study provide support for the role of identity and key facets of the TPB and HBM in predicting intentions to seek treatment. A unified model incorporating these factors was an excellent fit to the data, and provides a strong basis for a theoretical model of decisions to seek treatment for MDD.

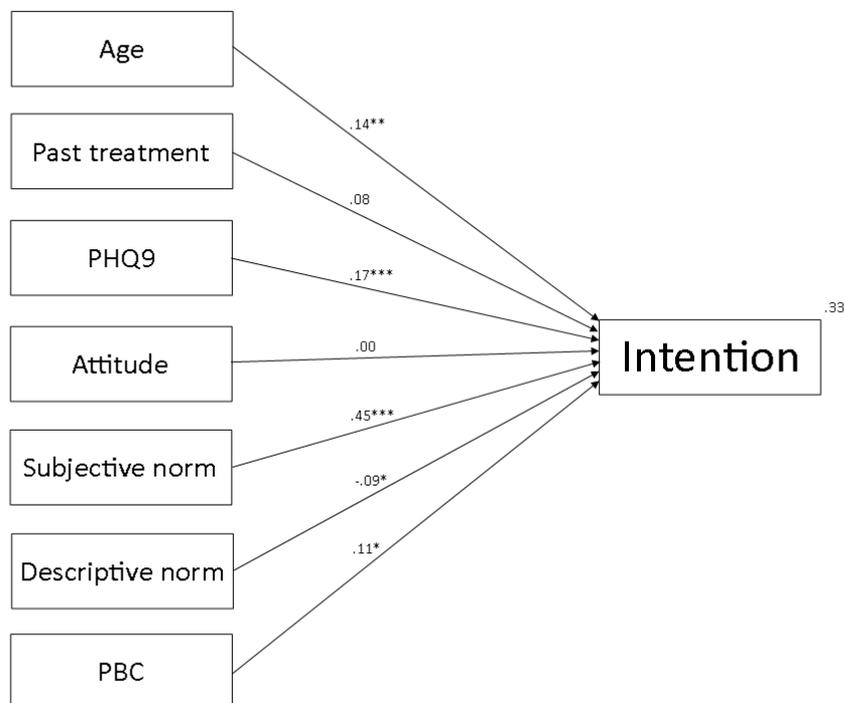
5.7 Additional Results

We used structural equation modelling to assess the utility of the original Theory of Planned Behaviour (TPB) and Health Belief Model (HBM) models in predicting intentions to seek treatment, without the addition of identity acceptance.

Theory of Planned Behaviour

To test the fit of the TPB in predicting intentions to seek help for depression symptoms, we estimated a model in which attitude, subjective norm, descriptive norm, and perceived behavioural control were specified to predict intentions to seek treatment alongside the demographic variables (age, depression severity, past help-seeking). The model provided a good fit to the data ($\chi^2(11) = 28.22$, $p = .003$; RMSEA = .063, NFI = .936, CFI = .958; AIC = 94.22; ECVI = .236; $R^2 = .33$). Significant predictors of intentions to seek treatment included depression severity, age, subjective norm, perceived behavioural control and descriptive norm (Figure 5.6). Attitude and past treatment seeking did not independently predict intentions.

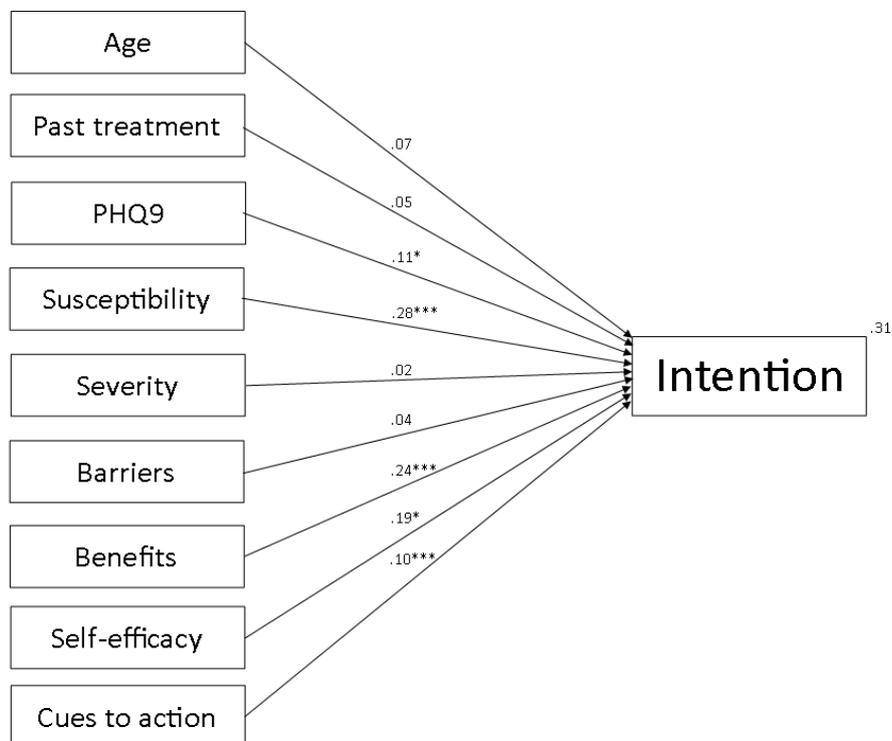
Figure 5.6: Standardised estimates of TPB constructs in predicting intentions to seek treatment for MDD



Health Belief Model

To test the fit of the HBM in predicting intentions to seek help, we estimated a model in which susceptibility, severity, benefits, barriers, self-efficacy, and cues to action were specified to predict intentions to seek treatment alongside demographic variables. The model provided a good fit to the data ($\chi^2 (14) = 50.01, p < .001; RMSEA = .080, NFI = .930, CFI = .945, AIC = 152.01, ECVI = .381; R^2 = .31$). Significant predictors of intentions to seek treatment were depression severity, susceptibility, benefits, self-efficacy, and cues to action (Figure 5.7). In this model, age, past treatment, severity, and barriers did not independently predict intentions.

Figure 5.7: Standardised estimates of HBM constructs in predicting intentions to seek treatment for MDD



5.8 Additional discussion

Separate analyses reveal that the TPB and HBM were a good fit at predicting intentions to seek treatment. However, the results suggested that the TPB and HBM are a slightly poorer fit to the data than when extended to incorporate identity. This was with the exception of the AIC criterion for both models, which favours models with fewer variables (Kline, 1998). The addition of identity to the models resulted in descriptive norm from the TPB becoming a non-significant predictor of intentions. Depression severity also became a non-significant predictor of intentions when included as a control variable alongside the HBM. Overall, these results suggested that identity acceptance is a valuable addition to both the TPB and the HBM.

The results of Study 3 highlight the role of cues to action, as conceptualised by the HBM, in help-seeking decisions for MDD. In this study, having experienced cues to action in the previous three months was associated with higher intentions to seek treatment. Cues to action are thought to increase intentions by reminding individuals of the severity or risk of illness (Rosenstock, 1974; Janz & Becker, 1984). Cues to action may also serve to trigger behaviour (Henshaw & Freedman-Doan, 2009), and therefore may increase the likelihood that intentions are translated into help-seeking. Cues to action is the least tested construct in the HBM (Harrison et al., 1992; Henshaw & Freedman-Doan, 2009), however the results of this study suggested that these experiences may have an important impact on decisions to seek treatment for MDD. Further research should explore the role of cues to action in treatment seeking for MDD; including research to investigate whether cues to action has a direct or indirect relationship with help-seeking behaviour. As cues to action may easily be

incorporated into help-seeking interventions, such findings may have useful implications for improving help-seeking rates for MDD.

5.9 Identity, health behaviour models and current treatment use

Analyses suggest that constructs from the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM) can account for a significant proportion of the variance in intentions to seek treatment for MDD. The results also demonstrated that the addition of identity significantly increased the variance in intentions explained by each of the models. The identification of important factors associated with help-seeking for MDD may be used to inform the development of help-seeking interventions. However, to date, no research has explored whether the TPB and HBM are able to predict actual treatment seeking for MDD. The following analyses investigate the extent to which the models can predict current treatment use in depressed individuals.

5.10 Methods

Study recruitment and design, including all measures, are described in full earlier in this chapter. Participants who scored ≥ 5 on the PHQ9 (indicating mild or above symptoms of depression; Kroenke et al., 2001) in the screening questionnaire were eligible to participate in the study. All participants, including both those who were and were not receiving treatment for MDD at the time of the study, were included in the analyses. The main outcome variable was current receipt of treatment for depression.

5.11 Results

Correlation analyses between main variables are displayed in Table 5.3.

Table 5.3

Main variable correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. PHQ9	-	.005	.013	.341**	.424**	-.097*	.410**	-.009	-.158**	.459**	.423**	.299**	-.031	-.092*	.333**	.474**
2. Age		-	-.111**	.113**	.208**	.080	.111**	.061	.060	.132**	.101*	.014	.042	.158**	.144**	.173**
3. Gender			-	-.040	-.010	.034	-.091*	.029	.001	-.022	-.057	.016	-.019	.062	.013	-.053
4. Current tx				-	.694**	.215**	.578**	.117**	.169**	.492**	.418**	.143**	.199**	.219**	.552**	.472**
5. Intention					-	.184**	.711**	.096*	.157**	.622**	.479**	.147**	.295**	.198**	.590**	.562**
6. Attitude						-	-.102*	.160**	.581**	.016	-.083*	-.287**	.362**	.451**	.160**	.036
7. Subj Norm							-	.139**	.023	.614**	.522**	.232**	.237**	.057	.571**	.584**
8. Desc Norm								-	.144**	.064	.103*	-.063	.110**	.096*	.123**	.108*
9. PBC									-	.007	-.127**	-.369**	.277**	.592**	.158**	-.022
10. Suscept										-	.550**	.223**	.126**	.060	.523**	.621**
11. Severity											-	.410**	.058	-.022	.449**	.500**
12. Barriers												-	-.081	-.262**	.128**	.197**
13. Benefits													-	.233**	.224*	.079
14. Self-efficacy														-	.204**	.029
15. Cues															-	.465**
16. Identity																-

Note: Current tx = currently receiving treatment, Subj Norm = subjective norm, Desc Norm = descriptive norm, PBC = perceived behavioural control, Suscept = Susceptibility, Cues = Cues to action. All calculations including PHQ, age, gender, past tx, intention, attitude, self-efficacy, cues to action and identity were conducted using Spearman's correlation coefficient. All remaining calculations were conducted using Pearson's correlation coefficient.

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

5.11.1 Participants

A total of 1,027 participants completed the depression screen. Of these 56% (n = 580/1027) scored ≥ 5 on the PHQ9, and therefore met the study inclusion criteria. Of the eligible participants, 69% (400/580) were not receiving treatment for depression; 3% (19/580) failed to indicate whether they were currently receiving treatment. 81.4% of participants were female (n = 472/580), 5 participants did not disclose their gender (0.01%). The mean age of participants was 27 years (SD = 10.53).

5.11.2 Demographics.

Analyses revealed that those receiving treatment were older than those not in treatment (Mean age in treatment = 29.49 years; Mean age not in treatment = 26.36 years; $F_{(1,551)} = 10.05$, $p = .002$), however there was no difference in gender between those receiving and not receiving treatment ($F_{(1,551)} = .88$, $p = .35$). Consequently, gender was excluded as a control variable in the following analyses. Participants in treatment also reported experiencing more depressive symptoms (Mean treatment = 13.77; Mean no treatment = 9.44; $F_{(1,551)} = 80.74$, $p < .001$), and were more likely to have sought treatment in the past ($\chi^2 = 148.62$ $df = 1$ $p < .001$).

5.11.3 Theory of Planned Behaviour and Health Belief Model.

The utility of the TPB and the HBM in predicting current treatment use was assessed through two binary logistic regression analyses. In each model, depression severity, age, and past treatment use were entered as control variables in step 1. In the first analysis, the TPB factors (attitude, subjective norm, descriptive norm, and perceived behavioural control) were entered

simultaneously in step 2, and in the second analysis, the HBM factors (severity, susceptibility, barriers, benefits, self-efficacy, and cues to action) were entered simultaneously in step 2. In both analyses, identity was entered at step 3.

Predictive utility of the models was evaluated using Nagelkerke's R^2 coefficient. SPSS diagnostics indicated that all VIF < 3, all tolerance statistic > .2, and there were no standardised residuals with an absolute value > .3

Theory of Planned Behaviour

The relationship between individual predictors and current treatment use are displayed in Table 5.4. Together, the control variables explained a significant proportion of the variance in current depression treatment ($R^2 = .42$; $\chi^2 = 185.83$, $df = 3$, $p < .001$). Depression severity and past treatment seeking were significantly associated with currently receiving treatment, however age of participants was not. The TPB variables significantly increased the variance explained in treatment use ($R^2 = .53$, $\chi^2 = 246.79$, $df = 7$, $p < .001$; $R^2_{\text{block}} = .11$, $\chi^2_{\text{block}} = 60.96$, $df = 4$, $p < .001$). The addition of identity also significantly improved the model ($R^2 = .55$, $\chi^2 = 257.97$, $df = 8$, $p < .001$; $R^2_{\text{block}} = .02$, $\chi^2_{\text{block}} = 11.19$, $df = 1$, $p = .001$). Depression severity, past treatment seeking, subjective norm and identity as a depressed person were all significant predictors of current treatment use in the final model. Those receiving treatment for depression experienced greater symptom severity, were more likely to have sought treatment for depression in the past, rated their significant others as more supportive of treatment seeking, and were more likely to see themselves as a depressed person.

Table 5.4

Association between TPB and identity constructs and current treatment use

Variable	Model 1				Model 2				Model 3			
	<i>B</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>
Constant	-5.82	.000	.00		-10.49	.000	.00		-11.46	.000	.00	
PHQ9	3.15	.000	23.32	7.03:77.42	3.08	.000	21.68	5.53:84.96	2.44	.001	11.41	2.75:47.32
Age	.00	.857	1.00	.98:1.02	.00	.796	1.00	.98:1.03	.00	.930	1.00	.98:1.03
Past tx	2.66	.000	7.53	8.02:25.29	2.02	.000	7.53	4.04:14.04	1.73	.000	5.66	2.96:10.83
Attitude					.24	.094	1.27	.96:1.67	.22	.121	1.25	.94:1.65
Subjnorm					.75	.000	2.11	1.64:2.72	.66	.000	1.94	1.50:2.51
Descnorm					-.03	.713	.97	.81:1.16	-.02	.826	.98	.82:1.18
PBC					.21	.093	1.23	.97:1.59	.24	.068	1.27	.98:1.63
Identity									.46	.001	1.58	1.20:2.08

Note: Past tx = Past treating seeking, Subj Norm = subjective norm, Desc Norm = descriptive norm, PBC = perceived behavioural control.

Health Belief Model

The relationship between individual predictors and current treatment use are displayed in Table 5.5. The control variables explained a significant proportion of the variance in current treatment use ($R^2 = .42$, $\chi^2 = 183.34$, $df = 3$, $p < .001$). Depression severity and past treatment seeking were significant predictors of current treatment use. The addition of the HBM variables at step 2 significantly improved the model ($R^2 = .62$, $\chi^2 = 289.68$, $df = 9$, $p < .001$; $R^2_{\text{block}} = .19$, $\chi^2_{\text{block}} = 106.34$, $df = 6$, $p < .001$), however perceived barriers and self-efficacy were not significantly associated with current treatment use. Interestingly, depression severity became a non-significant predictor of intentions to seek help after the addition of the HBM variables. The addition of identity in step 3 did not significantly improve the model ($R^2 = .62$, $\chi^2 = 292.33$, $df = 10$, $p < .001$; $R^2_{\text{block}} = .01$, $\chi^2_{\text{block}} = 2.65$, $df = 1$, $p = .104$), and susceptibility was no longer a significant predictor of treatment use in this model. Past treatment seeking, severity, benefits, self-efficacy and cues to action were all significant predictors of current treatment for depression. Participants receiving treatment for depression were more likely to have sought treatment in the past, rated their symptoms as being more severe, reported greater perceived benefits of treatment, higher perceived self-efficacy, and had experienced a greater number of cues to action in the previous 3-months.

Table 5.5

Association between HBM and identity constructs and current treatment use

Variable	Model 1				Model 2				Model 3			
	<i>B</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>
Constant	-5.67	.000	.00		-10.98	.000	.00		-11.53	.000	.00	
PHQ9	2.93	.000	18.71	5.63:62.26	1.27	.121	3.57	.71:17.87	1.12	.180	3.06	.60:15.60
Age	.00	.799	1.00	.98:1.02	-.00	.760	1.00	.97:1.02	-.00	.758	1.00	.97:1.02
Past tx	2.72	.000	15.21	8.45:27.38	1.72	.000	5.60	2.74:11.44	1.59	.000	4.92	2.37:10.23
Suscept					.31	.011	1.36	1.07:1.72	.24	.064	1.27	.99:1.62
Severity					.42	.010	1.52	1.10:2.10	.37	.025	1.45	1.05:2.01
Barriers					.12	.542	1.12	.77:1.64	.14	.472	1.15	.79:1.68
Benefits					.57	.002	1.77	1.22:2.55	.57	.002	1.77	1.22:2.56
Self-eff					.30	.054	1.35	.99:1.84	.32	.044	1.38	1.01:1.87
Cues					.45	.000	1.58	1.33:1.87	.45	.000	1.57	1.33:1.86
Identity									.26	.108	1.30	.95:1.78

Note: Past tx = past treatment seeking, Suscept = Susceptibility, Self-eff = self-efficacy, Cues = Cues to action.

5.12 Discussion

The results of this study demonstrated that constructs from the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM) have utility in predicting current treatment use for depression. The results suggested that the Health Belief Model (HBM) explained the greatest proportion of variance in current treatment use compared to the Theory of Planned Behaviour (TPB). However, consistent with analyses predicting intentions to seek treatment, subjective norm from the TPB was a strong predictor of current help-seeking. As assessed using the HBM, participants receiving treatment also rated their symptoms as being more severe, reported greater perceived benefits and self-efficacy for seeking treatment, and reported more cues to action in the previous 3-months. Individuals receiving treatment also reported higher susceptibility to depression; however this path became marginally non-significant following the addition of identity. Stronger identity as a depressed person was associated with current treatment use. However, this relationship was only significant when included in the TPB, and not the HBM. The results also suggested that individuals receiving treatment for depression were more likely to have sought treatment in the past. Those seeking treatment did not differ in age, descriptive norm, or attitudes and perceived barriers to treatment.

This is the first study to have applied the TPB and HBM to predicting current treatment seeking for MDD. The findings highlight differences in the way individuals who are and are not receiving treatment for depression perceive their symptoms and treatment seeking. These findings have significant implications for help-seeking research. The majority of studies exploring attitudes towards help-seeking for depression have not differentiated between

individuals who are receiving and not receiving treatment (e.g. Angermeyer et al., 1999). Since these results suggest that individuals receiving treatment for depression hold different views about treatment to those who have not sought help, this highlights a significant limitation in previous research.

Although this study identifies important differences between the attitudes of those who have and have not sought treatment for MDD, it is important to note that it is unclear from the results of this study whether these attitudes were instrumental in their decisions to seek treatment, or whether differences in attitudes may have changed following the receipt of treatment. There is evidence that attitudes towards psychological therapy change over the course of treatment (e.g. beliefs about the benefits of treatment may change as treatment progresses; Tsai, Ogrodniczuk, Sochting, & Mirmiran, 2012; Watson, McMullen, Prosser, & Bedard, 2011). It should also be noted that individuals receiving treatment may also be more likely to experience cues to action, such as discussing their symptoms with their GP. However, as perceived benefits, subjective norm, self-efficacy and cues to action are significant predictors of both intentions and current treatment use, there is evidence that these factors may play a role in informing decisions to seek treatment. It is likely that there is a bi-directional relationship between attitudes and experience, and that attitudes to help-seeking may change dynamically over the help-seeking process. Future research that explores change in attitudes over the course of help-seeking, and whether these factors predict help-seeking behaviour prospectively, will clarify the role of these factors in decisions to seek treatment for depression.

Individuals receiving treatment for depression reported higher identity acceptance than those not in treatment. However, identity was only a significant

predictor of current treatment use when included in the TPB model and not the HBM model. This suggests that while identity acceptance was associated with intentions to seek treatment, there may be a weaker relationship between identity and actual help-seeking behaviour. It was interesting to note that susceptibility was not significantly associated with treatment for depression after identity was included in the model. As both of these factors pertain to acceptance of depressive symptoms, these two factors may overlap. This is consistent with findings that the two factors are significantly correlated (.57). The results of Study 1 revealed that not all participants who reached acceptance sought treatment; actual help-seeking was dependent on the weighing of the costs and benefits of seeking treatment. This therefore allows for cases where individuals may accept their depressive symptoms, but do not seek treatment because the costs and benefits do not favour help-seeking. In this case, identity acceptance and susceptibility to depression may influence intentions to seek treatment, but actual help-seeking will be more strongly predicted by the decisional balance stage of the model. Further research that assessed help-seeking behaviour prospectively is needed to examine whether intentions to seek treatment mediates a relationship between help-seeking behaviour and both identity and susceptibility.

Consistent with findings that subjective norm is associated with intentions to seek treatment; subjective norm was also associated with current treatment seeking. Previous research indicates that individuals who seek treatment for mental health problems are more likely to have been supported to do so by a significant other (Reust et al., 1999; Vogel et al., 2007; Chadda et al., 2001). These results therefore provide further evidence that the extent to which depressed individuals believe that significant others support treatment seeking

for depression influences decisions to seek treatment. Further evidence is needed to establish whether subjective norm is able to prospectively predict actual treatment seeking for depression.

The results provide further evidence that self-efficacy, but not barriers to treatment, is associated with treatment seeking. These findings therefore further suggest that general perceived self-efficacy for seeking treatment is more influential in decisions to seek treatment than the consideration of specific barriers to treatment.

5.12.1 Conclusion

These results suggest that individuals receiving treatment for depression may hold different attitudes about depressive symptoms and treatment than those not receiving treatment. As some of the previous research exploring attitudes towards seeking help has not differentiated between participants in and out of treatment, this therefore highlights a significant limitation with conclusions made about the role of some factors in influencing decisions to seek treatment. Future cross-sectional studies exploring attitudes to help-seeking for depression should therefore differentiate between those in and out of treatment.

5.13 Replication of the results of Study 2

A secondary aim of this study was to replicate the findings of Study 2 that conflict between identity and depressive symptoms is associated with symptom acknowledgement and perceived need for treatment for MDD. Measures used to assess the concepts developed in Study 1 have not been applied to understanding conflict between illness and identity and goals in previous research. This study sought to examine whether the findings of Study 2 could be replicated in a larger sample.

5.14 Measures

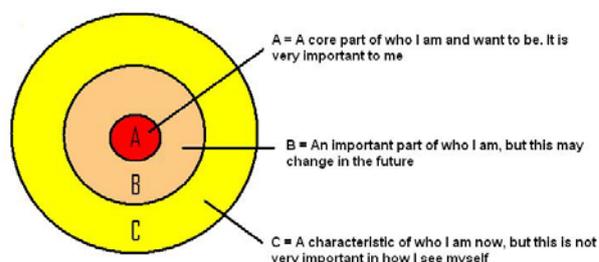
In addition to the measures reported earlier in this chapter, all participants who met inclusion criteria for the study completed the following measures.

Goal conflict. Consistent with the approach taken in Study 2, we used an adaptation of the Striving Instrumentality matrix (SIM; Emmons & King, 1988) and Intergoal Relations questionnaire (IRQ; Riediger & Freund, 2004) to assess conflict between depressive symptoms and personal goals. Participants were asked to provide a list of five short-term and five long-term goals that they were currently pursuing. These goals were subsequently presented in a matrix, and participants were asked the following question: 'thinking about your own life, how much would being depressed affect your goal to...'. Participants then rated perceived conflict between depression and their ten personal goals. Responses were measured on a 5-point likert scale, ranging from 'not at all' to 'would prevent me from achieving this'.

Identity conflict. Consistent with Study 2, conflict between depressive symptoms and identity was also measured using the adapted SIM and IRQ.

Participants were asked to provide a list of identity characteristics that best defined their identity by completing ten sentences beginning with the prefix “I am”. This method has been previously used to identify identity characteristics that are personal and salient to each participant (Rathbone et al, 2008; Higgins et al, 1987), and is a variant of the Twenty-Statements Test (Cousins, 1989; Gordon, 1968; Kuhn & McPortland, 1954). To investigate whether the effect of identity conflict would be influenced by the extent to which each identity characteristic was important to participants’ identity, we also assessed the relative importance of identity characteristics to the way participants saw themselves. Participants were asked to rate how integral each identity characteristic they provided was to their identity on a 3-point scale; ‘A core part of who I am and want to be. It is very important to me’; ‘An important part of who I am, but this may change in the future’; ‘A characteristic of who I am now, but this is not very important in how I see myself’. Responses were presented to participants within a ‘target’ image (see Figure 5.8) to guide participants’ responses.

