

**Expected Engagement with Psychological Therapy:**

**The Development of a Measure and Implementation as a Predictor of Therapy Outcome**

Phillippa Harrison

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Department of Psychology

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I, Phillippa Harrison, hereby declare that the work submitted in this thesis is my own and the work of others has been acknowledged and referenced where appropriate.

**Abstract**

Psychotherapy services face several challenges, one of which is to improve clients’ outcomes following therapy. This thesis aimed to better understand which pre-therapy client factors predict outcomes with particular psychotherapies. A systematic review of client factors that predict therapy outcome was conducted, which identified client expectations of therapy as a promising predictor of therapy outcome. This thesis therefore aimed to develop a programme of studies investigating client expectations of therapy. In order to build on the existing expectations literature, a previously unexplored aspect of expectations- expected engagement- was the research focus. The first aim of this thesis was to develop a valid and reliable measure of expected engagement. The Sheffield Expected Engagement with Therapy Scale (ShEETS) was devised and tested with three independent samples, from which acceptable validity and reliability were established. The next aim was to examine the use of the ShEETS as an outcome prediction tool for depressed clients. Results showed that those who rated cognitive therapy as more expected to engage them, but less credible, had more symptomatic improvement in Cognitive Behavioural Therapy (CBT). There was no significant effect of expected engagement on symptomatic improvement for those who received a person-centred therapy, known as Counselling for Depression (CfD), and no effect on therapy completion for either group. In the final study, levels of engagement during CBT and CfD were rated to understand whether observed engagement mediated the relationship between expected engagement and symptomatic improvement. However, the study did not find evidence to support this hypothesis. The findings of this research indicate that there may be potential for the predictive effect of expected engagement on symptomatic improvement in CBT. The implications of these findings are discussed in relation to the existing literature on expectations and prediction of therapy outcomes.

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**Chapter 1: Introduction**

* 1. **Chapter Overview**

The purpose of this chapter is to introduce the area of research and build the rationale for the studies that follow in the remainder of the thesis. The overall aim of the thesis is to investigate the relationship between factors surrounding the client in psychotherapy for depression, also known as client factors, and therapy outcome. Firstly, the context of the research is described by briefly outlining psychotherapy research for the treatment of depression, followed by an argument for more of a focus on the individual client in predicting which therapy will be most effective. This is followed by the theoretical background which provides a more in-depth insight into the key issues surrounding the research question, including which client factors should be focussed on to predict better outcome. After summarising the state of the existing literature, the chapter describes the rationale for a research focus on expectations of therapy as one such client factor. The chapter ends by detailing how the structure of the thesis will aim to answer the research question of if client factors, particularly expectations, can predict therapy outcome.

**1.2 Research Context**

Major depressive disorder is a common mental health problem which the latest major systematic review showed to have a global point prevalence of 4.7% and an annual incidence of 3% (Ferrari et al., 2013). Furthermore, the Global Burden of Disease Study found major depressive disorder to be one of the five leading causes of years lived with disability (Global Burden of Disease 2016 Disease and Injury Incidence and Prevalence Collaborators & Hay, 2017).The Diagnostic Statistical Manual (DSM-5) characterises the disorder by low mood, diminished interest in usual activities, negative self-concept, change in activity levels, fatigue, change in weight, insomnia/ hypersomnia, diminished concentration and suicidal thoughts or plans (American Psychiatric Association, 2013). There has been a successful endeavour over the past century to develop psychotherapy into a treatment option for those with depression, so much so that it is now considered an equally effective alternative to antidepressants (Cuijpers, van Straten, van Oppen, & Andersson, 2008). However, depression has a symptom profile which can make it a particularly difficult disorder to treat, resulting in some clients who do not respond to therapy. Indeed, between 30 and 60% of clients do not reliably improve following therapy (Cahill, Barkham, & Stiles, 2010; Firth, Barkham, Kellett, & Saxon, 2015). Furthermore, early drop out is a common occurrence in therapy, with rates also ranging from 30-60% ([Baekeland & Lundwall, 1975](http://ovidsp.tx.ovid.com/sp-3.25.0a/ovidweb.cgi?QS2=#74); [Eiduson, 1968](http://ovidsp.tx.ovid.com/sp-3.25.0a/ovidweb.cgi?QS2=" \l "79); [Garfield, 1986](http://ovidsp.tx.ovid.com/sp-3.25.0a/ovidweb.cgi?QS2=#82); [National Institute of Mental Health [NIMH], 1981](http://ovidsp.tx.ovid.com/sp-3.25.0a/ovidweb.cgi?QS2=#88)). In addition to reducing the likelihood of improvement, people who drop out of treatment reduce the cost effectiveness of mental health service resources (Garfield, 1986; Pekarik, 1985). Therefore, symptomatic improvement and completion of therapy are two of the most common forms of assessment of therapy effectiveness.

Despite such issues, the field of psychotherapy research has largely focussed on improving treatment effectiveness for the majority who respond rather than those who do not. Numerous meta-analyses of randomised controlled trials (RCTs) have been conducted to determine the most effective form of psychotherapy for depression that, on the whole, have found support for the broad equivalence of psychotherapies, also known as the Dodo Bird Verdict (Luborsky et al., 2002; Rosenzweig, 1936; Wampold et al., 1997). The phrase refers to the dodo bird in Lewis Carroll’s “Alice in Wonderland” who judges a race and concludes that “Everybody has won and all must have prizes.” The “gold standard” format of an RCT, however, is not designed to understand “what works for whom” in terms of differing treatment effectiveness for different client subgroups i.e. who may not respond (Norcross & Wampold, 2011). RCT samples are often deliberately homogenous with regards to client factors such as comorbidity in order to produce a high level of internal validity (Westen, Novotny, & Thompson-Brenner, 2004). In contrast, the services for which recommendations based on RCTs are implemented often see much greater variation in their clients, some of whom may require alternative treatment options (Howard, Lueger, Maling, & Martinovich, 1993; Kopta, Howard, Lowry, & Beutler, 1994). Hence, the Dodo Bird Verdict may be true for the majority but comparative therapy effectiveness has been largely neglected for specific client subgroups.

Perhaps as a result of such methodological limitations, there has been a lack of theoretical rationale behind the client factors that have typically been explored as predictors of outcome, known as selective irrelevancy (Beutler, 1991; Bohart & Wade, 2013). A lack of consensus in which client factors predict outcome has recently resulted in a shift towards a focus on more meaningful factors such as client perceptions of therapy (American Psychiatric Association, 2006). The Task Force on Evidence-Based Therapy Relationships (TFEBTR) recommended further research be conducted on one aspect of client perceptions, namely expectations of therapy, as it currently stands as a promising yet under-researched predictor of therapy outcome (Norcross & Wampold, 2011). As outlined in more detail below, this thesis aims to develop a new type of expectation with therapy, named expected engagement, to capture clients’ expectations of different therapeutic processes. It is a further aim of this thesis to explore expected engagement in relation to observed engagement and therapy outcome.

**1.3 Theoretical Background**

An understanding of the role of the client in psychotherapy outcome first requires evaluation of how psychotherapy works. There are two schools of thought surrounding what makes therapies effective: the common factors approach and the specific factors approach. The common factors approach states that therapies are effective due to certain facilitative factors that are common across therapies, such as an unconditionally positive and empathic relationship (Asay & Lambert, 1999; Rogers, 1957). This theory lends itself well to explaining equal outcomes for different therapies, because all therapies share the components that produce therapeutic change. In contrast, the empirically supported treatment (EST) movement purports that there are effective treatment components unique to certain interventions, known as specific factors, such as completing homework in Cognitive Behavioural Therapy (Beck, Rush, Shaw, & Emery, 1979). Research has estimated common and specific factors to account for approximately 30% and 15% of therapy outcome variance, respectively (Lambert, 1992; Messer & Wampold, 2002; Miller, Duncan, & Hubble, 1997). Over recent years, treatment guidelines have moved in line with ESTs to reflect this idea that interventions are comparable in terms of their components and only interventions including the most effective components should be recommended (Westen et al., 2004).

A specific factors approach allows client factors to play a role in treatment selection and, thus, therapy outcome. Prognostic client factors generally predict outcome in therapy whereas prescriptive client factors are those which predict differential outcomes for different therapies, which supports the idea that different therapies have specific factors that make them effective (Cohen & DeRubeis, 2018). Hence, prescriptive client factors open up the opportunity to match clients to the most effective specific factors for them as an individual before treatment commences. With reliable research, those client factors which are poor prescriptive indicators in particular therapies could be flagged to services and clinicians who could provide a more effective alternative for the client. Beutler et al. (1999) have claimed to be able to account for over 90% of therapy outcome variance by using client-therapy matching methods. Significant prognostic predictors of outcome have typically surrounded sociodemographic factors such as education and socio-economic status, clinical factors such as depression severity and comorbidity, and some personality traits such as neuroticism, although prescriptive predictors have been less commonly researched (Luborsky, Auerbach, Chandler, Cohen, & Bachrach, 1971; Nilsen, Eisemann, & Kvernmo, 2013; Spek, Nyklíček, Cuijpers, & Pop, 2008).

As previously mentioned, client factors research has lacked direction and has tended to focus on the effects of demographic and clinical factors on therapy outcome (Farsimadan, Draghi-Lorenz, & Ellis, 2007; Issakidis & Andrews, 2004; Maramba & Nagayama Hall, 2002; Ogrodniczuk, 2006; Rohde, Clarke, Lewinsohn, Seeley, & Kaufman, 2001; Stiles‐Shields, Kwasny, Cai, & Mohr, 2014). This is likely a product of the lack of importance attached to client factors in the face of the wealth of evidence for the Dodo Bird Verdict, resulting in much client factors research being conducted as “tag-on” studies from RCTs (Norcross & Rossi, 1994). Hence, for the main part, the literature has neglected more therapy-relevant factors such as those relating to the client’s perceptions of therapy. Assessment of client perceptions as a predictor of outcome provides the opportunity to use the client’s valuable insight about therapy which could be worked with effectively in their treatment (Groth‐Marnat, Roberts, & Beutler, 2001). Mismatched perceptions between the client and therapy/ therapist have been associated with less symptomatic improvement and early termination of therapy (Bohart & Wade, 2013; Epperson, Bushway, & Warman, 1983; Hunt, Carr, Dagadakis, & Walker, 1985).

**1.4 Expectations of Therapy**

Client expectations are one such type of perception of therapy held by the client. Expectations of therapy can be defined as anticipatory beliefs that the client brings to treatment, which may be beliefs about the process, outcome, therapist or themselves in relation to the therapy (Nock & Kazdin, 2001). Constantino, Arnkoff, Glass, Ametrano, and Smith (2011) conducted a meta-analysis which showed higher expectations to be associated with better therapy outcomes. The concept of expectations of therapy also has potential as a prescriptive factor, as it is a logical assumption that a therapy for which one holds higher expectations will result in a better outcome than another therapy for which one has low expectations, although Constantino et al’s (2011) meta-analysis disputed this. Expectations as prescriptive predictors of treatment outcome have been severely under-researched, as explored in the systematic review in the following chapter.

Despite being a promising prescriptive predictor, there are some conceptual problems with expectations of therapy. Assessments of expectations of therapy typically view the client as a passive recipient of the therapeutic process rather than an active contributor to their own recovery (Bohart & Tallman, 2010). For example, assessments of credibility and expectancy ask the client how logical the therapy is and how much the therapy will help them to recover. However, such questions focus only on the therapy as the active component and the client’s role is overlooked despite evidence to show the client’s role to be a prominent aspect of client expectations (Tinsley, Workman, & Kass, 1980). Furthermore, the limited research into client role expectations to date has not provided a detailed portrayal of the therapeutic process in order for clients to accurately predict how they would interact with the therapeutic techniques. Hence, existing forms of expectation fail to capture the client’s active engagement with the specific factors of different therapies, which may be a prescriptive predictor of therapy outcome.

Engagement with the therapeutic process is a key determinant of therapy outcome, so much so that the UK & US have promoted engagement as an important therapeutic focus (Gomes-Schwartz, 1978; Horvath & Symonds, 1991; Mental Health America, [2010](http://onlinelibrary.wiley.com/doi/10.1002/jclp.20811/full#bib54); National Collaborating Centre for Mental Health, [2009a](http://onlinelibrary.wiley.com/doi/10.1002/jclp.20811/full#bib59), [b](http://onlinelibrary.wiley.com/doi/10.1002/jclp.20811/full#bib60); Sainsbury Centre for Mental Health, [1998](http://onlinelibrary.wiley.com/doi/10.1002/jclp.20811/full#bib69)). However, engagement is of limited use as a process variable for predicting differential therapy outcome, as therapy has to be undertaken before engagement can be assessed. As previously mentioned, it is of clinical use to understand which client subgroups are suited to which therapies prior to therapy allocation to ensure the best client-therapy match. Therefore, it may be of use to gain insight into clients’ expectations of engagement with therapy before therapy commences.

Hence, the central aim of the research presented in this thesis is to build upon existing evidence and recommendations to develop the concept and measurement of expected engagement with therapy. The rationale for the development of a measure of expected engagement is that it could be administered pre-therapy to inform therapy allocation. However, unlike previous measures of client role expectations such as Tinsley et al.’s (1980) Domain of Client Expectancies about Counselling, the present research aimed to provide information on the specific factors present in different therapeutic approaches, and for clients to accurately provide their expectations of engagement with a given approach. Two of the most common yet contrasting therapeutic approaches– a cognitive (Beck et al., 1979), and a humanistic approach (Cain & Seeman, 2002) - were selected as the basis on which to develop and test a measure of expected engagement. These two therapeutic approaches differ quite significantly in their treatment aims and processes and therefore contribute towards shaping very different client expectations.

As defined by Beck (2005) the aim of CBT is: “... exploring the meaning (albeit conscious rather than unconscious) of the individual’s experiences, identifying consistent themes across their verbal reports and behavior, and connecting present and past experiences (especially with the personality disorders)..to designate a package of techniques in which a CT [cognitive therapy] module is used in combination with a set of behavioral modules” (p. 955).

Cognitive techniques typically used in CBT include guided discovery through use of Socratic questioning to facilitate a client’s exploration of their thoughts and beliefs. Once these thoughts and beliefs have been identified, the therapist guides the client to appraise these through the process of self-monitoring, which can be done through use of a thought record. Overall in CBT, it is important that the therapist understands the client’s perspective of the world as a whole so that they can create an optimally accurate and useful formulation that explains the client’s current state and provides clear direction for the course of their treatment. Psycho-education plays a major role in CBT so that the client can understand the reasoning behind the techniques, namely that they are aiming to break the vicious cycle from cognitions to behaviours and vice versa. Behavioural techniques include applying learnt techniques outside of therapy as “homework,” exposure to feared objects and situations, and activity scheduling.

By contrast, the aim of a humanistic, experiential approach is described as: “...to address the emotional problems underlying depression along with the intrapersonal process, such as low self-esteem and excessive self-criticism, which often maintain depressed mood. It aims to help clients contact underlying feelings, make sense of them and reflect on the new meanings which emerge. This, in turn, provides a basis for psychological and behavioural change” (Sanders & Hill, 2014; p. 28).

This approach emphasises the utility of understanding and accessing one’s emotions to achieve personal growth. This is typically achieved through the therapist encouraging the client to explore potential underlying emotional issues as an explanation for their current state. The therapist also guides the client to regulate their emotional arousal to a level that is optimal for them to be able to discuss and explore their feelings. Techniques include the therapist using vivid or emphatic language, reflecting on past and monitoring present emotions and developing an engaging therapeutic relationship.

**1.5 Structure of Thesis**

The following chapters in this thesis set out the existing research leading up to the development and testing of a measure of expected engagement. A range of methods, including quantitative and qualitative methods, were undertaken to determine the role of expected engagement in therapy outcome, in order to understand the area as comprehensively as possible.

Chapter 2 comprises a systematic review of research into client factor effects on symptomatic improvement and therapy completion. The aim is to provide insight into the current knowledge of client factors as both prognostic and prescriptive predictors of therapy outcome. The review provides the opportunity to identify which client factors warrant further research and, hence, provides the evidence for this thesis to focus on expectations of therapy.

The systematic review leads onto Chapter 3, which describes the development of a new measure of expected engagement. The chapter begins by providing current definitions and measures of expectations and identifying why these fail to capture a key aspect of client expectations of therapy, namely expected engagement. The chapter describes using Principal Component Analysis to devise a measure that captures expected engagement with core aspects of cognitive, humanistic and atheoretical therapy components.

Chapter 4 aims to further develop the scale devised in Chapter 3 by confirming it to be a reliable factor structure for both a non-clinical and clinical sample. Methods from Study 1 are replicated in order to compare the psychometric properties of the measure when used with different samples.

Chapter 5 tests the extent to which the new measure predicts therapy outcome. The study described in Chapter 5 comprises a quantitative cross-sectional study using expected engagement scores of depressed clients prior to receiving a cognitive or humanistic therapy in a pragmatic randomised trial. Client outcomes in terms of their level of symptomatic improvement and completion of therapy are then modelled as a function of their expected engagement score using linear and logistic regression.

Chapter 6 outlines a study to explore whether any relationship between expected engagement and therapy outcome is mediated by engagement with therapy. The chapter aims to explain the process via which expected engagement affects therapy outcome, with the hypothesis that this association is expected to be caused by mediation of engagement. The final chapter of the thesis – Chapter 7– concludes with a general discussion of the findings of the five studies and the implications of these findings for the area of client expectations, and more broadly, client-therapy matching.

**Chapter 2: A Systematic Literature Review of the Relationship between Client Factors and Psychotherapy Outcome for Depression**

**2.1 Chapter Overview**

As stated in the previous chapter, there is a lack of consistent evidence regarding client factors that predict outcome. However, determination of client factors that influence outcome could reduce the high rate of clients who do not benefit from therapy for depression by allocation to a more effective therapy (Beutler, 2002; Beutler, Clarkin, & Bongar, 2000). The aim of this chapter is to review the literature on client factors in relation to outcome in order to provide the context for the empirical studies that comprise this thesis. The evidence is reviewed systematically to determine an accurate representation of which client factors have received the most evidence in relation to therapy outcome. Clinical pathology is not included in this review, as there is already a large body of literature to show that level of distress is predictive of outcome and clinical presentation is not a focus of this thesis (Luborsky et al., 1971; Nilsen et al., 2013).

Therapy outcome is considered in two ways in the current chapter: the change in symptoms from before to after therapy and completion of therapy. The first considers how effective an intervention is in reducing depressive symptoms and the second, whether a client completes the full course of therapy. The latter is included in the review as early termination of therapy has been found to lead to less symptomatic improvement (Garfield, 1986; Pekarik, 1986).

**2.2 Introduction**

Allocation to the best therapy in order to achieve optimal recovery, or “what works for whom,” first requires identification of client factors that predict outcome (Norcross & Wampold, 2011). However, as mentioned in the previous chapter, research into which client factors predict outcome is mixed. In a recent narrative review of the area, Bohart and Wade (2013) concluded that ethnicity, level of distress, perceptions of therapy, reactance and coping style were the most effective predictors of therapy outcome. However, the review had some limitations including a broad focus on a number of disorders and treatments that detracted from an understanding of prescriptive client factors for different therapies. Furthermore, the review lacked rigour due to the absence of a systematic approach to ensure all relevant research was included.

The lack of consistency in the research on client factors could be due to a number of factors. In addition to the issues of selective irrelevancy and “tag-on” studies discussed in Chapter 1, it has been suggested that mixed evidence for client factor effects is due to a lack of investigation of prescriptive predictors, also known as moderators (Beutler et al., 2004). Beutler, Blatt, Alimohamed, Levy, and Angtuaco (2006) conducted a review that distinguished between prognostic and prescriptive predictors of depression therapy outcome. It was concluded that factors including ethnicity, comorbidity and functional impairment were prognostic predictors while different factors such as resistance, personality and impairment severity could act as prescriptive predictors. In addition, Beutler, Harwood, Kimpara, Verdirame, and Blau (2011) conducted a meta-analysis and found a moderate interaction between coping style and therapy type, whereby those with an externalising coping style had better outcomes with a problem-focussed therapy whereas an internalising coping style was better matched to an emotion-focussed therapy.

The importance of better matching clients to treatments therefore continues to be considered fundamentally important for improving outcomes but still challenges researchers. This can be seen in the recommendation to tailor therapy to clients’ individual characteristics to improve the therapeutic relationship and, consequently, therapy outcome (Norcross & Wampold, 2011). An expert panel rigorously judged the empirical literature to show reactance level, preferences, culture and religion/ spirituality as demonstrably effective to tailor therapy to. Stages of change and coping style were judged to be probably effective, and expectations and attachment style judged to be promising predictors but insufficiently researched.

**2.2.1 Aims**

Therefore, it is the aim of this systematic review to synthesise and evaluate the literature on the client factors predictive of therapy outcome in the treatment of depression. The review search strategy is designed to locate a broad literature which can be used to reliably identify the comparative influence of client factors on therapy outcome. All client factors, other than clinical factors, will be included in order to capture an accurate representation of the literature. The review aims to only include those studies that specify effects for separately identifiable therapies in order to understand prescriptive as well as prognostic predictors of therapy outcome. Hence, the review aims to build on previous prognostic findings by more narrowly specifying which therapies work for which individuals.

**2.3 Method**

**2.3.1 Search Strategy**

A search of Cochrane, MEDLINE, PubMed, Cinahl and PsycArticles was conducted in May 2016. Exploratory research prior to the review revealed a range of terms used to describe client factors which were incorporated into the search. The search terms used were: *client characteristic, patient factor, patient characteristic, patient facet, client facet, predictor of differential response, patient-treatment fit, client-treatment fit, client variable, patient variable, therapy, depression* (see Appendix A for exact search terms by search engine). As various terms can be used in the client factors literature, the search was expanded to different word variations in all databases. The search included articles from all dates up to and including May 2016. The search was filtered by language to be limited to articles in English. No other filters were applied. The grey literature was also searched within these database searches by not filtering results by article format, meaning that formats such as government reports could be assessed for eligibility. Hence, the search criteria were designed to garner a large number of articles in order to conduct a comprehensive search. Additional records were identified from exploratory reading and hand-searching of key journals.

**2.3.2 Screening and selection**

Screening and selection was carried out in two stages. The first stage was a preliminary filtering stage and the second stage was a more in-depth assessment of inclusion criteria, as full study details were only available in the full text. Hence, stage two reflected many of the stage one criteria but with additional detail. In stage one, titles and abstracts of each article were screened. Inclusion criteria at stage one were: (a) reference to depression, (b) one or more client factors, (c) psychological therapy/ies for depression, and (d) a form of measurement of the effectiveness or completion of the therapy/ies. The article had to be of an empirical quantitative study, as well as the full article being accessible and published in English. The only exclusion criteria at this stage were that outlines, reviews and meta-analyses were excluded because these formats did not provide the detail required for studies to be fully reviewed. Also, articles only studying clinical client factors such as depression severity were excluded.

Stage two comprised the screening of full articles based on the following inclusion criteria: (a) depression as diagnosed by a clinically administered tool, (b) symptomatic improvement in depression or meeting criteria for non-depression or time to remission or therapy length/early termination as a dependent variable, (c) one or more client factors, (d) named therapy/ies, (e) client factor as an independent variable, (f) client factor assessed prior to the therapy/ies, and (g) separate analyses for different therapies. Exclusion criteria included participants with bipolar disorder, interventions with a sole focus to treat non-depressive disorders or using non-psychological methods i.e. antidepressants or control conditions, and relapse or time to relapse as the dependent variable. Studies that reanalysed the same dataset as another article were only included if they explored unique client factors. Once all eligible studies had been screened, only those client factors researched in relation to response by at least five or more articles were included. This was in line with the guidance for sub-group analysis in meta-analyses, in order to ensure a sufficient number of findings to draw conclusions about the factor under review (Fu et al., 2011). Due to the low volume of drop out studies, predictors of completion researched by three or more articles were included in the present review.

The database search generated 12, 975 articles, 27 of which were duplicates. A further 25 articles were identified through other sources, including exploratory reading and a hand search of relevant journals. The resulting total was 12, 973 articles which were assessed at stage one. Of these, 12, 799 articles were excluded because they did not meet stage one inclusion criteria. The full texts for the remaining 174 articles were then further assessed for inclusion at stage two. Of these, 111 articles were excluded because the full articles revealed that the studies did not explore the target research question, or the quality of the study was not sufficient (< 50%; see quality rating scale below). The remaining 63 articles met eligibility for inclusion and were reviewed for quality (see Figure 1 for Preferred Reporting Items for Systematic Reviews and Meta-Analyses; PRISMA diagram).

Records identified through database searching: (total n = 12975)

(Cochrane: n = 726)

(MEDLINE: n = 5)

(PubMed: n = 692)

(Cinahl: n = 337)

(PsycArticles: n = 11215)

) )

Additional records identified through other sources: (total n = 25)

(exploratory reading: n = 24)

(hand search of Journal of Clinical Psychology: n = 1)

(clinical trials register: n = 0)

## Identification

## Screening

Records after duplicates removed  
(n =12973)

Records excluded at Stage 1  
(n = 12799)

Abstracts successfully screened at Stage 1  
(n = 174)

## Eligibility

Full-text articles excluded at Stage 2, with reasons (n = 111)

(Quality score < 50%, n = 9)

(Independent variable not appropriate, n = 11)

(Dependent variable not appropriate, n = 69)

(Intervention not appropriate,

n = 3)

(No separate analyses for each intervention, n = 12)

(Re-analysis of same data as another study, n = 3)

(Factor under-researched,

n = 4)

Full-text articles successfully screened at Stage 2  
(n = 63)

## Included

Figure 1- (PRISMA) diagram for article

inclusion in systematic review

**2.3.3 Working Definitions**

For the purpose of this review, the following definitions were used for the two dependent variables:

Response refers to a client’s outcome in terms of their depression post-therapy. This could be measured as a change in depressive symptoms from pre- to post-therapy, no longer meeting diagnostic criteria for depression, or the length of time taken to reach non-depression criteria. Hence, response, as a dependent variable, can be categorical or continuous. The resulting response definition was quite broad; however, this was necessary to reflect the various methods of assessment employed.

Completion refers to a client attending therapy until a predetermined endpoint is reached. The studies reviewed used a range of definitions to determine completion so each study’s findings were interpreted in light of their individual completion criteria.