Figure 5.8: Target image presented to participants to illustrate rating the importance of identity characteristics



To measure conflict between depression and identity, identity characteristics provided by participants were presented in a matrix and participants were asked to rate the extent to which being depressed would conflict with each. Participant responses were measured on a 5-point likert scale, ranging from 'not at all' to 'would prevent me from being this'. Consistent with the approach taken in Study 2, two identity conflict scales were computed; one representing the total sum of identity conflict ratings (identity conflict), and one that accounted for the rated importance of identity characteristics for the way participants saw themselves (i.e. the total product of conflict and importance ratings for each identity characteristics; integral identity conflict).

SAIQ. Participants completed two subscales of the Self-Appraisal of Illness Questionnaire (SAIQ; Marks, Fastenau, Lysker & Bond, 2000). The 'Presence/Outcome of Illness' subscale is designed to measure patients' acknowledgement of psychiatric symptoms, while the 'Need for Treatment' scale is designed to assess patients' perceived need for treatment. The SAIQ is a measure adapted from the Patient's Experience of Hospitalization (PEH; Carsky et al, 1992) to assess insight of psychiatric symptoms in a community setting. Items in the measure are closely related to the content of structured interviews used by clinicians and researchers to assess patient insight (Marks et al, 2000). The wording of items was adapted for use in a depressed population; reference to "condition" was replaced with "symptoms", and "psychiatric treatment" with "psychological treatment".

5.15 Results

5.15.1 Measures of identity and goal conflict

Descriptive measures of the identity and goal measures are presented in Table 5.6. There was high variation in reported identity and goal conflict scores across participants. All variables were normally distributed.

Table 5.6

Descriptive statistics of identity and goal conflict measures

	Mean	SD	Min	Max
Identity Conflict	25.04	8.65	10	50
Integral ID conflict	62.51	24.51	16	155
Short-term goal conflict	14.61	5.67	5	25
Long-term goal conflict	15.53	5.70	5	25

5.15.2 SAIQ

We sought to replicate the factor analysis on the two subscales of the SAIQ conducted in Study 2. The factor analysis was conducted using maximum likelihood. As we anticipated that acknowledgement of symptoms and perceived need for treatment would be correlated, direct oblimin rotation was used. The analysis revealed two factors comprising all items from both subscales. One item from the presence of symptoms scale ('I think my symptoms will go away by themselves') loaded onto both factors (Factor 1 = .340; Factor 2: -.303) and was removed, and the factor analysis repeated. Examination of the Kaiser-Olkin-Meyer (KMO = .900) and Bartlett's test of sphericity ($\chi^2 = 1392.02$, $p < .001$) indicated a high degree of common variance between the variables and supports the use of factor analysis with this data.

Two primary factors with eigenvalues > 1.0 were extracted from the data, which together explained 62.17% of the variance. The first factor explained the

greatest proportion of variance (50.94%; eigenvalue = 4.59), and included the items 'do you believe treatment for your symptoms to be necessary' (.718); 'if you do not receive treatment, how will your symptoms change' (.448); 'I can gain a lot from being in treatment' (.770); 'if I don't access treatment, I would do fine*' (.662); and 'I think my symptoms require psychological treatment' (.648). This factor was identical to the scale developed in Study 2; 'Perceived need for treatment'. This scale was found to have excellent internal reliability ($\alpha = .84$). The scale was coded so that higher scores represent greater perceived need for treatment.

The second factor explained 11.23% of variance (eigenvalue = 1.01), and included the items 'there's no doubt in my mind that my symptoms will go away' (.334); 'I have symptoms of a mental health problem' (.797); 'how ill do you think you are' (.793); 'how would you feel about feedback that you are depressed' (.641). This scale was identical to the scale developed in Study 2 (Acknowledgement of symptoms), with the exception of one item removed during analysis. The scale also had excellent internal reliability ($\alpha = .78$). The scale was coded so that higher scores represent greater acknowledgement of depressive symptoms.

5.15.3 Main variable correlations

Table 5.7 displays the results of correlation analyses between all key variables. In contrast with the results of Study 2, identity conflict was not strongly correlated with acknowledgment of symptoms, and was not significantly associated with perceived need for treatment. Also in contrast with Study 2, correlation analyses revealed that both short- and long-term goal conflict were

significantly associated with acknowledgement of symptoms. However, consistent with the results of Study 2, goal conflict was not associated with perceived need for treatment. As identity and goal conflict were not significantly correlated with perceived need for treatment, these variables were not entered into regression analyses to predict perceived need for treatment.

SPSS diagnostics indicated that all VIF < 3, all tolerance statistic > .2, there were no standardised residuals with an absolute value > .3, and the assumption of independent errors was met (Durbin Watson = 2.07-2.17).

Table 5.7

Main variable correlations

	1	2	3	4	5	6	7	8	9	10
1 PHQ9	-	-.022	-.009	.145**	-.116*	-.147**	-.006	.031	.397**	.220**
2 Age		-	-.050	.328**	.019	.033	.025	-.010	.153**	.201**
3 Gender			-	-.018	.140**	.142**	.121*	.129*	-.088	-.043
4 Past tx				-	-.082	-.062	-.016	-.009	.369**	.392**
5 ID conflict					-	.938**	.607**	.569**	-.214**	-.062
6 Integral IDconf						-	.597**	.544**	-.203**	-.053
7 STgoal Conf							-	.754**	-.130**	-.045
8 LTgoal Conf								-	-.135**	-.040
9 Acknowledg									-	.666**
10 Perc need										-

Note: Past tx = Having sought treatment in the past, ID conflict = identity conflict, STgoal Conf = short-term goal conflict, LTgoal Conf = long-term goal conflict, Acknowledg = acknowledgement of symptoms, Perc need = perceived need for treatment

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

5.15.4 Does identity conflict predict acknowledgement of symptoms?

A hierarchical regression analysis was used to predict acknowledgement of symptoms (Table 5.8). PHQ9, age and past treatment use were entered as control variables in step 1. Identity conflict and short- and long-term goal conflict were entered simultaneously in step 2. Together, depression severity, age and past help-seeking explained a significant proportion of the variance in acknowledgement of symptoms and the model was significant ($F_{(3,387)} = 48.12$, $p < .001$). Greater acknowledgement of symptoms was significantly associated with greater symptom severity and greater past treatment seeking. The addition of identity conflict, short- and long-term goal conflict significantly improved the model and the final model was significant ($F_{(6,384)} = 27.33$, $p < .001$). Depression severity, past treatment seeking and identity conflict were significant predictors of acknowledgement of symptoms. Greater identity conflict was associated with reduced acknowledgement of symptoms. Neither short-term or long-term goal conflict significantly predicted acknowledgment of symptoms.

Table 5.8

Summary of hierarchical regression analysis predicting acknowledgement of symptoms

Step	Predictor	β	t	R ²	ΔR^2
Step 1	PHQ9	.37	8.32***	.27	-
	Age	.02	.33		
	Past help-seeking	.32	7.06***		
Step 2	PHQ9	.36	8.23***	.30	.03*
	Age	.02	.36		
	Past help-seeking	.31	6.86***		
	Identity conflict	-.14	-2.52*		
	ST goal conflict	.02	.34		
	LT goal conflict	-.06	-.94		

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

5.15.5 Control variables and perceived need for treatment

A regression analysis was used to predict perceived need for treatment using the control variables (Table 5.9). PHQ9, age, and past treatment explained a significant proportion of the variance in perceived need for treatment and the model was significant ($F_{(3,387)} = 29.53, p < .001$). Greater perceived need for treatment was significantly associated with greater depression severity and a higher likelihood of having sought treatment in the past.

Table 5.9

Summary of regression analysis predicting perceived need for treatment

Step	Predictor	β	t	R ²
Step 1	PHQ9	.16	3.34**	.19
	Age	.05	1.08	
	Past help-seeking	.37	7.57***	

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

5.16 Discussion

This study sought to replicate the findings of Study 2, which revealed that identity conflict was associated with reduced acknowledgement of symptoms and perceived need for treatment. Although the results of this study revealed a significant negative relationship between identity conflict and symptom acknowledgment, a weaker relationship was observed in this study than in Study 2. Furthermore, the results did not find a relationship between identity conflict and perceived need for treatment. The reasons underlying the inconsistent findings are unclear. The samples included in the two studies were comparable. Although the sample in Study 2 included a small number of participants who were currently receiving treatment for depression (13%), the two samples display comparative levels of depression severity (Study 2 \bar{x} = 9.30 SD = 4.18; Study 3 \bar{x} = 9.43 SD = 4.37) and perceived conflict between depressive symptoms and identity (Study 2 \bar{x} = 25.31 SD = 7.46; Study 3 \bar{x} = 25.04 SD = 8.65). Both samples also display comparative scores on the presence of illness scale (Study 2 \bar{x} = 2.08 SD = .67; Study 3 \bar{x} = 2.11 SD = .63) and perceived need for treatment (Study 2 \bar{x} = 2.03 SD = .74; Study 3 \bar{x} = 2.05 SD = .59). The two studies employed similar recruitment methods, and there is no evidence that there were any further differences between the two samples. It is possible that the inclusion of participants currently receiving treatment for MDD in Study 2 contributed to a stronger relationship between identity conflict and the outcome variables. However, it is difficult to speculate about why this would be the case. The results of Study 1 suggest that individuals who have sought treatment may experience reduced conflict between symptoms and identity, due to having begun to incorporate symptoms into their identity prior to seeking treatment. However, there is no existing evidence to explain why the

relationship between identity conflict and the outcome variables would be stronger for these participants compared to those with greater perceived conflict. It is also unclear whether this effect would have emerged given the small number of individuals in the sample who had sought treatment. Therefore, there is limited evidence that the inclusion of individuals who are currently seeking treatment for depression in the previous study led to the conflicting results. However, further evidence that explores the way in which identity conflict changes over the course of seeking treatment may reveal if this is the case.

The larger sample size of Study 3, in comparison to Study 2, suggests that these findings may be more reliable than those in Study 2. However, these findings are inconsistent with the results of Study 1, as well as with a wider body of literature that has highlighted a relationship between identity conflict and symptom avoidance and perceived need for treatment (e.g. Adams et al, 1997; Goldman & Maclean 1998). Further research is needed to explore the way in which individuals interpret and acknowledge the onset of depressive symptoms. As Study 1 and research in the wider physical literature suggests that this process may have a significant impact on treatment seeking and engagement (e.g. Bury, 1982; Adams et al, 1997; Andersen, 1995), this research may have wide implications for treatment provision.

Following completion of this study, consideration of the measures used in Study 2 and 3 revealed several recommendations for improving measures of conflict and symptom avoidance for use in future research. Consistent with the findings of Study 2, this study found no impact of the importance of identity characteristics. Previous measures of identity conflict (Higgins et al., 1994;

Sonderlund et al., in prep) have also assessed the perceived importance of identity characteristics. However, one limitation of this approach is that it does not take into consideration the desirability of identity characteristics provided by participants. While the measure assessed how integral identity characteristics were to the way in which individuals see themselves, we did not assess the extent to which participants perceived each characteristic as positive or negative. Examination of the identity characteristics provided by participants in Studies 2 and 3 reveals that characteristics provided consisted of both positive and negative identity characteristics (e.g. independent and lazy). Other characteristics were ambiguous; for example the identity 'a smoker' could be either a desirable or undesirable identity characteristic, depending on the individual's personal perspective. As conflict with desirable and undesirable characteristics is likely to elicit opposing emotions, it is likely that the extent to which individuals are pursuing an identity characteristic may moderate the extent to which conflict predicts symptom avoidance. This is an important limitation of this measure, and future studies should seek to assess identity valence when assessing identity conflict. Previous researchers have rated attributes of identity characteristics provided by participants independently. However, as a significant proportion of identity characteristics provided by participants in Study 2 & 3 were of ambiguous valence (e.g. a smoker), post-hoc rating of characteristics by the research team is likely to be inaccurate, and therefore such studies should require participants to personally rate the desirability of identity characteristics.

Although previous studies have assessed conflict between identities (Carver, Lawrence & Scheier 1999; Eisenstadt & Leippe 1994; Higgins, 1987; Markus & Nurius, 1986), it should also be acknowledged that individuals may find it

difficult to formulate opinions about desirable identities and conflict between identity and depressive symptoms. Goal theories conceptualise identity as a higher order goal, which is of great importance to individuals. However according to this approach, identity may have an abstract representation in individuals' minds, and individuals may have less conscious awareness of their identity than other, lower order goals. This may limit the extent to which identity characteristics provided by participants, and conflict ratings, accurately portray the experience of identity conflict. This may represent an inherent limitation in studies exploring the role of identity in experience and behaviour. One approach that may increase the validity of such studies is to use multiple approaches to assess identity conflict. For example, identity theories suggest that individuals are driven to maintain a positive, competent and stable identity (Alicke & Sedikides, 2009; Breakwell, 2010; Festinger, 1954). As these identities may be of common importance across many individuals, measures assessing conflict between depressive symptoms as these identities may provide a useful additional measure of identity conflict.

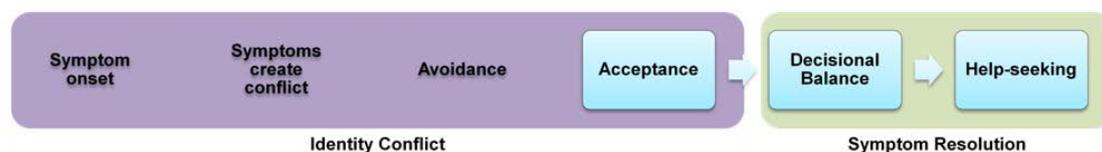
The use of the SAIQ to indirectly measure symptom avoidance may also have contributed to the weak relationship between identity conflict and acknowledgment of symptoms. The use of a direct measure of symptom avoidance strategies may be an improved method for exploring the relationship between identity conflict and avoidance. It is also important to note that the SAIQ was developed as measure of symptom insight amongst individuals with schizophrenia (Marks et al, 2000), and has not previously been applied to symptom avoidance in depression. Except for the exclusion of one item from the measure in Study 3, factor analysis of the SAIQ in Study 2 and 3 were comparable, indicating some reliability of the measure. However, psychometric

testing of the SAIQ with a depressed sample is needed to establish whether the measure can be adapted for use with this population. This is also important to consider as avoidance of symptoms in depressed individuals may be seen as being more volitional, compared with the lack of insight into symptoms exhibited by individuals with schizophrenia. The development of a measure of symptom avoidance may also have useful implications for further research to explore the role of identity acceptance in help-seeking behaviour, in addition to wider research exploring coping amongst depressed individuals.

CHAPTER 6 : PROSPECTIVE TREATMENT SEEKING FOR MDD

The results of Study 3 suggested that constructs from the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM), extended to incorporate identity acceptance, may have utility in predicting intentions to seek treatment for MDD. However, research indicates that intentions may only have a weak to moderate relationship with health behaviour (Conner & Armitage, 1998; Sheeran & Orbell, 1998). While constructs from the two models were also able to predict current treatment seeking amongst depressed individuals, it's unclear from these findings whether constructs that predict current treatment use were instrumental in participants' decisions to seek treatment. Few previous studies have assessed help-seeking behaviour prospectively, and therefore it is unclear to what extent predictors of help-seeking and help-seeking intentions predict actual help-seeking behaviour. Building on this literature and previous studies in the current thesis, Study 4 sought to test whether the TPB and HBM extended to incorporate identity were able to predict prospective treatment seeking in depressed individuals (Figure 6.1). Further, this study employed mediation analyses to test hypotheses that intentions to seek treatment mediate the relationship between constructs from the two models and help-seeking behaviour.

Figure 6.1: The help-seeking process as described by participants in Study 1. Study 4 tested whether identity acceptance and factors associated with reasoned decision making predicted prospective help-seeking behaviour.



6.1. Introduction

The results of Study 3 suggested that constructs from the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM) extended to incorporate identity acceptance may have utility in predicting intentions to seek treatment for MDD. An integration of the TPB, HBM and identity acceptance revealed that perceived susceptibility to MDD, subjective norm, benefits of seeking treatment, self-efficacy, the experience of cue-ing events and identity were associated with intentions to seek treatment for MDD. These findings identify factors that may be important in decisions to seek treatment for MDD amongst individuals with current symptoms of low mood. Within the framework of the TPB and HBM, intentions are the proximal determinant of behaviour (Abraham & Sheeran, 2005; Ajzen, 1991). According to this approach, intentions mediate the relationship between predictors of help-seeking and help-seeking behaviour, with behaviour more likely when intentions are high. The results of Study 3 may therefore be informative for the development of an intervention to increase help-seeking for MDD.

However, intentions to seek help may not necessarily result in help-seeking behaviour. Indeed, reviews of the literature reveal that intentions to seek help may only have a weak or moderate effect on health behaviour (Conner & Armitage, 1998; Sheeran & Orbell, 1998). Secondary analysis of 10 meta-analyses of prospective health behaviour revealed that, on average, intentions explain 28% of the variance in behaviour (Sheeran, 2002). However, the variance in behaviour explained by intentions varies depending on the behaviour under study. It is therefore important that help-seeking studies

investigate the extent to which these factors and intentions to seek help predict actual help-seeking behaviour.

A major limitation with previous studies that have assessed help-seeking behaviour is that these studies have examined the factors that predict behaviour retrospectively; i.e. using predictors assessed at the time of the research to predict past help-seeking behaviour (e.g. Andrews, et al., 2001; Bebbington, 2000; Green-Hennessey, 2002). These studies are limited as attitudes towards mental health problems and treatment may change over the course of treatment. Some studies have attempted to overcome this limitation by asking participants to reflect back on the reasons that influenced their decision to delay or seek/not seek treatment (e.g. Thompson et al, 2004, 2008). While these studies may have utility in identifying important factors in individuals' help-seeking decisions, results may be subject to memory decay. Recall may also be biased towards more rational determinants of help-seeking decisions; with poorer recall for the emotional and psychological factors that influence behaviour. As a consequence, prospective studies of help-seeking may be best able to assess the contribution of factors in influencing decisions to seek treatment.

Aside from one randomised controlled trial of a help-seeking intervention that assessed help-seeking behaviour for depression (Christensen et al., 2006), there has been no research exploring the factors associated with help-seeking for affective or anxiety disorders that have assessed help-seeking behaviour prospectively. A review of the literature summarised in Chapter 2, revealed three studies that assessed help-seeking prospectively for other mental health difficulties (Golberstein, Eisenberg, & Gollust, 2009; Tyssen, Rovik, Vaglum,

Gronvold, & Ekeberg, 2004; Vogel et al., 2005). All three of these studies assessed help-seeking for mental health difficulties or general psychological distress amongst a general sample of university students. Given the health and economic costs of poor help-seeking rates for MDD, the paucity of studies examining factors that predict help-seeking behaviour in MDD represents a significant gap in the literature. Furthermore, studies that investigate these factors with clinically distressed participants may be more informative for understanding help-seeking decisions for MDD.

To address this gap in the literature, the current study sought to examine factors that predict prospective help-seeking behaviour for MDD. As the majority of individuals seek treatment within the 12-months following symptom onset (Christiana et al., 2000; Kessler et al., 1998), outcome measures assessed the receipt of treatment for MDD at several time points up to 12-months from baseline measures. Study 3 indicated that an integrated model of the TPB and HBM, extended to incorporate identity acceptance, was able to account for a significant proportion of variance in help-seeking intentions. As factors from these models may influence help-seeking behaviour independently from intentions, this study first tested the utility of each of the original two models in predicting help-seeking behaviour. Consistent with the approach of Study 3, a unified model drawing on significant predictors from each of the two models was also estimated. Further, to investigate the role of intentions in decisions to seek treatment for MDD, this study subsequently tested the hypothesis that intentions to seek help mediate the relationship between predictors of help-seeking and help-seeking behaviour.

6.2 Method

6.2.1 Participant Recruitment and data collection

Recruitment and data collection procedures are described in full in Chapter 5. Participants (N = 400) who completed questionnaire measures for Study 3 and were not receiving treatment for depression were invited to complete further questionnaire measures 3-, 9-, and 12-months after completing Study 3. Following the initial invitation to participate in each of the follow-up questionnaires, participants were sent up to three additional email reminders to take part.

6.2.2 Inclusion criteria

As this study was interested in investigating factors associated with seeking treatment for symptoms of depression, only those participants indicating symptoms of MDD during the follow-up period, and were therefore judged to demonstrate some need for treatment, were included in the analyses. This was assessed as a score ≥ 5 on the PHQ9 (indicating mild and above symptoms of depression; Kroenke, et al., 2001) at one or more time points following baseline measures.

6.2.3 Measures

Help-seeking behaviour was assessed at each follow-up time point. Participants were asked “are you currently receiving treatment for depression; e.g. antidepressants, psychological therapy, counselling”. Responses were assessed as either a yes or no response. A dichotomous outcome variable assessing help-seeking for MDD was calculated to include having received treatment for MDD at one or more time points following baseline.

6.2.4 Data analytic approach

The utility of the TPB and HBM, extended to incorporate identity, to predict help-seeking for MDD was assessed using separate hierarchical logistic regression analyses. Consistent with Study 3, a combined model of help-seeking was also examined, drawing on predictors of help-seeking from each of the two models.

In order to examine the role of intentions to seek help in predicting help-seeking behaviour, logistic regression was used to firstly test whether intentions to seek help at baseline was able to predict subsequent help-seeking behaviour. Finally, bootstrapping analyses (Preacher & Hayes, 2008) were conducted to test the hypothesis that intentions to seek treatment mediate the relationship between individual predictors and help-seeking behaviour (10000 resamples). Multiple mediation models were tested using the SPSS PROCESS macro provided by Hayes (2013). This software applies a combination of linear regression (when outcomes are continuous, e.g. path *a* between IVs and intentions) and logistic regression analyses (when outcomes are dichotomous, e.g. help-seeking behaviour) to provide the magnitude and significance of the *a* (independent variable [IV] to mediator), *b* (mediator to dependent variable [DV]), *c* (IV to DV), and *c'* (IV to DV, controlling for mediators) paths, and generates bias-corrected confidence intervals for indirect effects (*ab*). To meet the requirements for mediation, there should be a significant relationship between independent variables and the proposed mediator (path *a*), and between the proposed mediator and dependent variable (path *b*; Baron & Kenny, 1986; Preacher & Hayes, 2008). However, in contrast with the criteria for mediation specified by Baron & Kenny (1986), recent approaches do not specify a requirement for a significant direct relationship between independent and dependent variables

(path c; Preacher & Hayes, 2008). As a consequence, analyses tested for an indirect pathway between all significant predictors of intentions (Study 3) and help-seeking, via intentions. Preacher and Hayes (2008) further note that as analyses including both the independent variable and mediator will result in multicollinearity (as these variables are correlated), this may reduce the statistical power in tests of pathway coefficients. As a consequence, they suggest that it is important to consider the magnitude of the coefficient, in addition to its p-value.

In all analyses, control variables (depression severity, age, and past treatment seeking) were controlled for at Step 1. SPSS diagnostics indicated that all VIF < 3, all tolerance statistic > .2

6.3 Results

6.3.1 Participation

Of the 400 participants who completed Study 3, 271 participants (67.75%) completed at least one follow-up questionnaire for Study 4. Overall, 209/400 (52.3%) participants completed the 3-month follow-up, 196/400 (49.0%) completed the 9-months follow-up, and 180/400 (45.0%) completed the 12-month follow-up.

T-test and chi-square analyses were used to explore if there were any differences at baseline between those who did and did not complete at least one follow-up questionnaire. The results indicated that those who completed at least one follow-up were significantly more likely to be older than those who didn't (mean age in years of those who did not complete = 24.02, SD = 6.87; mean age of those who did complete = 27.49, SD = 6.87; $t(395) = -3.34$ $p = .001$). Those who completed were also more likely to have sought treatment in the past (32/129; 24.81%) compared to 99/271 (36.53%) of those who did not complete ($\chi^2 = 5.46$, $df = 1$, $p = .023$). All subsequent analyses included age and past treatment seeking as control variables.

6.3.2 Inclusion criteria

As we were interested in investigating help-seeking for MDD, we sought to only include participants who were experiencing symptoms of depression in analyses. This resulted in 214/271 (78.97%) participants who scored ≥ 5 on the PHQ9 at one or more time points following baseline being included in all further analyses.

6.3.3 Help-seeking

Help-seeking rates are displayed in Table 6.1.

Table 6.1

Frequency of new and total help-seeking at each follow-up for participants experiencing symptoms of low mood

	3 months	9-months	12-months
New help-seeking	-	22/159 (13.84%)	9/147 (6.12%)
Total help-seeking	15/167 (8.98%)	30/159 (18.87%)	29/147 (19.73%)

6.3.4 Preliminary analyses

Correlation analyses between all main variables are presented in Table 6.2.

Table 6.2

Main variable correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. PHQ9	-	.060	-.109	.129	-.184*	.117	-.165*	-.345**	.404**	.274**	.290**	-.076	-.230*	.152*	.441**	.187*	.175*
2. Gender		-	-.072	.022	.118	.039	.096	.084	.109	-.054	.027	-.064	.029	.109	.072	.083	.026
3. Age			-	.343**	.027	-.047	.071	.120	.059	.004	-.143*	.043	.255**	.057	.078	.132	.093
4. Past tx				-	.061	.222*	.011	.039	.427**	.169*	-.042	-.049	.225*	.301**	.432**	.255**	.156*
5. Attitude					-	.079	.094	.552**	-.118	-.190*	-.455**	.250**	.391**	-.032	-.174*	-.006	.084
6. Subj Norm						-	.218*	-.036	.338**	.296**	.069**	.214*	-.032	.365**	.346**	.461**	.194*
7. Desc Norm							-	.089	-.075	-.016	-.101	.168*	.016	.030	-.078	-.037	.019
8. PBC								-	-.190*	-.235*	-.540**	.121	.599	.003	-.291**	.011	-.062
9. Suscept									-	.467**	.138*	-.023	-.069	.367**	.625**	.460**	.192**
10. Severity										-	.366**	.101	-.088	.367**	.432**	.286**	.196*
11. Barriers											-	.032	-.492**	.083	.202*	.092	.054
12. Benefits												-	.072	.088	-.092	.285**	.093
13. Self-efficacy													-	.076	-.139	.113	.004
14. Cues														-	.379**	.359**	.229**
15. Identity															-	.404**	.227**
16. Intention																-	.278**
17. Help-seeking																	-

Note: Past tx = Having sought treatment in the past, Subj Norm = subjective norm, Desc Norm = descriptive norm, PBC = perceived behavioural control, Suscept = Susceptibility, Cues = Cues to action. All calculations including PHQ9, age, gender, past tx, intention, attitude, self-efficacy, cues to action and identity were conducted using Spearman's correlation coefficient. All remaining calculations were conducted using Pearson's correlation coefficient.

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

6.3.5 Does identity at baseline predict help-seeking behaviour, over and above health behaviour models?

Following on from the results of Study 3, we sought to examine whether identity acceptance was able to predict help-seeking for depression, independently and in addition to socio-cognitive predictors of health behaviour. The utility of the TPB and HBM, extended to incorporate identity, to predict help-seeking for MDD was assessed using separate hierarchical logistic regression analyses. Consistent with Study 3, a combined model of help-seeking was also examined, drawing on predictors of help-seeking from each of the two models. Model statistics for all three analyses are presented in Table 6.3.

Table 6.3

Model statistics for the TPB, HBM and combined model in predicting help-seeking for MDD

		R ²	χ ² (df)	Sig.	R ² block	χ ² block(df)	Sig.block
TPB	Control variables	.081	10.48(3)	.015	-	-	-
	Step 2	.153	20.28(7)	.005	.072	9.81(4)	.044
	Step 3	.196	26.41(8)	.001	.043	6.12(1)	.013
HBM	Control variables	.082	10.28(3)	.016	-	-	-
	Step 2	.192	24.86(9)	.003	.110	14.58(6)	.024
	Step 3	.227	29.79(10)	.001	.035	4.93(1)	.026
Combined	Control variables	.082	10.45(3)	.015	-	-	-
	Step 2	.221	29.61(6)	.000	.139	19.16(3)	.000

Theory of Planned behaviour

To test the utility of the Theory of Planned Behaviour (TPB) at baseline extended to include identity in predicting help-seeking for depression symptoms, hierarchical logistic regression was used to predict help-seeking for depression at any time point during the 12-months following baseline. Control variables (age, depression severity at baseline, and past help-seeking) were entered at Step 1; TPB variables were entered at Step 2; and identity at Step 3. Two cases exhibiting standardised residuals greater than 3 SD from the mean with extreme leverage and/or Cook's distance values were removed. Individual predictors are presented in Table 6.4. At Step 1, depression severity and past treatment seeking were significant predictors of help-seeking behaviour. The TPB constructs significantly improved the fit of the control variables to the data, and attitudes and subjective norm were both positively associated with help seeking behaviour. The addition of identity improved the model, greater identity as a depressed person was associated with increased help-seeking behaviour. Subjective norm was no longer a significant predictor of identity following the addition of identity.

Table 6.4

TPB and identity: Predictors of any help-seeking following baseline

Variable	Model 1					Model 2					Model 3				
	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>
Constant	-1.87	6.30	.012	.15		-4.07	6.93	.008	.02		-6.56	11.14	.001	.00	.93:1.12
PHQ9	.08	3.93	.047	1.08	1.00:1.16	.06	1.89	.169	1.06	.98:1.15	.03	.38	.539	1.03	.97:1.05
Age	.01	.12	.733	1.01	.97:1.04	.01	.53	.465	1.01	.98:1.05	.01	.45	.503	1.01	.35:2.10
Past tx	-.82	4.68	.031	.44	.21:.93	-.64	2.58	.108	.53	.24:1.15	-.21	.21	.645	.81	1.06:2.53
Attitude						.43	4.29	.038	1.53	1.02:2.30	.50	5.22	.022	1.64	.70:1.60
Subjnorm						.38	4.31	.038	1.46	1.02:2.09	.24	1.52	.217	1.27	.78:1.35
Descnorm						-.06	.18	.668	.95	.73:1.22	-.02	.02	.902	.98	.53:1.15
PBC						-.29	2.40	.121	.75	.52:1.08	-.23	1.42	.233	.80	.97:2.45
Identity											.54	5.55	.019	1.72	1.06:2.10

Note: Past tx = past treatment seeking, Subj Norm = subjective norm, Desc Norm = descriptive norm, PBC = perceived behavioural control

Health Belief Model

To test the Health Belief Model (HBM) adapted to include identity, a hierarchical logistic regression analysis was conducted with control variables at Step 1, HBM variables at Step 2, and identity at Step 3. Two cases with standardised residuals greater than 3 SD from the mean and exhibiting extreme leverage and/or cook's distance values were removed from the analysis. Individual predictors are presented in Table 6.5. Depression severity and past treatment seeking were significant predictors of help-seeking at Step 1. The HBM significantly improved the variance in help-seeking explained by the control variables, however cues to action at baseline was the only significant predictor of help-seeking. The addition of identity significantly improved the model, with greater identity as a depressed person associated with increased help-seeking.

Table 6.5

HBM and identity: Predictors of any help-seeking following baseline

Variable	Model 1					Model 2					Model 3				
	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>
Constant	-1.72	5.14	.023	.18		-4.81	7.12	.008	.01		-6.57	10.14	.001	.00	
PHQ9	.07	3.64	.056	1.08	1.00:1.16	.04	.74	.391	1.04	.95:1.14	.02	.16	.689	1.02	.93:1.12
Age	.01	.00	.953	1.00	.97:1.04	-.00	.03	.854	1.00	.96:1.03	-.01	.07	.797	1.00	.96:1.04
Past tx	-.87	5.08	.024	.42	.20:.89	-.49	1.13	.289	.61	.25:1.52	-.26	.29	.593	.77	.30:2.00
Susceptibility						.07	.15	.702	1.07	.77:1.49	-.11	.31	.578	.90	.62:1.30
Severity						.39	2.00	.157	1.48	.86:2.54	.34	1.43	.231	1.40	.81:2.43
Barriers						-.03	.01	.906	.97	.58:1.62	-.06	.05	.826	.94	.55:1.61
Benefits						.27	.94	.332	1.31	.76:2.26	.36	1.63	.202	1.44	.82:2.51
Self-efficacy						.03	.03	.875	1.03	.72:1.47	.07	.13	.717	1.07	.75:1.53
Cues						.31	5.50	.019	1.37	1.05:1.77	.27	3.88	.049	1.31	1.00:1.71
Identity											.59	4.62	.032	1.80	1.05:3.09

Note: Past tx = past treatment seeking

Combined model

A combined model, incorporating significant predictors of help-seeking behaviour from the TPB, HBM and identity, was also tested. In this analysis, control variables were entered at Step 1, followed by attitude, cues to action and identity at Step 2. Attitude, cues to action, and identity acceptance explained 13.9% over and above the control variables; however only attitude, cues and identity were significant predictors of help-seeking in the final model. Individual predictors are presented in Table 6.6.

Table 6.6

Final predictors and identity: Predictors of any help-seeking following baseline

Variable	Model 1					Model 2				
	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>
Constant	-1.82	5.94	.015	.16		-6.52	13.06	.000	.00	
PHQ9	.07	3.63	.057	1.08	1.00:1.16	.04	.64	.424	1.04	.95:1.13
Age	.01	.14	.713	1.01	.97:1.04	.00	.01	.915	1.00	.97:1.04
Past tx	-.84	4.86	.027	.43	.21:.91	-.08	.03	.860	.92	.38:2.25
Attitude						.38	3.92	.048	1.46	1.00:2.13
Cues						.34	6.80	.009	1.40	1.09:1.81
Identity						.50	4.58	.032	1.65	1.04:2.61

Note: Past tx = past treatment seeking, Cues = cues to action

6.3.6 *The role of intentions to seek treatment*

To test the relationship between intentions to seek treatment and help-seeking behaviour, intentions were entered at Step 2 of a hierarchical logistic regression, following control variables. The results revealed that intentions explained a significant proportion of the variance in help-seeking behaviour ($R^2 = .146$, $\chi^2(4) = 20.57$, $p < .001$, $R^2\Delta = .078$, $\chi^2\text{block}(1) = 11.27$ $p = .001$).

Individual predictor estimates are presented in Table 6.7.

Table 6.7

Intention to seek treatment as a predictor of help-seeking

Variable	Model 1					Model 2				
	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>	<i>B</i>	<i>Wald</i>	<i>Sig</i>	<i>Exp (B)</i>	<i>CI 95%</i>
Constant	-1.62	5.14	.023	.20		-2.48	9.63	.002	.08	
PHQ9	.07	3.67	.056	1.07	1.00:1.15	.05	1.41	.235	1.05	.97:1.13
Age	.00	.01	.923	1.00	.97:1.03	.00	.00	.966	1.00	.97:1.03
Past tx	-.75	4.38	.036	.47	.23:.95	-.52	1.91	.167	.59	.28:1.24
Intention						.46	11.11	.001	1.59	1.21:2.08

Note: Past tx = past treatment seeking

Mediation analyses

Study 3 revealed that factors from the unified model (subjective norm, susceptibility, benefits, self-efficacy, cues to action and identity) explained a significant proportion of the variance in intentions to seek treatment. We sought to test the presence of an indirect pathway between these factors and help-seeking behaviour, via intentions.

Table 6.8 displays mediation results. A significant indirect effect of independent variables on help-seeking behaviour via intentions is indicated by confidence intervals that do not include zero (represented in bold, Table 6.8). The results of the mediation analyses revealed significant indirect relationships between subjective norm (Figure 6.2), susceptibility (Figure 6.3), benefits (Figure 6.4), self-efficacy (Figure 6.5), cues to action (Figure 6.6) and identity (Figure 6.7). Thus, the hypothesis that intentions to seek help mediate the relationship between individual predictors and help-seeking behaviour is supported. Although intentions mediated the relationship between cues to action and identity and help-seeking, the strength of the direct relationship between cues to action and identity and help-seeking (path *c'*) was moderate.

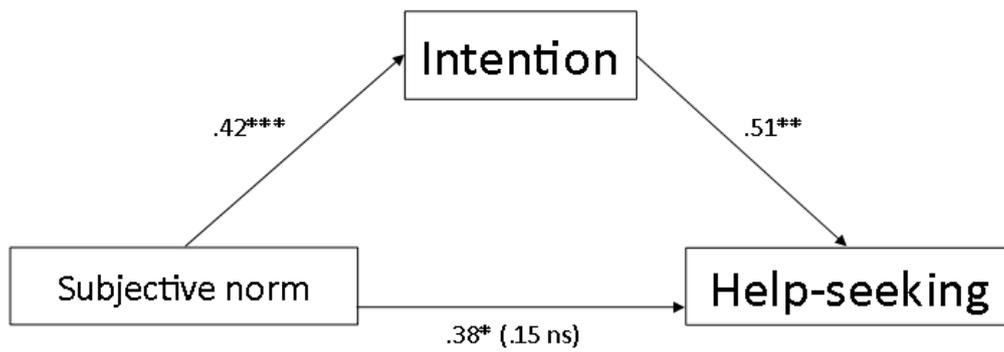
Table 6.8

Mediation analyses

Independent Variable	<i>a</i> Path (IV to M)		<i>b</i> Path (M to DV)		<i>c</i> Path (IV to DV)		<i>c'</i> Path (IV to DV, controlling for M)		<i>ab</i> (indirect effect)			
	B	SE	B	SE	B	SE	B	SE	<i>ab</i>	SE	95% CI	
Subj norm	.45**	.07	.41**	.15	.34*	.17	.13	.19	.19	.08	.04	.36
Suscept	.34***	.06	.43*	.15	.24	.10	.08	.16	.15	.06	.05	.27
Benefits	.58***	.11	.44**	.15	.40	.25	.11	.27	.25	.10	.08	.47
Self-efficacy	.15*	.07	.46**	.15	-.00	.15	-.08	.16	.07	.04	.02	.16
Cues	.21***	.06	.37*	.15	.35**	.12	.27*	.12	.08	.04	.02	.18
Identity	.34***	.08	.41*	.18	.41*	.19	.25	.20	.14	.06	.04	.29

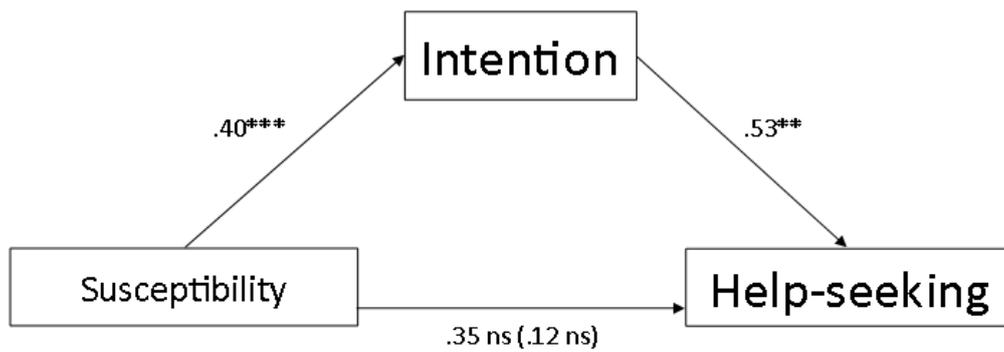
P* < .05, *P* < .01, ****P* < .001.

Figure 6.2: Standardised pathways between subjective norm, intentions and help-seeking for MDD



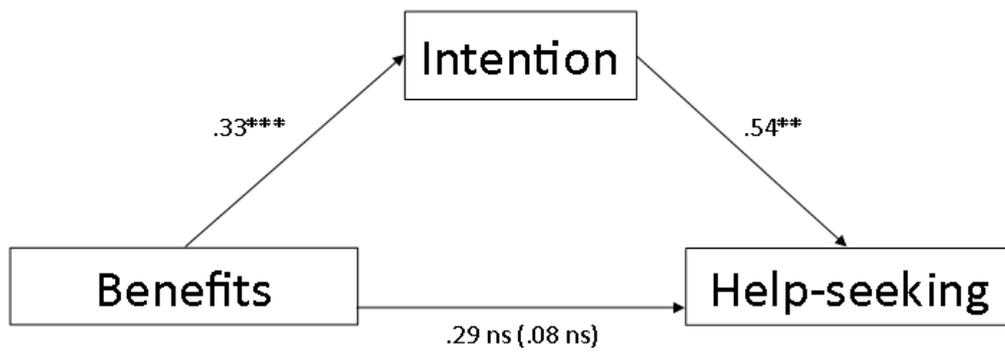
* = $p < .005$, ** = $p < .01$, *** = $p < .001$

Figure 6.3: Standardised pathways between susceptibility, intentions and help-seeking for MDD



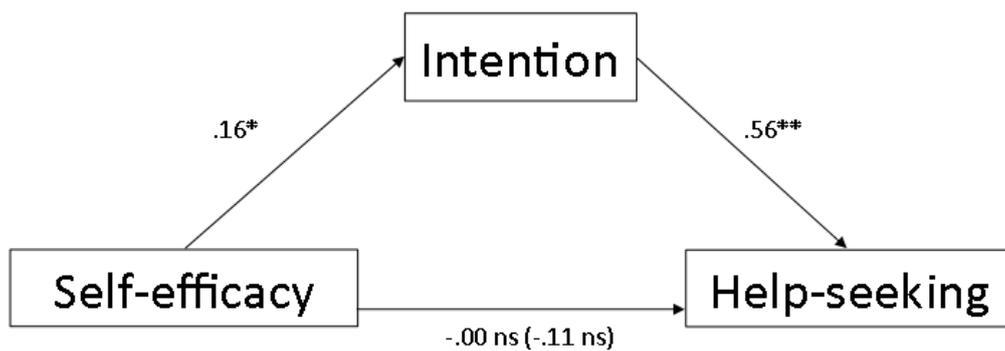
* = $p < .005$, ** = $p < .01$, *** = $p < .001$

Figure 6.4: Standardised pathways between benefits, intentions and help-seeking for MDD



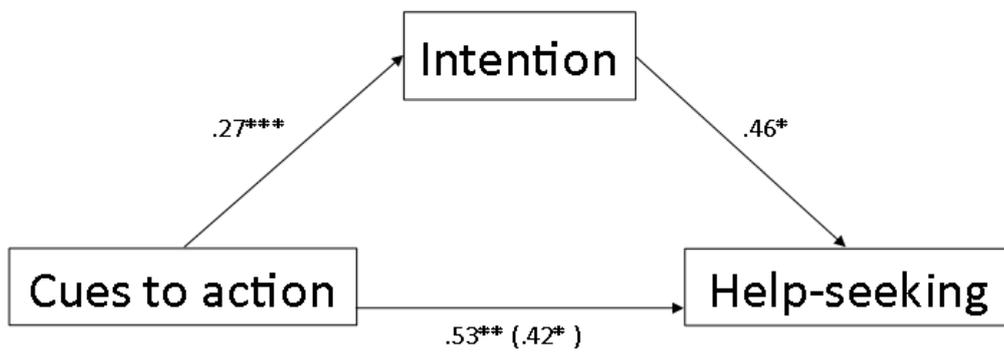
* = $p < .005$, ** = $p < .01$, *** = $p < .001$

Figure 6.5: Standardised pathways between self-efficacy, intentions and help-seeking for MDD



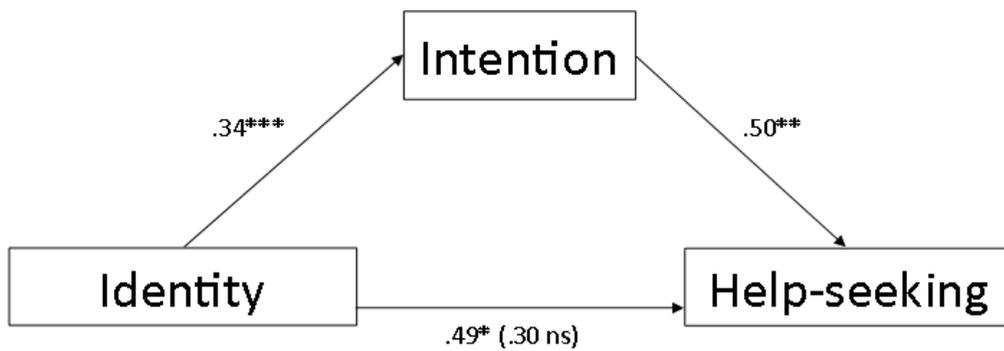
* = $p < .005$, ** = $p < .01$, *** = $p < .001$

Figure 6.6: Standardised pathways between cues to action, intentions and help-seeking for MDD



* = $p < .005$, ** = $p < .01$, *** = $p < .001$

Figure 6.7: Standardised pathways between cues to action, intentions and help-seeking for MDD



* = $p < .005$, ** = $p < .01$, *** = $p < .001$

6.4 Discussion

Research indicates that poor help-seeking rates contribute significantly to the health and economic burden of MDD (Cuijpers, 2011; Thompson et al., 2008). This study investigated whether two established models of health behaviour, the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM), were able to prospectively predict help-seeking for MDD. The results indicated that constructs from the TPB explained 7.2% and constructs from the HBM explained 11% of the variance in help-seeking behaviour, over and above control variables. The results also revealed that the addition of identity acceptance significantly improved each of the models in predicting help-seeking. However, only attitude, cues to action and identity acceptance were significant direct predictors of help-seeking. Analyses testing the combined effect of these factors revealed that these three factors explain 13.9% of the variance in help-seeking after control variables. Further analyses revealed that intentions to seek help at baseline significantly predicted prospective help-seeking behaviour, and explained 7.8% of the variance in help-seeking after control variables. Moreover, intentions to seek help mediated the relationship between help-seeking behaviour and perceived susceptibility, benefits, self-efficacy, cues to action and identity acceptance. These results build on the findings of Study 3, and provide evidence that constructs from the Theory of Planned Behaviour and Health Belief Model in addition to identity acceptance are associated with help-seeking for MDD. Further, this is the first study to investigate the extent to which intentions, and factors associated with help-seeking intentions, predict prospective help-seeking behaviour for MDD.

Although the results revealed that intentions to seek help at baseline significantly predicted subsequent help-seeking behaviour, intentions explained only a small proportion of the variance in help-seeking behaviour. Based on Cohen's (1992) definition of effect sizes, this only constitutes a small effect size of the relationship between intentions and help-seeking. While the results suggested that intentions are associated with help-seeking behaviour, these findings therefore suggest that additional factors may also influence the likelihood that depressed individuals may seek help.

This is consistent with findings that several factors predicted help-seeking behaviour independently from intentions to seek help. Attitude, as conceptualised by the TPB, was a significant predictor of help-seeking behaviour, however was not associated with intentions to seek help (Study 3). Furthermore, after accounting for the mediational role of intentions to seek help, direct pathways between help-seeking behaviour and both cues to action and identity acceptance remained of moderate strength. While these factors may inform individuals' intentions to seek help, these findings suggested that these factors may also play an important role in help-seeking independently from intentions.

These results raise interesting questions about the role of intentions in help-seeking behaviour. The majority of help-seeking research has emphasised the role of reasoned decision-making processes in decisions to seek help for mental health disorders. However, several researchers have called for the application of dual-processing theories of decision making to understanding help-seeking (Hammer & Vogel, 2012; Wills & Gibbons, 2009). These theories take into account factors that may influence decisions beyond the expectancy-

value framework that has formed the basis of previous help-seeking research and is adopted by the TPB and HBM. These factors may include the role of heuristics, emotions, and reactive processes (Gerrard, Gibbons, Houlihan, Stock, & Pomery, 2008; Kahneman, 2003; Tversky & Kahneman, 1974). As these factors may be particularly relevant for behaviour that is emotional or socially stigmatised (Gerrard et al., 2008), these processes may be important in understanding help-seeking for MDD. To date only one study has investigated a dual process account of decisions to seek help for mental health difficulties. In this study (Hammer & Vogel, 2012), openness to seeking help when presented with an opportunity to do so was a significant predictor of willingness to seek counselling, while behavioural intentions were not. The authors suggest that opportunities to seek help may result in help-seeking behaviour independently from raising behavioural intentions. Rather, individuals may be open to seeking help, without having developed strong intentions to do so based on reasoned decision-making processes. Individuals may then seek help when an opportunity arises. This is consistent with the findings in this study that cues to action may have both a direct and indirect association with help-seeking.

Consistent with the findings of Study 3, the current findings provide strong support for the role of cues to action in help-seeking decisions. It is interesting to note the effect of cues to action in this study, given that cues to action were assessed at baseline, and will therefore have been experienced by participants some months prior to seeking treatment. This raises the possibility that prompts to seek help may have a long-lasting impact on individuals' decisions to seek treatment. It may also be that experiencing cues at an earlier time point is associated with experiencing more cues later in the help-seeking process. For example, a GP or significant other who suggests seeking treatment may be

likely to suggest this more than once. Cues to action is the least studied factor of the HBM (Harrison et al., 1992; Henshaw & Freedman-Doan, 2009), however these results suggested that further research to investigate the way in which cues influence help-seeking behaviour may have valuable implications for informing help-seeking interventions.