**2.3.4 Description of Studies**

Details of the studies under review are presented in Table 2.1. Thirty five- studies used data from randomised controlled trials (RCTs), 10 from randomised trials, 13 from pragmatic trials, four from controlled trials, and one used data from a feasibility and effectiveness trial. Sample sizes ranged from 24 to 523 and refer to the sample size used in the treatments under review only, except where this information was not provided. The most common diagnosis was a major depressive episode, determined by the relevant version of the DSM. Only 16 studies researched client factors in relation to completion, compared to 59 that studied therapy response.

Twenty-eight studies investigated a single therapy, of these: 14 studies analysed cognitive behavioural therapy (CBT), eight cognitive therapy (CT), three interpersonal therapy (IPT), two dynamic psychotherapy and one behaviour therapy (BT). Twenty-four studies investigated two therapies, seven focussed on CBT and IPT, four cognitive behavioural analysis system psychotherapy (CBASP) alone and combined with antidepressants, two CBT alone and combined with usual care/ clinical management, two CBT and supportive expressive group therapy (SEGT), and only one study investigated each of the following: CT and behavioural activation therapy (BAT), CT alone and with a continuation phase (C-CT), CT and IPT, CT combined with antidepressants and placebo, CBASP and brief supportive psychotherapy (BSP) combined with antidepressants, adolescent CBT alone and combined with a parents’ group, short dynamic therapy alone and combined with antidepressants, CBT and dynamic therapy, and problem-solving therapy (PST) and reminiscence therapy (RT).

Of the eight studies investigating three therapies, two studies focussed on CT, BT and brief dynamic psychotherapy, two CBT, focussed expressive psychotherapy and non-directive therapy, and only one study for each of the following: CBT, systemic behaviour family therapy and non-directive therapy, CBT, religious CBT, and pastoral counselling, CT, BT and brief relational insight therapy, CBT, CT and couples BT. The remaining three studies investigated four therapies, two of which focussed on short and long CBT and psychodynamic interpersonal therapy (PIT) and the other on CT and IPT alone and combined with antidepressants. A table of abbreviations of the different therapies is included in Appendix B.

**2.3.5 Quality Assessment**

The quality of the articles was assessed using the Downs and Black quality appraisal checklist for health care intervention studies (Downs & Black, 1998). The Downs and Black checklist was selected due to its applicability to both randomised clinical controlled trials (RCTs) and observational studies, making it appropriate for the range of methodologies under review. The checklist has good internal consistency, good test-retest and inter-rater reliability (Downs & Black, 1998). The measure comprises 27 items and was scored out of a total of 28 (the modified scoring of 0 or 1 was applied for item 27 on power as the information for original scoring out of five was not available (Trac et al., 2016)). The scoring is broken down under the categories of reporting, external validity, internal validity (bias, confounding) and power. For each item, a score is assigned (“yes” = 1, “no” = 0, “unable to determine” = 0). Reference to another article for details was acceptable if the referenced article was accessible. Each study was marked only on relevant criteria i.e. dependent on whether a study was an RCT or observational. Studies are assigned a total percentage, creating a maximum score of 100%. Downs and Black (1998) do not provide cut-off scores to compare quality between articles, so typical categories used in previous research were applied (Hooper, Jutai, Strong, & Russell-Minda, 2008; Shuhendler et al., 2009). Studies scoring 50-69% were considered fair, 70-79% were considered good, and those scoring 80% or above were very good (Hooper et al., 2008; Shuhendler et al., 2009).

Quality assessment scores are displayed in Table 2.1 (see Appendix C for full scoring breakdown). A second independent reviewer trained to post-graduate level confirmed the quality of 10% of the studies (two rated as fair, two good and two fair by Rater 1, randomly selected from within each category), with a moderate inter-rater reliability intraclass correlation, *r* (5) = .69, *p* = .029; see Appendix D).The overall quality of the articles reviewed was fair, with only nine articles falling below the “weak” cut-off point of 50%. These articles were excluded from the present review due to the potential lack of reliability in their findings. There were several common downfalls, which can be categorised according to Downs and Black’s (1998) quality sub-groups: reporting, external validity, internal validity, power.

**Reporting.** Reporting was good overall, with clear hypotheses and descriptions of interventions. However, there was a lack of reporting of confounding variables between groups which could have biased results and adverse events were rarely reported. Studies generally reported very little detail about participants lost to follow-up, despite mention that there were losses.

**External validity.** There was a lack of detail regarding the source population, selection procedures for participants and any differences between those who agreed to take part and those who did not. Very few studies scored highly on external validity as a result of these issues which may, as stated in the previous paragraph, be attributable to poor reporting.

**Internal validity***.* Most studies used validated, standard measures to assess therapy effectiveness. Similarly, most studies had clear and appropriate analyses plans that were followed. Blinding of participants was an irrelevant criterion due to obvious differences between psychotherapies, however it was rarely stated at which point participants were informed of the therapy they were to receive and whether this was after all baseline assessments had been completed. Studies did report blinding although, crucially, details of blinding of the researcher conducting assessments were often absent. There was rarely an indication of the proportion of participants who had adhered to the treatment model or even if adherence had been assessed. Despite studies often stating randomisation of patients, details of randomisation methods were rare. Few articles stated whether their analysis was per treatment or intention-to-treat. Occasionally, method of analysis was possible to deduce from other context however this is not good practise for reporting.

**Power.**It was rare that a study would provide their power calculation or justify the reason for their sample size. Even when studies referred to the original source of the data that gave a power calculation, this was not acceptable as secondary analyses often used smaller subsamples and conducted different analyses.

Overall, studies rarely lost points due to reporting of inappropriate methods but due to absence of key details that were required to evaluate the quality of the method. The majority of studies may have scored higher if reporting of methods such as monitoring of adverse events and patients lost to follow-up had been clear.

**2.4 Results**

**2.4.1 Predictors of Therapy Response**

The results from the 63 studies under review are categorised into personal and perceptions of therapy categories. Only those factors studied by five or more studies are discussed. Only factors that are significantly predictive in final models are discussed. Studies are split into those which investigated a client factor’s effect on response to a single therapy (prognostic predictors) and differential effects in response to multiple therapies (prescriptive predictors). Study numbers provided in brackets correspond with the details of studies in Table 2.1.

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| Table 2.1  *Details of Studies Under Review* | |  |  |  |  |  |  |  |  |
| Study Number  Prognostic Predictors | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Authors | Frank et al (2011) | Menchetti et al (2013) | Schulberg et al (1998) | Button et al (2012) | Mohr et al (2000) | McEvoy et al (2013) | Steinmetz et al (1983) | Tsai et al (2014) | Webb et al (2014) |
| Client Factors | Partner status/daily functioning | Gender/ age/ education/ employment status/ partner status/ physical health/ daily functioning | Daily functioning | Age/ education/ partner status/ significant life events | Gender/ age/ partner status/ employment status/ Multiple Sclerosis physical impairment/ time since Multiple Sclerosis diagnosis/ neurological impairment | Gender/ age/ depressive cognitions/ interpersonal problems | Gender/ age/ partner status/ SES/ reading ability/ IQ/therapy expectancy/ irrational beliefs/ perceived social support/ social adjustment/ neuroticism/ perceived mastery/ extraversion | Therapy expectancy | Therapy expectancy |
| Interventions | IPT | IPT | IPT | Online CBT | Telephone CBT | Group CBT | Group CBT | Group CBT | CBT (group & individual) + antidepressant |
| Outcome Measures | HRSD (17)/ DSM-IV-TR | HRSD (21) | HRSD (17) | BDI | Dropout | BDI-II/ dropout | BDI/  SADS-C | BDI-II/ dropout | CES-D-10 |
| Sample Size | 160 | 143 | 93 | 149 | 32 | 144 | 75 | 80 | 103 |
| Recruitment | Outpatients at academic medical centres at Pittsburgh, Pennsylvania and Pisa, Italy | Outpatients referred by primary care physicians | Eligible patients attending appointments at four academically affiliated ambulatory health centres | Outpatients recruited through general practices | Outpatients referred by the Kaiser Permanente Medical Care Program of Northern California (KPMC) for medication for MS | Outpatients referred by health professionals to a community based specialist mental health clinic | Community-wide campaigning for Coping with Depression course | Outpatients referred to Group CBT Program of the Richmond Mental Health Outpatient Services | Inpatients admitted to Behavioral Health Partial (BHP) Hospital Program at Harvard-Medical School affiliated McLean Hospital in Massachusetts |
| Design | RCT | Multi-site RCT | Re-analysis of Schulberg et al's (1996) RCT data | Re-analysis of CBT arm from IPCRESS RCT (Kessler et al., 2009) | RCT | Pragmatic trial | Pragmatic trial | Pragmatic trial | Pragmatic trial |
| Statistics | Cox regression models | Area Under Curve analysis | Mixed model random effects repeated measures ANOVA | Multiple regression | Repeated measures ANOVA | Hierarchical multiple linear regression analyses/ ANOVA | Stepwise multiple regression | Hierarchical regression analysis | Repeated measures  Regression |
| Quality Review Score | 78 | 80 | 70 | 75 | 67 | 63 | 56 | 57 | 63 |

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| Table 2.1 Cont.  *Details of Studies Under Review* | |  |  |  |  |  |  |  |  |
| Study Number  Prognostic Predictors | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Authors | Bagby et al (2008) | Burns & Nolen-Hoeksema (1991) | Dobkin et al (2012) | Lewis et al (2012) | Marquett et al (2013) | Schindler et al (2013) | Siddique et al (2012) | Simons et al (1995) | Hardy et al (2001) |
| Client Factors | Personality traits | Coping strategies used/ perceived helpfulness of coping strategies/ willingness to use coping strategies | Gender/ age/ partner status/ education/ race/ ethnicity/ employment status/ comorbid medical conditions/ Parkinson's motor disability level/ age of Parkinson's onset/ global cognition/ negative thoughts/ executive functioning | Gender/ age/ employment status/ dysfunctional attitudes/ daily functioning | Gender/ age/ education/ neuroticism/ extraversion/ openness/ physical health/ cognitive impairment/ coping style/ perceived social support/ number of recent stressful life events/ integration of life events/ impact of life events | Gender/ age/ education/ partner status/ therapy expectancy | Age/ partner status/ ethnicity/ significant life events | Significant life events/ dysfunctional attitudes/ sleep quality | Dysfunctional attitudes/ interpersonal style |
| Interventions | CBT | CBT | CBT | CBT | CBT | CBT | CBT | CBT | CT |
| Outcome Measures | HRSD | BDI | HRSD (17)/ BDI | BDI | BDI-II | German adaptation of BDI/ dropout | HRSD | HRSD (17)/ BDI | BDI |
| Sample Size | 280 | 307 | 41 | 173 | 60 | 213 | 90 | 59 | 24 |
| Recruitment | Self-referral to Centre for Addiction and Mental Health (CAMH) from local media advertisements | Outpatients seeking treatment for mood disorders at the David D. Burns Clinic | Outpatients recruited from the Richard E. Heikkila Movement Disorders Clinic, New Jersey Chapter of the American Parkinson’s Disease Association and media advertisements | Outpatients referred by the University Counseling and Testing Centre, practitioners and family | Outpatients referred by professionals & self-referrals from media advertisements | Consecutive outpatients at university CBT clinic in Germany | Outpatients attending clinics who received country health and welfare services in Washington DC area | Outpatients attending the Mood Disorders Module of the Western Psychiatric Institute and Clinic in Pittsburgh | Outpatients referred by primary and secondary care practitioners |
| Design | Re-analysis of data from 2 randomised trials at CAMH (McBride et al., 2006; second unnamed trial) | Pragmatic trial | Re-analysis of data from Dobkin et al (2011) RCT | Pragmatic trial | Pragmatic trial | Pragmatic trial | Re-analysis of data from WeCare RCT (Miranda et al., 2003) | Pragmatic trial | Pragmatic trial |
| Statistics | Hierarchical linear regressions | Regression analysis | Mixed models MANOVA | Latent Growth Curve Modelling | Hierarchical regression analysis | Chi squares, ANOVA, linear regression analysis | Growth mixture modelling | Hierarchical linear & logistic regression | Hierarchical multiple regression analyses |
| Quality Review Score | 59 | 67 | 65 | 58 | 53 | 50 | 57 | 69 | 58 |

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| Table 2.1 Cont.  *Details of Studies Under Review* | |  |  |  |  |  |  |  |  |  |
| Study Number  Prognostic Predictors | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| Authors | Jarrett et al (2013) | Kuyken et al (2001) | Leykin et al (2007a) | Lorenzo-Luaces et al (2014) | Merrill et al (2003) | Siegle et al (2012) | Vittengl et al (2015) | Barber et al (2014) | Hopko et al (2015) | Steinert et al (2015) |
| Client Factors | Gender/ age/ education/ partner status/ employment status/ race/ attributional style/ dysfunctional attitudes/ interpersonal problems/ social role satisfaction | Age | Gender/ age/ ethnicity/ education/ partner status | Gender/ age/ education/ partner status/ IQ/ openness/ conscientiousness/ extraversion/ agreeableness/ neuroticism/ attributional style/ significant life events | Gender/ age/ ethnicity/ partner status/ SES/ education | fMRI activity in subgenual anterior cingulate cortex | Gender/ age/ ethnicity/ education/ employment status/ interpersonal problems/ social adjustment/ dyadic adjustment/ perceived criticism/ dysfunctional attitudes/ attributional style/ self-control/ previous working alliance/ previous cognitive skills/ personality disorder traits | Therapy expectancy/ expectation of alliance | Age/ education/ partner status/ employment status/ perceived social support/ cancer stage/ length of cancer diagnosis/ cancer treatment | Openness/ conscientiousness/ extraversion/ agreeableness/ neuroticism |
| Interventions | CT | CT | CT | CT | CT | CT | CT + CT continuation phase | SEDP | BT | PDT |
| Outcome Measures | HRSD (17)/ DSM-IV/ Dropout | BDI-II | Dropout | BDI-II | BDI | BDI/ HRSD | DSM-IV | HRSD (17) | BDI-II | HADS/ SCL-90-R |
| Sample Size | 523 | 162 | 60 | 60 | 192 | 49 | 86 | 153 (total) | 80 | 342 |
| Recruitment | Outpatients from clinical referrals & self-referrals from advertisements | Outpatients referred to the Center for Cognitive Therapy, University of Pennsylvania | Outpatients referred or recruited via media advertisements | Outpatient referrals & self-referrals from media advertisements | Patients admitted to the CBH Depression Treatment Clinic (DTC) | Hospital outpatients | Outpatients from clinical referrals & self-referrals from advertisements | - | Self-referral by women treated for breast cancer at University of Tennessee Medical Center Cancer Institute | Inpatients admitted to Clinic for Psychosomatic Medicine and Psychotherapy, University of Giessen |
| Design | Re-analysis of data from Jarrett & Thase (2010) RCT | Pragmatic trial | Re-analysis of subsample from DeRubeis et al (2005) RCT data | Re-analysis of subsample from DeRubeis et al (2005) RCT data | Feasibility & effectiveness trial | Re-analysis of data from 2 controlled clinical trials (Siegle, Carter, & Thase, 2006; second unnamed trial) | Re-analysis of subsample from Jarrett & Thase (2010) RCT | Re-analysis of data from Barber, Barrett, Gallop, Rynn, & Rickels (2012) RCT data | Re-analysis of Hopko et al (2011) randomised trial data | Pragmatic trial |
| Statistics | Logistic regression analyses | ANCOVA/ hierarchical regression analyses | T-tests | Regression models | Linear regression/ logistic regression | ROC | Cox regression models | Multilevel models | Binary logistic regression analyses | Multiple linear regression analyses |
| Quality Review Score | 63 | 68 | 67 | 72 | 58 | 59 | 86 | 56 | 72 | 56 |

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| Table 2.1 Cont.  *Details of Studies Under Review* | | |  |  |  | | |  |  | |  | | |  | | |
| Study Number  Prescriptive Predictors | 29 | 30 | 31 | 32 | 33 | | | 34 | 35 | | | | 36 | |
| Authors | Vittengl et al (2010) | Huibers et al (2014) | Shankman et al (2013) | de Graaf et al (2010) | | Carter et al (2011) | Arnow et al (2003) | | | Arnow et al (2007) | | Manber et al (2008) | | | |
| Client Factors | Gender/ age/ education/ employment status/ attributional style/ dysfunctional attitudes/ self-efficacy/ interpersonal functioning/ interpersonal problems/ dyadic adjustment/ personality | Gender/ age/ employment status/ education/ SES/ partner status/rumination/ insufficiency of thoughts & actions/ distrust & interpersonal sensitivity/ hostility/ worry/ positive or negative beliefs about rumination/ therapy expectancy/ negative life events | Dysfunctional Attitude | Gender/ age/ education/ employment status/ dysfunctional attitudes | | Gender/ age/ partner status/ dysfunctional attitudes/ rumination/ social adjustment/ daily functioning | Gender | | | Gender/ age/ partner status/ ethnicity/ severity/ AOO/ duration of current episode/ comorbid anxiety disorder/ Axis II comorbidity/ social adjustment | | Age/ ethnicity/ partner status/ employment status/ attributional style for negative events/ interpersonal functioning | | | |
| Interventions | CT/ CT + CT continuation phase | CT/ CT + antidepressants/ IPT/ IPT + antidepressant | CBASP + antidepressants/ BSP + antidepressant | Online CBT/ online CBT + usual care | | CBT/ IPT | CBASP/ CBASP + antidepressant | | | CBASP/ CBASP + antidepressant | | CBASP/ CBASP + antidepressant | | | |
| Outcome Measures | HRSD (17)/ DSM-IV | BDI-II | HRSD (24) | BDI-II | | Montgomery Asberg Depression Rating Scale | HRSD (24) | | | Dropout | | HRSD (24) | | | |
| Sample Size | 84 | 174 | 395 | 303 | | 177 | 261 | | | 261 | | 455 | | | |
| Recruitment | Outpatient referrals & self-referrals from media advertisements | Outpatients self-referred to mood disorders treatment program at Netherlands mental health care centre | Outpatients referred by clinicians or self-referred from media advertisements | Large-scale internet advertising in the Netherlands | | Outpatients referred by health professionals and self-referrals | Outpatients at 12 academic centres | | | Outpatients at 12 academic centres | | Outpatients at 12 academic centres | | | |
| Design | Re-analysis of Jarrett et al (2001) RCT data | Pragmatic trial | Re-analysis of REVAMP multi-site RCT data (Kocsis et al., 2009) | Randomised trial | | Christchurch Psychotherapy for Depression RCT | Re-analysis of acute phase from Keller et al (2000) multi-site RCT data | | | Re-analysis of acute phase from Keller et al (2000) multi-site RCT data | | Re-analysis of sub-sample from acute phase from Keller et al (2000) multi-site RCT data | | | |
| Statistics | Cox regression time-to-event analyses | Mixed regression modelling | Mixed effects linear regression | Multiple regressions/ multivariate regression | | HLM | Multiple regression | | | ANOVA, chi square, t test | | Receiver Operating Characteristic Curve analysis | | | |
| Quality Review Score | 58 | 56 | 58 | 67 | | 92 | 79 | | | 83 | | 79 | | | |

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| Table 2.1 Cont.  *Details of Studies Under Review* | |  |  |  |  |  |  |  |  |
| Study Number  Prescriptive Predictors | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 |
| Authors | Stulz et al (2010) | Harkness et al (2012) | Coffman et al (2007) | Areán et al (2005) | Mohr et al (2001) | Kolko et al (2000) | Thompson et al (1987) | Gaston et al (1989) | Hogg & Deffenbacher (1988) |
| Client Factors | Age/ race/ attributional style/ traumatic childhood experiences/ daily functioning/ social adjustment/ coping style/ family functioning | Gender/ age/ employment status/ education/ childhood maltreatment | Social support/ daily functioning | Low income (all)/ older (all)/ assistance needs/ pleasant activities/ assertiveness/ social support | Cognitive functioning/ physical health (Multiple Sclerosis (all)/ neurological impairment) | Cognitive functioning/ familial social support/ family functioning | Gender/ age/ education/ partner status/ employment status/ physical health | Expectations of change processes | College students (all) |
| Interventions | CBASP/ CBASP + antidepressant | CBT/ IPT | CT/ BAT | Group CBT/ Group CBT + clinical management | CBT/ SEGT | CBT/ SBFT/ non-directive therapy | CT/ BT/ brief PDT | CT/ BT/ brief PDT | Group CT/ Group IPT |
| Outcome Measures | HRSD (24)/ IDS-SR | HRSD (6) | BDI-II/ HRSD (17) | HRSD (21) | HRSD (17)/ BDI/ BDI-18/ DSM-IV/ dropout | BDI/ K-SADS (DEP-13 scale) | HRSD/ BDI/ GDS/ BSI / dropout | HRSD | BDI/ MMPI depressive subscale |
| Sample Size | 504 (total) | 203 | 88 | 41 | 63 | 103 | 76 | 46 | 27 |
| Recruitment | Outpatients at 12 academic centres | Outpatients | Outpatients recruited through media advertisements, referral from local agencies & word of mouth | Outpatients recruited through primary care provider referral and media advertisements | Outpatients recruited by referral by health professionals, the National Multiple Sclerosis Society and advertising | Outpatients recruited from the Child and Adolescent Mood and Anxiety Disorder Clinic at the Western Psychiatric Institute & Clinic and media advertisements | Outpatients referred by private therapists & agencies, patient information & media advertisements | Outpatients referred by private therapists & agencies, patient information & media advertisements | Outpatients referred from the Colorado State University Counselling Center |
| Design | Re-analysis of Keller et al (2000) multi-site RCT data | Re-analysis of McBride et al (2006) RCT data | Re-analysis of Dimidjian et al (2006) RCT data | RCT | Randomised trial | Re-analysis of Brent et al (1997) RCT data | Re-analysis of Breckenridge, Zeiss, Breckenridge, Gallagher, & Thompson (1985) RCT data | Re-analysis of Breckenridge et al (1985) RCT data | Controlled trial |
| Statistics | Multinomial logistic regressions | Logistic regression/ Cox regression analysis | Stepwise logistic regression/ Receiver Operating Characteristic Curve analysis | Mixed model regression | Mixed model analyses | Random effects regressions | T-tests/ chi squares/ repeated measures MANOVA/ ANCOVA | Hierarchical multiple regression analyses | Repeated measures MANOVA |
| Quality Review Score | 71 | 79 | 75 | 70 | 52 | 63 | 54 | 50 | 56 |

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| Table 2.1 Cont.  *Details of Studies Under Review* | |  |  |  |  |  |  |  |  |
| Study Number  Prescriptive Predictors | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| Authors | Van et al (2008) | Beutler et al (1987) | Steuer et al (1984) | Gallagher & Thompson (1982) | Sotsky et al (1991) | Zlotnick et al (1998) | Blatt et al (1995) | Barber & Muenz (1996) | Beutler et al (1991) |
| Client Factors | Gender/ age/ education/ partner status/ employment status | Older (all) | Older (all) | Older (all) | Gender/ age/ partner status/ SES/ dysfunctional cognitions/ work dysfunction/ social dysfunction/ interpersonal sensitivity/ social satisfaction/ therapy expectancy | Gender/ expectations about therapist gender | Partner status/ dysfunctional attitudes (perfectionism/ need for approval) | Partner status | Coping style |
| Interventions | Short PDT/ short PDT + antidepressants | Group CT + antidepressants / group CT + placebo | Group CBT/ group PDT | CT/ BT/ BRIT | CBT/ IPT | CBT/ IPT | CBT/ IPT | CBT/ IPT | Group CBT/ FEP/ non-directive therapy |
| Outcome Measures | HRSD (17) | HRSD (21)/ BDI (13) | HRSD/ SDS/ BDI (13)/ dropout | HRSD/ BDI/ SDS | HRSD (23)/ combined HRSD (17) & BDI | HRSD (23)/ dropout | HRSD (17)/ BDI | HRSD/ BDI | HRSD (17)/ BDI/ dropout |
| Sample Size | 313 | 29 | 33 | 30 | 239 (total) | 220 (total) | 250 (total) | 84 | 63 |
| Recruitment | Outpatients at the Mentrum Institute of Mental Health, a large psychiatric teaching hospital in Amsterdam | Outpatients referred by primary physicians, service organisations & social groups | Outpatients referred by community physicians & mental health professionals & self-referral from senior citizen organisations & media advertisements | Outpatients referred by regional health centres & private physicians & self-referral | Outpatients referred by clinicians to the National Institute of Mental Health Treatment of Depression Collaborative Research Programme | Outpatients at 3 research sites | Outpatients at 3 research sites | Outpatients referred by clinicians to the National Institute of Mental Health Treatment of Depression Collaborative Research Programme | Outpatients referred by professionals media advertisements |
| Design | Re-analysis of data from 3 RCTs (de Jonghe, Kool, Van Aalst, Dekker, & Peen, 2001; de Jonghe et al., 2004; Dekker et al., 2005) | Controlled trial | Controlled trial in conjunction with Jarvik (1979) | Randomised trial | Re-analysis of TDCRP RCT data (Elkin et al., 1995) | Re-analysis of subsample of TDCRP RCT data (Elkin et al., 1995) | Re-analysis of TDCRP RCT data (Elkin et al., 1995) | Re-analysis of completer subsample from TDCRP RCT data (Elkin et al., 1995) | Randomised trial |
| Statistics | Multivariate stepwise logistic regression | Chi square/ ANOVA | Repeated measures ANOVAs/ one way ANOVAs | Repeated measures ANOVA | Multiple regression, ANCOVA | Hierarchical multiple regressions/ logistic regressions | Covariance change analysis | Multiple regressions | ANCOVA |
| Quality Review Score | 79 | 59 | 54 | 52 | 50 | 63 | 67 | 67 | 63 |