The current findings also provide further support that identity acceptance is associated with an increased likelihood of seeking treatment for MDD. Findings suggested that identity acceptance may inform individuals' intentions to seek help, and may also have a direct relationship with help-seeking behaviour. The relationship between identity and help-seeking is consistent with research that demonstrates that individuals are more likely to engage in behaviour that is consistent with the way they see themselves (Biddle et al, 1987; Charng et al., 1988; Fielding et al., 2008), as well as with research in the wider literature that suggests that incorporating illness into identity is associated with greater treatment engagement (Adams et al., 1997; Bury, 1982; Goldman & Maclean, 1998). Individual accounts from Study 1 suggested that incorporating symptoms into identity was the prompt for individuals to begin to consider help-seeking. Failure to incorporate symptoms of illness into identity is associated with maladaptive coping such as symptom avoidance (Adams et al., 2007; Andersen, 1995; Baumgartner, 2007), which delays help-seeking (Study 1). While the results of this study suggested that identity as a depressed person precedes help-seeking behaviour, further research is needed to establish whether there is a causal relationship between a change in identity to accept depressive symptoms and help-seeking. Due to the small number of people in this study who sought treatment for MDD and completed consecutive follow-up questionnaires, we were unable to test whether change in identity acceptance

occurred immediately prior to seeking help. Alternative research methods may be needed to investigate whether changes in identity increase the likelihood of help-seeking. For example, whether individuals low in identity acceptance at baseline were more likely to seek treatment for MDD after increases in identity acceptance. Future research employing experience sampling methods may allow researchers to track more closely the change in identity over the help-seeking process. In addition, some research exploring the influence of social identity on health behaviour has previously used experimental manipulations to make an existing identity salient to participants (e.g. Tarrant & Butler, 2011; Tarrant, Dazeley, & Cottom, 2009). While this method may be limited to those depressed individuals who have already incorporated depressive symptoms into the way they see themselves, it may be used to test the relationship between a depression identity and response to symptoms. Such research may improve understanding of identity processes in help-seeking, and inform whether identity may have a useful role in the development of help-seeking interventions for MDD.

It is interesting to note that attitude towards seeking treatment, as conceptualised by the TPB, predicted help-seeking behaviour, but not intentions to seek treatment (Study 3). As discussed in Chapter 5, attitude as conceptualised by the TPB assesses generalised attitudes towards whether seeking treatment for MDD is a positive behaviour. Other beliefs about treatment, such as perceived benefits and subjective norm that are associated with intentions to seek treatment, reflect more personalised beliefs about one seeking treatment. Research indicates that attitudes towards symptoms and help-seeking vary depending on whether the target is oneself or another (Care & Kuiper, 2013). As a consequence, it may be that attitudes towards oneself

seeking treatment may influence personal intentions, while general beliefs that help-seeking is a positive behaviour may be associated with a greater likelihood of actually seeking treatment.

6.4.1 Limitations

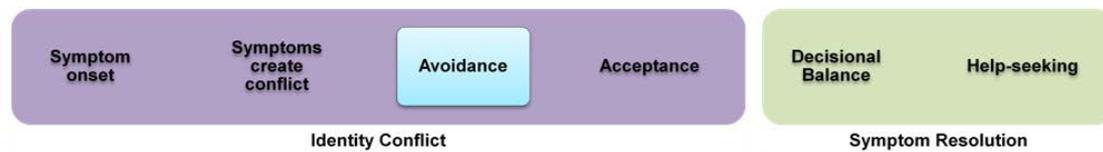
This study investigated factors associated with prospective help-seeking behaviour for MDD. However, it is important to note that the results of this study are not able to account for some instances of help-seeking behaviour. The questionnaire item used to assess help-seeking behaviour asked whether participants were currently receiving treatment for MDD at the time of completion. This item will therefore not account for any individuals who attempted to seek help but were unable to do so (e.g. their preferred treatment was unavailable), individuals who accessed treatment but terminated this early, or those who completed a course of psychological therapy between time-points. While the study included help-seeking measures at multiple time points in a 12-month period, all predictors of help-seeking behaviour were assessed at baseline. This study therefore does not account for change in these factors over time. Conceptualisation of the TPB and HBM has not clearly addressed the role in which participants' attitudes change over time, and the vast majority of studies employing these models utilises a cross-sectional approach (Armitage & Conner, 2000). However, it is conceivable that attitudes, particularly towards symptoms, may change over the course of illness. Intentions to seek help may therefore also change accordingly. Future research that assesses these constructs over time is therefore needed to investigate whether accounting for any change in these predictors may strengthen their relationship with help-seeking behaviour.

It is also important to note that as a longitudinal study, this study was subject to significant participant attrition. Overall, two thirds of participants completed one or more follow-up questionnaire. However, participation at each time point was approximately 50%. This may be an inherent limitation of longitudinal studies seeking to recruit participants with current mental health difficulties. However, participant attrition in this study is comparable with previous studies assessing help-seeking for mental health disorders or psychological distress in non-clinical populations (54.70% retention at 3-month follow-up; Vogel, et al., 2005; 59% retention at 2-year follow-up; Golberstein et al., 2009; 51.82% retention at 3-4 year follow-up; Tyssen et al., 2004). In this study, analyses revealed that those who did not complete follow-up questionnaires were significantly more likely to both be younger and have not sought treatment in the past. This may be in part due to the large number of participants who completed baseline measures in return for credit on an undergraduate psychology degree. As these participants were no longer eligible to receive credits for later questionnaires, these students may have been more likely to drop out. An alternative approach to investigating prospective help-seeking behaviour may be to assess help-seeking indirectly through health insurance claims in countries with private healthcare. For example, Koopmans and colleagues (2007) assessed help-seeking for physical health disorders in this manner. However, the authors acknowledge that mental health care and GP appointments were not included in insurance claims, and researchers should therefore be mindful of which sources of formal healthcare can be assessed using this method.

CHAPTER 7 : SYMPTOM AVOIDANCE AND METHODS FOR UNDERSTANDING PATIENT EXPERIENCES

The results of Study 1 suggested that symptom avoidance may be a major factor in understanding help-seeking delays for MDD. Participants discussed how they used symptom avoidance strategies to reduce the perceived severity of depressive symptoms, which reduced their perceived need for treatment and delayed help-seeking behaviour. The results also suggested that a reduction in symptom avoidance occurred alongside participants' acceptance of their symptoms; a key factor in help-seeking for MDD. These findings suggest that greater understanding of symptom avoidance in depression will inform our understanding of the help-seeking process in MDD. However, as discussed in Chapter 4, no previous research has explored the use of symptom avoidance in depressed individuals, and there are no existing measures of use of symptom avoidance strategies. In Studies 2 and 3, we used the Self-Appraisal of Illness Questionnaire (SAIQ) as an indirect measure of symptom avoidance. However, a direct measure of symptom avoidance may have greater sensitivity in assessing symptom avoidance strategies, which would enable a more detailed understanding of symptom avoidance in depression and how these strategies may influence identity conflict and acceptance processes in seeking help (Figure 7.1) The primary aim of Study 5 was to begin development of a direct measure of symptom avoidance strategies used by depressed individuals prior to seeking help.

Figure 7.1: The help-seeking process as described by participants in Study 1. Study 5 sought to gain further understanding of avoidance strategies used by depressed individuals to cope with symptoms prior to seeking help



Study 5 used an online focus group method to investigate strategies of symptom avoidance used by depressed individuals prior to seeking treatment. This was intended to build on our understanding of symptom avoidance derived from the results of Study 1, and to inform the development of specific items for the symptom avoidance measure. An online focus group method was chosen in order to discuss symptom avoidance strategies in detail with a wide number of depressed individuals, while also offering an opportunity for participants to provide direct feedback on the clarity and relevance of items developed from their accounts.

Unfortunately, this study faced severe methodological difficulties in the use of the online focus group, specifically low participation rates. As a consequence, the study generated no data relevant to the original research aims. While online focus groups have found popularity amongst researchers for investigating sensitive and health-related experiences (Williams et al., 2012), there is little guidance in the existing literature for designing and conducting these studies. Furthermore, while difficulties faced in this study have also been reported elsewhere, there is little guidance on how researchers can overcome these difficulties. To address this gap in the literature, the aims of this study shifted to investigate the reasons underlying low participation in the study. Participants

who took part in the study were requested to provide feedback on their experience of using the online focus group. This data was then analysed and used to generate guidance for future researchers intending to use online focus groups in health research.

The following chapter will describe the use of an online focus group method to explore avoidance coping strategies in depressed individuals prior to seeking treatment. Firstly, a general background to the use of online focus groups will be presented (Section 7.1), followed by a description of the methods and the problems encountered during the original study (Section 7.2 and 7.3). Methods and results of the feedback questionnaire will then be presented (Section 7.4 and 7.5), followed by recommendations for future use of this method (Section 7.6). The findings of the current chapter have valuable implications for future research exploring patient experiences of illness and coping, and may be used to guide future research using this method to develop a measure of symptom avoidance.

7.1 Introduction

Focus groups are frequently used to gather data from groups of participants who are having or have had similar experiences (Kitzinger, 1995), and are regularly used to inform the development of questionnaire measures (Nassar-McMillan & Borders, 2002). In response to widening familiarity with online communication (Williams, Giatsi Clausen, Robertson, Peacock, & McPherson, 2012), researchers have begun to use online focus groups, where participants are invited to participate in the discussion online (Fox, Morris & Rumsey, 2007; Williams et al., 2012). Online focus have been used to discuss a variety of health topics; including self-harm (Adams, Rodham, & Gavin, 2005), intervention delivery in occupational therapy (Boshoff, Alant, & May, 2005), and perspectives of people who use pro-anorexia websites (Williams & Reid, 2010). In the same way as face-to-face focus groups, online focus groups allow individuals to share their experiences on a common topic (Kitzinger, 1995). The discussion can be used to generate new concepts, as part of an exploratory research study, or to investigate the relevance of a particular theoretical perspective (Hughes & Lang, 2004). In the development of a new psychometric measure of avoidance of depressive symptoms, an online focus group may be able to investigate new avoidance coping strategies to inform the development of measure items, in addition to asking participants to discuss items derived from Study 1.

Online focus groups may also have a number of advantages over their face-to-face counterparts. In particular, the anonymity of participating online may be useful for gathering data that is personal or sensitive. Online focus group studies frequently encourage participants to use their own pseudonym during

the discussion (Williams et al., 2012), although some researchers suggest that participating online conveys anonymity even when participants use their own name (Montoya-Weiss, Massey, & Clapper, 1998). Qualitative researchers suggest that participants may be more likely to communicate openly and in depth about personal information in an online focus group, as this information may be more difficult to communicate face to face. Research indicates that individuals may be more likely to express thoughts and emotions online than they would do in a face-to-face focus group, due to concerns about the expectations or rejection of others (Bargh, McKenna, & Fitzsimons, 2002; Desanctis & Gallupe, 1987; Montoya-Weiss et al., 1998; Nunamaker Jr, Briggs, Mittleman, Vogel, & Balthazard, 1996; Williams et al., 2012). The anonymity of online focus groups may therefore be a useful method for exploring health topics. As Major Depressive Disorder is also a stigmatising condition, the anonymity of online focus groups may encourage participation and increase open discussion (Chen & Hinton, 1999; Joinson, 2003; Montoya-Weiss et al., 1998; Oringderff, 2008; Tates et al., 2009). Previously researchers have expressed concerns about the ability of participants to discuss their experiences openly in face-to-face focus groups, as this situation is characterised by the receiving of attention from others in a formal, novel, and conspicuous setting, which may heighten apprehension about sharing (Montoya-Weiss et al., 1998). Direct comparisons of face-to-face and online focus groups have revealed that participants in online focus groups feel more comfortable about contributing and divulge more sensitive information (Bruggen & Willems, 2009; Massey & Clapper, 1995). Joinson (2001) found that pairs working together online disclosed more personal information about themselves than those who worked face-to-face. Pairs were also less likely to disclose information about

themselves online when they could see each other via webcam. Furthermore, Fox and colleagues (2007) demonstrated that young people disclosed personal information and opinions in the online focus group, despite saying that they lacked the confidence to disclose this information to friends and family. The anonymity of online focus groups may therefore be a useful for method for encouraging participation amongst individuals who would normally lack the confidence to discuss their opinions and experiences openly in the presence of others (Fox et al., 2007). Research also suggests that individuals participating online may be more likely to share experiences that differ from others in the group or to disagree with other participants (Burton & Bruening, 2003). Face-to-face focus groups also frequently face difficulties when a small number of participants dominate discussion (Hughes & Lang, 2004). This can inhibit some participants in the group, and also lead to a skewed understanding of participants' experiences. However when participating online, individuals do not need to wait for a pause in conversation to contribute to the conversation (Hughes & Lang, 2004). As individuals with MDD may be sensitive to rejection and negative reactions from others (Franche & Dobson, 1992; Klein, Harding, Taylor, & Dickstein, 1988), the anonymity of online focus groups may therefore increase the likelihood that participants will discuss conflicting experiences. Online focus groups may therefore lead to a more accurate portrayal of the experiences of depressed individuals.

A further advantage of online focus groups is that participants are able to take part in the focus group from their own homes. This method may therefore offer a cost-effective approach that can overcome logistical difficulties associated with scheduling face-to-face focus groups (Miller, 1994; Williams et al., 2012). Online recruitment can also facilitate recruitment to a wider sample, without the

geographical limitations of face to face focus groups (Fox et al, 2007; Williams et al., 2012). This advantage may be useful to optimise recruitment amongst groups that are difficult or expensive to reach otherwise (Murray, 1997; Williams et al., 2012). The convenience of participating in a focus group online may therefore reduce the effort required for participants to participate, and may facilitate easier recruitment of individuals experiencing significant symptoms of depression at the time of the study.

Online focus groups can be either synchronous (occur in real time, using methods such as chat rooms or instant messaging) or asynchronous (the focus group operates like an online forum, and participants take part in the discussion in their own time). Synchronous online focus groups have been described as more closely representing the discussion in face-to-face focus groups (Walston & Lissitz, 2000). However, arranging a mutually suitable time for the focus group may be as problematic as a face-to-face focus group (Fox et al., 2007). Asynchronous groups may therefore be more convenient for participants, particularly those with high demands on their time or those who may struggle to attend at a particular time due to health reasons (Boshoff et al., 2005). Asynchronous focus groups may also allow participants time to consider and edit their responses to the discussion prior to sending, and may therefore lead to more detailed and accurate responses (Mann & Stewart, 2000; Murray, 1997; Tates et al., 2009). This also allows researchers time to reflect on the discussion and decide how best to respond to move the discussion forwards and focus on emerging themes (Montoya-Weiss et al., 1998). Synchronous online focus groups may move extremely quickly (Fox et al., 2007), which may result in more superficial responses (Gaiser, 1997). Hayes & Lang (2004) comment that synchronous online focus groups can result in 'chat room fatigue'

after approximately one hour, potentially due to the workload of following and contributing to a fast-moving discussion. On the other hand, asynchronous online focus groups remove the time pressure and the cognitive load associated with managing a conversation (Joinson, 2003). As depressed individuals may experience changes in cognition, such as difficulties concentrating (DSM-IV-TR, 2000), a longer response time allowed in asynchronous online focus groups may make it easier for participants to follow the discussion and participate. Allowing depressed individuals to have time to consider their responses may also facilitate more accurate responses. However, this may also reduce the spontaneity of participants' responses (Oringderff, 2004), which may be useful for some studies (Williams et al., 2012). Some researchers also note that after joining asynchronous focus groups, some participants may still choose not to participate or may drop out early (Burton & Goldsmith, 2002). To improve participation, reminder emails may be sent to these participants, and can also be used to remind all participants of new discussion topics (Burton & Bruening, 2003; Burton & Goldsmith, 2002).

One of the advantages of focus groups over the use of one-to-one interviews is the interaction between participants; which can provide greater insight into the topic under discussion (Kitzinger, 1995; Williams et al., 2012). Some researchers have questioned whether online focus groups undermine rapport and discussion between participants (Illingworth, 2001). However, other evidence suggests that individuals may be able to form close relationships quickly online (Aiken, Krosp, Shirani, & Martin, 1994; Bargh et al., 2002; McKenna, 2007; Whitty & Carr, 2006). Fox and colleagues (2007) commented that an online focus group with young people of varying ages and gender quickly resulted in an "engaging, dynamic discussion characterized by

disclosure sharing of information, and the offering of advice” (p. 544). The extent to which participants form relationships online may vary depending on their familiarity with online forums and social networking (Williams et al., 2012).

Face-to-face focus groups allow for the interpretation of non-verbal cues, which may improve understanding of participants’ experiences (Finlay, 2006).

However, asynchronous online focus groups allow individuals the time to explain their experiences in detail, which may provide rich emotive data (Williams et al., 2012). Rather than relying on non-verbal cues, participants may be more likely to convey their emotions textually, adding additional detail to convey their experiences (Williams et al., 2012). This may increase the validity of analyses of participants’ emotions, as the interpretation of non-verbal cues may be open to subjectivity (Williams et al., 2012). Some researchers have also suggested that participants may experience catharsis in writing about their emotions (Etherington, 2003; Pennebaker, 1993).

There is limited guidance in the literature concerning the role of the moderator in online focus groups. Overall, researchers suggest that the level of involvement of the moderator will be determined by the topic and the research purpose (Montoya-Weiss et al., 1998). Low involvement is more appropriate for exploratory topics, where participants discuss what is important and relevant to them without being biased by the moderator. The moderator may be more involved in the discussion when more control is desired over the topic, similar to a structured interview format (Montoya-Weiss et al., 1998). In face to face focus groups, a moderator may prompt participants for greater detail, particularly following the use of non-verbal cues (Stewart & Shamdasani, 1991). In online focus groups, moderators may be able to prompt participants to explain points.

This may include explaining ambiguous textual cues for emotion; including emoticons, punctuation (e.g. “???!!!”), and changes in font style (Montoya-Weiss et al., 1998).

A review of the literature suggests that an asynchronous online focus group may be a useful method to explore avoidance strategies in depressed individuals. The anonymity provided by the online method may encourage participation of individuals who may feel uncomfortable about participating openly in a study about MDD. The anonymity may also increase open discussion of participants' private experiences with symptoms of MDD and their strategies used to cope. As the period of time in which individuals become depressed and manage symptoms without professional support may be a difficult and emotional time to discuss, the asynchronous method may allow individuals time to consider their responses at times when they feel most able to do this. Furthermore, the online approach may encourage discussion and sharing in the group, which depressed individuals may find difficult in a face to face focus group.

7.2 Method online focus group

7.2.1 Design

There were two stages to this study: 1. an online screening process designed to identify people eligible to participate in an online focus group discussing symptom avoidance prior to seeking treatment; 2. an asynchronous online focus group

7.2.2 Recruitment

Based on previous recommendations (Burton & Goldsmith, 2002), approximately 10-15 participants aged 18-65 years were sought to participate in the focus group. Participants were recruited using a variety of methods; psychology student email lists, adverts in local cafés and community centres, adverts on internet forums and social networking sites. A prize draw was offered as an incentive to participate.

7.2.3 Eligibility criteria

Participants who scored ≥ 10 on the PHQ9 (indicating moderate and above symptoms of depression; Kroenke et al., 2001) in the screening questionnaire were invited to participate in the online focus group. Although symptom avoidance is thought to end or significantly reduce prior to seeking help, only participants who were currently seeking help were included in the study. This was to avoid current use of symptom avoidance undermining the accuracy of participants' responses. However, to reduce the effects of memory decay on recall of avoidance strategies, individuals who have sought help more recently were preferentially included in the sample.

7.2.4 Procedure

Advertising material included a web address of a consent form to participate. A two-stage consent process was followed; firstly, participants were required to consent for the research team to contact their GP in the event they disclose risk to themselves or others at any time during the study. After consenting, participants were directed to further information about the study and a final consent form to participate. Following consent, participants were directed to the screening questionnaire.

Participants who scored ≥ 10 on the PHQ9 were invited to participate in the online focus group and emailed the web address of the online focus group. The online focus group was hosted by Vanilla Forums (v.2.0.18.4). Each participant was given a profile in the focus group by the research team, and participants received a username and password to enter the focus group.

7.2.5 Measures

During the online screening process, participants were asked to provide their GP details, date of birth, provide a help-seeking history, and complete a measure of current depressive symptoms.

Depressive symptoms were assessed with the PHQ9 (Kroenke et al., 2001). The PHQ-9 is a 9-item self-report measure of depression symptom severity, and has been widely used in clinical and research settings. The PHQ9 has excellent test re-test reliability and high internal consistency ($\alpha = .89$).

Participants were asked to provide information on their help-seeking history for depression. Help-seeking was defined as formal help-seeking from a GP or

mental health professional. Participants were asked whether they were currently receiving treatment for depression (yes/no), and how long ago they sought help.

7.2.6 Content of the online focus group

The moderator (CF) opened the focus group with a general question, asking participants to introduce themselves to the group with some basic information. This question was intended to open discussion, and encourage participants to discuss topics with each other during the online focus group. The moderator responded to participants' replies, in order to encourage participants to feel welcome in the group. The opening discussion topic of the online focus group asked participants to provide some information about their experience prior to seeking treatment, including how severe their symptoms were and how they were coping with their symptoms. This question was intended to move the discussion onto the overall topic of the focus group, and encourage participants to think about the time before they sought treatment. Further questions were added to the focus group over a period of 4 weeks, which were informed by participants' responses. Initially, topics asked participants to discuss their experiences prior to seeking treatment further, as participants' responses had been short and lacking in detail. This was intended to set expectations for the level of detail sought for later discussion about coping strategies. To encourage discussion between participants in the focus group and to probe for further depth in participants' responses, the research team included prompts and sub-questions to each thread as necessary. Default settings on participants' accounts provided automatic reminder emails when new discussion topics and comments were posted in the online focus group. However, participants were

advised that this was voluntary, and participants were able to opt-out of these emails in their own profile settings.

7.3 Results of the online focus group

7.3.1 Use of the online focus group

Twenty-four individuals completed the screening questionnaire to participate in the online focus group. Of these, 14 participants met the inclusion criteria and were given a user profile and invited to participate in the online focus group. In total, the online focus group ran for 4-weeks. During this time, eight discussion topics were posted by the research team. Additional posts were also used by the research team during the discussion to provide encouragement or feedback to participants.

Two participants never logged into the online focus group. All 12 participants who logged into the online focus group posted at least one comment. The majority of individuals posted in the online focus group three times (Mean = 3.17, SD = 1.40, Mode = 3, Min = 1, Max = 6). Discussion topics and participation rates are displayed in Table 7.1.

Table 7.1

Discussion topics posted by CF with number of participant responses

Discussion topic	Posts
<p>1 Hi Everyone</p> <p>Welcome to the focus group and thanks for taking part!</p> <p>As explained when you first entered the study, we're running this focus group to hear your experiences of coping with symptoms of depression before seeking treatment. I'm Caroline and i'll be moderating the focus group. Over the next few weeks I'll be posting a new discussion topic once or twice a week, depending on how often everyone logs in to respond and chat with other people in the group. I'm really interested in hearing about your experiences and i'm looking forward to chatting with you all!</p> <p>I'll be posting the first discussion topic next week, but first I thought it would be nice if everyone could introduce themselves a little. Maybe you can respond to this post and tell me and the others a little bit about yourself? It doesn't have to be anything too personal, just say what you feel comfortable with. For example, what would you like to be called on the forum? Whereabouts in the UK are you? How did you hear about the study and what interested you in taking part?</p> <p>Looking forward to hearing from you,</p> <p>Caroline</p>	<p>11</p> <p>(28.95%)</p>
<p>2 Hi Everyone</p> <p>Thanks again to you all for logging in and taking part in the discussion. I've been trying to give everyone time to log into the site and take a look around, and so now I'd like to get the discussion going and hear about your experiences. This is the opening discussion topic of the focus group, and from now on I'll be regularly updating this thread throughout this and next week. I'll be on here frequently during that time, reading your responses and asking some additional questions as and when. Please do also feel free to chat with others on this thread too – I'm really interested to hear any questions and thoughts you all have too.</p> <p>So as you know, this study is about how people manage symptoms of depression before seeking treatment. Some people decide to seek help soon after their symptoms start, but many others can wait a long time before they do so. Others may not seek treatment at all. We're interested in hearing what people are doing to cope with their symptoms before they make the decision about whether to seek help.</p> <p>But before I get to that, I'd like to start off by asking you about how your symptoms started. So how long ago did your symptoms start?...Can you talk about what you think were the changes in your life and in the way you felt?</p>	<p>16</p> <p>(42.11%)</p>
<p>3 Well it seems from what you've been saying that the symptoms you were experiencing really affected your ability to do day to day things; such as socialising, going to work/university and getting things done.</p>	<p>0</p>

<hr/>		
	Can you also describe what you were thinking and feeling at this time?	
4	I really want to thank everyone for sharing their experiences. I'm really learning a lot about how things were for all of you before you decided to seek treatment and this is all incredibly helpful.	2 (5.26%)
	I've noticed that no one has responded to my last question, and i'm wondering whether actually this was a really tough question for me to ask you. It must have been an incredibly difficult time, and so I imagine that it must be painful to reflect back on how you were feeling and thinking. I'm trying to get a sense of the impact your symptoms were having on you. Is there a better way I could have asked this question?	
5	Hi [Participant8] and [Participant7], thank you so much for your response. It sounds like the both of you were experiencing a great deal of worry about the way your symptoms were affecting you - either in the way you were able to interact with others and about not being able to get things done in the same way. Would that be right?	1 (2.63%)
	From your answers I think I can understand why maybe this would have been a pretty tough question to answer. I can see that for the both of you, there was a great deal going on for you at this time. It must be incredibly difficult to try to explain all of that.	
	[Participant7], I take your point too about the threads. I want to start talking a little about coping, so I think i'll start a new thread to start that discussion.	
6	Thank you so much to everyone for taking part in the focus group so far. It's been really helpful for me to hear about your experiences after you started experiencing symptoms, and the way in which your symptoms affected your life and your ability to do normal activities. I can see how difficult this must have made things for you all. Given how much your symptoms impacted on your life, i'm wondering how you were able to manage your symptoms before you sought treatment? Did you still manage to get things done? ...if so, how?	4 (10.53%)
7	Thank you all so much for sharing with me. It's terrible that in research we know a lot about how depression affects people after they've sought treatment, but we hear very little about what people are going through when they're depressed and coping with it on their own. Hearing your experiences makes me realise just how tough it must have been for you. We also don't know much about how people are managing, which from what you say sounds incredibly difficult considering how much your symptoms were impacting on you.	4 (10.53%)
	In terms of how you all were coping with your symptoms, I can see that there are some differences between you...	
	So [Participant7], you describe how you analysed and researched your symptoms, although had difficulties when using this to reduce your symptoms. Did you find that doing this was helpful in any way? How did you manage to get things done when you weren't making progress?	
	[Participant2], you also discuss throwing yourself into projects. In what way was being distracted by these projects helpful to you? ...Did anyone else also use activities do distract themselves?	
	I'm also noticing some similarities between you too. So many if you	
<hr/>		

discuss hiding away at home. What was it that made you hide away?	
8	Thanks guys, yes you really did answer my questions brilliantly. I'm getting the impression that the time before seeking treatment is like 2 sides of a coin; part of the time you're 'putting on a face' and trying to get on with things, and then at other times you're exhausted and hiding away at home feeling overwhelmed. Does that make sense? Does that sound right?
	0
<p>You describe some quite tough feelings at this time, such as feeling upset and angry with yourself for not being able to do things. Previously some of you described feeling alone and isolated, and worrying about what was happening. How did you cope with these kinds of feelings? Were you able to do anything to reduce these feelings at all? [Participant2] talks about the importance of hope and self-esteem. Were these important to you during this time?</p> <p>Thanks again everyone, I really appreciate your time taking part and telling me about what I realise must have been an extremely difficult and painful time.</p>	
Total	38

7.4 Method of the feedback survey

7.4.1 Procedure

All 12 participants who logged into the online focus group on at least one occasion were contacted to request feedback on their experience with the focus group. At the end of the online focus group, all participants who participated in the focus group were informed about the early termination of the study and invited to provide feedback. Invitation emails contained a web link to an online feedback questionnaire. Participants were informed that feedback was anonymous.

7.4.2 Feedback questions

Participants were asked a combination of closed- and open-ended questions to provide feedback on their experience of using the online focus group in this study.

Firstly, participants were asked “Running focus groups online is a relatively new approach. Overall, what did you think about taking part in an online focus group to discuss how you coped with your symptoms before seeking treatment?”.

Responses were given on a scale ranging from 1 (Dislike very much) – 5 (Like very much).

Participants were asked to indicate whether they thought we should use an online focus group again to repeat this study; responses were ‘yes’, ‘no’, or ‘maybe (with improvements)’. Participants were also asked how long the online focus group should run, if it were to be repeated. Responses were; ‘1-2 hours: Schedule a specific time/date for everyone to log in’, ‘1 week: Post new questions every day for people to respond’, ‘2 weeks: Leave more time between

questions for people to respond', and '3 weeks or more: Give people plenty of time to respond'. Participants were asked to give a reason for their choice.

Participants were asked two open-ended questions about what they thought was positive about the online focus group. Participants were asked 'What do you think was positive about using an online focus group for this study' and 'If we use an online focus group when we repeat this study, what should we keep the same?'.

Participants also responded to two open-ended questions about what they thought was negative about using the online focus group. Participants were asked 'What do you think was not so good about using an online focus group for this study?' and 'What should we change or improve?'.

Participants were asked to indicate whether any of the following barriers prevented or put them off participating in the online focus group; 'lack of time', 'I didn't understand the questions', 'I didn't know what to write', 'I felt embarrassed or nervous about sharing my experiences', 'answering the questions was upsetting', 'my current symptoms of depression made it difficult for me to take part', 'I found the online software difficult to use', 'I got bored of taking part in the study', 'I forgot'. Participants were also given opportunity to provide three 'other' reasons that may have prevented or put them off participating in the focus group.

Participants were asked to rank a number of different methods of conducting this study again in order of their preference. Methods were; online focus group, face-to-face focus group, one to one interview, online questionnaire, postal questionnaire. A mean rank for each method was computed from participants' responses.

Participants were asked to provide an open response to the question; 'In the future we'd like to encourage more people to discuss the way they coped with their symptoms with each other. Can you think of anything we could do to encourage more people to do this?'.

Finally, participants were offered the opportunity to leave any final comments about the online focus group.

7.5 Results of the feedback survey

7.5.1 Participant response

Eleven participants responded to the feedback survey, although one person only answered the opening question.

7.5.2 Overall attitudes towards the online focus group

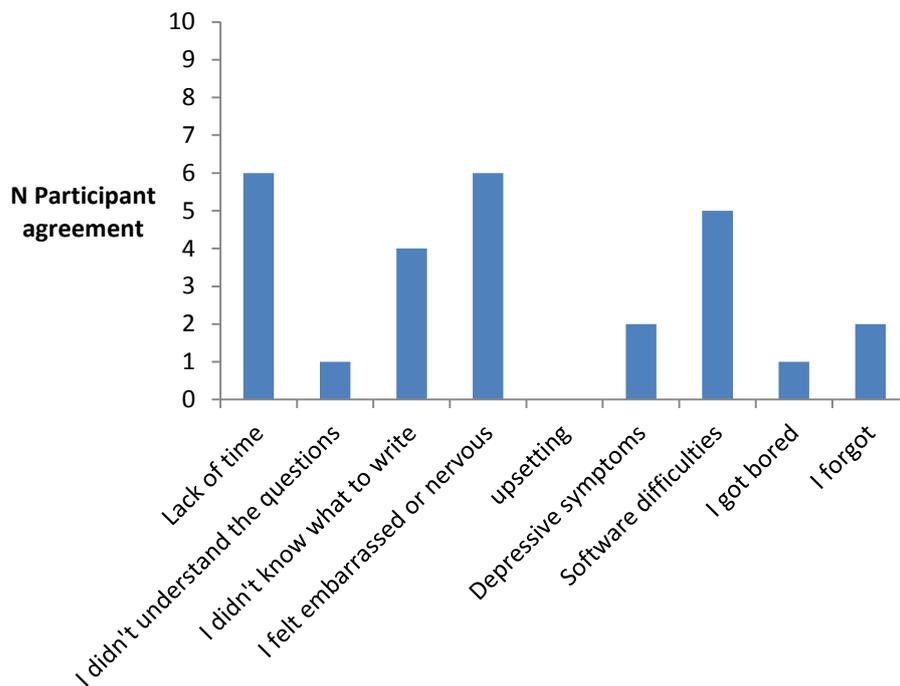
Overall, participants reported that they liked the format of online focus group to discuss how they coped with their symptoms (N = 11; Mean = 3.90, SD = .83). The majority of participants (N = 9; 90%) indicated that future use of online focus groups were appropriate, however 8 of these participants suggested that this should only be with improvements.

7.5.3 Time management of the online focus group

Participants indicated that one of the main benefits of the online focus group was the flexibility to fit this around their lives. Three (30%) participants liked that they could log into the focus group at times when they were available, and two participants discussed how they liked being able to manage the extent that they participated; “You can do it when you want, and put in as much as you want”. Another participant said “it...didn’t take up much of my time. There was a lot of flexibility in the use of it”.

However, four participants (40%) reported that they found it hard to keep up with the questions, and six participants in total reported that a lack of time reduced their participation in the focus group (see Figure 7.2). One participant suggested that not having a fixed end date for the focus group was “off-putting”.

Figure 7.2: Participants responses to the question “Did any of the reasons below prevent or put you off from participating in the online focus group?”

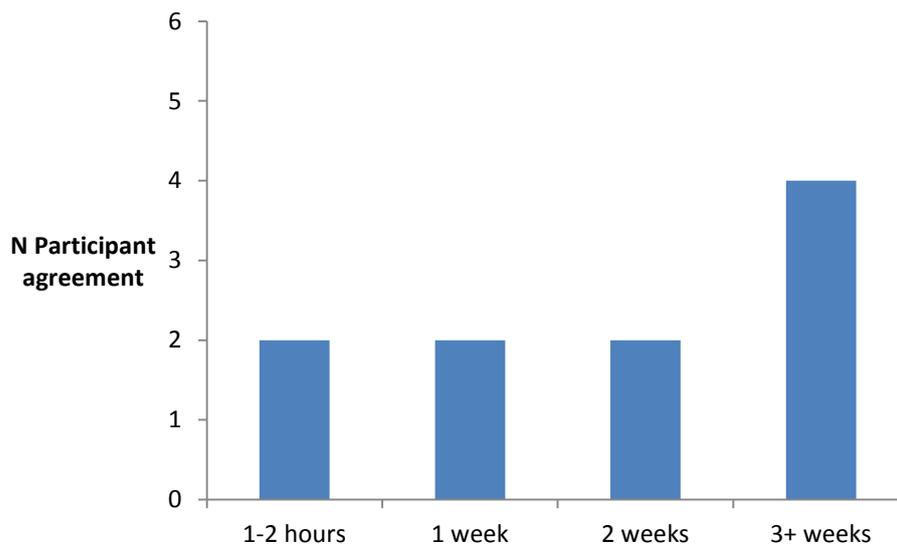


The majority of participants (60%) endorsed conducting the focus group over 2 or 3+ weeks (see Figure 7.3), suggesting that this would give people more time to respond. Those who endorsed conducting the focus group over one week also felt that this would reduce the likelihood that people would forget and people may be more likely to check in regularly. Two participants (20%) revealed that their symptoms interfered with their ability to participate in the focus group (see Figure 7.2). One participant suggested that having a set time to participate may overcome difficulties with low motivation;

“it is often hard to find the motivation to do anything, therefore having a type of appointment would be beneficial and encourage users to respond to the questions posted”.

Another participant further suggested that conducting the focus group over a 1-2 hour period would also “keep people focussed”. Although one participant suggested that they might find it difficult to commit to participating at a set time.

Figure 7.3: Participants’ responses to “We ran this online focus group over a few weeks. What do you think would be the best length of time to run an online focus group discussing ways of coping with symptoms of depression?”



7.5.4 Interacting with other participants

One participant discussed how the interaction in the online focus group felt more “real” than other online communication, such as blogs. Seven participants (70%) discussed how they enjoyed being able to interact with others in the focus group. Three participants (30%) discussed how this reduced feelings that they were alone, “It was interesting to hear about other people’s experiences and see that I’m not alone”. Participants also said that hearing about others’ experiences made them more open and gave them ideas of how to respond to questions in the group, “it was really good to see other people’s experiences and share stories, it made me feel more comfortable and at ease sharing my own experience”. Participants also reported that they felt heard and were

pleased that they could both receive some advice on how to cope with their symptoms, and help others; “an opportunity to have your voice heard, and to see how others cope, but also an opportunity to possibly use your own experience to help others”. However, not all participants found this helpful; one participant reported that she/he found it distressing to hear about the negative experiences of other participants’, “I found being unable to help people quite upsetting”.

7.5.5 Responding to discussion topics

Four participants (40%) reported that not knowing how to answer questions reduced their participation in the focus group (see Figure 7.2). One participant felt strongly that questions were leading, which made it difficult for him/her to participate, “questions were leading and were suggesting how people do/should feel. In this respect, it became harder to answer questions – especially when personal experiences differ from what the investigator appeared to be looking for”. However, two participants (20%) discussed a lack of clarity about what the questions were asking for and requested greater guidance from the research team; “the questions were quite broad and not so easy to answer. More input from the group leader would have been helpful” and “it felt a bit ‘loose’ at times and could have been guided more”. Another participant suggested that the online focus group method may limit discussion:

“I think...it was difficult to word questions appropriately to get the best response from people. In a way I think for the topic of the study it would be better to see people’s reactions face to face – it is easier to probe for information”.

Participants who suggested conducting the online focus group over 1-2 hours suggested that the shorter time period would result in “more natural responses”

to questions, and more of a conversational style to interactions. One person suggested that the online focus group would be improved by including an online chat:

“instant messaging would be really good. It would enable members to discuss things in small groups or everyone who is online [can] get involved in a conversation”

On the other hand, others who endorsed a time period of longer than 3 weeks suggested that this would enhance responses as participants would be able to think about their responses. They felt that this would be particularly useful for expressing difficult feelings, and would allow people to get to know others in the group before sharing; “sometimes people need to think about their response before telling – it can be quite difficult to admit feelings so bear with the participants!”. One participant also suggested that as depressive symptoms change over time, they felt they would be able to give more valid responses to questions. One participant suggested a balance of the two methods may be useful:

“although the idea of the focus group being accessible all the time and people can respond in their own [time] was necessary, it is sometimes necessary to give people a set time to respond – especially people who still suffer from depression as it is often hard to find the motivation to do anything. Therefore having a type of appointment would be beneficial and encourage users to respond to the questions posted”

7.5.6 Anonymity

Four participants (40%) discussed liking the anonymity of the online approach, as this allowed them to feel comfortable about posting and be open in sharing experiences. However, one person suggested that the anonymity made it harder to keep track of others' experiences:

“maybe set up profiles for people so it's easier to remember stories with names to understand others better”

There were also limitations to the anonymity of the focus group. One person reported that she recognised another participant in the focus group, which made her feel uncomfortable about responding further;

“whilst it is good to give people control of their anonymity, it also then meant that it was possible to find people who you believe you knew, and therefore may not feel as comfortable disclosing symptoms etc for fear they may recognise you too!”.

Despite the anonymity of the online focus group, six participants (60%) reported that feeling nervous or embarrassed about posting reduced their participation in the group (see Figure 7.2). One participant reported how they struggled to interact effectively as they would have preferred to see the reactions of others' face to face;

“the lack of contact and anonymity could be taken in a negative light as people felt distanced and like sharing personal experiences was impersonal”.

Two participants (20%) reported how the lack of interaction between participants made them feel uncomfortable about sharing, despite knowing that it was anonymous;

“I felt if nobody else was answering the questions why weren’t they? Would it look strange if I was the only person responding?”.

One participant also felt that there were a small number of people who dominated the conversation, and they found it difficult to participate if their experience wasn’t consisted with theirs;

“I found that it got a little overwhelming when people were posting three/four times before I could gear myself up to write once”.

7.5.7 Software

Participants generally like the website used to host the online focus group. Four participants (40%) reported that they liked the format, in particular they liked being able to change the name of their profile, send private messages to each other, and start their own topics of discussion if desired. However, five participants (50%) reported that difficulties with the software reduced their participation in the focus group (see Figure 7.2); three participants lost the weblink to the online focus group, and this was not included in emails sent from the website and two participants found it difficult to navigate the site:

“I am 65 and still learning how to navigate my computer. I found it difficult to access the site and had to send emails direct to you rather than the group. I think there were technical difficulties which I couldn’t understand so that was a problem for me”

7.5.8 Recommendations for improvements

With regards to the software used, participants suggested that the software was attractive, however should present discussion topics more clearly in separate threads. Furthermore, while email reminders about new posts were helpful,

participants suggested that these should include the link to the online focus group.

Participants thought that posts made by the research team were supportive and not patronising. However, participants suggested that the research team could provide greater encouragement by responding more quickly and frequently to posts and providing guidance on how to respond. However, this should be done without seeming to lead participants' responses.

Participants suggested that greater interaction could be achieved by leading a more informal chat at the beginning of the focus group, which was unconnected with depression or the topic of the focus group. One participant suggested that regular responses from the research team would provide assurance that their responses were being read, and that there should be more reassurance from the research team about there being no shame in talking about or suffering from depression. One participant suggested that there should be greater emphasis on the online focus group as a chance to both give and receive information. Another suggestion involved including polls or vignettes into the focus group, as this could initiate conversation and encourage less confident participants to become involved:

“sometimes it can feel easier to discuss something objectively and then go into

WHY that we feel like we do”

One participant further suggested that interviews prior to the online focus group would be helpful to draw out themes that were relevant for participants.

However, one participant did not want to increase interaction;

“I’m not sure what I’d get out of talking to others. Apart from talking about the drugs we’re on”

7.5.9 Additional comments

One participant commented how using a shared computer was off-putting, as the topic matter meant that she/he did not want others to see her responses.

One participant suggested that it would be helpful if participants were able to keep in touch following the end of the focus group, as the end of the focus group created a “sense of abandonment”. Several participants discussed wanting additional feedback and support from the focus group, including the availability of mental health professionals on the focus group to take part in discussions. Another participant suggested that the research team should set up support groups with counsellors to support individuals to discuss their symptoms.

7.6 Discussion

This study employed an online focus group method to investigate symptom avoidance strategies used by depressed individuals prior to seeking treatment. The online focus group was limited by low participation rates and early drop-out, and the study was terminated early. A feedback questionnaire sent to participants of the focus group revealed that while the method was reasonably liked, several features of the method undermined participation. The results of this survey provide an insight into the way individuals experience online focus groups and future guidance for researchers designing online focus groups.

The results of the feedback questionnaire indicated that participants generally liked the online focus group method. Overall, in this sample, online focus groups were ranked equally with face-to-face focus groups and interviews, with only online questionnaires favoured slightly more. Consistent with previous literature (Boshoff et al., 2005; Murray, 1997; Tates et al., 2009), participants felt that the asynchronicity of the focus group provided flexibility to fit taking part around their daily lives. It also gave participants time to consider their answers, which was particularly important given the sensitive and difficult topic under discussion. The results of the feedback questionnaire suggest that the asynchronicity may allow results to represent the changing nature of individuals' depressive symptoms over time. However, the asynchronicity of the focus group also resulted in some reduction in participation. Participants discussed how they would often forget to post in the group, and participating in the focus group became 'lost' amongst daily life. Several participants discussed how low motivation may reduce participation in asynchronous online focus groups. Previous researchers have suggested that individuals may find it easier to

withdraw from online studies as there is less pressure to participate (Kenny, 2005). Future studies may need to carefully consider the way in which they manage the timing of online focus groups. Synchronous focus groups may be better at holding participants' attention, and ensure that participants fully engage in the discussion (Hughes & Lang, 2004). However, as asynchronous focus groups can have benefits for the depth of responses (Mann & Stewart, 2000; Murray, 2004; Tates et al., 2009), researchers may still wish to adopt an asynchronous method. Previous researchers have suggested using email reminders to encourage participants in asynchronous groups. In this study, we sent emails to participants alerting them of new topics. However, previous researchers have also emailed reminders specifically to participants who are no longer engaging in the discussion (Williams et al., 2012). However, some research suggests that this may not always increase participation (Burton & Goldsmith, 2002). Other recommendations include recruiting to allow a minimum of ten participants actively engaging in the online focus group at any one time (Burton & Bruening, 2003).

Despite the benefits of online recruitment, we experienced a low response rate to the study, and only recruited thirteen participants that met the eligibility criteria to the online focus group. This may reflect the characteristics of our intended sample; depressed individuals experience cognitive, emotional and physical symptoms (DSM-IV-TR, 2000), which may impact on their ability to participate in a focus group. Two participants in the sample suggested that their symptoms affected their ability to participate in the focus group.

Participants discussed how the anonymity of taking part in a focus group online led them to feel more comfortable and open about sharing their experiences.

Anonymity is one of the most cited benefits of online focus groups, and one of the main reasons why this approach is recommended for sensitive and stigmatising topics of discussion (Bargh et al., 2002; McKenna, 2007). However, the results revealed that anonymity alone was not sufficient to facilitate individuals to discuss their experiences openly. More than half of participants revealed that feeling nervous or embarrassed about sharing their experiences reduced their participation in the focus group. Several participants discussed how this was partly due to dynamics within the group; such as some participants dominating the conversation or people feeling unable to share experiences that are inconsistent with those recounted by others. This was particularly relevant as the discussion went on, as participants were less likely to post when their experiences with earlier posts. These findings have significant implications for the use of online focus groups with individuals with MDD, as they imply that the use of online methods alone may not increase willingness to disclose sensitive information and overcome concerns about the responses of others.

Consistent with some previous research (e.g. Burton & Goldsmith, 2002; Burton & Bruening, 2003), participants were most likely to respond directly to moderator questions, with limited discussion between participants. These issues are commonly associated with face-to-face focus groups, which may be due to inhibition caused by the lack of anonymity in the group. It is therefore interesting that these group dynamics can also affect participation when individuals are anonymous online. These results suggest that researchers should not expect that the anonymity of online focus groups alone will facilitate open discussion, and further intervention by the research team may be needed to support individuals to post openly. For example, in stigmatised populations,

researchers should reassure participants about possible feelings of shame and encourage open discussion. An additional approach may include offering vignettes and/or polls in the focus group to initiate and encourage discussion, which may be particularly helpful for participants who may find it difficult to post openly about their experiences. Researchers may also consider beginning the online focus group with a synchronous discussion to develop group membership and help people feel comfortable about posting, and then move this into an asynchronous focus group for a longer period of time. Researchers may also be able to encourage participants to disclose experiences or attitudes that conflict with the responses of others by explicitly inviting participants to share these experiences, and provide reassurance to those who do so.

The feedback results indicate that it may also be difficult to ensure anonymity for participants, particularly when participants may be recruited from discrete populations, such as undergraduate populations. As recognising another participant in the focus group may reduce participation, and lead to distress, researchers should plan for this possibility in advance. This may include providing information to participants about what to do if they recognise another person, and providing guidance about how to maintain anonymity when posting on the site. As having a profile on the focus group may help participants to interact effectively with others in the group, this may include advising participants on how to do this while remaining anonymous; for example, using an avatar as a profile picture. As discussing sensitive and stigmatising topics may heighten participants' fears of recognition, this may be particularly relevant for research involving depressed participants.

The results further suggest that it may be important for researchers to manage the expectations of participants who participate in an online focus group. In addition to contributing to a research study, participants expressed wanting to both give and share advice on coping with each other. Researchers should plan in advance for this, and decide at what level mutual support within the group is beneficial. Participants advising each other on books and articles of interest may be helpful for a pleasant group environment in the online focus group. However, some levels of support may be inappropriate; for example providing support on suicidal ideation and self-harm. While this was not the case in this study, researchers should be aware that participants who take part in online focus groups may wish to discuss their experiences beyond the scope of the study topic with other participants. This may not be the case in a face-to-face focus group, where a group leader can lead and manage discussion more effectively. Some previous studies have allowed participants to continue using the online focus group to communicate for a period of time after the study has closed (Darvill, 2010). The results of this study suggest that this may be welcomed by participants; however researchers may need to ensure that this is monitored to avoid inappropriate discussion. Some participants also expressed a desire to receive additional support from mental health professionals within the online focus group. It may therefore be necessary to be clear about the role of the research team in the online focus group, to avoid disappointment of participants if no additional support will be available.

As discussed by previous researchers (Burton & Bruening, 2003), the moderation of the online focus group was an extremely time-intensive role. The accessibility of the focus group resulted in participants being able to post at any time of day or night, as well as high participation rates over the weekend.

Burton and Bruening (2003) suggest that researchers may be able to anticipate the busiest times depending on the demographics of the sample; for example, working professionals may be more likely to participate outside of normal working hours. However, a depressed population may include a broad range of ages and backgrounds, and therefore researchers using asynchronous online focus groups may need to be prepared for wide levels of participation. As one participant commented that frequent responses from the research team provide reassurance that posts are being read, it may be that researchers need to be prepared to invest time in managing the online focus group out of hours. This may include using multiple moderators, or setting clear expectations for participants in terms of how frequently moderators will post.

Moderating an online focus group also encompasses difficulties not faced by moderators of face-to-face focus groups. Responding to participants' posts was challenging without the perception of non-verbal cues to guide interpretation. Previous researchers have also noted that it is particularly difficult to manage silences in the focus group – should moderators allow participants further time to consider the question, or are participants having difficulty with the question posed? (Fox et al., 2007). This study raises questions about the best way to phrase discussion questions in the focus group. Some participants requested greater guidance from the research team about how to respond to questions, while others expressed concerns that questions that are 'leading' may reduce participation when participants' concerns vary from what is expected from the research team. Research questions should therefore be specific about what the research team is looking for, without giving examples of responses that may exclude some participants. It is also important for moderators to be reflective about their role in the online focus group, as moderation may alter participation

and this should be considered an integral component of qualitative research (Fox et al., 2007; Finlay, 2002).