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| Table 2.1 Cont.  *Details of Studies Under Review* | |  |  |  |  |  |  |  |  |
| Study Number  Prescriptive Predictors | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 |
| Authors | Beutler et al (1993) | Rossello & Bernal (1999) | Shapiro et al (1994) | Hardy et al (1998) | Jacobson et al (1993) | Rohde et al (1994) | Areán et al (1993) | Propst et al (1992) | Hart et al (2008) |
| Client Factors | Coping style | Adolescents (all)/self-concept/ social adjustment/ interpersonal functioning/ family functioning | Partner status | Interpersonal style | Dyadic adjustment | Gender/ daily functioning/ role functioning | Gender/ age/ ethnicity/ employment status/ partner status/ social problem solving ability/ life event integration | Gender/ age/ partner status/ employment status/ education | Gender/ age/ education/ partner status/ ethnicity/ physical health (time since MS diagnosis) |
| Interventions | Group CBT/ FEP/ non-directive therapy | Adolescent CBT/ IPT | PIT (short)/ PIT (long)/ CBT (short)/ CBT (long) | PI (short)/ PI (long)/ CBT (short)/ CBT (long) | CT/ couples BT/ CBT | Group adolescent CBT/ group adolescent CBT + parent group | Group PST/ group RT | Religious CBT/ CBT/ PC | Telephone CBT/ telephone SEFT |
| Outcome Measures | HRSD (17)/ BDI | CDI/ dropout | BDI/ SCL-90-R-D | BDI | BDI | BDI/ CES-D | HRSD (17)/ BDI/ GDS/ dropout | HRSD (17)/ BDI/ dropout | Dropout |
| Sample Size | 49 | 48 | 120 | 114 | 50 | 82 | 55 | 48 | 127 |
| Recruitment | Outpatients referred by professionals media advertisements | Outpatients referred by local schools | Self-referral by white-collar workers after recommendation by occupational health personnel or after seeing advertisements or referred by general practitioners and mental health services | Self-referral by white-collar workers after recommendation by occupational health personnel or after seeing advertisements or referred by general practitioners and mental health services | Outpatients referred from mental health agencies and self-referral from media advertisements | Outpatients referred by health professionals & school counsellors, self-referral from media | Self-referred from media advertisements | Self-referral from media advertisements | Outpatients attending Kaiser Permanente Medical Care Group of Northern California (KP) & the National Multiple Sclerosis Society |
| Design | Re-analysis of sub-sample from Beutler et al (1991) randomised trial data | RCT | Second Sheffield Psychotherapy Project randomised trial | Re-analysis of subsample from Second Sheffield Psychotherapy Project (Shapiro et al., 1994) | Follow-up data from Jacobson, Dobson, Fruzzetti, Schmaling, & Salusky (1991) randomised trial | Re-analysis of Lewinsohn, Clarke, Hops, & Andrews (1990) RCT data | RCT | RCT | Re-analysis of Mohr et al (2005) RCT data |
| Statistics | Repeated measures ANCOVAs | ANOVAs | ANCOVAs | Factorial ANOVAs | ANCOVAs | MANCOVA | MANOVAs | ANCOVAs/ chi squares | Multilevel random coefficient modelling/ t-tests |
| Quality Review Score | 67 | 56 | 63 | 56 | 52 | 50 | 56 | 59 | 58 |

Note. IPT = interpersonal therapy, CBT = cognitive behavioural therapy, CT = cognitive therapy, SEDP = supportive expressive dynamic psychotherapy, BT = behaviour therapy, PDT = psychodynamic therapy, PIT = psychodynamic interpersonal therapy, CBASP = cognitive behavioural analysis system of psychotherapy, BSP = Brief Supportive Psychotherapy, BAT = behavioural activation therapy, SEFT = supportive emotion-focussed therapy, SEGT = supportive expressive group therapy, SBFT = systemic behaviour family therapy, BRIT = brief relational-insight therapy, FEP = focussed expressive psychotherapy, RT = reminiscence therapy, PC = pastoral counselling. CDI = Children’s Depression Inventory (Kovacs, 1992), CES-D (10) = Center for the Epidemiological Studies of Depression-Short Form (Radloff, 1977), HRSD (6, 17, 21, 23, 24) = Hamilton Rating Scale for Depression (Bech et al., 1981; Hamilton, 1960, 1967), BDI = Beck Depression Inventory (Beck et al., 1979), BDI-II = Beck Depression Inventory II (Beck, Steer, & Brown, 1996), BDI (13) = Beck Depression Inventory -Short Form (Beck, Rial, & Rickels, 1974), BDI-18=BDI adapted for use with patients with Multiple Sclerosis (Mohr et al., 1997), German adaptation of BDI (Hautzinger, Bailer, Worall, & Keller, 1994), BSI (depression scale)= Brief Symptom Inventory (Derogatis & Spencer, 1982), DSM-IV = Diagnostic and Statistical Manual of mental disorders (Frances, 1994),DSM-IV-TR = Diagnostic and Statistical Manual of mental disorders (American Psychiatric Association & American Psychiatric Association, 2000), GDS = Geriatric Depression Scale (Yesavage et al., 1983), HADS = Hospital Anxiety and Depression Scale (Zigmond & Snaith, (1983), IDS-SR=Inventory of Depressive Symptomatology-Self Report (Rush et al., 1986), K-10 = Kessler 10 (Kessler et al., 2002), K-SADS (Dep 13 scale) = School-Age Schedule for Affective Disorders and Schizophrenia (Puig-Antich & Ryan, 1986), MMPI (depression scale) = Minnesota Multiphasic Personality Inventory (Hathaway & McKinley, 1967), Montgomery and Asberg Depression Rating Scale (Montgomery & Asberg, 1979), PHQ-9 =Patient Health Questionnaire-9 (Kroenke & Spitzer, 2002), SADS-C=Schedule for Affective Disorders and Schizophrenia (Spitzer & Endicott, 1978), SCL-90-R = Symptom Checklist-90-Revised (Derogatis, 1977), SDS = Self-rating Depression Scale (Zung,1965)

**Personal.**

***Gender.*** Twenty-two studies analysed gender in relation to therapy response, 11 of which analysed prognostic response (2, 6, 7, 12, 13, 14, 15, 19, 22, 23, 25) and 11 of which analysed prescriptive response (29, 30, 32, 33, 34, 37, 38, 46, 50, 51, 60). Only one study found an effect of gender, whereby males benefited more than females when receiving IPT (Sotsky et al., 1991). Hence, gender was not a strong predictor of outcome. Gender is a widely studied factor which produced great variation in quality scores, with some of the highest and lowest scoring studies investigating gender. A flaw in the lower scoring studies was a lack of precision when reporting *p* values (Huibers et al., 2014; Lewis, Simons, & Kim, 2012; Marquett et al., 2013; Merrill, Tolbert, and Wade, 2003; Rohde, Lewinsohn, & Seeley, 1994; Sotsky et al., 1991; Steinmetz, Lewinsohn, & Antonuccio, 1983; Vittengl, Clark, & Jarrett, 2010). Although problematic for interpreting significant findings, it is unlikely that this quality issue impacted on the findings, which confirm that gender is unlikely to be associated with response.

***Age.*** Thirty-two studies explored age in relation to response, of which 15 explored prognostic response (2, 4, 6, 7, 12, 13, 14, 15, 16, 19, 20, 22, 23, 25, 27), and 17 of which explored prescriptive response (29, 30, 32, 33, 36, 37, 38, 40, 43, 45, 46, 47, 48, 49, 50, 56, 61). Two studies showed younger age to be predictive of better outcomes in group CBT and for those who completed CBT and IPT (Sotsky et al., 1991; Steinmetz et al., 1983). However, Vittengl et al. (2010) showed older participants were more likely to recover with CT compared to younger clients. Van, Dekker, Peen, Van Aalst, and Schoevers (2008) found 20-29 year olds to be less likely to respond to brief Psychodynamic Therapy (PDT) and clients aged 20-40 to be less likely to respond when brief PDT was combined with antidepressants.

BT and CT were more effective treatment options for older clients than brief relational insight therapy at six weeks post-treatment which was maintained at six month and one year follow-up (Gallagher & Thompson, 1982). In a separate study, older clients responded equally well to group CBT and group PDT, although group CBT showed an advantage over PDT on the BDI (Beck et al., 1979; Steuer et al., 1984). However, Areán et al. (2005) found group CBT to be ineffective at follow-up for older clients unless combined with clinical case management. In another comparison, PST outperformed RT for older clients, the effect of which was maintained at three month follow-up (Areán et al., 1993).

In summary, eight studies-a quarter of the total number- found an effect of age on therapy outcome, but there was no consistent trend for a particular age group or type of therapy to have the best response. The quality of these studies finding a significant effect was average, with eight studies scoring “fair”.

***Employment Status.*** Twelve studies examined employment in relation to response to therapy, of which six studied prognostic response (2, 12, 13, 19, 25, 27) and six studied prescriptive response (29, 30, 32, 36, 38, 46). Despite some variation in quality, with half of the studies scoring good or very good, there was no evidence of an effect of employment on outcome across a range of methodologies and therapies.

***Partner Status.*** Seventeen studies analysed partner status in relation to outcome, 10 of which analysed prognostic response (1, 2, 4, 7, 12, 15, 16, 19, 22, 27) and seven studied prescriptive response (30, 33, 36, 46, 50, 52, 53). Being married significantly predicted better outcome in CBT combined with clinical management, which was maintained at follow-up (Dobkin et al., 2012). Married clients who completed treatment also responded better to CBT alone (Sotsky et al., 1991). For those receiving IPT, being unmarried or separated predicted more symptomatic improvement (Menchetti et al., 2013; Sotsky et al., 1991). IPT was more effective for such clients who completed treatment than CBT, whereas CBT was more effective than IPT for married or cohabiting clients (Barber & Muenz, 1996). However, two studies pose evidence on the contrary to this pattern, whereby married clients had a shorter time to remission with IPTand separated clients benefited more than married clients from online CBT (Button, Wiles, Lewis, Peters, & Kessler, 2012; Frank et al.,2011).

In summary, the evidence mainly suggests that CBT is particularly effective for married clients, whereas IPT may be more effective for single or separated clients. Several of these studies were of good quality whereas studies that did not find a significant effect ranged in quality.

***Education.*** Sixteen studies analysed education, some of which incorporated IQ, in relation to response, including 11 which focussed on prognostic response (2, 4, 7, 12, 14, 15, 19, 22, 23, 25, 27) and five on prescriptive response (29, 30, 32, 38, 46). The only significant finding was that a higher reading ability predicted better outcome in group CBT (Steinmetz et al., 1983). Steinmetz et al. (1983) achieved a middling “fair” quality score but a lack of replication of studies on reading ability results in low reliability for this finding. In summary, it is clear that education as a wider factor is not a prognostic or prescriptive predictor of treatment outcome, particularly for the frequently investigated therapies of CBT, CT and IPT.

***Socio-Economic Status (SES).*** Five studies examined the effects of SES in relation to symptomatic outcome, two of which analysed prognostic response (7, 23) and three prescriptive response (30, 40, 50). Merrill et al. (2003) found a lower income to result in less improvement in CT. In a sample of low-income participants, group CBT combined with clinical management produced better symptomatic improvement at follow-up than group CBT alone, which did not result in any symptomatic improvement (Areán et al., 2005). In summary, only two studies found a lower income to be disadvantageous when receiving cognitive therapies. The remaining three studies also investigated cognitive therapies but found no effect on response. Areán et al.’s (2005) higher quality study provides some confirmation of Merrill et al.’s (2003) findings for cognitive-based therapies.

***Race/ ethnicity.*** Five studies analysed race and ethnicity in relation to response, which included four studies that focussed on prognostic response (12, 16, 19, 25) and one study that focussed on prescriptive response (36). Only one study found an effect, whereby C-CT produced higher likelihood of remission when participants were white (Vittengl, Clark, Thase, & Jarrett, 2015). No other studies explored C-CT to replicate this effect. Vittengl et al.’s (2015) study was of very good quality with detailed intervention compliance procedures which may have created specific circumstances under which the effect of race on response occurred.

***Personality.*** Ten articles investigated several personality factors’ effects on outcome. Seven studies analysed single prognostic response (7, 10, 14, 22, 24, 25, 28) and three studies analysed prescriptive response (29, 30, 40).

Marquett et al. (2013) and Bagby et al. (2008) found higher levels of openness to predict better response to CBT. In the latter study, the specific aspects of openness that were significant predictors were fantasy, aesthetics, actions and values. Vittengl et al. (2010) found higher levels of manipulativeness, exhibitionism and self-efficacy to be prescriptive predictors of recovery and remission in CT but with no effect on C-CT. For those who received C-CT, higher self-control predicted higher likelihood of remission whereas higher mistrust, higher perceived criticism and lower self-esteem predicted lower likelihood of remission (Vittengl et al., 2015). Positive temperament was a predictor of remission in both CT and C-CT (Vittengl et al., 2010; 2015). Functional Magnetic Resonance Imaging data showed clients with the lowest levels of emotional reactivity to negative words in the subgenual anterior cingulate cortex to improve the most in CT (Siegle et al., 2012).

In summary, half of the studies found an effect, all of which were in cognitive therapies. However, other studies of cognitive therapy response found no effect of personality. As with many studies with lower quality scores, studies investigating personality traits specifically suffered from a lack of clear reporting of methodology and statistics.

***Cognitive Factors.*** Twenty studies focussed on cognitive factors in relation to outcome, 10 of which analysed prognostic response (6, 7, 12, 13, 14, 17, 18, 19, 22, 25) and a further 10 of which analysed prescriptive response (29, 30, 31, 32, 33, 36, 37, 42, 50, 52).Less dysfunctional attitudes produced better response to CBT (Simons, Gordon, Monroe, & Thase, 1995; Sotksy et al., 1991). However, Simons et al. (1995) found that this was only true for those clients who had not experienced a significant life event, such as a traumatic experience. Lower dysfunctional attitudes also improved recovery in CT but not C- CT (Vittengl et al., 2010). Blatt, Quinlan, Pilkonis, and Shea (1995) specifically studied perfectionism as a dysfunctional attitude and found higher perfectionism to predict poorer response to both CBT and IPT.

Vittengl et al. (2010) found lower failure attributions to predict recovery in C-CT and CT. When looking more closely at the types of attributional failure in C-CT, a higher global attributional failure was detrimental to recovery and a stable failure detrimental to remission (Vittengl et al., 2015).

When reported by the therapist, clients were more likely to remit in C-CT if they had more cognitive skills rather than fewer (Vittengl et al., 2015). Furthermore, Dobkin et al. (2012) found higher impairment on executive functioning predicted poorer response to CBT combined with clinical management, which was maintained at 4 week follow-up.

In summary, cognitive deficits in the form of dysfunctional attitudes and attributional failures appear detrimental across therapies but the five significant studies indicate that they mainly impact response to cognitive-based therapies. The quality of the studies investigating cognitive factors varied widely from 50-92%, with most studies that found a significant effect scoring “fair.”

***Coping Style.*** Five studies investigated the impact of coping style on outcome, two of which studied prognostic response (11, 14) and three studied prescriptive response (37, 54, 55). An externalising coping style was found to predict better response to group CT than non-directive therapy but not compared to focussed expressive psychotherapy (Beutler et al., 1991). Furthermore, the opposite was found for an internalising style, whereby non-directive therapy, but again not focussed expressive psychotherapy, was more effective than group CT. These effects were maintained at three month but not at one year follow-up (Beutler, Machado, Engle, & Mohr, 1993). Burns & Noel-Hoeksema (1991) extended this finding by revealing willingness to try new positive coping strategies improved response to CBT compared to those who were not willing. However, this effect was reduced to trend level when homework compliance was included in the analysis as a process variable. Marquett et al. (2013) found higher levels of using emotional support to cope with stressful situations to predict better outcomes in CBT.

In summary, four studies found evidence of the effect of coping style on response. It appears that using, or being open to using, positive coping strategies, such as emotional support, can be helpful for CBT response. However, when coping strategies are more broadly defined as externalising or internalising, there may be a prescriptive effect whereby a cognitive approach is better suited to an externalising style and vice versa for self-directed therapy and an internalising coping style. However, there were not enough prescriptive studies on cognitive and self-directed therapies to confirm this finding. These studies were of fair quality or above and provide a useful starting point for further research into the differentiating effects of coping style on therapy response.

***Social Factors.*** Nineteen studies explored the effects of social factors as a predictor of outcome, with seven studies exploring prognostic response (6, 7, 14, 18, 19, 25, 27) and a further 12 studies exploring prescriptive response (29, 30, 33, 36, 37, 39, 40, 42, 50, 58, 59, 61). Coffman, Martell, Dimidjian, Gallop, and Hollon (2007) found problems with a client’s primary support group to predict poorer CT outcome but found no effect on behavioural activation therapy. When broken down into different facets of social support, more emotional support and higher perceived family support predicted better response to CBT and group CBT (Marquett et al., 2013; Steinmetz et al., 1983). Less family functioning impairment predicted higher likelihood of improvement across CBASP alone and CBASP combined with antidepressants (Stulz, Thase, Klein, Manber, & Crits-Christoph, 2010).

Higher levels of social satisfaction predicted better outcome in IPT, but not in CBT (Sotsky et al., 1991). Jarrett et al. (2013) also found less role satisfaction to predict poorer response to CT. Poorer social adjustment predicted less remission in C-CT (Vittengl et al., 2015). Vittengl et al. (2015) also found those with better dyadic adjustment to have higher likelihood of remission in C-CT compared to those with less adjustment.

Those with more severe interpersonal problems had poorer response to IPT (Sotsky et al., 1991). In contrast there was no effect of interpersonal problems on CBT response. Jacobson, Fruzzetti, Dobson, Whisman, and Hops (1993) found CT and CBT to be more effective at follow-up compared to BT for couples with no pre-treatment marital distress. In contrast, CBT, couples BT and CT were equally effective for couples with pre-treatment marital distress. Poor problem-solving was a more robust predictor of PST outcome than RT, and good problem-solving a more robust predictor across outcome measures of RT outcome than PST (Areán et al., 1993). More generally, high social underinvolvement predicted a poorer outcome in CT (Hardy et al., 2001). In contrast, overinvolved clients scoring highly for interpersonal sensitivity responded better to IPT than those with lower sensitivity (Sotsky et al., 1991). A combination of over and underinvolved traits, whereby clients were too caring but also found it hard to be assertive, resulted in poorer response to group CBT (McEvoy, Burgess, & Nathan, 2013).

In summary, eleven studies found an effect of social factors on response, the majority of which showed a beneficial effect of more social support on response across therapies. The findings consistently show perceived problems with social support to predict poorer response to cognitive therapies. Studies analysing social factors include the lowest and highest quality articles in the review, although those studies that found an effect were of average quality.

***Daily Functioning.*** Eleven studies investigated daily functioning, which includes abilities to manage in one’s everyday life, as a predictor of outcome. Four studies analysed prognostic response (1, 2, 3, 13) and seven studies analysed prescriptive response (30, 33, 37, 39, 40, 42, 50). Higher levels of daily functioning were found to predict better response to CBT (Lewis et al., 2012). Similarly, lower levels of functional impairment predicted better response to CT, but not BA (Coffman et al., 2007). Schulberg, Pilkonis, and Houck. (1998) replicated this effect in IPT in which less functional impairment was optimal for outcome. Higher physical functioning predicted better outcome in CT and IPT but only when combined with antidepressants (Huibers et al., 2014). Frank et al. (2011) found higher daily functioning impairment to result in a longer time to remission in IPT.

In summary, five studies found a negative effect of impairment on response across cognitive and interpersonal therapies. The studies investigating daily functioning had above average quality ratings which may have contributed to the clarity of the findings in the direction of a negative effect of functioning impairment.

***Physical Health.*** Six studies focussed on various indices of physical health in relation to outcome, five of which analysed prognostic response (2, 12, 14, 17, 27) and one of which analysed prescriptive response (41). Higher levels of motor disability due to Parkinson’s disease were associated with poorer outcome in CBT combined with clinical management (Dobkin et al., 2012). However, this effect was not maintained at four week follow-up. Receiving cancer treatment concurrently with depression treatment predicted poorer response to BT (Hopko et al., 2015). In a sample of participants with Multiple Sclerosis (MS), CBT outperformed SEGT (Mohr, Boudewyn, Goodkin, Bostrom, & Epstein, 2001). This difference in treatment effects was clinically significant in the intention-to-treat sample, but not the completer sample. However, no treatment differences remained at six month follow-up. Simons et al. (1995) found a longer rapid eye movement latency to predict longer time to remission in CBT, particularly for those clients who had experienced negative life events.

In summary, four studies evidenced an effect of physical health on therapy response, all in the direction of a detrimental effect on therapy due to poor physical health. Interestingly, these effects were often not maintained at the follow-up assessment which may reflect a delay in response caused by physical health problems at the time of therapy. These studies were largely of fair quality, with good reporting of study details.

***Life Events.*** Ten studies investigated the effect of life events, such as stressful events, on response, five of which studied prognostic response (4, 14, 16, 17, 22) and a further five of which studied prescriptive response (30, 37, 38, 40, 61). A history of maltreatment predicted better response to CBT than IPT due to a significantly poorer response to IPT for those who had been maltreated (Harkness, Bagby, & Kennedy, 2012). Ability to integrate life events was also a predictor of outcome, with a good ability predictive of better outcome in RT and PST (Areán et al., 1993). Surprisingly, poor integration ability was also predictive of better outcome in PST. Marquett et al. (2013) also found a higher negative impact of stressful events to predict poorer response to CBT whereas Button et al. (2012) found those with fewer than three recent stressful events to benefit more from online CBT. Those who had recently experienced pleasant events responded better at follow-up to CBT combined with clinical management than to group CBT alone (Areán et al., 2005).

In summary, five studies showed an effect of stressful life events on response. There was evidence of a negative impact of stressful life events on response, which has been found in CBT, IPT and behavioural therapies. The studies’ quality tended to score at the lower or upper end of the “fair” category, due to differences in the reporting detail. This did not appear to impact the results, as studies finding significant effects were from a range of qualities.

**Perceptions of Therapy.**

***Expectations.*** Ten studies investigated the effects of expectations on outcome, six of which analysed prognostic response (7, 8, 9, 11, 15, 26) and four of which analysed prescriptive response (30, 44, 50, 51). Firstly, Sotksy et al. (1991) found higher expectancy to be predictive of better outcome across CBT and IPT. This was also the case for group CBT both alone and combined with antidepressants, whereby higher expectancy predicted more improvement post-therapy and at one month follow-up (Steinmetz et al., 1983; Webb, Beard, Auerbach, Menninger, & Björgvinsson, 2014). Another study found those with high expectations of gaining help through behavioural and cognitive change to respond better to CT (Gaston, Marmar, Gallagher, & Thompson, 1989). There was no such effect in BT and brief PDT, making CT the more effective therapy for clients with high expectations of these change mechanisms. A different type of expectation, expected alliance, also predicted outcome in Supportive Expressive Dynamic Psychotherapy, whereby higher expected alliance predicted better outcome, although only when measured by the Working Alliance Inventory-Short Form (WAI-S; [Horvath & Greenberg, 1989](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988465/#R33); [Tracey & Kokotovic, 1989](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3988465/#R56)) but not the California Psychotherapy Alliance Scale (CALPAS; Barber et al., 2014; Gaston & Marmar, 1994).

In summary, five studies found a benefit of higher expectations, of different forms, on response across different therapies. However, there are interesting differences in which therapies are more effective for higher expectations. Generally, studies finding significant effects were for cognitive therapies, with no significant findings for more dynamically-oriented therapies. This could be a product of the reputation of cognitive therapies as relatively popular which may form stronger expectancies compared to psychodynamic approaches for which clients do not have strong perceptions. The research conducted by Gaston et al. (1989) adds to this by demonstrating that it is not just high expectations but what those high expectations entail which predicts prescriptive therapy response. Three studies were of fair to good quality level and two fell on the border of weak quality, which could mean their findings are not as reliable. In addition to common reasons for lower quality scores such as lack of reporting of patient source, these studies often lacked information about blinding, an important component of studies randomising to a range of therapies.

**2.4.2 Predictors of Completion**

Studies investigating client factors in relation to therapy completion rarely analysed results separately for each therapy. Therefore, results are not divided into prognostic and prescriptive predictors.

**Personal.**

***Gender.***Ten studies explored gender as a predictor of completion (5, 15, 19, 21, 35, 43, 51, 61, 62, 63). Only one study found females to be more likely to drop out than men from a group of treatments comprising CT, BT and brief Psychodynamic Therapy (PDT; Thompson, Gallagher, & Breckenridge, 1987). The lack of significant relationships for the other nine studies indicates that, on the whole, gender does not predict completion.

***Age.*** Ten studies explored age as a predictor of completion (5, 15, 19, 21, 35, 43, 56, 61, 62, 63). One study identified older age to be predictive of higher likelihood of CT completion (Jarrett et al., 2013). However, other than this study, no relationship between age and completion was found.

***Employment Status.***Five studies explored employment as a predictor of completion (5, 19, 43, 61, 62), with only one study finding that those currently in employment were more likely to complete CT (Jarrett et al., 2013).

***Partner Status.*** Nine studies explored partner status as a predictor of completion (5, 15, 19, 21, 35, 43, 61, 62, 63). However there were no significant findings in any of these studies.

***Education.***Six studies explored education as a predictor of completion (15, 19, 21, 43, 62, 63). Jarrett et al. (2013) found an additional year of education predicted increased likelihood of CT completion but no other studies found a relationship. Hence, there is a lack of support for education as a predictor of completion.

***Race/ ethnicity.***Five studies explored race and ethnicity as a predictor of completion (19, 21, 35, 61, 63). Only one study by Jarrett et al. (2013) found white clients to be more likely than other ethnic groups to complete CT.

***Cognitive Factors****.* Three studies (6, 19, 41) explored the effects of cognitive factors on completion, with only one study showing a significant effect. McEvoy et al. (2013) found those with higher levels of depressive cognitions more often dropped out of group CBT.

***Social Factors****.* Five studies explored the effect of social factors on completion (6, 19, 35, 56, 61). The only significant effect was that clients who found it hard to be supportive more often dropped out of group CBT (McEvoy et al., 2013).

***Physical Health.***Four studies explored the effects of physical health on completion (5, 41, 43, 63). The only significant finding was that less neurological impairment predicted drop out for therapies including CBT, SEGT and antidepressants (Mohr et al., 2001).

**Perceptions of Therapy.**

***Expectations.***Three studies explored expectations as a predictor of completion (8, 15, 51). All three studies found lower expectancy to be associated with higher likelihood of dropout from CBT (Schindler, Hiller, & Witthöft, 2013; Tsai, Ogrodniczuk, Sochting, & Mirmiran, 2014; Zlotnick et al., 1998).

**2.5 Discussion**

Overall, the limited findings of the current review do not conclusively identify which client factors contribute to therapy outcome. Findings from the present review confirm Bohart and Wade’s (2013) conclusion that previously researched individual factors do not consistently predict response, and evidence for factors in relation to completion is sparse. However, in agreement with Bohart and Wade (2013), the findings highlight some promising factors, as discussed below.