The results of the feedback questionnaire suggest that the Vanilla forums software used for the online focus group was liked overall. However, some minor issues with the software may also have contributed to reduced participation in the focus group. In particular, participants commented on the confusing display of discussion topics, which were presented vertically on the page so that participants needed to scroll down to read the responses of others and participate. Participants felt that this made participating overwhelming and difficult to follow. It is difficult to imagine how to change this, given that reading and responding to the responses of others is essential to the aims of research using focus groups. Given that exploratory focus groups may frequently result in multiple streams of conversation occurring in parallel (Montoya-Weiss et al., 1998), it would be important to use an interface which can accommodate the complex nature of the discussion. Research suggests that the quantity and quality of contributions can vary depending on the format of the online tools (Jessup, Connolly, & Galegher, 1990). Creative solutions may be needed to tackle this issue, as not doing so may limit participation and the advantages of online focus group studies.

7.6.1 Conclusions

Online focus groups can be useful when used in appropriate contexts (Hughes & Lang, 2004). The advantages and limitations of online focus groups may have a greater or lesser impact, depending on the sample recruited and the topic of the focus group. Researchers should consider the aim of their research to determine whether an online focus group method is appropriate, whether a

synchronous or asynchronous approach would be advantageous, and in making decisions about the moderation of the online focus group. There are few clear recommendations for researchers seeking to design an online focus group study (Williams et al., 2012). This study has reflected on some limitations of an online focus group, and in particular has highlighted the difficult balance between the convenience of asynchronous methods with the attrition of participants incurred. Further research is needed to develop clear guidance for researchers in using this method, with papers reflecting on the advantages and limitations of online focus groups being particularly useful.

CHAPTER 8: GENERAL DISCUSSION

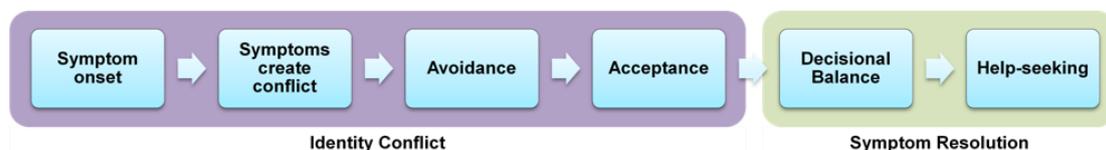
8.1. Introduction

The overarching aim of this thesis was to improve understanding of the factors that influence decisions to seek treatment for Major Depressive Disorder (MDD). Consistent with the Medical Research Council's (MRC) guidance for the development of complex interventions (Craig et al., 2008), this thesis also sought to inform the development of a theoretical model of help-seeking for MDD. This thesis began with a review of the existing help-seeking literature (Chapter 2), which revealed that there is no existing theoretical model of help-seeking for MDD that could inform the development of a help-seeking intervention. As a consequence, the review of the literature summarised the individuals factors associated with help-seeking for mental health disorders and identified relevant models of health behaviour in the wider literature. While there was evidence that models of health behaviour may be relevant for understanding help-seeking for MDD, no one model emerged as the most relevant for understanding decisions to seek treatment for MDD. These models have also been criticised for an emphasis on reasoned-decision making processes in health decisions. Although there have been recommendations to incorporate factors in health behaviour models that reflect other influences on health decisions (Armitage & Conner, 2000; Conner & Armitage, 1998), little was known about the additional psychological and emotional influences that influence decisions to seek help for MDD.

To further understanding of the factors that influence help-seeking for MDD, Study 1 (Chapter 3) used a bottom-up qualitative approach to explore depressed individuals' accounts of their decision to seek treatment. Analysis of

participants' accounts resulted in the development of a two-stage theoretical model of help-seeking for MDD (See Figure 8.1). In the first stage of the model, depressed individuals recognised the onset of symptoms and began a process of incorporating these into their identity. During this stage of the model, participants discussed how their response to depressive symptoms was driven by identity processes. For example, a desire to protect identity from the threat of depressive symptoms resulted in symptom avoidance strategies and help-seeking delays. Reaching a point of acceptance, where individuals made concessions in their identity and began to incorporate depressive symptoms into identity, was essential prior to seeking help for MDD. Following acceptance, individuals entered a reasoned decision making process where they considered the pros and cons of entering treatment, which is broadly consistent with expectancy-value health behaviour models. These decisions involved consideration of some of the individual factors that have been associated with help-seeking for mental health disorders in the previous literature.

Figure 8.1: The two stages of seeking help for MDD as described by participants in Study 1



Subsequent studies in this thesis tested key aspects of the model that emerged in Study 1. In particular, I focussed on empirically defining and testing the concepts of identity conflict and identity acceptance, and the relationship these factors had to help-seeking outcomes. To refine and test individual factors associated with decisions to seek help for MDD, I also investigated the role of

two established health behaviour models in predicting intentions and help-seeking behaviour amongst clinically distressed individuals. Specifically, Study 2 (Chapter 4) provided an initial test of the developed measures and the relationship between identity conflict and participants' acknowledgement of depressive symptoms and perceived need for treatment. Study 3 (Chapter 5) sought to replicate this relationship with a larger sample, and also investigated whether identity acceptance and factors from the Theory of Planned Behaviour (Ajzen, 1991; Ajzen & Fishbein, 1980) and the Health Belief Model (Becker, 1974; Becker & Maiman, 1980) could account for intentions to seek help and current treatment use amongst individuals with current symptoms of low mood. Study 4 (Chapter 6) employed a prospective design to investigate whether identity and socio-cognitive predictors of health behaviour predicted prospective treatment use for MDD. Finally, Study 5 (Chapter 7) sought to begin development of a measure of symptom avoidance strategies that could be used to further understand help-seeking delays and coping behaviour amongst depressed individuals prior to seeking help. This measure would also have utility in exploring identity processes involved in help-seeking for MDD. Following methodological difficulties, this chapter reports on the use of online focus groups with depressed individuals, and contributes to the literature by providing guidance for future research using this method. The following chapter summarises the main findings and implications of this PhD thesis. Furthermore, the limitations of the current research and recommendations for future research will be discussed.

8.2. Summary of main findings

The results of the current thesis improve understanding of patients' experiences of recognising symptoms of depression and seeking treatment for MDD. The thesis findings highlight the role of identity processes as an important influence on help-seeking for MDD. Furthermore, studies in this thesis contribute to the existing help-seeking literature by investigating the relative strength of individual factors represented in two leading health behaviour models in predicting help-seeking intentions and behaviour amongst clinically distressed participants. The following section will summarise the main findings of the thesis. These will be presented in a way that broadly reflects the section headings in the Chapter 2 review. Firstly, I will address how the results contribute to understanding of individual factors associated with help-seeking for mental health disorders in previous research. Secondly, I will discuss novel factors that the results of the current thesis identified as important in decisions to seek treatment for MDD. Finally, I will address findings of the thesis pertaining to the utility of existing health behaviour models.

8.2.1. Individual factors associated with help-seeking for MDD

8.2.1.1 Symptoms of Depression

Previous research indicates that greater symptom severity is associated with a greater likelihood of seeking treatment for mental health difficulties (Bebbington, Brugha, et al., 2000; Halgin et al., 1987; Henderson et al., 1992). Furthermore, individuals report that a rise in symptom severity is a major prompt for seeking treatment (Thompson et al., 2004). Consistent with these findings, the current thesis found that higher depression severity was significantly associated with perceived need for treatment, intentions to seek treatment, current treatment use, and prospective help-seeking for MDD. However, participants' accounts in Study 1 suggested that certain symptoms of MDD, namely thoughts of hopelessness and worthlessness, may inhibit help-seeking for MDD. Further, the results of Studies 3 and 4 suggested that depression severity was no longer a significant predictor of help-seeking outcomes when entered alongside identity acceptance and predictors from the Health Belief Model and the Theory of Planned Behaviour. While the results of the current thesis are broadly consistent with evidence that symptom severity influences help-seeking, the results suggested that factors that capture individuals' attitudes towards symptoms and treatment are better able to predict help-seeking for MDD.

8.2.1.2 Symptom recognition

Surveys investigating individuals' reasons for having delayed seeking help for mental health difficulties in the past have suggested that up to two thirds of the delay in seeking help may be due to not recognising the cause of symptoms (Thompson et al., 2004). However, little was previously understood regarding difficulties in symptom recognition, with no previous research having explored

the way in which depressed individuals recognise the onset of their symptoms. The findings of this thesis provide the first in depth account of the way in which individuals recognise symptoms of MDD. The results of Study 1 suggested that symptom recognition is a two-stage process; an initial appraisal of symptoms followed by the acceptance and labelling of depressive symptoms.

The results of Study 1 suggested that the initial stage of appraising the onset of depressive symptoms may be relatively short, with few participants reporting delays at this stage. A component in the initial appraisal of depressive symptoms is to determine whether symptoms are an abnormal change. The results of Study 1 suggested that recognising symptoms are abnormal is an essential stage in the help-seeking process. Consistent with self-comparison theories (Albert, 1977; Festinger, 1954), self- and other-comparisons were used to appraise whether symptoms were normal or abnormal. Specifically, comparisons were used to decide if the change was abnormal for one's usual state, and were different from individuals' beliefs about 'normal' mood, thoughts and behaviour. In addition, the results highlight how some groups of individuals may experience greater difficulties in recognising symptoms (e.g. those with fewer physical symptoms, individuals who struggle to discuss their symptoms openly with others). These results suggested that these individuals may therefore be at greater risk of help-seeking delays.

Participants' accounts suggested that the delays associated with symptom recognition in previous studies may be largely caused by delays in accepting the presence of depressive symptoms and what these mean for individuals' identity. The results of Study 1 indicated that individuals may be biased in their interpretation of depressive symptoms due to a desire to protect their identity

from threatening explanations for their symptoms. Participants in Study 1 reported how they preferred transient, less serious explanations for their symptoms, and would use avoidance strategies to perceive depressive symptoms in ways that supported these explanations. Participants' chosen explanations for their symptoms informed their coping responses; for example, changing job, attending marriage counselling.

The results of this thesis provide an important insight into the way depressed individuals recognise and interpret the onset of their symptoms. Findings suggest that self-comparisons inform the recognition of symptoms as abnormal, while a desire to protect identity influences the interpretation of symptoms. The way that symptoms are recognised and interpreted has implications for the length of help-seeking delays and patient responses to symptoms.

8.2.1.3 Past treatment seeking

Previous research suggested that individuals who have sought treatment in the past may be more likely to seek treatment for subsequent episodes of mental illness (Figueroa et al., 1984; Halgin et al., 1987; Jorm et al., 2000). This may be irrespective of the outcome of treatment (Surgenor, 1985), but may depend on whether individuals had positive or negative experiences (Gulliver, Griffiths & Christensen, 2012; Skogstad et al., 2006). Consistent with these studies, the results of the current thesis demonstrated that past treatment seeking was significantly associated with perceived need for treatment, intentions to seek treatment, current treatment use, and prospective help-seeking behaviour (Studies 2, 3, 4). The results of Study 1 also suggested that those who sought treatment in the past may experience shorter help-seeking delays than those who have not. However, while past treatment seeking was associated with

greater perceived need for treatment, intentions to seek treatment and current treatment use, past treatment seeking was inversely related to prospective treatment seeking. It is difficult to assess why this may be the case, and as there are no other studies that have assessed prospective help-seeking behaviour amongst depressed individuals, it is not possible to compare these findings with those amongst the literature. The results further revealed that past treatment seeking did not significantly predict intentions or prospective help-seeking behaviour when included alongside identity acceptance and factors in the Theory of Planned Behaviour (TPB) or the Health Belief Model (HBM). Overall, the results of this thesis are consistent with previous findings that individuals who have sought treatment in the past may have shorter help-seeking delays and express greater intentions to seek help. However, further research is needed to examine whether past treatment seeking is also associated with greater subsequent treatment seeking behaviour. Finally, the research suggests that other factors that represent individuals' attitudes towards symptoms and treatment may be stronger predictors of help-seeking outcomes.

8.2.1.4 Demographic factors

Although demographic differences may not be easily modifiable (Andersen, 1995), variations in help-seeking rates between demographic classifications may further understanding of the factors that inform help-seeking decisions. Previous research suggests that women may be more likely to seek treatment than men (Bebbington, Brugha, et al., 2000; Kessler et al., 1981). However, the results of this thesis did not find any significant relationship between gender and help-seeking outcomes. This may reflect the small number of male participants included in each sample, which may have limited statistical power to examine

gender effects. The relationship between ethnicity and help-seeking for MDD was not examined in this thesis. Previous research has suggested that individuals from some ethnic minorities may be less likely to seek treatment for mental health difficulties (e.g. Bebbington, Meltzer, et al., 2000; Mojtabai, 2005). This may be due to variations in attitudes towards the cause of mental health difficulties (Schnittker et al., 2000; Van Voorhees et al., 2006), language (Keefe & Casas, 1980; Ruiz, 2002) and knowledge barriers to treatment (Uba, 1992). Previous studies have experienced difficulties in examining effects of ethnicity on help-seeking for mental health difficulties, due to a lack of statistical power even in large scale population studies (Mojtabai, 2005).

Studies in the current thesis found that older participants were more likely to report stronger intentions to seek treatment, and age was a significant predictor of intentions to seek help when entered alongside the unified model developed in Study 3. However, there was no significant relationship between age and any other help-seeking outcome. There is no clear consensus in the literature about the relationship between age and help-seeking for mental health difficulties. It is possible that the relationship between age and help-seeking intentions may be influenced by older individuals being more likely to have sought help for MDD in the past (Study 2 and 3). However, age was a stronger predictor of intentions to seek help and prospective help-seeking behaviour than past treatment seeking, suggesting that other factors may also influence this relationship. The findings of this thesis suggest that there may be an effect of age on decisions to seek treatment, but the cause of this effect requires further research.

8.2.1.5 Structural barriers to treatment

Previous research indicates that a significant number of individuals with mental health difficulties report experiencing structural barriers to accessing treatment (Bilszta et al., 2010; Kravitz et al., 2011; Leaf et al., 1985). The cost of treatment has been identified as influencing individuals' decisions to seek treatment for mental health difficulties (Christiana et al., 2000), however, there is limited evidence about the extent to which structural barriers impact help-seeking rates for MDD. The results of Study 1 revealed that 15% of participants (N = 3) reported time commitments and 10% of participants (N = 2) reported the cost of treatment as having influenced their decision to seek help. Subsequent analyses revealed that perceived barriers to treatment were not associated with intentions to seek treatment, current treatment use (Study 3) or prospective treatment seeking (Study 4). However, perceived self-efficacy was associated with intentions and current treatment. Previous help-seeking research has primarily focussed on the role of perceived barriers to treatment for mental health disorders. However, these findings are consistent with previous findings that individuals are more likely to seek psychological therapy if they have high self-efficacy in doing so (Vogel et al., 2005). The findings of the current thesis suggest that an overall confidence in one's ability to seek treatment may have a greater impact on help-seeking decisions than the expectation of specific barriers. These results therefore support greater emphasis on self-efficacy judgements in help-seeking research. In particular, further research is needed to explore the way in which individuals form self-efficacy judgements in relation to seeking treatment as these findings suggest that the expectation of difficulties in accessing treatment may be important in help-seeking decisions.

8.2.1.6 Knowledge and Attitudinal barriers

Previous research has conflated measures of knowledge and attitudinal barriers to treatment (e.g. Thompson et al., 2004), which may be due to the extent to which knowledge and attitudes about symptoms and treatment overlap (Vogel et al., 2007). Previous research suggests that knowledge and attitudes towards symptoms and treatment for mental health difficulties may play a significant role in influencing decisions to seek treatment. This includes beliefs about the cause of symptoms (Angermeyer et al., 1999; Scott et al., 2013; Vanheusden et al., 2009), the efficacy of treatment (Fox et al., 2001; Vogel et al., 2005), and concerns about the content of treatment (Cepeda-Benito & Short, 1998; Komiya et al., 2000; Vogel et al., 2005). Consistent with previous research, the current thesis, as highlighted below, suggests that such beliefs influence decisions to seek treatment for MDD. As attitudes towards treatment may be modifiable (Gulliver et al., 2012), these factors may prove useful targets for help-seeking interventions.

One in four participants in Study 1 reported that beliefs about the efficacy of treatment influenced their decision to seek help, and the perceived benefits of treatment were also associated with intentions to seek treatment and current treatment seeking for MDD (Study 3). These findings are consistent with previous research that reports greater treatment seeking is associated with more positive beliefs about the efficacy of treatment (Fox et al., 2001; Vogel et al., 2005). While the results of Study 4 did not demonstrate a direct relationship between the perceived benefits of treatment and prospective help-seeking, a significant indirect relationship was found between benefits and help-seeking via intentions. The results of this thesis therefore suggest that beliefs about the

benefits of treatment influence help-seeking by informing individuals' intentions to seek help.

Participants' accounts in Study 1 also revealed that attitudes towards treatment, including concerns that seeking treatment would be uncomfortable or distressing, also influenced help-seeking decisions. These findings are also consistent with previous research that indicates that positive attitudes towards treatment are associated with greater intentions to seek help (Cramer, 1999; Leaf et al., 1985). Consistent with research that suggests that individuals may be less willing to seek help if they have concerns about a negative response from their GP, 30% of participants in Study 1 reported that concerns that their doctor would be un-empathic influenced their decision to seek help.

Furthermore, the findings of Study 1 are also consistent with previous findings that concerns that treatment will be distressing or uncomfortable is associated with a lower likelihood of seeking treatment (Cepedo-Benito & Short, 1998; Halgin et al., 1987; Kelly & Achtor, 1995; Komiya et al., 2000).

The Theory of Planned Behaviour (TPB) assesses individuals' overall attitude towards seeking treatment for MDD. This scale includes items that assess individuals' attitudes towards whether seeking treatment is helpful or unhelpful, pleasant or unpleasant, and necessary or unnecessary (see appendix). In contrast to previous help-seeking research, attitude to treatment as assessed using the TPB was not associated with intentions to seek treatment and did not predict current treatment seeking for MDD (Study 3). However, the results of Study 4 demonstrated that attitude to treatment was a significant predictor of prospective treatment seeking. One difference between attitude, as conceptualised by the TPB, and measures of attitudes to treatment used in

previous studies is that this scale assesses overall attitude towards help-seeking as a response to low mood. This is distinct from previous measures, which assess attitudes towards the self seeking treatment. It may be that attitudes towards the self vary from attitudes towards others seeking help. This is consistent with findings that individuals are more likely to seek treatment for others than for the self (Rickwood et al., 2005) and rate symptoms as being more severe for the self than others (Care & Kuiper, 2012).

Overall, the current thesis provides support for the role of attitudes towards symptoms and treatment in influencing decisions to seek treatment for MDD. The results highlight a possible distinction between attitudes towards the self seeking treatment, and attitudes towards seeking treatment for low mood more generally. The results suggested that beliefs about whether seeking treatment will be beneficial for the self are associated with help-seeking for MDD by informing individuals' intentions to seek help. Individuals' attitude towards the behaviour of seeking treatment is not associated with personal intentions to seek help, but may directly influence whether individuals will seek treatment.

8.2.1.7 Stigma

Previous research suggests that the expectation of social stigma is associated with lower help-seeking intentions and reduced help-seeking behaviour for depression (Corrigan & Rüsch, 2002). Previous research also suggests that a significant minority of individuals with mental health difficulties report moderate or high levels of self-stigma (Brohan et al., 2010b; Chowdhury et al., 2001). Self-stigmatising attitudes have been associated with increased avoidance behaviours (Kanter et al., 2008; Manos et al., 2009), more negative attitudes towards seeking help (Conner et al., 2010), lower intentions to seek help

(Barney et al., 2006), and predicts help-seeking behaviour independently from social stigma (Barney et al., 2006). Consistent with these studies, the results of Study 1 revealed that 45% (N = 9) of participants discussed how expecting to encounter social stigma (others expressing negative beliefs about individuals with MDD) influenced their decision to seek treatment at the decisional balance stage of the help-seeking process. Furthermore, participants in Study 1 discussed how negative beliefs about the self having depressive symptoms was a significant influence on help-seeking delays in the identity conflict stage of seeking help for MDD. The experience of symptoms was associated with characteristics such as being weak, out of control, and unable to cope. However, in contrast to the definition of self-stigma, these beliefs arose prior to the labelling of depressive symptoms. Therefore, these attitudes are not only based on the internalisation of social stigma towards MDD. Rather, these attitudes may be formed from societal attitudes about the importance of independence and self-control. These characteristics are highly valued in western societies (Breakwell, 2010), and individuals may internalise negative attitudes towards the self for not maintaining these characteristics following the onset of MDD. The findings of Study 1 are therefore consistent with a broader definition of self-stigma; self-stigma may be informed by beliefs about symptoms before and after labelling cause. The results of Study 1 suggest that beliefs about symptoms were interpreted in terms of how they relate to individuals' identity. This suggests that self-stigmatising attitudes may therefore play an important role in the identity conflict and acceptance process.

The findings of the current thesis therefore provide support for the role of social and self-stigma in decisions to seek treatment for MDD. However, results support a broader definition of self-stigmatising attitudes, to include attitudes

towards MDD and the experience of symptoms. Understanding self-stigma alongside identity conflict processes may help to elucidate the way in which the interpretation of symptoms contributes to help-seeking delays and treatment decisions.

8.2.1.8 Social support

Previous research suggests that social support is associated with increased help-seeking for mental health difficulties when significant others support help-seeking (Chadda et al., 2001; Reust et al., 1999; Vogel et al., 2007) and with reduced help-seeking when informal support is used in place of formal treatment (Henderson et al., 1992). The results of the current thesis provide strong support that the support of others in seeking help is associated with increased likelihood of seeking help for MDD. Subjective norm (perceived support of significant others for help-seeking) was a strong predictor of both intentions to seek treatment and current treatment seeking (Study 3). Furthermore, the results of Study 4 demonstrated a significant indirect relationship between subjective norm and prospective help-seeking behaviour, via intentions. These findings therefore suggested that the support of significant others may play an important role in seeking help for MDD. In addition to influencing individuals' intentions to seek help, thesis findings also suggested that social support may also influence help-seeking for MDD by prompting individuals to seek treatment. A scale assessing cues to action, which included items pertaining to prompts to seek treatment by significant others, were associated with higher intentions to seek treatment (Study 3) and were associated directly with prospective help-seeking behaviour. Finally, a small number of participants in Study 1 discussed how social support also encouraged them to reach identity acceptance towards their symptoms.

Overall, thesis findings provide strong support for the importance of supportive others in decisions to seek treatment for MDD. Primarily, the results suggest that the support of significant others influences help-seeking behaviour by informing individuals' intentions to seek treatment. However, findings also suggest that social support may increase individuals' acceptance of their symptoms and may be the source of prompts to seek help.

8.2.1.9 Individual traits

A small number of studies have found associations between personality traits, trait emotional expression and adult attachment style and help-seeking for mental health difficulties (Issakidis & Andrews, 2002; Vogel et al., 2008; Vogel & Wei, 2005). Trait characteristics did not emerge as a major influence on participants' decisions to seek treatment in Study 1. However, it would be difficult to evaluate the impact of these traits in this study, as questions pertained to influences on a particular behaviour, as opposed to factors that may influence individuals' behaviour over time. Individual factors that emerged from Study 1 may be informed by individual trait characteristics. For example, one participant reported that she experienced difficulties in recognising the abnormality of her depressive symptoms as she didn't talk to others about her symptoms. This statement may reflect the absence of a supportive social network, a lack of willingness to discuss this particular health issue, or a trait characteristic for reduced disclosure of emotional experiences. Further research is needed to investigate whether trait characteristics may influence the way in which individuals respond to depressive symptoms and makes decisions about whether to seek treatment.

8.2.2. Novel factors associated with treatment seeking for MDD

8.2.2.1 Identity

The vast majority of previous help-seeking research has emphasised the factors that may influence reasoned decisions to seek treatment for MDD. In contrast, very little previous research has investigated the emotional processes involved in experiencing and seeking treatment for MDD (Cuijpers, 2012; Wills & Gibbons, 2009). The current thesis provides evidence that identity processes play an important role in help-seeking for MDD. The results from the studies in this thesis suggest that the onset of MDD threatens an individual's identity and personal goals. Consistent with the wider literature on identity threats (e.g. Carver et al., 1999; Higgins, 1987; Markus & Nurius, 1986), the onset of depressive symptoms undermines feeling of stability and control, and threatens individuals' perceived ability to achieve their goals. This includes the way they see themselves and their desired identity goals. A desire to protect identity from this threat contributes to help-seeking delays as individuals resist accepting their symptoms. The results of Study 2 and 3 provided further support for these findings. In these studies, greater conflict between depressive symptoms and identity was associated with reduced acknowledgment of symptoms. The results of Study 2 also suggested that identity conflict was associated with reduced perceived need for treatment, although this was not replicated in Study 3.