This review considered the literature across two categories. The first category, personal factors, still dominated the research being conducted, despite little evidence that many of the factors are associated with therapy outcome. Age has been extensively researched, with older clients responding better on the whole to cognitive or solution-focussed therapy, although there were few significant prescriptive studies to advance understanding of differential therapy response by age. Previous meta-analyses have not found a difference in response to therapy overall by age, which makes the current findings difficult to interpret (Cuijpers, van Straten, Smit & Andersson, 2009; Oxman & Sengupta, 2002). However, there is evidence in primary care mental health services that younger clients are more likely to drop out of therapy (Glover, Webb, & Evison, 2010). In spite of this, far fewer studies were conducted on the effect of age on dropout than response, leaving little opportunity for exploration of this potential effect.

On the other hand, there was some evidence of a prescriptive relationship between marital status and therapy type. Married clients often achieved better outcomes than non-married in CBT and vice versa for IPT, with differential effects when receiving the alternative therapy.

Few studies in the present review explored the same personality factors, which resulted in a lack of reliability in the findings. However, tentative conclusions can be made that positivity plays some role in determining response, with three studies identifying an association between higher positive temperament and improvement with a cognitive therapy. Previous research has found low neuroticism to be predictive of better therapy response as well as agreeableness x therapy moderator effects which indicates some association between personality and therapy outcome (Mulder, 2002; Ogrodniczuk, Piper, Joyce, McCallum, & Rosie, 2003). However, other research has concluded that personality is an unbeneficial focus for predicting therapy outcome due to a lack of consistent findings for its effect (Blom et al., 2007).

Dysfunctional attitudes, attributional failures and poor cognitive skills predicted lower response to cognitive therapies. A sufficient amount of research was conducted on IPT as well as CT, although only one study found an effect for IPT. Hence, cognitive factors may influence response to cognitive therapies the most, perhaps due to the pragmatic association between cognitive functioning and cognitive therapy techniques.

Despite few studies researching coping style, the majority indicated a positive effect of using coping styles on therapy response, although results were too sparse to confirm particularly beneficial styles. The ability to be open to different coping styles has been found to predict lower depressive symptoms so may be extendable to response to therapy for depression (Fresco, Williams, & Nugent, 2006).

Social factors were also found to play a large role in the effectiveness of different treatments. Cognitive therapy outcomes were better if social support was good. Those cognitive therapies that included a behavioural component were the most effective for those with good social support. For dysphoric disorders particularly, social support has been shown to be an important predictor of outcome (Castonguay & Beutler, 2006a). Bohart and Wade (2013) have previously noted the utility of assessing level of social support to be able to tailor the therapeutic methods to this.

A large proportion of the studies exploring daily functioning found lower impairment to be beneficial, particularly for cognitive and interpersonal therapies. In addition, there appears to be some association between the impact of a physical health problem and the success of treatment. For example, the effects of Parkinson’s and MS were detrimental to particular treatments but were not maintained after the treatment had ended. Hence, it appears that the burden of poor physical health may result in poorer response to depression treatment. Despite most studies finding reduced effectiveness of CBT when there was a physical health problem, Mohr et al. (2001) found CBT to be more effective than SEGT. Further research on prescriptive therapy effects is required to understand potential moderator effects.

Significant life events may play an important role in therapy allocation. The findings from the current review are in line with results of a previous meta-analysis which found impaired response to therapy in those who had been maltreated in childhood (Nanni, Uher, & Danese, 2012). CBT appears most effective for those with negative life events compared to IPT. More research is needed to clarify the severity of life experiences at which this difference in response emerges, as much of the research in the current review supports the idea that stressful life events negatively impact CBT response as well. In contrast, treatment options such as PST and rumination therapy prevail when a client has had more positive experiences.

There was promising evidence for the effects of high expectations on cognitive therapy response and completion. This reflects the findings of a meta-analysis which found a small but significant effect of expectations on therapy outcome (Constantino et al., 2011). The finding from Gaston et al. (1989) that expectations of the specific method of change are important is interesting. If a client cannot realistically imagine their role in the method of change, this may not be a true test of the association between expectations and response and may be a false differential effect. This may bias associations particularly within cognitive therapies in which expectations may be more commonly addressed due to the highly structured approach (Patterson, Uhlin, & Anderson, 2008). The findings in the present review for therapy completion reflect the ambiguous state of the literature. Dew & Bickman (2005) concluded that equal numbers of studies found significant, mixed and nonsignificant effects, although it is clear the relationship between expectations and completion is weaker than between expectations and improvement.

**2.5.1 General Discussion**

As discussed, several studies produced significant results, although only approximately 50% of studies for any given factor were significant. Furthermore, very few studies found an association between client factors and therapy completion. One potential explanation for the mixed findings for predictors of response is that client factors need to be considered in a more holistic approach. Recent advances in the literature have seen studies of the combined effect of client factors to determine case complexity in order to understand the interactive influence of these factors on response (Delgadillo, Huey, Bennett, & McMillan, 2017; Fisher & Boswell, 2016). This method of patient profiling can give a more realistic view of which factors often appear together. For example, gender may not play a role in therapy completion by itself but when added to age, young men are more likely to drop out than either older men or women (López‐Goñi, Fernández‐Montalvo, Illescas, Landa, & Lorea, 2008). Overall, it may not be individual factors per se that influence therapy outcome but a client profile associated with a combination of characteristics. One such example is Delgadillo, Moreea and Lutz’s (2016) development of the Leeds Risk Index (LRI). The LRI identified that disability, unemployment, younger age and functional impairment, collectively, would put clients at the highest risk of persistent post-therapy depressive symptoms.

This review is unique in that it attempts to separate the prognostic and prescriptive impact of client factors on response to different therapies. The review yielded some informative differences between different clients’ response to therapies. For example, the review found older, married clients with fewer cognitive impairments and externalising coping style to be most suited to cognitive therapy over alternative forms of therapy. Cognitive therapy is widely advocated in the UK Improving Access to Psychological Therapies (IAPT) service due to its evidence as a therapy that works for the majority of clients (National Collaborating Centre for Mental Health, 2011). However, the present review has identified the aforementioned sub-groups as those who may particularly benefit from this approach over an alternative.

**2.5.1.1 Limitations**

A major limitation to the present review is the low number of articles exploring some client factors. There was insufficient research for inclusion of several factors such as client beliefs, preferences and attachment style, despite these being important research areas. There were far fewer studies that explored therapy completion which made it difficult to draw any substantial conclusions about many factors’ effects on completion. Furthermore, such studies often grouped therapies when exploring client factors’ effects on completion, meaning that there is very limited information on the prescriptive effect of client factors on completion. Therefore, future research is required to explore specific client factors in association with completion and to indicate whether these factors moderate completion of specific therapies.

Another limitation in the present review is the limited number of client factors explored within individual studies. As mentioned previously, recent research has shifted to viewing clients as a whole by exploring the additive and interactive effect of their client factors on response. Hence, a more comprehensive view of the client’s factors would also bring a more accurate portrayal of the effects on response and completion.

Several studies employed more than one measure to assess therapy response yet there was some disparity between the different measures’ results. Lack of coherence between depression measures questions the reliability of some findings. This may be a result of differences in the range of scales and the ease with which an individual can move up and down the scale. Future reviews may wish to review studies that use a common measure of the dependent variable to provide a more reliable representation of the state of the literature.

In addition, there were several definitions of response employed in the studies in the present review, which can be problematic when comparing across studies. For example, both Menchetti et al. (2014) and Jarrett et al. (2013) used the Hamilton Rating Scale for Depression to measure depressive symptoms (HRSD; Hamilton, 1967). They used similar cut off points as inclusion criteria of having MDD but Menchetti et al. (2014) classed remission as a HRSD score of seven or less, whereas Jarrett et al. (2013) required a score less than 12. Similarly, there were various definitions of dropout. For example, Schindler et al. (2013) categorised completion as attending the number of therapy sessions requested to the insurance company by the psychotherapist. The standard number of sessions allocated is typically 25 (brief therapy) or 45 (long-term therapy; Schindler, Hiller, & Witthöft, 2011). Even if a client received brief therapy, this is an extremely long period of time in comparison to the other studies, which ranged from six (Menchetti et al., 2014) to 18 sessions (Jarrett et al., 2013).

**2.5.1.2 Implications and Future Research**

It is clear from the current review that the client factors literature is a complex one. The factors that emerged from the current review as predictive of therapy outcome were categorised into the two groups of personal factors and therapy perceptions. Personal factors such as demographics have been some of the most researched client factors in relation to therapy outcome (Jin, Sklar, Oh, & Li, 2008; Wierzbicki & Pekarik, 1993). Despite some significant findings in this review, the research remains far from consistent on the effects of such factors. Furthermore, therapy-matching to such factors has not proven to be effective (Maramba & Nagayama Hall, 2002).

Client perceptions have emerged more recently as a focus for predicting therapy outcome. A narrative review found perceptions of therapy such as expectations to be some of the most influential client factors in therapy outcome (Bohart & Wade, 2013). Expectations of therapy were the only client factor in this review to receive sufficient research under the heading of perceptions of therapy, and the only factor to show a considerable influence on both response and completion. In addition, unlike personal factors such as age, there is scope to research different facets of expectations in order to more deeply understand the relationship between expectations and therapy outcome. The present review appears to show promise for expectations as a predictor of therapy outcome in line with the recommendation of The Task Force on Evidence-Based Therapy Relationships that further research into the expectations-therapy outcome relationship is warranted (Norcross & Wampold, 2011).

**3. Chapter 3: Study 1 –The Development of a Measure of Expected Engagement with Psychotherapy**

**3.1 Chapter Overview**

The following chapter aims to build on the evidence provided in the systematic review for an association between expectations of therapy and therapy outcome. The chapter will outline the argument for the development of a form of expectations of therapy that is more client-focussed by incorporating expectations of engagement with therapy. Furthermore, the merits of specifying techniques unique to different therapeutic processes, rather than the broad approach, are discussed. Study 1 is described in which a measure of expected engagement is developed and validated with a non-clinical population.

**3.2 Introduction**

As evidenced in the previous chapter, client expectations have emerged as a relatively stable predictor of therapy outcome, yet one that has not been adequately researched (Beutler et al., 2006; Norcross & Wampold, 2011). Frank (1973) was one of the first to acknowledge the importance of expectations about therapy for mobilising hope to motivate the client in their recovery. Expectations have not been viewed as a therapy-specific factor but rather a common factor owing to their relevance to the therapeutic context regardless of therapeutic approach (Lambert, 1992). Early research found having moderate therapy expectations to be the best predictor of symptomatic improvement (Goldstein, 1962). A review of 24 studies concluded that there was evidence for an expectations-outcome association across a range of therapies (Glass, Arnkoff, & Shapiro, 2001). Despite their relevance and contribution to therapy outcome, expectations of therapy have not been a focus for any therapeutic approach and thus named “the ignored common factor” (Weinberger & Eig, 1999).

Client expectations of therapy are typically measured through an assessment of the credibility or expectancy of a therapy. Credibility refers to how logical or meaningful a therapy is perceived to be. A client’s perceived credibility of a treatment has been consistently shown to predict treatment outcome (Mooney, Gibbons, Gallop, Mack, & Crits-Christoph, 2014). Expectancy (i.e., the expectation of how helpful a therapy will be in reducing symptoms) has also received support as a predictive factor for therapy outcome (Baekeland & Lundwall, 1975). There are several reliable indices of credibility and expectancy, including the Patient Attitudes and Expectations Form used in the NIMH TDCRP (Elkin et al., 1995) and the Credibility/Expectations Questionnaire (CEQ; Devilly & Borkovec, [2000](http://onlinelibrary.wiley.com/doi/10.1002/jclp.20754/full#/h)). However, these measures tend to contain items about broad modalities, such as CBT, rather than specific techniques unique to the therapy (Greenberg, Constantino & Bruce, 2006), despite there being some evidence that expectations of the therapeutic process can predict outcome (Gaston et al., 1989; Hardy et al., 1995; Noble, Douglas, & Newman, 2001). Expectations of the duration of therapy also play a role in outcome, with clients expecting therapy of shorter duration than therapists (Garfield, 1978). Discrepancies between client expectations and actual treatment can lead to increased drop out ([Horenstein & Houston, 1976](http://ovidsp.tx.ovid.com.sheffield.idm.oclc.org/sp-3.27.2b/ovidweb.cgi?QS2=" \l "89)).

Role expectations also tap into expectations of the therapeutic process in terms of expected behaviours that the individual would display in the therapeutic process (Arnkoff, Glass, & Shapiro, 2002). The majority of 37 studies reviewed by Arnkoff et al. (2002) found a significant positive relationship between role expectations and therapy outcome.

However, as with credibility and expectancy, to the author’s knowledge no research has considered clients’ role expectations in the context of the specific techniques involved in the therapeutic process. Arguably, the interaction of clients’ role expectations and the specific techniques present would not be classed as a role expectation but an expectation of the level of engagement between the client and the techniques. Engagement with therapy has been described as clients’ active efforts to work towards change both in and outside of the therapy session, which fits well with the idea that the client is an active agent of their own therapeutic change, using the specific techniques provided (Bohart & Wade, 2013; Holdsworth, Bowen, Brown, & Howat, 2014). Hence, the client is not only predicting their own role but also the extent to which they will engage with the techniques of a particular approach.

However, assessment of engagement can be complex due to the various ways that engagement has been defined and operationalized (Drieschner, Lammers, & van der Staak, [2004](http://onlinelibrary.wiley.com/doi/10.1002/jclp.20811/full#bib20); O'Brien, Fahmy, & Singh, [2009](http://onlinelibrary.wiley.com/doi/10.1002/jclp.20811/full#bib63)). For example, the therapeutic alliance has been used as a proxy measure of engagement. Therapeutic alliance refers to use of the collaborative relationship between the client and therapist to make it possible for the client to accept and follow the treatment (Bordin, 1994). However, there are some shortcomings of equating alliance to engagement. Some critics have argued that alliance still does not emphasise the client’s active role in the change process, as the alliance is a mutual effort which may misrepresent the clients’ efforts (Hatcher & Barends, [2006](http://onlinelibrary.wiley.com/doi/10.1002/jclp.20811/full#bib32); Westerman, [2005](http://onlinelibrary.wiley.com/doi/10.1002/jclp.20811/full#bib81)). For example, there are efforts on the client’s part, such as completing homework, that are not reflected by alliance.

Indeed, a systematic review of measures of engagement found that homework compliance was the most common method of assessing engagement and is also linked to good outcome (Burns & Spangler, 2000; Tetley, Jinks, Huband, & Howells, 2011). However, this operationalization of engagement is no better than alliance as it is limited to therapies that include behavioural homework tasks such as CBT. A recent review found measurement of session attendance to be the most common form of operationalizing engagement (Holdsworth et al., 2014). Whereas confining engagement to homework compliance ignores engagement within the therapeutic session, a measure of session attendance excludes engagement which occurs in between sessions.

Alliance, session attendance and homework completion form three of Tetley et al.’s (2011) six criteria of engagement. The remaining three are: Completion of treatment within the expected timeframe; expected contribution to therapy sessions (including self-disclosure and/or other tasks or activities); and (in group therapies) supportive and helpful behaviour towards other participants. No measure relating to the criterion ‘expected contribution to therapy sessions’ is known to the author and so this chapter focuses on the development of this aspect of engagement.

As previously described, typical assessments of credibility, expectancy or role expectations do not specify the interaction between the client and therapeutic process. However, previous research has successfully linked expectations of specific therapeutic processes rather than “brand” names with therapy outcome (Elkin et al., 1999; Gaston et al., 1989; Hardy et al., 1995). As previously mentioned, there is potential for measures of expectations which detail the therapy process to be prescriptive predictors of therapy response (Gaston et al., 1989). This effect may be due to specific pre-therapy expectations of the therapy process which produce different responses dependent on whether the therapy’s specific effects meet those expectations i.e. when homework is expected as part of the process and provided in CBT. Likewise, measures of engagement that are uni-faceted such as completing homework do not reflect the client’s holistic experience of the therapeutic process. Therefore, it appears that there is still much scope for a combination of the two concepts of expectations and engagement.

Therapist competency measures provide a comprehensive description of the therapeutic process, designed for supervisors to rate the skill with which therapists implement key methods/ techniques in a given therapy session. These methods/ techniques can be specific to a therapeutic approach or generally applicable across a range of therapies, which makes competency measures an ideal starting point to highlight the differences and similarities between the processes of therapeutic approaches. The items represent which methods/ techniques should occur in a given therapeutic approach in order for the client to optimally benefit from the therapy. Hence, despite competency measures being framed towards the therapist, the items reflect the aspects of a therapy which make the process effective for the client. This means that the items can easily be adapted to portray expected engagement with these methods/ techniques from the client’s perspective.

For the purpose of the current research, the Cognitive Therapy Scale-Revised competency measure (CTS-R; Blackburn et al., 2001) was selected to represent cognitive therapy skills/ techniques, the Person Centred and Experiential Psychotherapy Scale (PCEPS; Freire, Elliot, & Westwell, 2014) for humanistic items, and the Facilitative Conditions Scale (FCS) from the Sheffield Psychotherapy Rating Scale (SPRS) for atheoretical items common across therapies (Shapiro & Startup, 1990). The scales comprise 12 cognitive items, 10 humanistic items and eight common facilitative conditions, respectively. The measures are described in the Method section and the full scales can be found in Appendices E, F and G.

**3.2.1 Aims**

The aim of this chapter is to use the aforementioned competency measures to develop a questionnaire to measure clients’ expected engagement with methods/ techniques used in cognitive and humanistic approaches, plus common facilitative conditions. The aim is to develop a single measure comprising three scales, one for each therapeutic approach plus one for common factors, in order to identify expected engagement with the different approaches.

Study 1 comprises three stages; firstly, establishing the psychometric properties of the expected engagement measure, secondly, reduction of the items to the core components of a cognitive and humanistic approach plus facilitative conditions using Principal Component Analysis (PCA) and, finally, establishing the psychometric properties of the reduced item measure of expected engagement.

**3.3 Method**

**3.3.1 Design**

An exploratory survey design with an opportunistic sampling method was adopted to develop a reliable and validated measure of expected engagement.

There are several different methods of measure development. The two main methods used are exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), which can be used for different purposes. EFA has two uses: a) to identify underlying dimensional constructs, and b) for dimension reduction (Floyd & Widaman, 1995). Two common forms of data extraction for EFA are common factor analysis and principal component analysis (PCA), which are typically used for the purposes of EFA outlined above, respectively.

In contrast, CFA is mainly used to determine construct validity when there is an a priori theory regarding the constructs within a measure.

There is a clear rationale for the development of a measure that is empirically developed and is both reliable and valid, particularly when intended for use with a clinical population (Marshall et al., 2000). The psychometric literature advises measure development research to comprise the following stages in order to reliably develop a new measure: construct identification, item generation and judging, measure purification, examination of dimensionality and internal consistency, measurement invariance testing, and construct validity assessment (DeVellis, 1991). In line with these stages, the strategy for scale development was as detailed below:

*Construct identification:* The construct of expected engagement was developed in the previous and current chapters of this thesis, based on evidence from the client factors literature. *Item generation and judging:* Study 1 began with ratings of expected engagement with therapeutic components from three validated measures. Item reduction techniques were employed using PCA as an EFA method to reduce each subscale to its primary therapeutic components. PCA is the most appropriate data extraction method of EFA to determine the minimum number of factors to account for maximum variance. The rationale of PCA fits with the practical aim of the study, in terms of creating a measure with fewer items than the original 30, which would be less burdensome for future clinical samples to complete. Hence, a latent factor method such as confirmatory factor analysis was not appropriate, as there were no latent concepts that the study wished to identify. *Measure purification:* Another important stage in measure development that was employed was assessment of face validity by clinical experts. This stage ensured that the selected items were pragmatic representations of the appropriate therapies. *Examination of dimensionality and internal consistency:* The next stage was to examine the subscales’ intercorrelations and assess each subscale for reliability. Reliability were not assessed for the measure overall as the three subscales were designed to be independent. *Measurement invariance testing:* The aims of the Principal Component Analyses conducted in Studies 2 and 3 were to investigate whether similarly high item loadings could be found as in Study 1 for each scale. *Construct validity assessment:* Finally, validity of the construct of expected engagement when compared with other measures of expectations and engagement was assessed.

**3.3.2 Sample Size**

The study required a minimum of 120 participants to meet a 10:1 ratio of participants to items. This is an acceptable ratio for Principal Component Analysis (PCA) to be conducted (Osborne & Costello, 2004). The number of items was taken from the scale with the highest number, the cognitive scale, which comprised 12 items.

**3.3.3 Participants**

Participants were drawn from a university sample of convenience, mainly consisting of University of Sheffield student and staff volunteers. Recruitment methods included advertising the study via departmental and university-wide email lists and newsletters. University-wide advertising to both staff and students allowed for maximum variation in recruitment with regards to age (18-70), gender, ethnicity and education. A non-clinical sample was recruited for Study 1 due to ethical concerns if a clinical sample was used for measure development prior to validity checks. Participants did not receive any monetary incentive to participate in the study. Three hundred and seven participants consented to take part in the present study,201 of whom provided data. In addition to the 106 participants who dropped out of the study, a further 35 participants did not provide data on the expected engagement measure. These participants were not included in the analysis, resulting in a final sample size of 166.

The sample was 75% (N = 124) female, with 70% (N = 116) of participants aged 18-30, 8% (N = 13) aged 31-40, 16% (N = 27) aged 41-55 and 5% (N = 9) aged 56-70. The sample was 86% (N = 143) White Caucasian. Students comprised 62% (N = 103) of the sample while 26% (N = 43) of the total sample was in full-time employment and 2% (N = 3) were unemployed. Of those who held an academic qualification, 34% (N = 56) held an undergraduate degree as their highest academic achievement (i.e. Bachelors) and 30% (N = 50) a university higher degree (i.e. Masters, PhD). Based on self-report, 36% (N = 60) of the sample had experienced depression in their lifetime and 25% (N = 41) an alternative mental health problem, 46% (N = 19) of cases of which were anxiety. A total of 46% (N = 77) of participants had previously attended therapy, 45% (N = 35) of whom had attended CBT and 35% (N = 27) counselling.

**3.3.4 Measures**

**Sociodemographic.**Sociodemographic details included participants’ age, gender, ethnicity, occupation, highest educational attainment, self-reported previous diagnosis of depression or other mental health diagnosis, previous attendance of a talking therapy and, if so, type of therapy.

**Expected Engagement Measure (Appendix H).** An item pool was formed from items on the two therapist competency scales used in cognitive and humanistic therapies, plus the general therapy facilitative conditions scale (FCS).

***Cognitive Therapy Scale-Revised (CTS-R; Blackburn et al., 2001).*** The CTS-R is a 12-item therapist competency measure used for cognitive behavioural therapists, with a 7-point Likert rating scale. It has high internal reliability, with a Cronbach’s α of .95 on average across four raters. It also has good discriminant validity, showing a significant increase in CTS-R scores to reflect improvement in adherence in trainees from first to second session, *t* (10) = 2.68, *p* < .02.

***Person Centred and Experiential Psychotherapy Scale (PCEPS; Freire, Elliott, & Westwell, 2014).*** The PCEPS is a widely used 10-item therapist competency questionnaire used as a supervision tool for person-centred therapists. The key criteria are outlined which the therapist must fulfil in order to deliver adequate person-centred experiential therapy and are each rated on a 7-point Likert scale. The scale has moderate mean interrater reliabilities for individual items with a Cronbach’s α of .68 - .86 (*α =* .78 on average across the original 15 items) and very high internal consistency, *α =* .98. It also has good sampling adequacy, *α =* .96, as measured by the Kaiser-Meyer-Olkin test, showing the items to be appropriate for factor analysis.

***Sheffield Psychotherapy Rating Scale (SPRS; Shapiro & Startup, 1990).*** The SPRS is a tool used by observers to rate therapist adherence to the psychodynamic-interpersonal (19 items) and cognitive-behavioural models (32 items) as well as eight pan-theoretical psychotherapy items to develop and maintain a beneficial therapeutic relationship (8 items). Again, the items are rated on a 7-point Likert scale. The eight pan-theoretical items that are used in the current study originate from the Collaborative Study Psychotherapy Rating Scale (CSPRS; Evans, Piasecki, Kriss, & Hollon, 1984) and have an internal consistency of *α =* .83 (Startup & Shapiro, 1993).

In their original form the measures were designed for supervisor ratings of the therapist’s competency in providing therapy-specific techniques or skills. Therefore, the items were reworded to describe techniques or skills which would be delivered in therapy. The items were presented in random order and not grouped by therapeutic approach in order to avoid bias when rating due to previous experience or existing knowledge about the approaches.

Participants were provided with the following scenario description:

*Imagine you have recently been to see your GP because of low mood and disinterest in usual activities and they have diagnosed you with depression. To help you, they have suggested you attend a talking therapy with a therapist. If you have previously, or are currently, experiencing depression, you may also use your own personal experiences to answer the questions.*

*If you were to enter into a talking therapy, to what extent would you rate each of these as*

***Likely to engage/ involve you*** *– how likely would this be to make you work towards change both IN and OUTSIDE OF therapy? (0=not at all likely, 6=extremely likely)*

A 7-point Likert rating scale was provided for each item to be rated for expected engagement from 0 (not at all likely to engage) to 6 (extremely likely to engage). A description of expected engagement was provided based on Holdsworth et al.’s (2014) definition of engagement as *“* all the efforts clients make during the course of treatment (both within and between sessions) toward the achievement of changes (treatment outcomes).”

**Client Involvement Scale (CIS; Morris & Fitzpatrick, 2014)*.***The CIS is an observer-rated measure of client involvement with therapy, derived from a Delphi poll conducted with clinicians and researchers (Morris & Fitzpatrick, 2014; Morris, Fitzpatrick, & Renaud, 2014). The 18 most important items identified through the Delphi poll comprise the CIS and in this study have been rephrased, with the author’s permission, for an experimental rather than clinical observation context. The items include client behaviours such as accepting responsibility or showing a better understanding of an issue. The 18 items each have a 7-point Likert scale for participants to rate the extent that they would be likely to engage with therapy. The Delphi poll experts were from a range of theoretical orientations, including humanistic/ experiential, cognitive-behavioural, systems-oriented, psychoanalytic and emotion-focussed, which increased the validity of the measure. The internal consistency of the CIS is *α* = .5 across 16 items for which data was available (Morris, 2014). There was a significant positive relationship between CIS total involvement and the Experiencing Scale-Patient as a measure of experiential involvement, *r* (80) = .224, *p* < .05 (Klein, Mathieu, Kiesler, & Gendlin, 1969). More information on the measure is available from Eric Morris (eric.morris@mail.mcgill.ca).

**Credibility/ Expectancy Questionnaire (CEQ; Devilly & Borkovec, 2000).** The Credibility/ Expectancy Questionnaire (CEQ) was used as a measure of credibility and expectancy for a cognitive and a humanistic approach. The CEQ comprises six questions, three about credibility and three about expectancy, each to be rated on a 1 to 9-point Likert scale or from 0 to 100%. Principal component analysis has revealed the six CEQ questions to form two distinct factors (labelled ‘credibility’ and ‘expectancy’), which accounted for 82.46% of the total variance. A test of reliability using Cronbach's α on the credibility factor gave an internal consistency scores of α=.86 and the expectancy factor had an α of .90.

**Patient Health Questionnaire (PHQ-9; Kroenke & Spitzer, 2002.)** The Patient Health Questionnaire (PHQ-9) was administered to assess depressive symptoms. The PHQ-9 consists of nine items each with a 4-point Likert rating scale for participants to rate from 0 (not at all) to 3 (nearly every day) how characteristic of them a certain problem has been over the last two weeks. There is also a tenth question to assess the extent to which these problems have impacted the participant’s everyday functioning. The clinical cut-off scores are 0-4 (none), 5-9 (mild symptoms), 10-14 (moderate symptoms), 15-19 (moderately severe symptoms), 20-27 (severe symptoms). The PHQ-9 has good reliability, with a Cronbach’s α of 0.89 in the PHQ Primary Care Study (Spitzer, Kroenke, Williams, & Patient Health Questionnaire Primary Care Study Group, 1999). Sensitivity and specificity for testing for major depression are 95% and 84% respectively (Löwe, Kroenke, Herzog, & Gräfe., 2004). Test-retest reliability is also good, with a correlation of *r* = .84. Criterion validity showed the positive likelihood ratios of PHQ-9 scores for major depression to increase incrementally. Good discriminant validity was demonstrated by a strong negative correlation between increasing PHQ-9 scores and all six decreasing SF-20 scores from the Medical Outcomes Study Short-Form General Health Survey (Stewart, Hays, & Ware, 1988), with the strongest correlation between PHQ-9 scores and mental health (*r* = .73).

**3.3.5 Procedure**

Participants provided informed written consent to take part in the study and the study was given ethical approval by the Department of Psychology Research Ethics Committee at the University of Sheffield in April 2015 (see Appendix I). All measures were administered in an online format using Qualtrics survey design software (Copyright © 2017 Qualtrics).Participants were asked to complete all measures except the CEQ credibility and expectancy scales, one of which was randomly allocated to half of the sample using the Qualtrics random order function to reduce the participant burden (CEQ-credibility; *N* = 113; CEQ-expectancy, *N* = 88). All measures were administered in random order for each participant, as determined by the Qualtrics random order function. The study took approximately 20 minutes to complete.

**3.3.6 Analyses**

Analyses were conducted using IBM SPSS version 23 statistical analysis software (IBM Corp, 2015). Pairwise deletion and mean imputation were employed for missing data which did not exceed half of the total amount. For larger amounts of missing data, Little’s Missing Completely At Random (MCAR) test was run on the expected engagement data to determine the missing data’s suitability for multiple imputation (MI) of five alternative datasets. SPSS does not allow pooling of MI datasets when performing PCA, reliability analysis and analyses of variance so visual inspection was undertaken to confirm that none of the five datasets produced different findings to the original. As no differences were found, when pooling was not possible, the original dataset was used. The pooled datasets were used for correlational validity analyses. Means presented are for the original data.

Shapiro-Wilk tests of normality, Levene’s test of homogeneity of variance and outlier analysis were conducted to check the distribution of the data and variance. Non-parametric adaptations were applied for future tests on data which was not normally distributed. Kruskal-Wallis and Mann-Whitney U tests were conducted to determine if demographic variables affected the expected engagement scores and if expected engagement differed by therapeutic approach.

The psychometric properties of the cognitive, humanistic and FCS items were established prior to reduction of the items to ensure that the items were appropriate. Concurrent and discriminant validity were assessed. Concurrent validity is an assessment of the degree to which a measure corresponds with a similar validated measure. In the current study, the expected engagement measure was expected to significantly correlate with the Client Involvement Scale due to the overlap in concepts of engagement and expected engagement (CIS; Morris & Fitzpatrick, 2014). Concurrent validity was also assessed using the credibility and expectancy scales of the Credibility/ Expectancy Questionnaire, with an expected association due to the scales representing other forms of expectations (CEQ, Devilly & Borkovec, 2000). It was expected that the credibility and expectancy items for problem focused therapies would significantly correlate with the cognitive scale of the expected engagement measure and the credibility and expectancy items for emotion-focused therapies would significantly correlate with the humanistic scale of the expected engagement measure. Spearman’s correlations were conducted on the CIS and CEQ.

Discriminant validity was tested using depressive symptoms on the Patient Health Questionnaire (PHQ-9; Kroenke & Spitzer, 2002). There should be no relationship between PHQ-9 score and expected engagement if the final measure is to be appropriate for use with a clinically depressed sample. Kruskal-Wallis tests were used on PHQ-9 data. Finally, an assessment of internal consistency was conducted to determine internal consistency of the scales at acceptable *α* levels. It was not possible to assess test-retest reliability due to the method of recruitment via an online survey across a number of online platforms. This was a successful method to recruit a large number of participants but it would have broken participant anonymity to collect and store participants’ personal contact details for future studies in the same location as their data. As the study was advertised to colleagues known to the researcher, this was decided against in order to maintain participant anonymity.

Kaiser-Meyer-Olkin (KMO) Measures of Sampling Adequacy and Bartlett’s tests of sphericity were conducted on each of the cognitive, humanistic and FCS item pools to determine their suitability for Principal Component Analysis (PCA). PCA with a direct oblimin rotation was conducted on each of the sets of items to determine items most representative of a cognitive, humanistic and FCS approach, respectively. The aim of the measure development study was to create a measure comprising three separate subscales. Expected engagement was the construct that tied the three subscales together, however, expected engagement with each approach would pragmatically manifest itself very differently so the subscales were treated as independent. Therefore, PCA was conducted separately for cognitive, humanistic and FCS items. This method also meant that items from each therapeutic approach were reduced to a manageable number. Items loading above .7 onto the primary factor with an Eigenvalue above 1 were included in further analysis. The face validity of the items from the PCAs was assessed by a group of expert clinical researchers to reduce the items to the most relevant.

Validity and reliability tests, as well as tests on the effects of demographic factors, were conducted on the final shortened measure. The same analyses were conducted as with the 30-item expected engagement measure. A final assessment was conducted to assess the readability and appropriateness of language on the measure.

**3.4 Results**

**3.4.1 Missing Data**

Out of the 166 participants who provided some data on the expected engagement measure, 0.005% of data (139 responses) was missing which was due to one or two missing responses for several participants. Therefore, statistical methods to overcome the problem of missing data were employed. Little’s MCAR test showed the data to be missing completely at random (MCAR), χ *2* (978) = 966.28, *p* = .599.

There was 3.6% (six responses) of data missing on the CIS**,** 1.1% (three responses) on CEQ credibility, 4.2% (nine responses) on CEQ expectancy, and 4.8% (80 responses) on the PHQ-9. As the majority of responses were due to individual participants who provided no data on each measure, pairwise deletion was employed for these participants. For those participants (N = 2) with one missing response on the CIS, mean imputation was employed.

**3.4.2 Data Distribution**

Shapiro-Wilk tests of normality were carried out to determine the distribution of the data. As predicted, the expected engagement scores for cognitive items, *W* (166) = .93, *p* < .001, humanistic items, *W* (166) = .92, *p* < .001, and facilitative conditions items (FCS), *W* (166) = .93, *p* < .001, were not normally distributed due to a negative skew. There were two extreme outliers on item eight, two on item 24 and three on item 25, all from the same three participants.

In addition, CEQ credibility of emotion-focussed, *W* (93) =.94, *p* = .001, and problem-focussed therapies, *W* (93) = .95, *p* = .001, and PHQ-9 scores, *W* (161) = .89, *p* < .001, were not normally distributed (see Appendix J). CEQ responses were negatively skewed towards participants rating both approaches as highly credible. The opposite was true for PHQ-9, as data was positively skewed towards participants scoring at a low level of depressive symptoms.

**3.4.3 Descriptive Statistics**

**Expected Engagement Measure.**

The mean total scores and standard deviations for expected engagement with cognitive, humanistic and FCS items are displayed in Table 3.1.All mean scores are out of a total of 60 (max. score of six per item, adapted to 10 items for cognitive, humanistic and FCS each). The next set of analyses was conducted to determine if expected engagement scores differed for the different therapy approaches. A Kruskal-Wallis test indicted there was no significant difference in expected engagement between the cognitive, humanistic and FCS scales, χ *2*(2) = .30, *p* = .859.

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| --- | --- | --- | --- | --- | --- | --- |
| Table 3.1  *Study 1: Means (M) and standard deviations (SD) for expected engagement with cognitive, humanistic and facilitative conditions scale items (N = 166)* | | | | | | |
|  | Cognitive | | Humanistic | | FCS | |
|  | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Expected Engagement | 42.04 | 10.99 | 41.77 | 10.98 | 41.36 | 11.46 |

Non-parametric Kruskal-Wallis and Mann-Whitney U tests were conducted to detect any differences in expected engagement that could be attributed to differences in demographic factors. Levene’s test of homogeneity of variance confirmed that the selected methods of analysis were appropriate because all levels of the demographic variables did not have significantly different distributions of variance, all *ps* > .05. As can be seen in Table 3.2, no relationships were significant at *p* < .05, or below the Bonferroni-adjusted α of .05/3 = .017 for Mann-Whitney U tests.

Table 3.2

*Study 1: Effects of demographics on expected engagement with cognitive, humanistic and facilitative conditions scale items*

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Cognitive | | | | Humanistic | | | | FCS | | | |
|  | χ *2* | *df* |  | *p* | χ *2* | *df* |  | *p* | χ *2* | *df* |  | *p* |
| Age (N = 166) | 2.51 | 4 |  | .643 | 3.63 | 4 |  | .458 | 1.31 | 4 |  | .860 |
| Gender (N = 166) | .19 | 2 |  | .908 | .09 | 2 |  | .957 | .34 | 2 |  | .842 |
| Ethnicity(N =166) | .86 | 2 |  | .652 | .83 | 2 |  | .662 | .01 | 2 |  | .900 |
| Occupation (N = 166) | 3.79 | 3 |  | .285 | 1.15 | 3 |  | .764 | 1.89 | 3 |  | .595 |
| Education (N = 163) | 6.59 | 7 |  | .472 | 7.98 | 7 |  | .334 | 5.78 | 7 |  | .566 |
| Type of previous diagnosis (N = 34) | 8.15 | 9 |  | .519 | 5.43 | 9 |  | .796 | 7.22 | 9 |  | .614 |
| Type of therapy (N = 58) | 6.33 | 9 |  | .707 | 5.0 | 9 |  | .834 | 8.43 | 9 |  | .491 |

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| Table 3.2 Cont. | | | | |  | | | |  | | |
| *Study 1: Effects of demographics on expected engagement with cognitive, humanistic and facilitative conditions scale items* | | | | | | | | | | | |
|  | Cognitive | | | | Humanistic | | | | FCS | | |
|  | *U* | *Z* | *p* | *U* | | *Z* | *p* | *U* | | *Z* | *P* | |
| Depression diagnosis  (N = 166) | 2879.0 | -1.01 | .311 | 2883.0 | | -1.0 | .318 | 2596.5 | | -1.96 | .05 | |
| Other diagnosis  (N = 166) | 2301.5 | -.98 | .328 | 2371.5 | | -.72 | .474 | 2405.5 | | -.59 | .556 | |
| Therapy attendance (N = 166) | 3273.5 | -.5 | .620 | 2928.0 | | -1.62 | .106 | 3337.0 | | -.29 | .772 | |

**Client Involvement Scale (CIS; Morris & Fitzpatrick, 2014)***.* The mean score for the CIS was 73.5 (*SD* = 13.95), out of a total of 108.

**Credibility/ Expectancy Questionnaire (CEQ; Devilly & Borkovec, 2000).**The mean credibility and expectancy scores, each for emotion and problem-focussed therapies, are displayed in Table 3.3. Each score is out of a total of 18 in the adapted version used in the Pragmatic, Randomised Controlled Trial assessing the non-Inferiority of Counselling and its Effectiveness for Depression (PRaCTICED; Saxon et al., 2017). As can be seen, scores were relatively similar for problem and emotion-focussed therapies.

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| --- | --- | --- |
| Table 3.3  *Study 1: Means (M) and standard deviations (SD) for credibility and expectancy of emotion and problem-focussed therapies* | | |
| CEQ | Emotion-focussed  *M (SD)* | Problem-focussed  *M (SD)* |
| Credibility (N = 93) | 12.87 (3.32) | 12.43 (3.46) |
| Expectancy (N = 69) | 10.20 (3.30) | 10.03 (2.93) |

**PHQ-9 (Kroenke & Spitzer, 2002).**The categories of depression severity according to PHQ-9 scores are displayed in Table 3.4. The per cent of participants in each category was similar to previous research with a non-clinical sample (Subotić et al., 2015). However, there were considerably more participants scoring at a severe level in the present sample.

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| --- | --- |
| Table 3.4  *Study 1: Patient Health Questionnaire (PHQ-9) scores* | |
| PHQ-9 severity band | (%)  *N* = 166 |
| None (0-4) | 37.9 |
| Mild (5-9) | 31.7 |
| Moderate (10-14) | 13.0 |
| Moderately severe (15-19) | 8.1 |
| Severe (20-27) | 9.3 |

**3.4.4 Validity of the Expected Engagement Measure**

**Concurrent Validity.** Some evidence for the concurrent validity of the expected engagement subscales was found. Spearman’s correlations with a Bonferroni adjustment (adjusted α of .017) showed scores on the CIS expected engagement measure to correlate significantly at a moderate level with expected engagement with cognitive, *r* (160) =.39, *p* < .001, humanistic, *r* (160) =.41, *p* < .001, and FCS items, *r* (160) = .37, *p* < .001, providing evidence for the concurrent validity of the subscales.

The credibility scale of the CEQ was significantly correlated with cognitive, humanistic and FCS subscales of the expected engagement measure (Bonferroni-adjusted α of .017). The correlations were in the expected direction for credibility of problem-focused therapies, which was more highly correlated with expected engagement with the cognitive subscale, *r* (93) = .49, *p* < .001, than the humanistic subscale, *r* (93) = .35, *p* = .001, and the FCS subscale, *r* (93) = .34, *p* = .001. However, the CEQ credibility of emotion-focussed therapies correlated significantly with all subscales to a similar extent, for the cognitive, *r* (93) = .33, *p* = .001, humanistic, *r* (93) = .35, *p* = .001, and FCS subscales, *r* (93) = .33, *p* = .001.

As expected, the CEQ expectancy scale of problem-focussed therapies was significantly correlated with the expected engagement cognitive subscale only, *r* (69) = .39, *p* = .001. Surprisingly, the CEQ expectancy scale of emotion-focussed therapies did not correlate significantly with the humanistic expected engagement subscale, or any other expected engagement subscale, *p* > .017*.*

**Discriminant Validity.** The PHQ-9 categories of depression severity did not determine any significant differences in expected engagement with the cognitive, χ *2* (4) = 3.57, *p* = .47, humanistic, χ *2* (4) = 3. 86, *p* = .43, or FCS subscales, χ *2* (4) = 2.12, *p* = .714.

**3.4.5 Reliability of the Expected Engagement Measure**

The internal consistency of the 12 cognitive, 10 humanistic and eight FCS items was assessed as three separate subscales and found to be very good. The cognitive subscale had a Cronbach’s *α* of .89, humanistic *α* = .89, and FCS *α* = .87.

**3.4.6 Item Reduction of the Expected Engagement Measure**

A Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy showed each of the cognitive, humanistic and FCS subscales to have appropriate correlation patterns >.5, cognitive: *α* = .91, humanistic: *α* = .89, FCS: *α* = .87. Bartlett’s test of sphericity confirmed that the null hypothesis was unlikely and that there was utility in pursuing PCA: cognitive: χ *2* (66) = 730.62, *p* < .001, humanistic:χ *2* (45) = 614.97, *p* < .001, FCS: χ *2* (28) = 569. 80, *p* < .001.

PCA was performed on each of the expected engagement subscales for cognitive, humanistic and FCS items separately. The item loadings were rotated in order to simplify interpretation with a direct oblimin rotation on the PCA, appropriate for when several items are correlated (Tabachnick & Fidell, 2007). Primary factors with Eigenvalues >1 were considered true factors and items with loadings >.7 were categorised as loading onto the factor. Any factors with less than a .15 difference between loadings onto two or more factors were excluded.

The cognitive subscale formed two factors, the first of which had an Eigenvalue of 5.71 and accounted for 47.54% of the variance and the second an Eigenvalue of 1.12 and accounted for 9.35% of the variance. Factor One consisted of four items that loaded >.7 and two loaded onto Factor Two. The PCA for the humanistic subscale formed one factor with an Eigenvalue of 5.07, which accounted for 50.65% of the variance and comprised six items with loading of >.7. The FCS subscale formed two factors, the first with an Eigenvalue of 4.34, which accounted for 54.3% of the variance and contained five items above .7, and the second which had an Eigenvalue of 1.02, accounting for 12.68% of the variance and consisting of one item above .7. The three PCAs resulted in a total of 15 items which loaded > .7, comprising cognitive items 8, 23, 25, 29, humanistic items 6, 9, 11, 26, 27, 30 and FCS items 13, 14, 15, 22, 28 (see Table 3.5 for all item loadings; correlation matrices are presented in Appendix K).

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| --- | --- | --- | --- |
| Table 3.5  *Study 1: Item loadings from principal component analyses on expected engagement with cognitive, humanistic and facilitative conditions items, respectively* | | | |
| Scale | Item | Factor 1 | Factor 2 |
| Cognitive | 1. The therapist pacing the session to guide you smoothly through the agenda | -.04 | **.86** |
| 3. Setting an agenda for the course of therapy | .10 | **.75** |
| 5. The therapist helping you to deal with your emotions to work towards change | .46 | .38 |
| 7. The therapist keeping you on track to stay with your agenda | .45 | .27 |
| 8. The therapist providing techniques to challenge your thinking patterns and behaviours | **.83** | -.11 |
| 12. The therapist giving feedback on your thoughts/feelings | .48 | .31 |
| 16. Completing homework outside of therapy to try out new ideas and experiences | .55 | .09 |
| 18. Identifying and understanding key thoughts in the maintenance of your depression | .66 | .16 |
| 23. Understanding the role of perceptions, beliefs and attitudes in the maintenance of your depression | **.92** | -.26 |
| 24. You feeling at ease with the therapist | .64 | .13 |
| 25. Developing new ideas and perspectives to help to create solutions | **.85** | .01 |
| 29. Identifying and understanding behaviours in the maintenance of your depression | **.83** | -.03 |

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| --- | --- | --- | --- |
| Table 3.5 Cont.  *Study 1: Item loadings from principal component analyses on expected engagement with cognitive, humanistic and facilitative conditions items, respectively* | | | |
| Scale | Item | Factor 1 | Factor 2 |
| Humanistic | 2. The therapist unconditionally accepting you | .70 |  |
| 4. Feeling like the therapist is not in a position of authority over you | .68 |  |
| 6. The therapist supporting you when you experience negative or overwhelming experiences | **.83** |  |
| 9. The therapist encouraging exploration of underlying feelings to foster understanding and make personal sense of them | **.78** |  |
| 11. The therapist supporting you emotionally | **.81** |  |
| 20. The therapist encouraging you to distinguish specific and personal experiences/ memories from generalities and focusing on these | .57 |  |
| 21. The therapist following your lead for the direction of what is discussed | .56 |  |
| 26. The therapist using clear and concise language | **.71** |  |
| 27. The therapist reflecting back the core meaning of your thoughts/ feelings | **.72** |  |
| 30. The therapist being able to understand the world through your eyes | **.72** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Table 3.5 Cont.  *Study 1: Item loadings from principal component analyses on expected engagement with cognitive, humanistic and facilitative conditions items, respectively* | | | |
| Scale | Item | Factor 1 | Factor 2 |
| FCS | 10. The therapist having an interesting style of communication i.e. vividness of language, originality of ideas, liveliness of manner of speaking | .55 | .29 |
| 13. The therapist being empathic towards you | **.84** | .04 |
| 14. The therapist providing supportive encouragement through recognising previous gains or reassuring that gains will occur | .**88** | -.30 |
| 15. The therapist being involved in the therapy | **.75** | .15 |
| 17. Having rapport between the therapist and yourself | .54 | .45 |
| 19. The therapist being appropriately formal with you | -.02 | **.90** |
| 22. The therapist conveying understanding of your problems and that they can help | .**80** | -.01 |
| 28. The therapist conveying warmth | **.87** | -.04 |

*Note.* Loadings from unrotated PCAs from component matrices and rotated PCAs derived from pattern matrices. Loadings > .7 in bold.

**3.4.7 Face Validity of the Expected Engagement Measure**

The face validity of the items resulting from the PCAs was assessed to overcome the issue of item redundancy and to ensure that the resulting measure equally represented each therapeutic approach. The items presented in Table 3.6 were reviewed by a group of expert clinical researchers based on a) an adequate representation of the core methods and goals of the intended type of therapy, b) ability to rate the item in relation to the concept of expected engagement.

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| --- | --- | --- |
| Table 3.6  *Study 1: Items under consideration for face validity* | | |
| Cognitive | Humanistic | FCS |
| 8. The therapist providing techniques to challenge your thinking patterns and behaviours | 6. The therapist supporting you when you experience negative or overwhelming experiences | 13. The therapist being empathic towards you |
| 23. Understanding the role of perceptions, beliefs and attitudes in the maintenance of your depression | 9. The therapist encouraging exploration of underlying feelings to foster understanding and make personal sense of them | 14. The therapist providing supportive encouragement through recognising previous gains or reassuring that gains will occur |
| 25. Developing new ideas and perspectives to help to create solutions | 11. The therapist supporting you emotionally | 15. The therapist being involved in the therapy |
| 29. Identifying and understanding behaviours in the maintenance of your depression | 26. The therapist using clear and concise language | 22. The therapist conveying understanding of your problems and that they can help |
|  | 27. The therapist reflecting back the core meaning of your thoughts/ feelings | 28. The therapist conveying warmth |
|  | 30. The therapist being able to understand the world through your eyes |  |

The expert group judged that cognitive item 8 (*The therapist providing techniques to challenge your thinking patterns and behaviours)* was already represented by items 23, 25 and 29 which more specifically describe understanding the role of cognitions and behaviours in depression and creating solutions to change these. However, it was thought that the scale would benefit from the addition of item 16 (*Completing homework outside of therapy to try out new ideas and experiences*), as a unique aspect of cognitive therapy that has been linked to the success of the approach (Kazantzis, Deane, & Ronan, 2000). Furthermore, completing homework encompasses engagement outside of the therapy session, as defined by the engagement description used in the expected engagement measure, to work towards change both in and outside of therapy. Hence, item 8 was replaced with item 16. Overall, these items (16, 23, 25, 29) capture four key elements of cognitive therapies: client participation through homework, education about the cognitive and behavioural basis of depression and a solution-focussed approach.

Humanistic item 30 (*The therapist being able to understand the world through your eyes*) was deemed not uniquely representative of a humanistic approach, as it was similar in concept to FCS item 22 (*The therapist conveying understanding of your problems and that they can help*). Humanistic items 6, 11 and 30 all correlated at a moderate level with item 22, although items 6 (*The therapist supporting you when you experience negative or overwhelming experiences*) and 11 (*The therapist supporting you emotionally*) appeared to describe aspects more specific to a humanistic approach. Hence, item 30 was removed to ensure that clearly distinguishable therapeutic approaches were represented. The next two highest loading humanistic items 9 (*The therapist encouraging exploration of underlying feelings to foster understanding and make personal sense of them*) and 27 (*The therapist reflecting back the core meaning of your thoughts/ feelings*), which represented other distinct humanistic aspects, were included to provide four humanistic items. The remaining items provided a comprehensive description of the core components of humanistic therapies.

FCS item 14 (*The therapist providing supportive encouragement through recognising previous gains or reassuring that gains will occur*) was deleted due to high relevance to a cognitive approach in which the agenda and goal-setting is reviewed in order to recognise achievements.

The resulting measure, named the Sheffield Expected Engagement with Therapy Scale (ShEETS), comprised a total of 12 items, four items from each of the three subscales. These subscales were entitled the ShEETS-cog, ShEETS-hum and ShEETS-FCS. All subscales had good internal consistency: ShEETS-cog (*α* = .79), ShEETS-hum (*α* = .83) and ShEETS-FCS (*α* = .86). These scores were not dissimilar to internal consistency prior to changes made for face validity.

**3.4.8 Distribution of data on the Sheffield Expected Engagement with Therapy Scale**

Shapiro-Wilk tests of normality showed each subscale of the ShEETS not to be normally distributed at a significant level, ShEETS-cog: *W* (166) = .93, *p* < .001, ShEETS-hum: *W* (166) = .91, *p* < .001, ShEETS-FCS: *W* (166) = .92, *p* < .001.

**3.4.9 Descriptives of the Sheffield Engagement with Therapy Scale**

The mean expected engagement scores for each of the ShEETS subscales were as follows: ShEETS-cog: *M* = 16.64, *SD* = 4.92, ShEETS-hum: *M* = 17.28, *SD* = 4.96, ShEETS-FCS: *M* = 17.28, *SD* = 5.09. As can be seen when compared to the 30 item expected engagement measure, cognitive items were no longer rated as more expected to engage than a humanistic and FCS approach but less so. However, a Kruskal-Wallis test revealed no significant difference between expected engagement scores on the ShEETS-cog, hum and FCS subscales, χ *2* (2) = 2.43, *p* = .297.