Previous qualitative research also suggests that the incorporation of symptoms of illness into identity is associated with treatment engagement for physical health disorders (Adams et al., 1997; Baumgartner, 2007; Goldman & Maclean, 1998). Building on this research, the current thesis applied a quantitative

methodology to empirically define and test the role of identity acceptance in treatment seeking for MDD. Consistent with previous qualitative findings, the results of this thesis suggested that incorporating depressive symptoms into identity is associated with a greater likelihood of seeking treatment for MDD. Identity acceptance was associated with intentions to seek treatment, current treatment seeking (Study 3) and prospective treatment seeking behaviour (Study 4). Importantly, the results suggested that identity acceptance was an independent predictor of help-seeking intentions when included alongside two established models of health behaviour, which incorporated individual factors that have been associated with help-seeking for mental health disorders in previous help-seeking research. Moreover, the results of Study 4 demonstrated that in addition to informing intentions to seek help, identity acceptance also directly predicted prospective help-seeking behaviour. These findings are consistent with research in the broader literature that indicates that behaviour is more likely when it is consistent with identity (Biddle et al., 1987; Charng et al., 1988; Fielding et al., 2008). However, this thesis presents the first evidence that identity processes are important in help-seeking for MDD.

Overall, the results of the current thesis identify a novel factor that may have a significant impact on help-seeking for MDD. Study findings suggested that identity processes may influence the way in which individuals interpret depressive symptoms, may account for a major cause of help-seeking delays, and may influence the likelihood that individuals seek treatment.

8.2.2.2 Symptom avoidance

The results of Study 1 suggested that symptom avoidance strategies may play an important role in individuals' experiences of seeking help for MDD.

Participants in Study 1 discussed how they used avoidance coping strategies to deny or reduce the perceived severity of their depressive symptoms. These strategies included both cognitive and behavioural forms of avoidance, and were used in response to the threat of depressive symptoms to identity and goals, which was highly distressing. These findings are consistent with goal theories, which posit that individuals may use avoidance coping strategies to reduce negative affect associated with goal discrepancies (Powers, 1973b; Schmidt et al., 2010). Goal theories also propose that avoidance coping will be more likely when individuals experience threats to highly valued goals, such as desirable identity characteristics (Eisenstadt & Leippe, 1994). As opposed to primary control strategies, which seek to resolve the source of discrepancies and may include problem-focussed coping strategies such as help-seeking, avoidance is primarily concerned with reducing negative affect (Folkman, 1992; Higgins, 1997; Moos & Schaefer, 1993). The results of Study 1 suggested that symptom avoidance strategies were effective in temporarily alleviating distress. However, consistent with goal theories that suggest that avoidance strategies work best with time-limited conflicts (Carver & Scheier, 1989), these strategies did not resolve the source of conflict and resulted in prolonged help-seeking delays. Participants also reported rising symptom severity and emotional distress as the delay period progressed.

Previous research has identified how individuals may vary in trait levels of experiential avoidance, which includes the tendency to avoid internal experiences; such as bodily sensations, emotions, thoughts and memories (Hayes et al., 1996; Hayes et al., 2004; Gamez, 2011), and may also include symptoms of illness (Hayes et al., 1996). However, the results of the current thesis suggested that these strategies may also be used in response to the

onset of depressive symptoms as a way of reducing the distress associated with identity and goal conflict. These findings therefore suggest that experiential avoidance may be used as a form of state coping. Although it's important to note that as studies in this thesis did not also assess participants for trait experiential avoidance, further research is needed to establish the relationship between state and trait forms of avoidance.

In sum, the results of Study 1 suggested that symptom avoidance strategies may be used by depressed individuals prior to seeking treatment and that these strategies may contribute significantly to help-seeking delays. Further investigation of the role of symptom avoidance in help-seeking for MDD was hampered due to the lack of an existing direct measure of symptom avoidance. The results of Study 5 provide guidance on how online focus groups may be used effectively to develop such a measure. Following on from the results of the current thesis, future studies investigating symptom avoidance amongst depressed individuals may contribute to future research efforts to improve understanding of help-seeking for MDD, and may support efforts to understand identity processes that may inform individuals' use of avoidance coping.

8.2.2.3 Cues to action

The current thesis provides strong support for the role of prompts to seek help in help-seeking for MDD. Cues to action, as assessed in the current thesis, included prompts to seek help by significant others and an individual's GP, and seeing an advert or reading information about depression. The findings indicated that experiencing cues to action was a strong predictor of intentions to seek help and current treatment seeking (Study 3) and prospective help-seeking behaviour (Study 4). These results are consistent with findings that few

people who experienced a mental health disorder in the last 12-months refused help that was offered to them (Meltzer, 2000). This thesis is the first attempt to explore the influence of prompts to seek help on intentions and help-seeking behaviour for MDD. The construct of cues to action in the HBM has also been largely under-studied in wider health behaviour research (Harrison et al., 1992; Henshaw & Freedman-Doan, 2009).

In the HBM, cues to action are thought to influence health behaviour by reminding individuals of the risk or threat of symptoms (Becker & Maiman, 1975). However, in addition to informing individuals' intentions to seek help, the results of Study 4 suggest that cues to action may also directly influence help-seeking behaviour. These findings are consistent with recent proposals that prompts to seek help may influence help-seeking for mental health difficulties independently from reasoned-decision making processes (Hammer & Vogel, 2012). In this study, Hammer and Vogel distinguish between intentions to seek help, which may be based on reasoned decision-making processes, and willingness, which may be influenced by heuristic processes. As the current thesis results suggest that cues to action may play an important role in depressed individuals' decisions to seek treatment, further research to explore the way in which cues influence help-seeking may be a valuable avenue for future research.

8.2.3. Health Behaviour models

Previous help-seeking research has identified a number of individual factors associated with help-seeking for mental health difficulties; including knowledge, attitudinal and structural barriers. However, few studies have sought to investigate the relative strength of barriers to treatment in informing decisions to

seek help. A review of health behaviour models for this thesis revealed that several existing models incorporate factors associated with help-seeking for mental health disorders and have been applied to understanding help-seeking in other populations.

Existing health behaviour models are unable to account for the identity conflict process identified in participants' accounts of seeking help for MDD in Study 1, and supported by subsequent studies in this thesis. However, participants in this study described a decisional balance stage in the help-seeking process, where they considered a number of individual factors in deciding whether to seek help. This stage of the model is broadly consistent with expectancy-value models of health behaviour. Following these findings, Studies 3 and 4 examined the utility of two established models of health behaviour in predicting help-seeking for MDD. Testing of the models revealed that socio-cognitive predictors of health behaviour from the Theory of Planned Behaviour (TPB) and the Health Belief Model (HBM) are associated with intentions to seek help, current treatment use (Study 3) and prospective help-seeking for MDD (Study 4). However, the findings revealed that neither the TPB nor the HBM fully accounted for help-seeking decisions for MDD. Consistent with previous reviews (Ogden, 2003), both models contained factors unrelated to help-seeking outcomes, and the variance in help-seeking outcomes explained by the models was accounted for by a subset of predictors. Analyses revealed that a unified model drawing on important predictors of help-seeking from both theories was an improved fit in predicting help-seeking intentions and behaviour. Thesis findings also demonstrated that the predictive utility of both models was improved by incorporating identity acceptance.

Within the framework of the TPB and HBM, behavioural intentions are conceptualised as the proximal determinant of behaviour (Abraham & Sheeran, 2005; Ajzen, 1991; Gerend & Shepherd, 2012). Consistent with this approach, the findings of Study 4 demonstrated that constructs from the two models were indirectly associated with prospective help-seeking behaviour, via intentions to seek help (Study 4). However, contrary to model predictions, attitude (TPB) and cues to action (HBM) were both associated with help-seeking behaviour independently from intentions. Furthermore, while intentions to seek help significantly predicted help-seeking behaviour, the results suggested that intentions to seek help only have a small effect on help-seeking behaviour. As this is the first study to test the relationship between intentions to seek help and prospective help-seeking behaviour for MDD, it is not possible to compare these findings with previous research in this field. However, previous research suggests that the amount of variance in behaviour explained by intentions varies depending on the behaviour under study (Sheeran, 2002; Sheeran & Sutton, 1999). While perceived barriers and self-efficacy for seeking treatment were not directly associated with help-seeking behaviour, the actual controllability of seeking treatment for MDD may influence the likelihood that intentions are translated into behaviour (Sheeran 2002). Rather than a single act (e.g. I will go to the gym after work today), seeking treatment involves a number of steps; including an initial consultation with one's GP, in addition to attending psychological therapy or adhering to medication. Help-seeking may therefore require intentions to be translated into prolonged help-seeking behaviour. This may therefore be more susceptible to external influences; for example, the receptivity of an individual's GP and the availability of treatment.

As a consequence, there may be factors that moderate the extent to which intentions to seek treatment are translated into help-seeking behaviour.

In addition, the weak relationship between intentions and help-seeking behaviour may lend support for a dual processing approach to decisions to seek treatment (Wills & Gibbons, 2009). Intentions are primarily conceptualised as being based on reasoned decision-making processes, such as those taken by socio-cognitive models of health behaviour. Dual processing theories of human cognition posit that humans have two modes of processing information; fast, automatic processing with little conscious awareness (System 1) and slow, deliberate and effortful processing (System 2; Carver, 2005; Gerrard et al., 2008; Kahneman, 2003; Strack & Deutsch, 2004). Intentions to seek treatment may be primarily based on System 2 processing efforts, and therefore may not take account of the influence of System 1 on decisions to seek help for MDD. Dual processing accounts posit that individuals routinely use both systems, and that System 1 may influence the organisation and outcome of System 2. The findings of Study 4 (Chapter 6) identify several factors that predict help-seeking behaviour either partially (identity and cues to action) or entirely (attitude) independently from behavioural intentions. Alongside control variables, these variables explained 22.1% of the variance in prospective help-seeking behaviour, and may partly influence help-seeking decisions independently from reasoned decision-making processes. For example, cues to action may influence intentions to seek help by reminding individuals of the risk of depressive symptoms (Janz & Becker, 1984; Rosenstock, 1974). Cues may then influence help-seeking behaviour directly by providing prompts to initiate help-seeking behaviour. The way in which prompts to seek help lead to help-seeking behaviour may be understood through heuristic models of decision-

making (Hammer & Vogel, 2012). Similarly, the desire to protect and act in accordance with one's identity may be a component of a conscious, expectancy value decision to seek treatment. However, this process may also occur automatically, with little conscious awareness. For example, the avoidance of depressive symptoms may occur relatively automatically in response to emotional distress caused by conflict between symptoms and identity. As research suggests that System 1 is more likely to be activated for behaviour that is emotional or socially undesirable or when individuals have limited cognitive capacity (Carver, 2005; Gerrard et al., 2008; Kahneman, 2003; Strack & Deutsch, 2004), adopting a dual account of help-seeking may be a useful approach to understanding decisions to seek treatment for MDD (Wills & Gibbons, 2009).

Overall, the findings suggested that the TPB and HBM may be relevant for understanding the decisional balance process described by participants in Study 1. Subsequent studies in this thesis further demonstrated that constructs from the two models were associated with decisions to seek treatment for MDD. However, constructs from the two models were also found to predict help-seeking behaviour independently from behavioural intentions, and the results suggested that intentions may only have a limited impact on help-seeking behaviour. As a consequence, health behaviour models confined to understanding the factors associated with behavioural intentions may have limited utility in explaining help-seeking for MDD.

8.3. Theoretical implications

The current thesis provides evidence that identity processes play an important role in seeking treatment for Major Depressive Disorder (MDD). The onset of depressive symptoms conflict with the way depressed individuals see themselves and who they want to be. This conflict leads to emotional distress and influences patient coping and decisions to seek treatment. These findings are consistent with qualitative research exploring treatment engagement by individuals with chronic physical illness. The onset of chronic illness has been described as a “biographical disruption”, which interferes with patients’ view of themselves and their future (Bury, 1982, p.167). Incorporating symptoms of illness into identity is associated with help-seeking for MDD, and with adaptive coping more broadly in the wider literature (Adams et al., 1997; Andersen & Cacioppo, 1995; Baumgartner, 2007; Goldman & Maclean, 1998). The role of identity has previously not been associated with studies examining help-seeking for mental health disorders. Instead, the vast majority of previous help-seeking research has emphasised the role of socio-cognitive predictors, such as barriers to treatment. However, it is proposed within the current thesis that the extent to which individuals incorporate depressive symptoms into identity is a comparable predictor of help-seeking intentions, and a stronger predictor of help-seeking behaviour than many of these factors. Further understanding of identity processes in help-seeking for MDD is therefore an important avenue for future research.

It should not be surprising that the onset of a serious chronic illness may in itself have implications for individuals’ self-esteem and wellbeing. The current thesis findings suggest that the onset of MDD has an impact on patients’ identity and

their pursuit of valued goals and responsibilities. While some research has explored these issues amongst individuals with chronic physical health conditions, the current thesis suggests that greater understanding of these effects amongst individuals with MDD may have implications for understanding patient coping, wellbeing and treatment engagement. MDD is already characterised by deficits in self-esteem (Battle, 1978). However, these findings suggest that research that aims to explore the additional impact of experiencing MDD may have important implications for understanding patient experiences and help-seeking decisions for MDD.

This thesis directly compared the utility of two leading health behaviour models in understanding help-seeking for MDD. These models have been used widely to predict a variety of different health behaviours. The results suggest that constructs from the models are useful for understanding individuals' decisions to seek help for MDD. However, extending the models to incorporate identity acceptance improved the predictive utility of both models. Furthermore, combining the models accounted for overlap in the two theories, while statistical approaches used in the thesis refined the models to remove non-significant predictors. The current thesis therefore suggests that a pragmatic approach to using health behaviour models recommended in the literature (Armitage & Conner, 2000; Gerend & Shepherd, 2012; Noar & Zimmerman, 2005) may be useful in the development of a parsimonious account of specific health behaviours, while also drawing on leading theories of health decisions.

In addition, the current thesis findings suggest that future help-seeking research should consider a broader conceptualisation of help-seeking decisions. The vast majority of previous help-seeking research has conceptualised decisions to

seek treatment as being based on an expectancy-value framework. This approach is also fundamental to models of health behaviour, such as the Theory of Planned Behaviour and the Health Belief Model and the Theory of Planned Behaviour (Becker & Maiman, 1980; Ajzen, 1988, 1991; Fishbein & Ajzen, 1975; Janz & Becker, 1984; Rosenstock, 1974; Rosenstock, Strecher, & Becker, 1988). According to this approach, decisions to seek help are based on a reasoned, deliberative consideration of the anticipated outcomes of seeking (or not seeking) help. Behaviour is then informed by the individual's intentions to seek treatment. The current thesis provides partial support for this approach in understanding decisions to seek help for MDD. The results of Study 4 (Chapter 6) revealed that intentions accounted for 7.8% of the variance in prospective help-seeking behaviour. This constitutes a small effect size (Cohen, 1992) of intentions on help-seeking behaviour, which is a smaller than average relationship between intentions and other health behaviours (Sheeran, 2002). This suggests that additional factors beyond intentions are important in predicting help-seeking for MDD. This may include factors that moderate the relationship between intentions and behaviour (e.g. actual controllability; Sheeran, 2002), as well as factors that may be associated with heuristic decision-making processes.

8.4. Methodological implications

Very few studies investigating factors associated with help-seeking for mental health disorders have assessed help-seeking behaviour, instead focussing on intentions, which is a higher frequency and more easily recorded outcome. The few studies that have assessed behaviour have largely done so retrospectively, and no previous study has assessed prospective help-seeking behaviour for MDD. The results of Studies 3 and 4 suggested that there may be differences in the factors associated with current and prospective help-seeking behaviour. Studies that investigate current or retrospective help-seeking behaviour cannot distinguish between factors that facilitate help-seeking, and those that are associated with the experience of receiving treatment; for example, the perceived benefits of treatment may change following the start of treatment. The results of this thesis therefore suggest that factors associated with retrospective help-seeking behaviour may not necessarily be applicable to understanding individuals' decisions to seek treatment in the future.

Furthermore, while the results suggested that intentions play a role in predicting help-seeking behaviour, there is a considerable intention-behaviour gap in help-seeking for MDD. Moreover, the results of Study 4 suggested that some factors may influence help-seeking independently from intentions. Therefore, to inform understanding of help-seeking behaviour, further research is needed to explore factors that predict prospective help-seeking behaviour independently from raising behavioural intentions.

A combination of qualitative and quantitative methods to investigate decisions to seek treatment for MDD was employed in this thesis. The bottom-up qualitative approach in Study 1 explored patient experiences of depressive symptoms, and

identified an important factor associated with help-seeking that had not previously been identified by survey methods. Quantitative methods used in Studies 2-4 were able to test the relative strength of factors associated with help-seeking for MDD, as well as testing the utility of two established theoretical models in predicting help-seeking outcomes for MDD. Thus, the triangulation of quantitative and qualitative methods may be a useful approach to understanding patient experiences of ill health and treatment seeking.

Limitations in triangulating quantitative and qualitative methods may include the translation of concepts derived from qualitative data into quantitative measures. Patient accounts in Study 1 identified symptom avoidance, identity acceptance, and identity and goal conflict as important components of help-seeking for MDD. However, there were no established measures of these constructs in the existing literature. In this thesis, measures in the wider literature were adapted to quantitatively test predictions derived from Study 1. This provided some support for the importance of constructs that emerged from Study 1 in help-seeking for MDD and supports further research of these factors. This may be a useful approach, as the development and evaluation of new psychometric measures may be a lengthy process before quantitative evidence is able to support qualitative findings. This may also be a risky process, as new data derived from qualitative research may be based on a small number of participants, and also more susceptible to subjective interpretation. In this thesis, evidence for factors associated with help-seeking for MDD was found using both qualitative and quantitative approaches. Following these initial findings, further development and testing of key measures may be useful in future research to investigate the help-seeking process.

The results of Study 5 suggested that online focus groups may be a useful method of investigating patients' experiences of illness. In contrast with the approach of Study 1, which used semi-structured interviews to collect in-depth data on participants' broad experiences of seeking treatment for MDD, the online focus group used in Study 5 was designed to generate detailed insight into a specific form of coping that may be used by individuals to cope with depressive symptoms prior to seeking help. In addition to the practical advantages of conducting research online, this method can capitalise on discussion between participants to clarify and expand detail of participants' experiences. However, the difficulties experienced in conducting an online focus group for this thesis, and the results of the feedback questionnaire, highlight potential complications with using this method. These findings suggest that without careful planning and consideration in the use of online focus groups, the advantages of this approach will be limited to logistic and cost benefits, and that data generation may be limited. Study 5 (Chapter 7) provides key guidance on the design and procedure of online focus groups, which has been missing from wider research on online focus groups (Williams et al., 2012). For example, the results of Study 5 suggested that a combination of synchronous and asynchronous formats within the online focus group may be useful for facilitating participation within the group, while still allowing participants time to consider and provide detailed responses to discussion topics. Importantly, the results also challenge the assumption that the anonymity of online methods is sufficient for facilitating open discussion. Rather, the findings suggested that depressed participants may still feel self-conscious about sharing information that is personal or contradictory. While online focus groups do provide an anonymous framework for the discussion of sensitive and potentially

stigmatising information, the findings of this thesis suggested that researchers will make best use of this by being prepared to provide additional support to participants around these issues.

8.5. Implications for informing the development of help-seeking interventions

The current thesis informs understanding of the factors that influence individuals' decisions to seek treatment for MDD. Further research building on this research is needed to inform the development of interventions to increase help-seeking for depression. However, the current findings suggest several ways in which interventions may be delivered to increase help-seeking. For example, the help-seeking model developed from the results of Study 1 proposed that individuals move through several stages prior to seeking treatment for MDD. An implication of this theory is that individuals may experience delays at a number of different stages; at symptom recognition, acceptance, or at the decisional balance stage. Help-seeking interventions may therefore need to incorporate content to address multiple causes of help-seeking delay. Similar to applications of the Transtheoretical Model (TTM; Prochaska, Diclemente, & Norcross, 1992; Prochaska, Velicer, Diclemente, & Fava, 1988) to increase desired behaviour (e.g. Barnes & Hudson, 2006), interventions may seek to identify the stage of help-seeking individuals are in when targeting help-seeking interventions. For example, interventions to reduce perceived barriers to treatment may be most useful when targeted at those who have reached acceptance towards their symptoms.

The findings of the current thesis also suggest that avoidance and identity acceptance processes may be important in help-seeking for MDD.

Understanding of these factors and the stages of seeking help for MDD may inform the development of novel interventions for patients with MDD. For example, further research may support the development of an intervention to reduce the use of symptom avoidance, which may delay or prevent adaptive

coping behaviour. As the results of the current thesis suggest that the use of symptom avoidance may significantly delay help-seeking and may contribute to rising levels of emotional distress, such an intervention may be effective at both reducing help-seeking delays and increasing patient wellbeing. As the results of Studies 1, 2 and 3 suggest that symptom avoidance may be associated with perceived conflict between depressive symptoms and individuals' identity, such an intervention may seek to reduce symptom avoidance by reducing the perceived threat of depression for the self. For example, an intervention that challenges patient fears that depressive symptoms undermine the self as independent, stable and in control, and supports individuals to recognise and protect a positive view of the self may support individuals to address their symptoms adaptively. This intervention could be designed to be delivered on an individual basis, or alternatively incorporated into public media campaigns that challenge stigmatising views of individuals with depression.

The findings of the current thesis suggest that incorporating depressive symptoms into identity is an essential stage in seeking treatment for MDD. Therefore, the development of an intervention that seeks to support individuals to incorporate symptoms into identity may help to increase help-seeking for MDD. How such an intervention should be targeted will be informed by research that investigates the most adaptive method of incorporating depressive symptoms into identity for patient wellbeing and help-seeking behaviour. As discussed previously (Chapter 2), incorporating depression into identity may have negative connotations for self-esteem and mood. Research suggests that self-esteem is associated with a stable and positive self-identity (Breakwell, 2010; Festinger, 1954). Patient wellbeing and self-esteem may therefore benefit from incorporating depressive symptoms in a way that protects existing identity

characteristics. Several participants in Study 1 discussed how they experienced a sense of confusion or loss of the self during the help-seeking process. The experience of depressive symptoms challenged conceptions of who they were and who they would become. This caused emotional distress, and the transition to “get back to who I think I am” (female 3) was described as a lengthy process that was similar to accounts of transition in previous qualitative and theoretical papers (Andresen et al. 2003; Baumgartner, 2007; Kralik, Visentin, & Van Loon, 2006). Interventions that support individuals to incorporate depressive symptoms into identity in an adaptive manner may also be helpful additions to current psychological treatments for MDD. Current therapies, such as CBT and ACT, may already indirectly support depressed individuals to accept depressive symptoms by supporting patients to work towards desired goals and alter cognitions about the self. The results of the current thesis suggest that a greater emphasis on incorporating depressive symptoms into identity may have benefits for patient wellbeing and recovery.

The results of Studies 3 and 4 suggested that various socio-cognitive factors may play a role in facilitating help-seeking behaviour. In particular, the findings suggest that interventions that address perceived social support for seeking help, susceptibility to MDD, perceived attitudes and benefits of treatment, individuals' self-efficacy for seeking help and provides prompts to seek help may be useful in increasing help-seeking for MDD. Several of these factors may be easily incorporated into health services and public health campaigns; such as altering attitudes to MDD and providing prompts to treatment. However, the majority of these factors were found to predict help-seeking behaviour via behavioural intentions, which only accounted for a small proportion of the variance in help-seeking behaviour. Furthermore, previous interventions that

have targeted such factors have had a positive impact on attitudes towards seeking help, but there is as yet limited evidence that these factors may increase help-seeking behaviour (Gulliver et al., 2012). As a consequence, help-seeking interventions to increase help-seeking behaviour may benefit from addressing factors involved in both rational and heuristic decision making processes.

It is also important to note that many participants reported poor standards of care when seeking treatment for depressive symptoms. In addition to preventing depressed individuals from accessing treatment, research indicates that negative experiences of seeking treatment can influence decisions to seek treatment for subsequent episodes of MDD (Skogstad et al., 2006). It is therefore imperative that health services continue to aim for high standards of care for depressed individuals. This includes providing training for GPs on the diagnosis of depression, as well as clear information on the local availability of recommended treatments. Research suggests that patients value listening and empathy in GP consultations (Gask, Rogers, Oliver, May, & Roland, 2003; Johnston et al., 2007), and shared decision making is recommended in the treatment of MDD (NICE, 2004). However, GPs report uncertainty about the best way to discuss the boundaries between MDD, normal sad mood, and patients' identity and life experiences (Johnston et al., 2007). The results of the current thesis suggested that managing such dialogue effectively may be important in facilitating treatment engagement for MDD. These findings therefore suggest that further understanding of the way in which depressed individuals interpret and understand their symptoms may inform training resources for the treatment of MDD in primary care.