**3.4.10 Validity of the Sheffield Engagement with Therapy Scale**

**Concurrent Validity.** The ShEETS was validated against the CIS measure of expected engagement. Non-parametric Spearman’s correlations revealed CIS expected engagement to significantly correlate at the Bonferroni-adjusted *α* of .017 with ShEETS-cog, *r* (160) = .36, *p* < .001, ShEETS-hum, *r* (160) = .38, *p* < .001 and ShEETS-FCS, *r* (160) = .35, *p* < .001. There were no correlations with the CIS prior to adjustments to items for face validity, *p*s > .017.

Spearman’s correlations revealed significant relationships between CEQ credibility of emotion-focussed therapies at the adjusted *α* of .01 with all expected engagement subscales: ShEETS-cog, *r* (93)= .29, *p* = .005, ShEETS-hum, *r* (93) = .38, *p* < .001, and ShEETS-FCS, *r* (93) = .28, *p* = .006. CEQ credibility of problem-focussed therapies also correlated significantly with all expected engagement subscales: ShEETS-cog, *r* (93) =.44, *p* < .001, ShEETS-hum, *r* (93) =.36, *p* < .001, and ShEETS-FCS, *r* (93) =.32, *p* = .002. As predicted, credibility of an emotion-focussed approach correlated more so with ShEETS-hum than ShEETS-cog and vice versa for credibility of a problem-focussed approach. Similarly, CEQ problem-focussed expectancy correlated significantly only with ShEETS-cog, *r* (69) = .39, *p* = .001. All other correlations were not significant, including those for items prior to changes made for face validity, *p*s> .01.

**Discriminant Validity.** Non-parametric Kruskal-Wallis tests were conducted on expected engagement scores on ShEETS-cog, ShEETS-hum and ShEETS-FCS according to PHQ-9 diagnosis. Ratings did not differ according to PHQ-9 diagnosis for ShEETS-cog,χ *2* (4) *=* 1.98, *p* = .739, ShEETS-hum,χ *2* (4) = 2.90*, p = .*573, or ShEETS-FCS, χ *2* (4) = 3.23, *p =* .521. The cognitive expected engagement items selected prior to adjustments made for face validity differed significantly according to PHQ-9 diagnosis, χ *2* (4) = 11.93, *p* = .018. Participants with mild depressive symptoms (*Mdn* = 21.0*, IQR* = 17.0 – 23.0) gave significantly higher ShEETS-cog expected engagement score than participants with no symptoms (*Mdn* = 18.0*, IQR* = 16.0 – 21.0), *U* = 1050.5, *Z* = -2.97, *p* = .003. There were no other significant differences after a Bonferroni correction, *p*s> .005.

**3.4.11 Generalisability of the Sheffield Expected Engagement with Therapy Scale**

Non-parametric Kruskal-Wallis and Mann-Whitney U tests with Bonferroni correction were conducted on ShEETS-cog, ShEETS-hum and ShEETS-FCS total expected engagement scores to explore whether demographic factors affected ratings. As with the 30-item version of the expected engagement measure, Levene’s test of homogeneity of variance revealed all levels of all demographic variables not to be significantly differently distributed, *p* > .05. No demographic factors affected expected engagement scores for any of the therapeutic approaches (*p*s> .017).

**3.4.12 Readability of the Sheffield Expected Engagement with Therapy Scale**

The Flesch-Kincaid grade of the ShEETS was assessed and showed a required reading grade of 11.2, which means that an eleventh grader (a Year 12 student in the UK) would be able to read and comprehend the measure. It is recommended that the reading Grade be between 7 and 8 to be suitable for all abilities. Therefore, attempts were made to simplify the language used in the expected engagement measure, which resulted in a reduced reading grade of 8.5. The final version is presented in Appendix L.

**3.5 Discussion**

The newly developed Sheffield Expected Engagement with Therapy Scale (ShEETS) adds a new operationalised facet of expectation to the literature, namely expected engagement. The new measure has been shown to correlate significantly with measures of client involvement, credibility and expectancy. Furthermore, the ShEETS identifies distinct therapeutic processes specific to different approaches captured by three subscales: ShEETS-cog, ShEETS-hum and ShEETS-FCS, each of which is highly internally consistent.

Maltzman (2001) proposed that the specific components provided by different therapies may increase the success of therapy when matched to some clients (Beutler, Consoli, & Lane, 2005). However, as explored in Chapter 2, the question of which client factors match which therapies has remained largely unanswered. The most recent review of client factors encouraged further research into perceptions of therapy such as expectations, as a promising future direction for client factor research (Bohart & Wade, 2013). Other aspects of expectations, such as expected alliance, have also received support as predictors of therapy outcome (Barber et al., 2014). Hence, the ShEETS hopes to further this vein of research to utilise client expectations of what will engage them in therapy to understand which therapeutic approach may provide optimal outcome.

As expected, the mean scores for expected engagement with a cognitive, humanistic and FCS approach did not differ significantly from each other when looked at for the complete sample. Similarly, such therapies have also been shown to have equal outcomes when analysed as a complete sample (Elliott, Greenberg, Watson, Timulak, & Freire, 2013; Stiles, Barkham, Mellor-Clark, & Connell, 2008). However, the later chapters in this thesis will utilise the ShEETS to investigate expected engagement as a prescriptive predictor that may produce differences in outcome when paired with different therapies.

**3.5.1 Limitations**

A methodological limitation of the research is that the PCA-reduced items did not include homework as an aspect of a cognitive approach. Homework is unique to a cognitive approach and has been shown to play a role in cognitive therapy’s success (Kazantzis et al., 2000). It is likely that, as an aspect of therapy commonly neglected by the client, lower ratings were assigned to this item than the other items, which differentiated it from the cognitive factor. The item was retained in the measure based on face validity assessment, however the method of PCA did not detect its importance.

The items that represent the two therapeutic approaches and common items are designed to be assessed for validity and reliability within their own scales. However, an overall assessment of reliability across the scales produced a very high level of internal consistency, which indicates that some items may be redundant when the three scales are combined. This is to be expected because cognitive and humanistic therapeutic approaches share common factors such as the FCS items, so typically there will be some overlap. This item redundancy could be a limitation if the measure was to be used as an overall assessment of expected engagement, rather than expected engagement with different therapeutic approaches.

A further limitation is that the measure only incorporates two therapeutic approaches, which could limit the utility of the ShEETS to wider approaches such as interpersonal therapies which are also common. As more research is conducted into how the ShEETS can be clinically applied, there may be a need for further research into whether its effects are specific to cognitive and humanistic approaches.

**3.5.2 Implications and Future Research**

The ShEETS is designed to provide client choice to complement services that are moving more towards a personalised medicine approach (Cohen & DeRubeis, 2018). Despite being a welcome movement, it is important that treatment allocation is based on evidence for what will produce the most effective outcomes for clients. As discussed in Chapter 2, several factors such as gender have consistently failed to predict better therapy outcome (Harkness et al., 2012; Zlotnick et al., 1998). Therefore, it is imperative that those client factors that are promising predictors of effective treatment, such as client expectations, are utilised for personalised treatment.

Future research to further validate the ShEETS as a measure of expected engagement is also required, particularly the predictive validity of the measure. As a newly operationalised measure of expected engagement, the ShEETS, is yet to be tested as a clinical tool of expected engagement to match clients to therapy. Evidence for the predictive effect of specific facets of expectations, such as expected engagement, on therapy outcome is limited, partly as a consequence of a lack of pre-therapy measures (Delsignore & Schnyder, 2007). Hence, it will be the aim of the research in Chapters 5 and 6 to determine the predictive utility of expected engagement with therapy.

**4. Chapter 4: Studies 2 & 3- Confirmation of the Psychometric Properties of the Sheffield Expected Engagement with Therapy Scale**

**4.1 Chapter Overview**

The aim of this chapter is to continue the development of the measure of expected engagement devised in Chapter 3, named the Sheffield Expected Engagement with Therapy Scale (ShEETS). The measure requires further confirmation of its factor structure with independent samples, which the present studies will conduct with a non-clinical sample in Study 2, then with a clinical sample in Study 3.

**4.2 Introduction**

The expectation of engagement with the therapeutic process is a new area of research, for which no methods of assessment currently exist. A reliable and valid assessment tool could provide access to previously untapped information about the client’s expectations of the interaction between their role in therapy and the methods and techniques provided. The ShEETS is designed for use with a clinical sample seeking therapy, therefore it is necessary to understand if a clinical sample would rate the ShEETS similarly to a non-clinical sample to create a similar factor structure. Previous research has suggested that differences exist in expectations between clients and non-clients (Subich & Coursol, 1985). Little is known about the area of expected engagement so any potential differences in a clinical sample should first be considered before the measure is put to use as a clinical tool.

**4.2.1 Aims**

The aim of Studies 2 and 3 is to confirm the factor structure and psychometric properties of the ShEETS found in Study 1. Studies 2 and 3 consist of two stages each, firstly to confirm the factor structure produced in Study 1 with an independent sample, then to assess the psychometric properties of the measure. Study 2 utilises an independent non-clinical sample and Study 3 implements the measure with an independent clinical sample.

**4.3 Study 2: Confirmation of the Psychometric Properties of the Sheffield Expected Engagement with Therapy Scale with a Non-clinical Sample**

**4.3.1 Method**

**4.3.1.1 Design**

Study 2 utilised a sample separate to that of Study 1 to confirm the factor structure of the items chosen in Study 1 as most representative of cognitive, humanistic and FCS approaches. An exploratory design was adopted to identify the factor structure of the items on the questionnaire. As in Study 1, an opportunistic sampling design was employed.

**4.3.1.2 Sample Size**

One hundred and twenty participants were required for the study to have adequate power. This was at a ratio of 10:1 for participants to items (Osborne & Costello, 2004).

**4.3.1.3 Participants**

A sample of125 volunteers from the University of Sheffield volunteers’ mailing list completed the study. As described in Study 1, this mailing list consists of students and staff at the University of Sheffield as well as members of the community who offered to take part in research at the University. As in Study 1, participants did not receive any monetary incentive to participate in the study. The sample was 86% (N = 108) White Caucasian, 82% (N = 102) female and 51% (N = 64) aged 18 to 30, 41% (N = 51) aged 31-55 and 6% (N = 8) aged 56-70. Forty six per cent of participants (N = 57) were in full-time employment, 0% unemployed and 38% (N = 48) were students, with 34% (N = 43) possessing an undergraduate degree and 42% (N = 52) a university higher degree. Fifty five per cent (N = 69) stated that they had been diagnosed with depression. Forty two per cent of participants (N = 53) stated that they had been diagnosed with an alternative mental health problem and 34% (N = 18) of those specified anxiety. Seventy per cent (N = 88) had attended a talking therapy, 50% (N = 44) of whom had experienced CBT and 44% (N = 39) counselling.

**4.3.1.4 Measures**

**Sheffield Expected Engagement with Therapy Scale (ShEETS; Harrison, Hardy, & Barkham, 2017; Appendix L).** The ShEETS was devised in Study 1 as a measure of expected engagement with cognitive and humanistic therapeutic approaches. It includes three subscales comprising 12 items representing cognitive and humanistic approaches and common facilitative (FCS) items and asks participants to rate each item for how likely it is to engage them in therapy. The ShEETS was reworded to be suitable for a range of reading abilities and the Likert scale was reduced to a 5-point rather than 7-point scale for ease of use. There is literature to show that scores from a 5-point scale are comparable in terms of reliability to a 7-point scale once rescaled, with the added benefit of fewer points being easier to read out to participants (Daws, 2008; Olakunke, 2003).

**Patient Health Questionnaire (PHQ-9; Kroenke & Spitzer, 2002).** See Study 1 for details. As in Study 1, the same cut-off points were applied to determine the level of depressive symptoms present in the current sample.

**4.3.1.5 Procedure**

The study was approved by the research ethics committee in the Department of Psychology at the University of Sheffield in March 2016 (see Appendix M).As in Study 1, the study was distributed as an online link using the Qualtrics software (Copyright © 2017 Qualtrics). Participants first provided written informed consent, then completed sociodemographic details (age, gender, ethnicity, employment status, highest level of education, previous diagnosis of depression, previous diagnosis of other mental health problem, previous attendance of talking therapy). Next, participants rated the 12 items from the three ShEETS subscales on a scale of 0 (not at all) to 4 (extremely) for how engaging they expected each therapeutic component to be under the circumstances of having been to their GP with symptoms of depression. Finally, participants rated the 9 PHQ-9 items on a scale of 0 (not at all) to 3 (nearly every day) on how much they had experienced each depressive symptom over the last two weeks plus a question on how difficult these symptoms had been.

**4.3.1.6 Analyses**

Analyses were conducted using IBM SPSS version 23 statistical analysis software (IBM Corp, 2015). As in Study 1, missing data and the distribution of the data and variance were assessed. Kaiser-Meyer-Olkin (KMO) and Bartlett’s test of sphericity were conducted on the data for the PCA, then the PCA was conducted on each of ShEETS-cog, ShEETS-hum and ShEETS-FCS subscales. Kruskal-Wallis tests were conducted to detect any differences in ratings due to PHQ-9 score. Finally, Cronbach’s alpha was calculated to provide an internal consistency score for each of the subscales. As in Study 1, the method of online recruitment prohibited an assessment of test-retest reliability.

**4.3.2 Results**

**4.3.2.1 Missing data**

There was no missing data on any of the ShEETS subscales or the PHQ-9.

**4.3.2.2 Data Distribution**

Shapiro-Wilk tests of normality revealed significantly not normal distributions for ShEETS-cog, *W* (125)= .90, p < .001, ShEETS-hum, *W* (125) = .95, *p* < .002, and ShEETS-FCS subscales, *W* (125) = .94, *p* < .001. This was due to a negative skew caused by high scoring of items. There were no extreme outliers on any of the subscales.

The PHQ-9 total scores were significantly not normally distributed, *W* (125)= .95, p < .001. Hence, non-parametric correlations were conducted to determine discriminant validity. This was due to a positive skew due to low scoring of depressive symptom items. There were no extreme outliers.

**4.3.2.3 Descriptive Statistics**

**ShEETS.** The means and standard deviations for ratings of each subscale of expected engagement are shown in Table 4.1 (max. score of 16 for each subscale). A Kruskal-Wallis test revealed, as in Study 1, that there was no significant difference between expected engagement scores on the three subscales, χ *2*(2) =2.14, *p* = .344.

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| Table 4.1  *Study 2: Mean s(M) and standard deviations (SD) for expected engagement with cognitive, humanistic and facilitative conditions scale items* | | | | | | |
|  | Cognitive  (N = 125) | | Humanistic  (N = 125) | | FCS  (N = 125) | |
|  | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Expected Engagement | 12.26 | 3.14 | 12.05 | 2.72 | 11.89 | 3.02 |

**PHQ-9.** As shown in Table 4.2, there were fewer participants in Study 2 than Study 1 with no depressive symptoms and more with moderate to severe symptoms.

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| Table 4.2  *Studies 1 & 2: Patient Health Questionnaire (PHQ-9) scores* | | |
| PHQ-9 severity band | Sample 1 (%)  N = 166 | Sample 2 (%)  N = 125 |
| None (0-4) | 37.9 | 24.2 |
| Mild (5-9) | 31.7 | 32.3 |
| Moderate (10-14) | 13.0 | 22.6 |
| Moderately severe (15-19) | 8.1 | 12.9 |
| Severe (20-27) | 9.3 | 8.1 |

**4.3.2.4 Principal Component Analyses**

KMO and Bartlett’s test of sphericity were conducted on each of the subscales: ShEETS-cog, *KMO* = .77, χ *2* (6)= 234.30, *p* < .001, ShEETS-hum, *KMO* = .66, χ *2* (6)= 132.43, *p* < .001, and ShEETS-FCS, *KMO* = .78, χ *2* (6)= 142.98, *p* < .001, and found each to be appropriate for PCA. PCA was performed on the ShEETS subscales using a different sample to confirm the factor structure produced in Study 1. Three PCAs were performed separately on the ShEETS-cog, ShEETS-hum and ShEETS-FCS to confirm that items loaded onto the appropriate factor (Table 4.3). Cognitive items loaded onto one factor, with an Eigenvalue of 2.77, accounting for 69.33% of the variance. Humanistic items also formed one factor with an Eigenvalue of 2.28, accounting for 57.1% of the variance and a third PCA showed FCS items to form one factor with an Eigenvalue of 2.48, accounting for 62.02% of the variance. As expected, all items loaded onto the expected factor at >.7. The only exception was *The therapist reflecting meaning of thoughts*. However, the loading of .66 was deemed close enough to .7 to be retained in the measure. Correlation matrices are displayed in Appendix N.

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| Table 4.3  *Study 2: Item loadings from principal component analyses on expected engagement with cognitive, humanistic and facilitative conditions scale items, respectively* | | |
| PCA 1-Cognitive Items | Items | Loading |
| Understanding depressive behaviours | **.87** |
| Encouraging homework | **.75** |
| Understanding contributing thoughts | **.88** |
| Developing new perspectives | **.83** |
| PCA 2-Humanistic Items | Supporting you emotionally | **.75** |
| Supporting negative emotions | **.83** |
| Reflecting meaning of thoughts | .66 |
| Encouraging exploring feelings | **.77** |
| PCA 3-FCS Items | Being empathic towards you | **.79** |
| Understanding problems | **.75** |
| Showing warmth | **.83** |
| Involved in therapy | **.78** |

**4.3.2.5 Discriminant Validity of the Sheffield Expected Engagement with Therapy Scale**

Kruskal-Wallis tests showed that expected engagement scores did not differ according to PHQ-9 diagnosis for ShEETS-hum, χ *2* (4) = 4.81, *p* = .31, or ShEETS-FCS ratings, χ *2* (4) = 4.20, *p* = .380. There was a trend for those with moderately severe depressive symptoms to rate cognitive therapy as more likely to engage them on the ShEETS-cog than participants of other symptom severities, χ *2* (4) = 9.17, *p* = .057*,* although Mann-Whitney U comparisons were not significant between any two levels after Bonferroni corrections (adjusted α = .005).

**4.3.2.6 Reliability of the Sheffield Expected Engagement with Therapy Scale**

The internal consistency of the subscales was as follows: cognitive: *α* = .85, humanistic: *α* = .74, and FCS items: *α* = .80.

**4.4 Study 3: Confirmation of the Psychometric Properties of the Sheffield Expected Engagement with Therapy Scale with a Clinical Sample**

**4.4.1 Method**

**4.4.1.1 Design**

Study 3 was conducted in the context of the Pragmatic, Randomised Controlled Trial assessing the non-Inferiority of Counselling and its Effectiveness for Depression (PRaCTICED; Trials registry ID I[SRCTN06461651](http://www.isrctn.com/ISRCTN06461651); Saxon et al., 2017). The PRaCTICED trial recruited participants with moderate to severe depression from the NHS Sheffield Improving Access to Psychological Therapies (IAPT) service. Participants were randomised to receive Cognitive Behavioural Therapy (CBT) or Counselling for Depression (CfD) as treatment for their depression and post-therapy symptomatic improvement was compared to determine the non-inferiority of CfD to CBT. A consecutive sampling design from the PRaCTICED trial was adopted to confirm the factor structure of the cognitive, humanistic and FCS expected engagement scales with an independent clinical sample.

**4.4.1.2 Sample Size**

As with the previous studies, a 10:1 participant: item ratio was required for sufficient power (Osborne & Costello, 2004).

**4.4.1.3 Participants**

One hundred and twenty continuous participants were recruited as a subset of the PRaCTICED trial. Participants were those who had been referred to Step 2 routine IAPT treatment for depression. The IAPT service follows the stepped care model which implements care at the appropriate intensity for the individual’s illness severity. Step 1 comprises assessment and watchful waiting, Step 2 largely involves low-level CBT administered by a Psychological Wellbeing Practitioner (PWP) and guided self-help, while Step 3 is high intensity treatment such as CBT or counselling. PWPS in the Sheffield IAPT service offered patients the opportunity to take part in the trial either at their assessment session or at some early stage of their Step 2 intervention, providing they wanted to work on their depression and had a PHQ-9 score of 12 or more. Participants who accepted the offer were then invited to attend a baseline assessment session with a member of the research team or a Clinical Support Officer (CSO) in which their eligibility to take part in the PRaCTICED trial was assessed. Inclusion criteria required patients to be a) 18 years or older, b) moderately or severely depressed, as determined by the Clinical Interview Schedule-Revised (CIS-R; Lewis, 1994), c) depression as the main issue the patient wished to work on in therapy, and d) no strong preference for either CBT or CfD. Exclusion criteria were presence of organic condition, psychosis, drug or alcohol dependence, or elevated clinical risk. Participants in the PRaCTICED trial received travel expenses for attending the screening appointment and Love2Shop gift vouchers of £10 upon completion of each six and 12 month follow-up booklet. No other payment was made for participation in the trial or Study 3.

The sample for the current study was 50% (N = 62) female and had a mean age of 38 years (*SD* = 12.43). The sample comprised 68% (N = 84) White British participants and 36% (N = 44) full-time workers, with 30% (N = 37) being unemployed and 9% (N = 11) students. The sample consisted of 76% (N = 94) who had continued to further education and 43% (N = 53) to higher education. Fewer participants than in Studies 1 & 2 had previously attended therapy, with 51% (N = 63) who had a previous experience, 33% (N = 21) of whom had experienced CBT and 54% (N = 34) had experienced a form of counselling.

**4.4.1.4 Measures**

**Sheffield Expected Engagement with Therapy Scale (ShEETS; Harrison et al., 2017).** The ShEETS has been described in full in Studies 1 & 2.

**Patient Health Questionnaire (PHQ-9; Kroenke & Spitzer, 2000).** The PHQ-9 has also been described in full in Study 1.

**4.4.1.5 Procedur**e

Participants provided written informed consent at their baseline assessment session for the PRaCTICED trial. The trial received a favourable ethical opinion in May 2016 on a substantial amendment to the trial protocol proposed to the South Yorkshire Research Ethics Committee to include the ShEETS at baseline assessment (reference: 14/YH/0001; see Appendix O for trial and amendment favourable opinions). Eligible participants provided sociodemographic details and completed the ShEETS and PHQ-9 measures in a paper format. Other baseline measure were administered for the PRaCTICED trial but are not included in the present study.

**4.4.1.6 Analyses**

Analyses were conducted using IBM SPSS version 23 statistical analysis software (IBM Corp, 2015). Missing data and distribution assessments were conducted as in Studies 1 & 2. After KMO and Bartlett’s test on the data, principal component analyses (PCA) were conducted on each of the ShEETS subscales as in the previous studies. Discriminant validity with the PHQ-9 was assessed with a Kruskal-Wallis test. Internal consistency was assessed with a test of scale reliability to determine the Cronbach’s *α* of each scale. An assessment of test-retest reliability was not possible because participants were informed of their therapy allocation shortly after their first assessment, which could have influenced their responses to a second assessment of expected engagement. Finally, a comparison of expected engagement scores from the three samples was conducted with a Kruskal-Wallis test on each scale.

**4.4.2 Results**

**4.4.2.1 Missing Data**

One response was missing on the ShEETS and PHQ-9, respectively, for which mean imputation was conducted.

**4.4.2.2 Data Distribution**

Shapiro-Wilk tests revealed all three ShEETS subscales to be significantly not normally distributed, ShEETS-cog: *W* (120) = .89, *p* < .001, ShEETS-hum: *W* (120) = .94, *p* < .001, ShEETS-FCS: *W* (120) = .95, *p* < .001. There were no extreme outliers on any of the ShEETS subscales.The PHQ-9 total scores were normally distributed, *W* (120) = .98, *p* =.127. There were no extreme outliers.

**4.4.2.3 Descriptive Statistics**

**ShEETS.** Mean expected engagement scores for each of the subscales are presented in Table 4.4. Kruskal-Wallis tests revealed a trend-level difference between expected engagement scores on ShEETS-cog, ShEETS-hum and ShEETS-FCS, χ *2* (2) =5.64, *p* = .06. Post-hoc Mann-Whitney U tests with a Bonferroni correction (adjusted α = .017) showed no significant differences between individual subscales.

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| Table 4.4  *Study 3: Means (M) and standard deviations (SD) for expected engagement with cognitive, humanistic and facilitative conditions scale items* | | | | | | |
|  | Cognitive  (N = 120) | | Humanistic  (N = 120) | | FCS  (N = 120) | |
|  | *M* | *SD* | *M* | *SD* | *M* | *SD* |
| Expected Engagement | 13.23 | 2.50 | 13.00 | 2.32 | 12.51 | 2.52 |

**PHQ-9.** The breakdown of PHQ-9 depression scores is presented in Table 4.5. As per the eligibility criteria for the clinical trial, there were no participants categorised as having no depressive symptoms on the PHQ-9. Levene’s test of homogeneity of variance showed a Kruskal-Wallis test to be appropriate as variance was not of significantly different distributions on SHEETS-cog, ShEETS-hum and ShEETS-FCS, *p* > .05. As in Studies 1 and 2, Kruskal-Wallis tests found no significant differences according to level of depression on ShEETS-cog, χ *2* (3) = .40, *p* = .94, ShEETS-hum, χ *2* (3) = 1.37, *p = .*712, or ShEETS-FCS, χ *2* (3) = .93, *p* = .818.

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| --- | --- | --- | --- |
| Table 4.5  *Studies 1, 2 & 3: Patient Health Questionnaire (PHQ-9) scores* | | | |
| PHQ-9 severity band | Sample 1 (%)  N = 166 | Sample 2 (%)  N = 125 | Sample 3 (%)  N = 120 |
| None (0-4) | 37.9 | 24.2 | 0.0 |
| Mild (5-9) | 31.7 | 32.3 | 1.7 |
| Moderate (10-14) | 13.0 | 22.6 | 9.2 |
| Moderately severe (15-19) | 8.1 | 12.9 | 42.5 |
| Severe (20-27) | 9.3 | 8.1 | 46.7 |

**4.4.2.4 Principal Component Analyses**

KMO and Bartlett’s tests of sphericity revealed the subscales to be appropriate for Principal Component Analysis (PCA), ShEETS-cog, *KMO* = .67 χ *2* (6)= 111.44, *p* < .001, ShEETS-hum, *KMO* = .64, χ *2* (6)= 119.91, *p* < .001, ShEETS-FCS, *KMO* = .66, χ *2* (6)= 94.29, *p* < .001. The results of PCA showed the ShEETS-cog to comprise one factor, with an Eigenvalue of 2.26 which accounted for 56.52% of the variance. As presented in Table 4.6, all items loaded >.7 onto the cognitive factor. The ShEETS-hum formed another factor which had an Eigenvalue of 2.21 and accounted for 55.21% of the variance. Again, all items loaded onto this factor at an acceptable level of >.7. Finally, the ShEETS-FCS formed one factor with an Eigenvalue of 2.15 which accounted for 53.7% of the variance. FCS item *The therapist being involved in therapy* loaded at a level of .7 which was deemed high enough for retention. Correlation matrices are displayed in Appendix P.