It is important for help-seeking interventions to consider the feasibility of delivering intervention content (Craig et al., 2008). The results of the current thesis suggested that researchers seeking to develop interventions to improve help-seeking rates should be mindful of difficulties in administering interventions to individuals who may not be engaged with health services. In particular, the help-seeking model suggests that depressed individuals who have not reached acceptance are using symptom avoidance strategies and may therefore be unwilling to engage in interventions about their symptoms. This may lead to certain forms of help-seeking interventions having limited appeal to individuals using avoidance strategies. In particular this will affect interventions that seek to address symptom recognition and increase identity acceptance. Therefore, it may be helpful to consider issues of feasibility alongside the development of help-seeking interventions. It is also important to note that the implementation of effective help-seeking interventions would have implications for service delivery for MDD. While this may result in greater demand for health services, this may be offset if increased help-seeking were to result in fewer depressive relapses and reduced symptom severity in those accessing treatment. Research suggests that the provision of psychological therapies and antidepressant medication is cost-effective in treating MDD (NICE, 2004). Economic evaluation would be important in determining whether greater help-seeking for MDD is cost-effective.

8.6. Strengths and limitations of the thesis research

A significant proportion of previous help-seeking research has employed non-clinical samples to examine factors associated with decisions to seek help for mental health difficulties (Rickwood & Thomas, 2012). This approach may be limited as individuals may feel differently about seeking help for others than for themselves (Rickwood et al., 2005), and may interpret symptoms differently when they are depressed, compared to others (Care & Kuiper, 2012). This approach is also unable to identify the psychological impact of experiencing symptoms of MDD, and how this may influence decisions to seek treatment. A particular strength of the studies in the current thesis is that they were all conducted with participants experiencing current symptoms of low mood and depression. The findings of these studies may therefore be more applicable to understanding decisions to seek treatment for MDD.

A considerable strength in this thesis is also the assessment of help-seeking behaviour. As demonstrated in this thesis, factors associated with attitudes and intentions to seek treatment may not always predict help-seeking behaviour. Very few previous studies have assessed help-seeking behaviour prospectively. Cross-sectional or retrospective studies of help-seeking behaviour are limited in what may be concluded about the role of factors in contributing to individuals decisions to seek treatment. The assessment of prospective help-seeking behaviour in this thesis is therefore a significant improvement on previous studies.

Another significant strength of the current thesis is the triangulation of quantitative and qualitative methods used to investigate help-seeking behaviour. This approach was able to identify novel factors influencing help-

seeking rates for MDD, while also using quantitative measures to assess the importance of these factors in determining help-seeking intentions and behaviour.

A number of limitations with the thesis are noteworthy. First, a key limitation of the thesis is the use of self-report measures of depression severity, identity conflict and acceptance, acknowledgement of symptoms, and intentions to seek help. This approach assumes that individuals are able to reliably recall and quantify their depressive symptoms and their attitudes towards their symptoms and seeking help. As the results of this thesis suggested that individuals may exhibit biases in their attention to and interpretation of depressive symptoms, this may undermine the validity of the measures used. Identity is also an abstract concept. Self-report measures of identity and identity conflict may therefore depend on the extent of individuals' awareness of their identity and identity goals. This is an inherent limitation of using self-report measures in quantitative research. Further exploration of these concepts using a variety of methods may support thesis findings. It is also important to note that measures of identity acceptance, identity and goal conflict were developed by the research team for this thesis. These measures were based on the qualitative findings of Study 1, however they have not been validated beyond the studies included in this thesis.

While assessing prospective help-seeking behaviour is a particular strength of this thesis, there are also a number of limitations with this approach. In assessing current treatment use help-seeking measures therefore do not include any participants who sought help between time points. This may exclude participants who seek help from their GP but do not receive treatment,

those who complete treatment between time points (including those who terminate treatment early), and those who may be on the waiting list for treatment. To overcome this limitation, future studies may seek to include a broader range of help-seeking measures. Another limitation of the prospective design used for Study 4 is that we assessed all predictors at baseline only. This approach cannot account for change in attitudes and intentions over time. The vast majority of previous research employing health behaviour models has assessed socio-cognitive predictors at a single point in time, and there is no clear guidance for how beliefs change over time. However, it is reasonable to expect that attitudes towards help-seeking may change as symptoms of MDD fluctuate prior to seeking treatment. For example, research suggests that symptoms may become more severe over the course of help-seeking delays (Bebbington et al., 2009; Thompson et al., 2008), which may affect attitudes towards the benefits and efficacy of treatment. The experience of cues to action may also be more relevant if they are assessed closer in time to help-seeking behaviour. Further research assessing help-seeking behaviour prospectively should seek to explore changes in predictors over the help-seeking process. It would also be useful for future research to employ experimental methods to investigate the causal role of the predictors in help-seeking for MDD.

8.7. Future research directions

The help-seeking process described by participants in Study 1 provides a number of testable predictions for future research. Studies in this thesis prioritised defining and obtaining initial support for novel constructs derived from participants' accounts in Study 1. Subsequent studies also tested the relative strength of key predictors in help-seeking decisions. Several interesting avenues for future research will now be discussed.

The thesis findings suggested that incorporating depressive symptoms into identity is an essential stage in seeking treatment for MDD. These findings are consistent with research indicating that individuals are more likely to engage in behaviour when it is congruent with their identity (Biddle et al., 1987; Charng et al., 1988; Fielding et al., 2008). However, this research has generally examined the role of group memberships or desirable identity states. For example, studies find that engaging in environmental activism is more likely when individuals see themselves as an activist (Fielding et al., 2008). Individuals are also more likely to give blood when they see themselves as the type of person who gives blood (Charng et al., 1988). These types of identities may be fundamentally different from a depressed identity, which may have more negative connotations for individuals. The results of Study 1 suggested that depressive symptoms are associated with negative identity characteristics, in addition to being in conflict with the identities that individuals wish to maintain. Incorporating a negative identity into the self-concept is likely to involve different emotions and have a different impact than incorporating an identity that is desirable or is associated with positive or neutral characteristics. The results of Study 1 suggested that depressed individuals may initially attempt to reject the depressed identity, but

that accepting symptoms and adapting identity accordingly may be necessary to seek treatment. Future research should examine the emotional impact of incorporating an identity with negative connotations into the self-concept. The impact of this may have implications for understanding patient wellbeing at the start of treatment, and may also inform ways that psychological therapies may support individuals to recover a positive sense of identity, which is essential for the maintenance of positive self-esteem and wellbeing (Alicke & Govorun, 2005; Baumeister et al., 1998; Festinger, 1954; Greenwald, 1980; Swann Jr & Read, 1981).

The results of the current thesis suggested that identity has an impact on the help-seeking process for MDD. Building on these findings, it would be interesting for future research to explore the way in which identity processes may influence the way individuals interpret and manage their symptoms throughout the course of their illness. For example, it would be interesting to explore whether adopting an identity as a depressed person influences subsequent interpretation of symptoms. Once individuals have accepted the presence of depressive symptoms, it may be that individuals are more likely to acknowledge and seek treatment for new symptoms or an increase in depressive severity. However, it may also be that individuals are more likely to associate unrelated symptoms or normal changes in mood as being caused by depression. This may delay treatment seeking for comorbid health conditions, and may lead to heightened anxiety of a relapse amongst individuals who are recovering from depression.

The way in which individuals incorporate symptoms into identity may also affect the way individuals manage their illness. For example, the results of Study 1

provided a preliminary suggestion that incorporating depressive symptoms as a permanent, and unchangeable, feature of identity may reduce help-seeking behaviour. Further research into the way individuals adapt their identity to incorporate depressive symptoms should therefore explore variations in the way this may happen. Whether individuals incorporate depressive symptoms as a permanent or malleable component of identity may therefore have implications for treatment seeking, as well as for individuals' emotional wellbeing.

Those participants who discussed depressive symptoms as a permanent feature of their identity reported low self-efficacy to resolve their symptoms. As a consequence, attitudes towards symptoms may inform the way in which depressed symptoms are incorporated into the self. This leads to the possibility that other beliefs about symptoms may influence identity change. For example, beliefs about the cause of symptoms (e.g. biomedical or personality causes) may influence beliefs about the malleability of identities. It would be interesting for future research to examine to what extent self-stigmatising attitudes predict identity and goal conflict. Having sought treatment in the past may also be associated with different changes in identity (e.g. 'I am depressed *again*'). It would be interesting for future research to explore differences in the acceptance process between individuals who have and have not sought help previously. This may elucidate ways in which individuals' experiences and attitudes towards symptoms may influence the acceptance process. Further research should explore the ways in which individuals may change their identity to incorporate symptoms, and the effect this has on treatment seeking and engagement.

Understanding identity change in MDD may also help to understand treatment preference and engagement, following initial help-seeking. Schauman and

Mansell (2012) suggest that the way in which seeking treatment for mental health disorders is congruent with individuals' identity and goals may influence the extent to which individuals will adhere to treatment. It may be that in addition to changing identity to incorporate depressive symptoms, individuals may also need to make changes in their identity to incorporate the act of seeking treatment (i.e. 'I am someone who needs to take antidepressants for my mood'). In the physical health literature, patients may experience conflict between symptoms and identity following diagnosis and the receipt of treatment. For example, diabetes patients who struggle to accept their diagnosis with the way that they see themselves report inconsistent treatment engagement (Goldman & Maclean, 1998). Furthermore, the rebuilding of identity to incorporate 'recovery' from illness has been found to be associated with greater long-term self-esteem and resilience (Jones et al., 2010). Identity change and formation may therefore play an important role in recovery and wellbeing throughout the course of illness. Further research is needed to explore this process, with implications for understanding patient wellbeing, treatment and recovery in mental health.

Further research is also needed to explore the role of additional factors that may influence decisions to seek treatment beyond reasoned-based decision making processes. The results of the current thesis suggest that reasoned decision-making processes culminating in behavioural intentions to seek help may only partly explain help-seeking behaviour. Future research should explore factors that may moderate the relationship between intentions to seek help and help-seeking behaviour, as well as examining whether a dual processing account of help-seeking decisions is better able to account for help-seeking rates for MDD. This may include greater understanding of 'willingness' to seek

help, which may represent the impulse to seek treatment, and be distinct from behavioural intentions (Hammer & Vogel, 2012). There are a number of different dual-processing models of decision-making (Carver, 2005; Gerrard et al., 2008; Kahneman, 2003; Strack & Deutsch, 2004). Future studies should seek to review and test the utility of these approaches in attempts to improve *understanding of help-seeking for MDD*.

Future research should also consider the role of formal treatment in treating MDD. Within this thesis, and in many parts of the wider health community, lies a tacit assumption that seeking help for depressive symptoms is an adaptive course of action for all individuals with MDD. This assumption is grounded in evidence, discussed in Chapter 1, that individuals who receive treatment for depression experience reductions in depressive symptoms, and have shorter and fewer episodes of depression over the life course (Persons, et al., 1996; Shea, et al., 1992; Scott, et al., 2003; Vos et al., 2004; Thompson, et al. 2008). However, evidence has demonstrated that between 30-50% of individuals with depressive symptoms do not respond to treatment (Dimidjian et al., 2006; Fava, Rush, Trivedi et al., 2003; Trivedi Rush, Wisniewski et al., 2006). Furthermore, research suggests that individuals with milder symptoms of depression who do not receive treatment may be as likely to recover from their symptoms as those who receive treatment (Van Beljouw et al., 2010). These findings therefore suggest that in some cases, formal treatment for MDD may be ineffective or unnecessary. This has economic implications for treating MDD, however may also have significant implications for patients. For example, unsuccessful treatment may dissuade future help-seeking behaviour and exacerbate feelings of hopelessness and pessimism (Study 1). While research may lead to advances in formal treatment for MDD, it may also be adaptive to adopt a

broader approach to treating individuals with depression. Recently, research examining the efficacy of preventative treatments for MDD has highlighted the possibility of population based approaches to reduce the risk of onset of MDD. These treatments primarily seek to increase known protective factors for depression; including adaptive beliefs and behaviours (e.g. Allant-van Dam, Hosman, Hoogduin, & Schaap, 2007; Seligman, Schulman, & DeRubeis, 1999; Smit, Cuijpers, Tiemens, 2004). There is some evidence that these approaches may be effective in reducing the incidence of MDD (Cuijpers, van Straten, Smit, Mihalopoulos, & Beekman, 2008), and may therefore be a useful addition to the current approach taken in treating MDD. Further developments in the treatment of MDD will therefore be important in determining the way in which help-seeking interventions are targeted and delivered.

8.8. *Final summary*

To conclude, in this thesis a theoretical model of the process through which individuals seek treatment for MDD was developed and components of the model were tested. The findings highlight a novel factor, identity, which may influence help-seeking delays and help-seeking likelihood for MDD. In Studies 2 and 3, conflict between depressive symptoms and identity was associated with the extent to which individuals acknowledge current symptoms of MDD.

Moreover, identity acceptance was a significant predictor of intentions to seek help, current treatment use (Study 3) and prospective help-seeking behaviour (Study 4) for MDD. Studies 3 and 4 also tested the utility of two leading models of health behaviour in accounting for individuals' decision to seek treatment for MDD. These studies examined the relative strength of individual factors that have been identified in previous help-seeking literature in predicting help-seeking for MDD. Finally, Study 5 applied a novel online focus group method to investigate avoidance coping strategies used by depressed individuals prior to seeking help. Following methodological difficulties, this study provides clear guidance for other researchers seeking to use online focus groups for future research of patient experiences.

Importantly, the current thesis findings challenge the sole emphasis on reasoned decision-making processes in previous help-seeking literature, and suggest that future research should explore additional influences on help-seeking behaviour. These findings have important implications for understanding decisions to seek treatment for MDD, and inform future research aimed to develop an intervention to improve help-seeking rates for MDD.

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APPENDIX: THESIS MEASURES

PATIENT HEALTH QUESTIONNAIRE (PHQ 9)

Over the last two weeks, how often have you been bothered by any of the following problems?

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or have little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself, or that you are a failure, or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things such as reading the newspaper or watching the television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite – being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself in some way.	0	1	2	3
	Add columns	<input type="text"/>	<input type="text"/>	<input type="text"/>
	Total	<input type="text"/>		
10. If you have checked off <i>any</i> problems, how <i>difficult</i> have these problems made it for you to do your work, take care of things at home or get along with other people	0	1	2	3

PHQ-9 is adapted from PRIME MD TODAY, developed by Drs. R.I.Spitzer, J.B.W.Williams, K.Kroenke and colleagues, with an educational grant from Pfizer inc. Copyright 1999 Pfizer Inc.

Study 1: Interview script

Symptom onset and Problem Recognition

- 1. So you've told me about some of the changes in mood you've been experiencing. When did you start to feel this way?**
 - How did you notice this?
 - Do you think other people noticed?

Help Seeking and influences on

- 2. What kind of help did you seek?**
 - Did you try different kinds of help?
 - What was the trigger for seeking help?
- 3. Can you tell me a little bit about the decision making process you went through in choosing to seek help?**
 - Was there anything that worried or concerned you in seeking help?
 - What were the reasons not to seek help?
 - (go back to SCID answers) You've told me a little about changes that have happened in your mood, did any of this influence you in seeking help?

General views

- 4. What are your views about mental health treatment?**
 - What are your thoughts about antidepressant medication for depression?
 - What are your thoughts about psychotherapy for depression?
 - What do you think the barriers to help there are for people with depression?
 - What do you think could make it easier for people to seek help for depression?

SAIQ modified (Presence/Outcome and Need for treatment subscales only)

1. When you received feedback that you may be at risk of depression, how did you feel about this information?

Strongly agreed disagreed	Agreed	Disagreed	Strongly
------------------------------	--------	-----------	----------

2. I think my symptoms will go away by themselves

Strongly agree disagree	Agree	Disagree	Strongly
----------------------------	-------	----------	----------

3. There's no doubt in my mind that my symptoms will go away*

Strongly agree disagree	Agree	Disagree	Strongly
----------------------------	-------	----------	----------

4. Do you believe treatment for these symptoms to be necessary?

Definitely	Probably	Probably not	Definitely not
------------	----------	--------------	----------------

5. If you do not receive treatment, how do you think your symptoms will change?

Doing very poorly well	Doing poorly	Doing well	Doing very
---------------------------	--------------	------------	------------

6. I can gain a lot from being in treatment

Strongly agree disagree	Agree	Disagree	Strongly
----------------------------	-------	----------	----------

7. If I don't access treatment I would do fine

Strongly agree disagree	Agree	Disagree	Strongly
----------------------------	-------	----------	----------

8. I think my depressive symptoms require treatment

Strongly agree disagree	Agree	Disagree	Strongly
----------------------------	-------	----------	----------

9. I have symptoms of mental health problem

Strongly agree
disagree

Agree

Disagree

Strongly

10. How ill do you think you are?*

Not at all

Slightly ill

Moderately ill

Severely ill

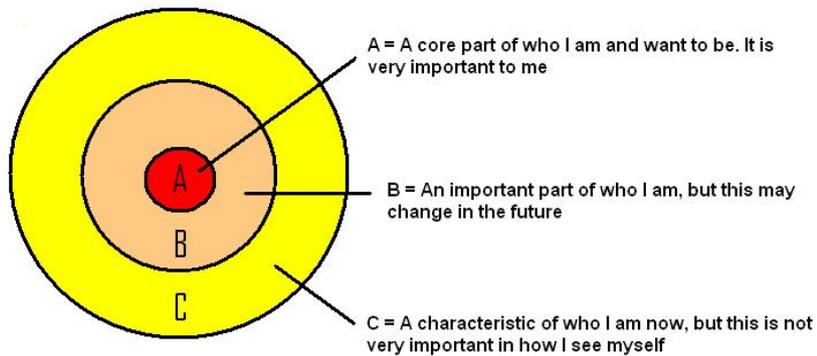
* Reversed items.

Identity conflict

1. Please complete the following statements with characteristics you believe define your identity. E.g. "I am a mother"; "I am funny"

- I am

Please take a look at the diagram below



2. We'd like to know how important you feel each of the identity characteristics you provided are most fundamental to you. Please indicate how fundamental each of the characteristics are to who you are using the diagram as a guide. Please indicate A, B or C below

	A	B	C
1. I am	+	+	+
2. I am.....	+	+	+
3. I am	+	+	+
4. I am	+	+	+
5. I am	+	+	+
6. I am	+	+	+

- 7. I am + + +
- 8. I am + + +
- 9. I am + + +
- 10. I am + + +

3. Now please indicate on the scale below how much you believe that having depression would conflict with your identity

Not at all	A little	Quite a lot	Very much	Would prevent me from being this	
1	2	3	4	5	
I am	1	2	3	4	5
I am	1	2	3	4	5
I am	1	2	3	4	5
I am	1	2	3	4	5
I am	1	2	3	4	5
I am	1	2	3	4	5
I am	1	2	3	4	5
I am	1	2	3	4	5
I am	1	2	3	4	5
I am	1	2	3	4	5

Identity acceptance

How much do you agree with the following?

1. I am someone who has problems with my mood

Strongly disagree 1 2 3 4 5 6 7
Agree

2. I see myself as a person who has low mood

Strongly disagree 1 2 3 4 5 6 7
Agree

3. I see myself as someone who needs to seek help for low mood

Strongly disagree 1 2 3 4 5 6 7
Agree

4. I am not the kind of person who has difficulties with my mood

Strongly disagree 1 2 3 4 5 6 7
Agree

Goal conflict

1. Please name 5 short-term goals that you are currently working on

- 1
- 2
- 3
- 4
- 5

2. Please name 5 medium/long term goals you would like to achieve

- 6
- 7
- 8
- 9
- 10

3. Now please indicate on the scale below how much you believe that having depression would interfere with your goals

Not at all	A little	Quite a lot	Very much	Would prevent me from reaching this goal
1	2	3	4	5
1	1	2	3	4 5
2	1	2	3	4 5
3	1	2	3	4 5
4	1	2	3	4 5
5	1	2	3	4 5
6	1	2	3	4 5
7	1	2	3	4 5
8	1	2	3	4 5
9	1	2	3	4 5
10	1	2	3	4 5

Theory of Planned Behaviour

Attitude

Please indicate your answer using the following scales.

“Seeking help [from your GP] for low mood is....

Good	-3	-2	-1	0	1	2	3	Bad
Foolish	-3	-2	-1	0	1	2	3	Wise
Harmful	-3	-2	-1	0	1	2	3	Beneficial
Unpleasant	-3	-2	-1	0	1	2	3	Pleasant
Unsatisfying	-3	-2	-1	0	1	2	3	Satisfying
Unfavourable	-3	-2	-1	0	1	2	3	Favourable
Helpful	-3	-2	-1	0	1	2	3	Unhelpful
Necessary	-3	-2	-1	0	1	2	3	Unnecessary
Safe	-3	-2	-1	0	1	2	3	Risky

Subjective Norm

Injunctive

1. It is expected of me to seek help for my low mood

Strongly disagree 1 2 3 4 5 6 7 Agree

2. I feel under social pressure to seek help for my low mood

Strongly disagree 1 2 3 4 5 6 7 Agree

3. People who are important to me want me to seek help for my low mood

Strongly disagree 1 2 3 4 5 6 7 Agree

4. My partner or the person closest to me thinks that I...

Should 1 2 3 4 5 6 7 Should not

...seek help for my low mood

Health Belief Model

Perceived susceptibility

1. My current mood makes it quite likely that I have depression

Strongly disagree 1 2 3 4 5 6 7 Agree

2. With my family history, it's quite likely that I will get depression

Strongly disagree 1 2 3 4 5 6 7 Agree

3. My current circumstances mean that it's quite unlikely that I have depression

Strongly disagree 1 2 3 4 5 6 7 Agree

Perceived Severity

1. If I got depression, I would have problems that last a long time

Strongly disagree 1 2 3 4 5 6 7 Agree

2. Having depression would cause problems in my relationship

Strongly disagree 1 2 3 4 5 6 7 Agree

3. My current mood will interfere a great deal with my normal activities

Strongly disagree 1 2 3 4 5 6 7 Agree

4. Having depression will cause problems doing things I usually do (e.g. work, study, hobbies, socialising)

Strongly disagree 1 2 3 4 5 6 7 Agree

5. Having depression will make me feel physically unwell

Strongly disagree 1 2 3 4 5 6 7 Agree

6. Having depression will make me feel very negative about myself

Strongly disagree 1 2 3 4 5 6 7 Agree

7. My current mood will lead to serious ongoing problems with depression

Strongly disagree 1 2 3 4 5 6 7 Agree

8. I will find it increasingly more difficult to do everyday things because of my current low mood

Strongly disagree 1 2 3 4 5 6 7
Agree

9. My life will be adversely affected because of my current low mood

Strongly disagree 1 2 3 4 5 6 7
Agree

Self-efficacy and barriers

1. Certain barriers make it hard to seek help for low mood. How much do you think the following barriers will prevent you from seeking help?

- Finding it distressing to speak to my GP

Not at all 1 2 3 4 5 Completely

- Cost

Not at all 1 2 3 4 5 Completely

- Lack of time

Not at all 1 2 3 4 5 Completely

- GP being unsympathetic

Not at all 1 2 3 4 5 Completely

- Negative reactions from friends and family

Not at all 1 2 3 4 5 Completely

- Being stigmatised by others

Not at all 1 2 3 4 5 Completely

- Difficult to find energy to attend

Not at all 1 2 3 4 5 Completely

- Thinking that nothing can help me

Not at all 1 2 3 4 5 Completely

- Thoughts that my GP cannot help me

Not at all 1 2 3 4 5 Completely

- 2. I am confident that I could seek help for depression

Agree 1 2 3 4 5 Disagree

Cues to Action

In the past 3 months, please rate whether you have encountered any of these situations.

- 1. a) I saw a news program or read an article about depression (if never, skip to question2)

Never Once More than once
1 2 3

b) How did this influence your decision to seek or not seek treatment?
(Strongly discouraged - Somewhat discouraged - No effect - Somewhat encouraged - Strongly encouraged)

- 2. a) I saw a commercial or read a brochure about depression treatment? (if never, skip to question3)

Never Once More than once
1 2 3

b) How did this influence your decision to seek or not seek treatment?
(Strongly discouraged - Somewhat discouraged - No effect - Somewhat encouraged - Strongly encouraged)

- 3. a) My GP/medical professional spoke with me about my depressive symptoms (if never, skip to question4)

Never Once More than once
1 2 3

Outcome Measures

Intentions

1. How likely would you be to see treatment in the next 6 months?

Very Unlikely 1 2 3 4 5 Very Likely

2. Which intentions do you have for the next weeks and months? I intend to... (1-7 don't intend to at all – strongly intend)

- Speak to my GP about my mood

No intention 1 2 3 4 5 6 7 Strongly intend

- Take some medication for my mood

No intention 1 2 3 4 5 6 7 Strongly intend

- Go to counselling

No intention 1 2 3 4 5 6 7 Strongly intend

- Seek help for my low mood

No intention 1 2 3 4 5 6 7 Strongly intend

Help-seeking

Are you currently receiving treatment for depression; e.g. antidepressants, psychological therapy, counselling (Yes/no)