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| Table 4.6  *Study 3: Item loadings from principal component analyses on expected engagement with cognitive, humanistic and facilitative conditions scale items, respectively* | | |
| PCA 1-Cognitive Items | Items | Loading |
| Understanding depressive behaviours | **.74** |
| Encouraging homework | **.71** |
| Understanding contributing thoughts | **.81** |
| Developing new perspectives | **.74** |
| PCA 2-Humanistic Items | Supporting you emotionally | **.74** |
| Supporting negative experiences | **.80** |
| Reflecting meaning of thoughts | **.71** |
| Encouraging exploring feelings | **.72** |
| PCA 3-FCS Items | Being empathic towards you | **.72** |
| Understanding problems | **.79** |
| Showing warmth | **.73** |
| Involved in therapy | .70 |

*Note*. Items in bold loaded >.7 onto the relevant factor

**4.4.2.5 Reliability of the Sheffield Expected Engagement with Therapy Scale**

The internal consistency of the three subscales was good: ShEETS-cog: *α* = .73, ShEETS-hum: *α* = .72, ShEETS-FCS: *α* = .71.

**4.4.2.6 Comparison of Expected Engagement Scores across Samples**

The ShEETS subscale scores of the three samples were compared to explore whether expected engagement differed according to sample. A Kruskal-Wallis test showed that there were significant differences on ShEETS-cog, χ *2* (2) = 36.4, *p* < .001, and ShEETS-hum, χ *2* (2) = 15.29, *p* < .001, but not ShEETS-FCS, χ *2* (2) = 5.26, *p* =. 072. Post-hoc Mann-Whitney U tests with Bonferroni correction (adjusted α of .017) on ShEETS-cog revealed these differences to be due to significantly higher expected engagement in the sample from Study 3(*Mdn=* 14.0, *IQR* = 12.0-15.0) than the sample from Studies 1(*Mdn* = 11.33, *IQR* = 9.0-13.0), *U* = 5871.0, *Z* = -5.95, *p* < .001, and 2 (*Mdn* = 13.0, *IQR* = 11.0-15.0) , *U* = 6154.50, *Z =* -2.45, *p* = .014. In addition, Study 2 gave higher cognitive expected engagement scores than Study 1, *U* = 7964.0, *Z = -*3.40, *p* = .001. Again, for humanistic scores, the sample from Study 3 (*Mdn* = 13.0, *IQR* = 11.0-15.0) rated expected engagement as significantly higher than the samples from Studies 1 (*Mdn* = 12.0, *IQR=* 9.0-14.0), *U* = 7344.0, *Z =* -3.8, *p* < .001, and 2 (*Mdn* = 12.0, *IQR* = 10.0-14.0), *U* = 5974.0, *Z =* -2.77, *p* = .006.

**4.5 Discussion**

Studies 2 and 3 served to confirm the factor structure of the expected engagement items of the ShEETS with both a non-clinical and clinical sample. After confirmation that the same factor structure was found with the second non-clinical sample, the ShEETS was administered to the clinical sample in the PRaCTICED trial to understand if the factor structure was affected by clinical depression. The factor structure was confirmed to be acceptable for distinguishing expected engagement between a cognitive and humanistic approach and common factors with a clinical sample. Both studies found an acceptable level of internal consistency for each of the scales. When examining differences in expected engagement between the three samples, a clinical sample was found to expect cognitive and humanistic therapy to be more engaging than non-clinical samples, despite no evidence for discriminant validity according to PHQ-9 depression score in any of the three studies.

**4.5.1 Contributions to the Field**

As a body of research, Studies 1, 2 and 3 have devised a measure of expected engagement, which has been validated against a similar measure of engagement and is reliable for differentiating therapeutic approaches. As detailed in Chapter 3, the ShEETS provides an opportunity to tap information about a client’s expectations with the therapeutic process that has previously not been investigated. Furthermore, the ShEETS comprises the same factor structure in a clinical as a non-clinical sample, so its use can be extended to therapy outcome prediction. The concept of expected engagement has been developed from an existing literature which indicates expectations to be predictive of therapy outcome, so it is the aim of the next chapter of this thesis to research the predictive validity of expected engagement.

**4.5.2 Limitations and Future Research**

A limitation that spans Studies 1 to 3 is a lack of test-retest reliability. Unfortunately assessment of test-retest reliability was not possible due to the online method of recruitment in Studies 1 and 2 and due to the context of the research within a clinical trial in Study 3. However, ability to assess test-retest reliability would have been beneficial to confirm that ShEETS expected engagement scores were consistent over time, which would indicate that the scales are assessing a stable construct that is not influenced by other unstable factors. Future studies involving the ShEETS should be designed to permit a second assessment of expected engagement scores so that test-retest reliability can be ascertained.

Concurrent validity of the ShEETS with another measure of expected engagement was not assessed in Studies 2 and 3. The main aim of the studies was to confirm that the factor structure was reliable and not a consequence of a specific sample. However, confirmation of the validity of the ShEETS as assessing expected engagement would be beneficial. Future research should aim to further validate the ShEETS with any future developments of expected engagement measures or a range of adapted engagement measures.

Studies 2 and 3 each had an item that did not load at above .7 onto the desired factor. However, both items were retained in the measure as they reached .7 when rounded to one decimal place and were deemed to be central aspects of the different approaches by the clinical expert group in Study 1. The author took the decision to set a conservative level of above .7 to ensure that the items were reduced to a manageable number to form a clinical measure suitable for those with symptoms of depression such as fatigue. However, a lower level of .4 is common so the items were still highly representative of the desired factor.

Despite maintaining a similar factor structure for a clinical, as well as non-clinical sample, there were significant differences in expected engagement scores between the samples. The clinical sample from Study 3 rated both a cognitive and humanistic approach as more expected to engage them than the other two non-clinical samples. Although there was no difference according to depressive symptoms within each sample, a clinical sample may be more invested in therapy than a non-clinical sample and able to distinguish which aspects they would expect to engage with because they know they are about to receive one of them. Hence, the measure is rated similarly by samples with various levels of depressive symptoms, although being a prospective recipient of a therapy service may increase expected engagement.

Increased investment in the therapy could be useful as clients may be able to accurately predict their engagement with the process. The ability of expected engagement to predict therapy outcome would provide evidence of the predictive validity of expected engagement in a clinical context. The following chapter-Chapter 5-will test the predictive ability of the ShEETS as a measure of expected engagement to determine therapy outcome for a cognitive and a humanistic therapy.

**5. Chapter 5: Study 4- The Relationship between Expected Engagement and Psychotherapy Outcome**

**5.1 Chapter Overview**

The following chapter aims to test the predictive validity of expected engagement for predicting therapy outcome. The Sheffield Expected Engagement with Therapy Scale (ShEETS), as developed in the previous chapters, was administered to participants in a clinical trial for depression in order to identify an association between expected engagement and therapy outcome.

**5.2 Introduction**

Previous chapters have described the potential utility of using client factors to predict therapy outcome. The ShEETS was devised as a measure of expected engagement with therapy, which has potential as a therapy-matching tool for clients to receive a therapy that is optimally effective based on their expected engagement. Congruence between clients’ predilections for therapy (based on beliefs about causes of illness and expectancy of treatment) and type of therapy has been shown to predict fewer drop outs from therapy (Elkin et al., 1999).

Credibility and expectancy, as two other types of expectations of therapy, are sometimes assessed before clients enter therapy and have been associated with higher levels of symptomatic improvement and lower levels of dropout (Arnkoff et al., 2002; Baekeland & Lundwall, 1975). In addition, client expectations of the therapeutic process, or role expectations, are a significant predictor of therapy outcome (Clarkin & Levy, 2004; Gaston et al., 1989; Hardy et al., 1995; Noble et al., 2001). Engagement, the other facet of expected engagement, has also been shown to be strongly predictive of symptomatic improvement and therapy dropout (Glenn et al., 2013; Gomes-Schwartz, 1978; Persons, Burns, & Perloff, 1988). Hence, it is hypothesised that a combination of expectations and engagement within the concept of expected engagement will also be predictive of therapy outcome.

As discussed in Chapters 1 and 2, symptomatic improvement from pre to post therapy, or follow-up, is the primary index of depression treatment research. Therapy drop out is a lesser researched alternative outcome, perhaps due to ambiguities in how best to define the concept. Terminating therapy early or “dropping out” can occur at any point, from not attending the first therapy session to only attending 19 out of an agreed 20 sessions. Previous studies have used a number of methods to define dropouts, which include unilateral decision to terminate therapy and not attending a minimum number of sessions (Baekeland & Lundwall, 1975; Wierzbicki & Pekarik, 1993). The IAPT service defines drop outs as those who fail to attend a scheduled appointment. Pekarik (1985b) found that a duration-based definition of drop out masked client and therapist effects whereas therapist-defined drop out revealed differences.

The current study assessed outcome as both symptomatic improvement and completion, and followed Pekarik’s (1985b) recommendation to define dropout as therapist judgement of whether therapy was unilaterally terminated by the patient. This method was used because the therapist can draw on information from several sources including whether the client had completed their therapeutic work and if they had attended scheduled appointments to make a more comprehensive judgement of drop out.

**5.2.1 Aims**

The aim of the present study is to explore the potential of expected engagement as a predictor of therapy outcome, both in terms of symptomatic improvement and therapy completion. It is hypothesised that a therapy expected to be more engaging will provide greater symptomatic improvement. It is further hypothesised that those who expect to engage more will have a higher likelihood of therapy completion than those who expect to engage less.

**5.3 Method**

**5.3.1 Design**

A consecutive participant study design was adopted for a subsample of the PRaCTICED randomised trial of CBT and CfD for moderate to severe depression. The randomised design of the trial was utilised for the present research in order to explore expected engagement as a predictor of therapy outcome. Clients’ expected engagement scores were taken at baseline, following which clients were randomly allocated to either CBT or CfD using a centralised web-based system.

**5.3.2 Sample Size**

The power analysis programme G\*Power was used to calculate the required sample size (Faul, Erdfelder, Buchner, & Lang, 2009). A minimum sample size of 69 participants would be required to detect a medium effect (Cohen’s *f*2 = .15) at a power of 0.8 and a probability level of 0.05. This is the required sample size for sufficient power when the 11 potential predictors are included in the model (tested predictors: expected engagement, expected engagement x therapy type, covariates: therapy type (one dummy-coded level), age, gender (one dummy-coded level), severity, preference (two dummy-coded levels), credibility, expectancy, number of sessions, completion status (one dummy-coded level)/ symptomatic improvement). Cohen’s (1992) power primer table confirmed a similar minimum sample size of 67 to provide sufficient power to detect a medium effect of the two tested predictors in a regression model. Previous studies also conducting regressions in this area have generally obtained samples of approximately 100 participants to provide sufficient power for significant covariates so the current study aimed to recruit beyond the minimum sample size (Jarrett et al., 2001; Rohde, Seeley, Kaufman, Clarke, & Stice, 2006).

**5.3.3 Participants**

The sample comprised 96 PRaCTICED trial clients (Saxon et al., 2017). Details of the recruitment process for the trial have previously been described in Chapter 4. The sample was 55% (N = 53) female with a mean age of 39. The sample was 69% (N = 66) White British. Full-time workers formed 40% (N = 38), while 25% (N = 24) were unemployed, 7% (N = 7) students and 4% (N = 4) retired. Eighty-four per cent (N = 81) of the sample had continued to further education whereas only 45% (N = 43) had continued to higher education. The sample consisted of 57% (N = 55) of participants who had previously received therapy, 33% (N = 18) of whom had previously received a form of cognitive therapy and 58% (N = 32) who had received counselling. Some missing demographic data meant that some totals do not add up to 100%.

**5.3.4 Measures**

**Sociodemographics.** Participant details included gender, age, ethnicity, employment status, education level (continuation of education after compulsory education, possession of a degree) and previous therapy attendance and type. Participants also completed the following measures at intake assessment:

**Patient Health Questionnaire(PHQ-9; Kroenke & Spitzer, 2002).**The PHQ-9 has previously been described in full; see Chapter 3 for a description of the measure and its psychometric properties.

**Preference Question (Leykin et al., 2007b).**Participants were asked to rate their preference for receiving both CBT and CfD on a scale of 0 (no preference) to 5 (strong preference). The preference question has been shown to have concurrent validity with an expectation preference question about the influence of expectancy on preference, *r* = .68, *p* < .0001 (Leykin et al., 2007b).

**Credibility/ Expectancy Questionnaire****(CEQ; Devilly & Borkovec, 2000).**The CEQ, adapted for use with the current clinical sample, and its psychometric properties have been described in Chapter 3.

**Number of therapy sessions*.*** The number of therapy sessions attended by the participant was recorded by the treatment therapist and provided to the research team either individually or via the IAPT central web system.

**Sheffield Expected Engagement with Therapy Scale (ShEETS; Harrison et al., 2017).**Psychometric properties of the ShEETS can be found in Chapters 3 and 4.

**Therapist End of Therapy Form (Appendix Q)*.***The end of therapy form was devised for the PRaCTICED study, to provide information on the context surrounding the end of therapy. Therapist details of how therapy ended were taken to determine whether the client completed or dropped out of therapy early.

**5.3.5 Description of Interventions**

CBT comprised Beckian CBT as taught on the IAPT CBT training programmes (Beck et al., 1979). Regular top-up workshops were provided throughout the PRaCTICED trial. CfD is a therapy designed for use within IAPT services for clients experiencing depression based on person-centred and emotion-focussed approaches (Sanders & Hill, 2014). Prior to the trial, CfD training of five days plus 80 hours supervised practice was provided to all IAPT counsellors.

Participants could receive up to 20 therapy sessions for both therapies. Therapy typically took place on a weekly basis although this was negotiable between the therapist and client. Standard IAPT supervision procedures were maintained, with additional supervision of therapist adherence to the therapeutic models for each client’s second, sixth and twelfth therapy session.

**5.3.6 Procedure**

As described in Study 3, the study received a favourable ethical opinion for a substantial amendment to the PRaCTICED trial to include the ShEETS at baseline assessment (reference: 14/YH/0001; see Appendix O for trial and amendment favourable opinions). Participants provided informed consent for the present study at their baseline assessment for eligibility into the PRaCTICED trial. Participants provided sociodemographic details and completed the ShEETS, PHQ-9, preference and expectations questions at their baseline assessment session, after being assessed for eligibility for the trial. Eligible participants were then randomised to receive either CBT or CfD and added to a therapy waiting list. The therapist informed a PRaCTICED researcher once the participant had completed therapy. PHQ-9 scores are routinely collected at every session in the IAPT service and the final session PHQ-9 score was used to calculate symptomatic improvement from the baseline score. The therapist completed the Therapist End of Therapy form for each participant once treatment had ceased in order to provide information on whether the participant completed therapy or dropped out.

**5.3.7 Analyses**

IBM SPSS 23 statistical analysis programme was used for all analyses (IBM Corp, 2015). Missing data was quantified and pairwise deletion employed. The distribution of the data was assessed using Shapiro-Wilk tests and the assumption of homoscedasticity using Levene’s tests to identify the distribution of variance and the data’s suitability for linear regression. Descriptives of means and standard deviations for expected engagement scores and symptom change were calculated. Kruskal-Wallis and Mann-Whitney U tests were conducted to detect any differences between ShEETS-cog, ShEETS-hum and ShEETS-FCS. Comparisons were also made between expected engagement scores for those who received CBT and CfD. The concurrent validity of the expected engagement subscales against credibility and expectancy was assessed with Pearson’s correlations. As found in Study 1, moderate correlations were expected due to the overlap in concept between the three types of expectation.

Symptomatic improvement was calculated by the difference in scores between baseline and final session. Residualised change scores were not appropriate for the current analysis, as post-treatment score adjustments are made based on pre-treatment scores from the whole sample without taking treatment group into account, which may result in misleading findings ([Maxwell, Delaney, & Manheimer, 1985](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5568008/#R49)). Prior to regression analyses, preliminary relationships were established between potential predictors (ShEETS expected engagement, age, gender, PHQ-9 baseline severity, preference, CEQ credibility, CEQ expectancy, number of sessions) and dependent variables (PHQ-9 symptomatic improvement, completion) to determine those predictors to be entered into the regression. Relationships with symptomatic improvement were analysed using Pearson’s and Spearman’s correlations, as well as independent t-tests and one-way ANOVAs. Relationships with completion were analysed using Chi square analyses and Point Biserial correlations. Analyses on covariates were conducted separately for CBT and CfD to detect differences by therapy type, to establish the necessity for further interaction terms with therapy to be included in the regression models.Bonferroni corrections were applied to the tests to decrease the likelihood of Type I error. Primary analyses were not conducted on ShEETS-FCS, as this subscale was not part of the main research question (exploratory analysis on the FCS items is included in Appendix T).

Prior to regression analyses being conducted, assumptions of multicollinearity, outliers and leverage were tested. Models 1 and 2 from the PROCESS (v2.16, v3.0) macro for SPSS were used to conduct two separate multiple ordinary least squares (OLS) regression analyses for the independent variables of cognitive expected engagement and humanistic expected engagement on PHQ-9 change (Hayes, 2013, 2018). The primary independent variables, which were not normally distributed, were mean-centred prior to analysis. For therapy completion, two separate multiple logistic regressions were planned for each independent variable as a predictor. For all analyses, therapy type was included as a moderator as well as an independent variable x moderator interaction for those independent variables identified as differing by therapy type. Bootstrapping was performed to counteract non-parametric distributions.

**5.4 Results**

**5.4.1 Missing Data**

There were three missing scores on the credibility question, four on the expectancy question and six missing responses on the completion question. Pairwise deletion was employed for these cases.

**5.4.2 Data Distribution**

Shapiro-Wilk tests showed each of the expected engagement subscales and PHQ-9 change scores not to be normally distributed due to negative skews. However, PHQ-9 change scores had normal homoscedasticity. Of the covariates, age and number of sessions were not normally distributed when split by therapy type. All other variables had a normal distribution, *p*s > .05 and had no influential outliers (see Appendix R for more detail).

Further Shapiro-Wilk tests revealed the residuals of the PHQ-9 change scores to be normally distributed with normal variance on Q-Q plots for expected engagement on ShEETS-cog, *W* (90) = .99, *p* = .702, ShEETS-hum, *W* (90) = .99, *p* = .382, and ShEETS-FCS, *W* (90) = .98, *p* = .312. There were no outliers for PHQ-9 change for any of the subscales.

**5.4.3 Descriptive Statistics.**

**Expected Engagement.** The means for the expected engagement subscales were: ShEETS-cog, *M* = 13.32 (*SD* = 2.36), ShEETS-hum, *M* = 12.99 (*SD* = 2.33), ShEETS-FCS, *M* = 12.52 (*SD* = 2.51). The mean expected engagement scores for each subscale split by therapy are shown in Table 5.1.

The subscales correlated with each other as follows: ShEETS-cog and ShEETS-hum, *r* (96) = .59, *p* < .001, ShEETS-cog and ShEETS-FCS, *r* (96) = .43, *p* < .001, ShEETS-hum and ShEETS-FCS, *r* (96) = .74, *p* < .001. A Kruskal-Wallistest revealed a trend level difference between expected engagement scores on the three subscales, although this difference was not significant, χ *2* (2) = 5.34, *p* = .069. There were no significant differences between expected engagement on the three subscales for those who received CBT, χ *2* (2) = 2.66, *p* = .264, or CfD, χ *2* (2) = 2.68, *p* = .262, or between scores on each subscale according to therapy received, as shown in Table 5.1.

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| Table 5.1  *Study 4: Means (M) and standard deviations (SD) for expected engagement with cognitive, humanistic and facilitative conditions scale items split by allocated therapy* | | | | | |
|  | CBT | CfD | Difference between therapies | | |
| Expected Engagement Subscale | *M (SD)* | *M (SD)* | *U* | *Z* | *p* |
| ShEETS-cog | 13.09 (*2.48*) | 13.60 (*2.20*) | 1006.5 | -.99 | .321 |
| ShEETS-hum | 12.70 (*2.52*) | 13.35 (*2.05*) | 986.5 | -1.14 | .255 |
| ShEETS-FCS | 12.26 (*2.70*) | 12.84 (*2.25*) | 1015.0 | -.93 | .354 |

**Additional Predictors.** Those clients with no preference for either therapy constituted 48% (N = 46) of the sample, with 20% (N = 19) expressing a preference for CBT and the remaining 32% (N = 31) expressing a preference for CfD. The mean score across therapies for credibility was 10.94 (*SD* = 2.48). The mean credibility score for those who received CBT was 10.74 (*SD* = 2.69) and was 11.17 (*SD* = 2.22) for those who received CfD, the medians of which were not significantly different, *U* = 984.5, *Z* = -.70, *p* = .482. The mean score across therapies for expectancy was 19.88 (*SD* = 5.51). The mean expectancy score for those who received CBT was 19.39 (*SD* = 6.19) and the mean score for CfD was 20.44 (*SD* = 4.64), which were not significantly different, *t* (90) = -.91, *p* = .363. The mean number of sessions across therapies was 9.18 (*SD* = 6.2). When analysed for each therapy separately, those receiving CBT had a mean of 10 sessions (*SD* = 6.53) and those receiving CfD had a mean of 8.16 (*SD* = 5.68), the medians of which were not significantly different, *U* = 973.50, *Z* = -1.23, *p* = .220.

**PHQ-9 Symptoms.** The mean baseline PHQ-9 score across therapies was 19.19 (*SD* = 4.24)and the mean end of therapy PHQ-9 score was 10.13 (*SD* = 6.85).The mean PHQ-9 change score was 9.06 (*SD* = 6.88). Those who received CBT had a mean change score of 9.19 (*SD* = 7.39) and those who received CfD had a mean change score of 8.91 (*SD* = 6.29), the medians of which were not significantly different, *U* = 1089.0, *Z* = -.37, *p* = .709.

**Completion.** Therapist scoring of client therapy completion showed 56% (N = 54) to have completed and 38% (N = 36) to have dropped out.The remaining 6% (N = 6) did not provide data on completion status so were not included in completion analyses. For those who received CBT, 55% (N = 29) completed therapy and 38% (N = 20) dropped out and, for those who received CfD, 58% (N = 25) completed therapy and 37% (N = 16) dropped out. A chi-square test showed no significant difference in completion status by therapy type, χ2 (1) = .03, *p* = .863.

**5.4.4 Concurrent Validity**

Credibility of CBT correlated significantly at the Bonferroni adjusted *p* < .017 with expected engagement on the ShEETS-cog, *r* (50) = .35, *p* = .014, and ShEETS-hum, *r* (50) = .37, *p* = .009, but not with ShEETS-FCS, *r* (50) = .19, *p* = .196. Similarly, credibility of CfD correlated significantly with expected engagement on ShEETS-cog, *r* (43) = .39, *p* = .011. However, there were no significant associations between credibility of CfD and expected engagement on ShEETS-hum, *r* (43) = .33, *p* = .029, or ShEETS-FCS, *r* (43) = .16, *p* = .317.

In contrast, expectancy of CBT only correlated at *p* < .017 with ShEETS-cog: *r* (49) = .34, *p* = .016. There were no significant relationships with ShEETS-hum: *r* (49) = .25, *p* = .079, or ShEETS-FCS: *r* (49) = .14, *p* = .346. Similarly, there were no significant correlations between expectancy of CfD and ShEETS-cog, *r* (43) = .18, *p* = .244, or ShEETS-hum, *r* (43) = .23, *p* = .130, or ShEETS-FCS, *r* (43) = .12, *p* = .447.

**5.4.5 Correlates of Symptomatic Improvement**

Spearman’s correlations were conducted between expected engagement and symptomatic improvement at a Bonferroni adjusted *α* of .01. Higher expected engagement on ShEETS-cog was significantly correlated with more symptomatic improvement, *r* (96) = .27, *p* = .009. There was no significant relationship between expected engagement on ShEETS-hum and symptomatic improvement, *r* (96) = .23, *p* = .026. Therefore, regression analysis was not undertaken for humanistic expected engagement (exploratory analyses included in Appendix T).

Independent t-tests showed symptomatic improvement to significantly differ by gender, whereby females in CfD had higher symptomatic improvement (*M* = 12.76, *SD* =4.44) than males (*M* = 5.23*, SD* 5.60). There was no significant difference in CBT. Spearman’s correlations revealed a higher number of sessions to be significantly correlated with more symptomatic improvement in CBT but not CfD. Independent t-tests showed a significant difference in symptomatic improvement whereby those who completed CBT (*M* = 12.76*, SD* = 5.46) improved more than those who dropped out (*M* = 3.85, *SD* = 6.79)*.*

Those who completed CfD (*M* = 11.64, *SD* = 5.82) also improved more than those who dropped out (*M* = 4.88, *SD* = 5.08). All other relationships were not significant, *p*s > .007 for Bonferroni-adjusted Pearson’s correlations, *p*s > .01 for Spearman’s correlations (see Table 5.2).

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| Table 5.2  *Study 4: Correlations of potential covariates with symptomatic improvemen*t | | | | | | | | | | | | | | |
|  | Baseline severity | | | Age | | | Credibility | | | | | Expectancy | | |
| CBT | *r* | *df* | *p* | *r* | *df* | *p* | | *r* | *df* | *p* | *r* | | *df* | *p* | |
| Symptomatic improvement | .26 | 53 | .063 | -.18 | 52 | .216 | | .18 | 50 | .212 | .32 | | 49 | .025 | |

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| Table 5.2 Cont.  *Study 4: Correlations of potential covariates with symptomatic improvemen*t | | | | | | | | | | | | | | | | |
|  | Number of sessions | | | Completion | | Gender | | | | Preference | | | | | | |
| CBT | *r* | *df* | *p* | *t* | *df* | *p* | *t* | *df* | | | *p* | | *F* | *df* | *p* | | |
| Symptomatic improvement | .48 | 53 | < .001\* | -5.08 | 47 | < .001\* | .34 | | 51 | .737 | | 1.97 | | | 2, 50 | .150 |

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| Table 5.2 Cont.  *Study 4: Correlations of potential covariates with symptomatic improvement* | | | | | | | | | | | | | | | | | |  | | |
|  | Baseline severity | | | Age | | | Credibility | | Expectancy | | | | | | | |
| CfD | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | |  |  | | | |
| Symptomatic improvement | .41 | 43 | .007\* | .16 | 43 | .299 | -.05 | 43 | .754 | .25 | 43 | | .105 |  | |  | | | |

Table 5.2 Cont.

*Study 4: Correlations of potential covariates with symptomatic improvement*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Number of sessions | | | | | | | Completion | |  | Gender | | |  | Preference | | | |
|  | CfD | | *r* | *df* | *p* |  | | *t* | *df* | *p* | *t* | | *df* | | *p* | *F* | *df* | | *p* |
| Symptomatic improvement | | | .30 | 43 | .053 | | -3.81 | | 39 | < .001\* | 4.88 | | | 41 | <  .001\* | .36 | | 2, 40 | .697 |

*Note.* \* = significant at *p* < .007 for Bonferroni-adjusted Pearson’s, *p* < .01 for Spearman’s correlations

**5.4.6 Correlates of Completion**

Bonferroni corrections were applied to Point-Biserial correlations between predictors and completion to create an adjusted *α of* .01, and to Mann-Whitney U tests to create an adjusted an adjusted α of .006. Mann-Whitney U and Point Biserial correlations did not reveal a significant relationship between therapy completion and expected engagement on ShEETS-cog, *U* = 776.0, *Z* = -1.64, *p* = .102, or ShEETS-hum, *r* (90) = .18, *p* = .099. The only significant relationship to emerge was a higher number of sessions for completers of CBT, *Mdn* = 16.0, *IQR* = 8.50 – 19.0, and CfD, *Mdn* = 10.0, *IQR* = 6.50 – 16.0, compared to drop outs, CBT: *Mdn* = 4.0, *IQR* = 3.0 -6.0, CfD: *Mdn* = 4.0, *IQR* = 2.0 – 6.75. See Table 5.3 for further details. Therefore, regression analyses were not conducted for completion.

Table 5.3

*Study 4: Correlations of potential covariates with completion*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Baseline severity | | | Age | | | Credibility | | | Expectancy | | | Number of sessions | | | Gender | | | Preference | | |
| CBT | *U* | *Z* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *U* | *Z* | *p* | *x 2* | *df* | *p* | *x 2* | *df* | *p* |
| Completion | 256.0 | -.70 | .487 | .18 | 48 | .216 | .20 | 46 | .178 | .28 | 45 | .063 | 72.50 | -4.44 | < .001\* | .04 | 1 | .834 | 4.22 | 2 | .121 |

Table 5.3 Cont.

*Study 4: Correlations of potential covariates with completion*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| CfD | | Baseline severity | | | Age | | | Credibility | | | Expectancy | | | Number of sessions | | | Gender | | | Preference | | |
|  | | *U* | *Z* | *p* | *r* | *df* | *p* | *U* | *Z* | *p* | *U* | *Z* | *p* | *U* | *Z* | *p* | *x 2* | *df* | *p* | *x2* | *df* | *p* |
|  |  |
| Completion | | 182.50 | -.47 | .638 | .07 | 41 | .686 | 190.50 | -.26 | .798 | 194.50 | -.15 | .883 | 54.0 | -3.91 | < .001\* | 8.03 | 1 | .005\* | .03 | 2 | .987 |

*Note.* \*= significant at *p* < .01 for Bonferroni-adjusted Point Biserial correlations, *p* < .006 for Mann-Whitney U tests

**5.4.7 Assumptions of Regression**

The assumptions of multicollinearity, outliers and leverage were tested prior to conducting the regression models. There was no multicollinerity between the independent variables, variance inflation factor > 5 for any of the models. There were some outliers and leverage although none were found to be influential on the regression output (see Appendix S for more details). Levene’s test of homoscedasticity showed no significant difference in variance of symptomatic improvement by gender, *F* (1, 94) = .48, *p* = .491, therapy type, *F* (1, 94) = 2.01, *p* = .160, or completion status, *F* (1, 88) = .23, *p* = .632.

**5.4.8 Regression Model of Expected Engagement on Symptomatic Improvement**

**ShEETS-cog expected engagement.** A credibility x expected engagement interaction was entered into the regression models to further investigate the relationship and its potential effect on therapy outcome. An adjusted power analysis to account for the added interaction confirmed that an adequate sample size of above 78 would be required to ensure reliable detection of a medium effect size, at a probability level of 0.05 with 0.8 power. The sample size was sufficient at N = 87.

The model including expected engagement on ShEETS-cog was significant, *F* (8, 78) = 6.24, *p* < .001, *R2* = .39 (see Table 5.4). Higher expected engagement with a cognitive approach predicted more symptomatic improvement. However, there was no moderator effect of therapy type or credibility.

Despite a lack of interactions, there were some significant effects for specific conditions. Higher expected engagement with a cognitive approach significantly predicted more improvement in those who had received CBT and rated credibility as low, *b* = 1.06, *SE* = .39, *t* (78) = 2.72, *p* = .008, *95% CIs* (.28 – 1.83) or moderate, *b* = .72, *SE* = .36, *t* (78) = 2.03, *p* = .046, *95% CIs* (.01 – 1.44). Higher expected engagement did not predict more improvement in those who received CBT and rated it as highly credible, *b* = .39, *SE* = .47, *t* (78) = .84, *p* = .403, *95% CIs* (-.54 – 1.33). However, expected engagement did not significantly predict symptomatic improvement for those who received CfD regardless of credibility rating, low credibility: *b* = .66, *SE* = .46, *t* (78) *=* 1.43, *p* = .157, *95% CIs* (-.26 – 1.57), moderate credibility: *b* = .33, *SE* = .42, *t* (78) = .78, *p* = .436, *95% CIs* (-.50 – 1.16), high credibility: *b* = .00, *SE* = .50, *t* (78) = -.01, *p* = .993, *95% CIs* (-1.00 – .99). Additionally, females had significantly more symptomatic improvement than males across therapies. Further details of the model are provided in Table 5.4.

Further interactions between significant variables were explored in separate models to ensure sufficient power. There was no significant moderator relationship between expected engagement on ShEETS-cog and gender, *b* = -.05, *SE* = .49, *t* (85) = -.10, *p* = .919, *95% CIs* (-1.03 - .93), or completion, *b* = .10, *SE* = .51, *t* (85) = .20, *p* = .843, *95% CIs* (-.91 – 1.11).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 5.4  *Study 4: Regression Model of Cognitive Expected Engagement and Symptomatic Improvement* | | | | | | |
|  | *b* | *SE b* | *t* | *df* | *p* | *95% CIs* |
| ShEETS-cog expected engagement | .72 | .36 | 2.03 | 78 | .046\* | .01 – 1.44 |
| Therapy type | -.50 | 1.26 | -.40 | 78 | .992 | -3.01 – 2.01 |
| ShEETS-cog expected engagement \* therapy type | -.40 | .53 | -.75 | 78 | .457 | -1.46 –.66 |
| Credibility | .12 | .28 | .42 | 78 | .673 | -.44 – .68 |
| ShEETS-cog expected engagement \* credibility | -.17 | .12 | -1.38 | 78 | .172 | -.40 – .07 |
| Gender | -2.57 | 1.28 | -2.00 | 78 | .049\* | -5.12 – -.01 |
| No of sessions | -.02 | .13 | -.13 | 78 | .898 | -.27 – .24 |
| Completion | 6.09 | 1.57 | 3.89 | 78 | < .001\* | 2.97 – 9.21 |
|  |  |  |  |  |  |  |

*Note.* \*= significant at < .05 level, \*\*significant at < .01 level, \*\*\* significant at < .001 level

**5.5 Discussion**

The present study has demonstrated that expected engagement can predict symptomatic improvement as hypothesised, although, unexpectedly, this effect may be limited to those who receive CBT. The effect was present for expectations of engagement with a cognitive approach when clients received CBT and did not rate it as highly credible. There was no effect when clients received CfD or moderator effect of therapy type, meaning that the effect of expected engagement on symptomatic improvement did not significantly differ between the two therapies, despite the presence of an effect in CBT. Finally, there was no effect for either type of expected engagement to predict therapy completion.

Exploratory analyses revealed that, as with expected engagement with a cognitive approach, there was an effect of expected engagement with a humanistic approach on improvement in CBT when credibility was low. This suggests that expected engagement with therapy may not be limited to expectations of a specific approach such as CBT but expected engagement may be generally predictive of improvement in CBT. It is possible that CBT may have provided the tools to best recognise when client expectations had been met. CBT is a highly structured approach, in which an agenda and goals are proposed and reviewed every session. Reiter (2007) proposed that solution-focused formula tasks are designed to encourage new behaviours through the expectation of change, and that therapists aid this process with “positive expectancy” talk (O’Hanlon, 1999). Since clients expect change in their symptoms under such circumstances, it is explicitly recognised when they achieve a goal and create change. In contrast, CfD is more client-led which may mean the therapy progresses less predictably.

The concurrent validity of expected engagement with credibility also indicates a difference between client perceptions of CBT and CfD. Those who rated CBT as highly credible also rated both cognitive and humanistic approaches as highly expected to engage them, although those who rated CfD as highly credible only rated a cognitive approach as highly expected to engage them. Hence, both therapy types can be seen as viable treatment options but credibility is not associated with higher expected engagement when the therapy is humanistic. The current study showed that higher expected engagement with both approaches only predicted more improvement in CBT when credibility was low or moderate. It may be that expected engagement is an important determinant of therapy outcome in the absence of strong credibility of the therapy by providing a positive perception of the therapy.

Interestingly, exploratory analyses showed expected engagement with facilitative conditions not to predict improvement. Therefore, this indicates that expected engagement with active therapeutic components, rather than the specific therapeutic process, may be predictive of symptomatic improvement. As previously discussed in Chapter 2, Gaston et al. (1989) explored a concept similar to expected engagement, that of expectations of the change process. They found confirmed expectations to sometimes have a beneficial effect on symptomatic improvement. Perhaps the ShEETS captured clients’ expectations to engage with any active approach, rather than specifically cognitive or humanistic approaches. Significant large correlations between expected engagement with a cognitive and a humanistic approach confirmed that expectations of the two active approaches were associated with each other.

There was a significant effect of gender on symptomatic improvement whereby males were less likely than females to see symptomatic improvement. As discussed in Chapter 2, gender has not been consistently found to predict improvement. However, if future research replicates the effect of gender on improvement in the IAPT service, the findings may indicate a gender effect specific to a pragmatic setting, compared to controlled trials where most research on client factors is conducted.

The present study did not find expected engagement to predict therapy completion. This is somewhat surprising, as those who drop out have also been found to improve less than those who complete (Pekarik, 1986). These findings indicate that patients who do not complete therapy do not start with lower expectations, suggesting that ending therapy unilaterally is as a result of the therapy itself. As discussed in Chapter 2, predictors of completion have been less researched than predictors of symptomatic improvement. Despite significant effects of expectations on completion of CBT in the systematic review, other reviews of predictors of drop out appear to show dropout to be associated with demographic factors, such as SES and minority racial status (Baekeland & Lundwall, 1975; Cooper & Conklin, 2015). Therefore, it may be that demographic factors, rather than a lack of improvement, are more likely to predict therapy drop out. Furthermore, there may be practical barriers to participants completing therapy that were not recorded in the study, such as travel difficulties. The Sheffield IAPT service suffered closure of some practices during this study which could have made travel more difficult for participants referred to practices not as easily accessible. Participants were also referred outside of their own GP practices when waiting times were too long or there was no appropriate therapist at their GP practice. Hence, practical reasons may have largely contributed to therapy non-completion.

**5.5.1 Limitations and Future Research**

Future research into expected engagement should endeavour to understand whether the predictive ability of expected engagement with a cognitive approach is limited to CBT. The present study was limited in its application of the ShEETS to only those receiving CBT and CfD so it would be useful to replicate the current study’s findings in other cognitive therapies.

Further questions arise from the findings, namely the reason for a CBT-specific effect in the absence of a moderator effect by therapy type. It is possible that there were factors not investigated in the current research, such as therapist effects, that contributed to a lack of moderator effect. For example, variability in therapist effects within therapy type may have moderated the relationship between expected engagement and therapy outcome, which could have masked a moderator effect by therapy type. Future research should look to factors beyond the client to understand if there are distinct differences between CBT and CfD in the effect of expected engagement on symptomatic improvement.

In addition to differences between the two therapies, the natural scope of this research is to investigate the process via which expected engagement influences symptomatic improvement specifically in CBT, which is the focus of Chapter 6. The research that comprises the following chapter aims to quantify engagement with therapy to understand if engagement mediates the relationship between expected engagement and symptomatic improvement in CBT.

**6. Chapter 6: Study 5- The Relationship between Expected Engagement, Observed Early Engagement and Psychotherapy Outcome**

**6.1 Chapter Overview**

The previous chapter showed an association between expected engagement and symptomatic improvement in CBT. The current chapter builds on this finding by investigating if this relationship is mediated through the closely associated concept of observed early engagement (OEE) with therapy.

**6.2 Introduction**

There is some evidence to support a relationship between expectations, engagement and therapy outcome (Dew & Bickman, 2005). For example, client and therapist-rated alliance, which has been associated with engagement, has previously been found to mediate the relationship between therapy expectancy and outcome (Abouguendia, Joyce, Piper, & Ogrodniczuk, 2004; Joyce, Ogrodniczuk, Piper, & McCallum, 2003; Meyer et al., 2002).

OEE is an important aspect of the therapeutic process as it shapes the future progress of therapy (Orlinsky, Rønnestad, & Willutzki, 2004). As previously described, engagement with therapy can be defined as the client’s active efforts to work towards change (Holdsworth et al., 2014). Importantly, the effort one puts into a task has been found to be a key aspect of how engagement can mediate the relationship between expectations and outcome ([Suhr & Gunstad, 2002)](http://www.sciencedirect.com.sheffield.idm.oclc.org/science/article/pii/S0272735805000255" \l "bib121). A mediator explains the relationship between two variables, in that the effect of Variable A on Variable B is explained by the mediating variable. Furthermore, Elkin et al. (1999) previously found evidence that congruence between clients’ predilection for a particular treatment and therapy allocation was associated with engagement and remaining in therapy.

However, as previously discussed, definitions of engagement have been varied and research has tended to focus on specific aspects of engagement, such as completion of homework (Tetley et al., 2011). Such restricted measures of engagement do not allow for comparison of engagement between differing therapeutic approaches. Only two multi-faceted measures of engagement, the Engagement Measure (Hall, Meaden, Smith, & Jones, 2001) and the Client Involvement Scale (CIS; Morris et al., 2014) are known to the author. The Engagement Measure comprises 11 items from six dimensions of engagement: appointment keeping, client-therapist interaction, communication/openness, clients’ perceived usefulness of treatment, collaboration with treatment, and compliance with medication. The measure was devised by clinical expertise focus groups in response to a lack of multi-faceted engagement measures at the time and achieved high internal consistency between items. Despite being named an involvement measure, rather than engagement, the 18 involvement criteria of the CIS closely reflect the definition of engagement devised by Holdsworth et al. (2014). Holdsworth et al. (2014) frames involvement behaviours as those within the therapy session, whereas engagement encompasses the whole therapeutic experience both in and outside therapy. However, for the current study’s purpose of rating the content of the therapy session, involvement and engagement were interchangeable. The CIS was developed with an aim to be both multi-faceted and pan-theoretical in its assessment of client involvement. Hence, the CIS manages to specify aspects of therapy with which the client may engage while remaining pan-theoretical, whereas the Engagement Measure is more general in its engagement criteria. For the current study, such general criteria may cause difficulty for consensus between raters of OEE. Furthermore, the CIS has been validated against an existing measure of involvement, whereas the Engagement Measure has not.

For the above reasons, the CIS was deemed to be more closely reflective of the definition of OEE with the therapeutic process adopted in the present study. Client involvement, defined as behavioural, cognitive and emotional participation, has been shown to be predictive of outcome across different therapeutic approaches and is closely related to the concept of within-session engagement (Gomes-Schwartz, 1978; Morris et al., 2014).

**6.2.1 Aims**

The aim of this study is to investigate the role of client OEE with therapy in the relationship between expected engagement and symptomatic improvement in CBT. In Study 4, clients’ expected engagement with a cognitive approach was found to predict symptomatic improvement in CBT. It is hypothesised in the present study that OEE will mediate the relationship between expected engagement and CBT symptomatic improvement, whereby higher expected engagement with a cognitive approach increases symptomatic improvement due to increased OEE with therapy. Despite little evidence in Study 4 of relationships between expected engagement with a humanistic approach and symptomatic improvement and expected engagement and symptomatic improvement in CfD, the present study took the opportunity to assess these relationships again to confirm the reliability of the findings from Study 4.

**6.3 Method**

**6.3.1 Design**

As with Study 4, consecutive sampling was adopted for participants in the PRaCTICED trial (Saxon et al., 2017). Clients’ OEE in therapy was determined using content analysis and observer ratings of therapy sessions. A mediation analysis investigated the role of client OEE in mediating the relationship between expected engagement and symptomatic improvement.

**6.3.2 Sample Size**

G\*Power was used to calculate the required sample size for sufficient power at a 0.8 level (Faul et al., 2009). A sample size of 50 was required to detect a medium effect of .25, at a probability level of 0.05 between the 11 predictor variables (tested predictors: expected engagement, expected engagement \* therapy type, OEE, covariates: therapy type (one dummy-coded level), age, gender (one dummy-coded level), severity, preference (two dummy-coded levels), credibility, expectancy, number of sessions, completion status (one dummy-coded level) and the two outcomes (OEE and symptomatic improvement). Cohen’s (1992) power primer tables confirm that a sample size of approximately 48 participants would provide sufficient power to detect an effect size of .25. To detect an effect of the indirect mediation of OEE, bootstrapping was performed to ensure sufficient power.

**6.3.3 Participant**s

Participants in this study comprised a sub-sample of Study 4 participants. Clients were included if they had attended at least two sessions of therapy. Consecutive participants in the trial with available data were included until a total of 42 ratings had been reached. The desired sample size was not reached due to a lack of available PRaCTICED trial data from Sheffield IAPT data at the time of the study (Saxon et al., 2017). However, the sample size for the main research question of mediation was sufficient due to bootstrapping.

Forty two clients from the PRaCTICED trial were included in the present study (Saxon et al., 2017). The present sample consisted of 55% (N = 23) female participants, with a mean age of 38. The majority of the sample was of White British ethnicity, with 74% (N = 31) identifying as White British, 10% (N = 4) an ethnic minority and the remaining 17% (N = 7) did not provide information on their ethnicity. Full-time workers were the largest group represented by 48% (N = 20) of the sample, while 24% (N = 10) were unemployed. The sample comprised 91% (N = 38) of participants who continued into further education and a further 55% (N = 23) who continued to higher education. Fifty seven per cent (N = 24) of the sample had previous experience of therapy, 38% (N = 9) of whom has experienced a form of counselling and 50% (N = 12) cognitive therapy.

**6.3.4 Materials**

**Therapy Recordings.**  Clients’ second sessions of CBT and CfD were rated for OEE with therapy. Session one in the IAPT service is typically an introductory session, in which background information is collected and the plan for future sessions is outlined, which provides limited opportunity for engagement. Therefore, session two was chosen as the first real opportunity for the client to show engagement with therapy. Sessions were audio recorded by the therapist on a dictaphone and stored as an audio file by the PRaCTICED research team on a secure server.

**Client Involvement Scale (CIS; Morris & Fitzpatrick, 2014)**. The measure has previously been described in Chapter 3. As can be seen in Table 6.1, the 18 types of involvement are categorised into three levels: low, moderate and high (full details of items in Appendix U). Low involvement behaviours include a relevant start to the session or the client being excited. The behaviours increase to high involvement for behaviours such as admitting dishonesty to the therapist due to the larger amount of effort this requires from the client. The high involvement behaviours are characterised by their emphasis on the therapeutic relationship compared to more individual behaviours such as being excited or experiencing emotions. Behaviours such as being embarrassed or discussing difficult topics with the therapist suggest that the client is fully engaged with the therapy. The total involvement score is calculated from the frequency of the 18 types of involvement which are weighted according to level of involvement. For low involvement behaviours, frequency is multiplied by up to two, for moderate up to three and for high up to 3.81. These weightings are based on the mean expert rating for how difficult it would be for clients to demonstrate these behaviours (Morris et al., 2014). As scores are determined by the frequency of involvement behaviours in a session, there is no maximum total score for the sessions to be scored out of.

**Sheffield Expected Engagement with Therapy Scale (ShEETS; Harrison et al., 2017).** The ShEETS was devised in Studies 1, 2 and 3 and described in Chapters 3 and 4, as a measure of expected engagement with a cognitive or humanistic therapeutic approach. See Chapters 3 and 4 for a description and psychometric properties of the ShEETS.

**Patient Health Questionnaire (PHQ-9; Kroenke & Spitzer, 2000).**Psychometric properties of the PHQ-9 have been described in full in Chapter 3.The PHQ-9 was used as a measure of depressive symptoms at baseline and end of therapy. The difference between the two scores was used as a measure of symptomatic improvement.

**Therapist End of Therapy Form (Appendix Q).**Information about whether the client completed or dropped out of therapy was recorded by the therapist and used as a measure of their completion status.

|  |  |
| --- | --- |
| Table 6.1  *Study 5: Client Involvement Scale criteria* | |
| Involvement Items | Level of Involvement |
| Relevant start | Low |
| Excited | Low |
| Takes responsibility | Moderate |
| In-session emotion | Moderate |
| Accept responsibility | Moderate |
| Therapy thoughts | Moderate |
| Experiential participation | Moderate |
| Psychological strategies | Moderate |
| Broader view | Moderate |
| Maladaptive | Moderate |
| Better understanding | Moderate |
| Change strategies | Moderate |
| Previous emotion | Moderate |
| Embarrassing | High |
| Here-and-now | High |
| Dishonesty | High |
| Difficult topic | High |
| New emotion | High |

**6.3.5 Procedure**

The present study was given a favourable ethical opinion by South Yorkshire Research Ethics Committee as an amendment to the PRaCTICED trial (reference: 14/YH/0001; see Appendix O for trial and amendment favourable opinions). Participants consented to take part in the present study at the baseline assessment for the PRaCTICED trial. The research procedure has largely been described in Chapter 4 as part of the PRaCTICED trial (Saxon et al., 2017). The present study incorporated an additional stage of data collection of second session therapy audio recordings from the participants’ therapists. Participants consented to recording of their therapy sessions and analysis of this data at screening. Details of the two types of therapy (CBT, CfD) have also been described in Chapter 5. The rating procedure of OEE from the recorded therapy sessions is described below.

**CIS Training Procedure*.***Two Psychology Masters students at the University of Sheffield were trained in the coding procedure for OEE outlined in Morris and Fitzpatrick’s (2014) CIS rater manual. Including the PhD researcher, all three raters were educated to postgraduate level in Psychology at the University of Sheffield. The PhD researcher provided all training, with the guidance of the author of the CIS (Morris). The training process comprised three stages: 1) familiarisation with the manual, 2) rating sample recordings (in groups then individually), 3) rating unmarked recordings individually followed by group discussion. The NVivo programme was used for coding OEE, as it allows for sections of audio recordings to be highlighted and categorised under a subgroup heading i.e. dishonesty from the CIS (QSR International Pty Ltd, 2015). These subgroups for the present study were predefined as the 18 CIS involvement criteria. Content analysis using a directed approach was employed, whereby individual occurrences of the 18 involvement behaviours were totalled to create a frequency score. Frequency scores were then multiplied by the appropriate number according to the level of involvement to create an involvement score, as described above in the Materials section.

Raters were initially given three weeks to familiarise themselves with the manual and the relevant literature before they began training. During this period, raters were given the opportunity to ask any questions to the trainer (the PhD researcher). Raters began the training process once they had signed a confidentiality agreement to protect the data (see Appendix V).

During Stage 2 the raters met with the trainer and practised coding sample recordings using NVivo as a group until satisfactory understanding of the CIS categories was reached. Sample recordings had been pre-marked on NVivo by the trainer according to the CIS manual so that the raters could compare their coding to a predetermined standard. Raters then rated recordings independently. The trainer compared ratings with their own and the ratings were discussed with reference to the rater manual for guidance. This continued until a satisfactory two-way mixed, absolute agreement intraclass correlation on the total involvement score of >.7 with the trainer was reached (Chu & Kendall, 2004). There was a very high intraclass correlation between the author and Rater 1, *r* (6) *=* .93, *p* = .003, and an acceptable correlation between the author and Rater 2, *r* (5) = .71, *p* = .003.

**CIS** **Rating Procedure*.*** All recordings were rated independently by two raters. Rater 1 rated 28 recordings (19 CBT, nine CfD) and rater 2 rated 14 recordings (five CBT, nine CfD; rater 2 left the rating process early). The raters then met, discussed any differences in coding and agreed a final involvement frequency for each recording.

**6.3.6 Analyses**

IBM SPSS 23 statistical analysis programme was used for all analyses (IBM Corp, 2015). Checks were made to determine any missing data. The distribution of data and the residuals of the relationship between the three expected engagement scales and OEE score was assessed using Shapiro-Wilk tests of normality and the equality of variance with Levene’s test of homoscedasticity. Non-parametric adaptations were made to analyses where applicable.Descriptives of the data were producedto explore the means and standard deviations for expected engagement and OEE scores. Kruskal-Wallis and Mann-Whitney U tests were conducted on expected engagement scores for any differences between the three scales of ShEETS-cog, ShEETS-hum or ShEETS-FCS, and for differences within each scale between allocated therapy.

Tests of multicollinearity, outliers and leverage were performed. Preliminary correlations were conducted between all variables to determine which variables should be entered into the regression model. Bonferroni corrections were applied to decrease the likelihood of a Type 1 error which resulted in an adjusted *α* level of .003. Mediation analysis was conducted using Model 8 from the PROCESS macro add-on for SPSS (v2.16; Hayes, 2013). Mediation analysis was conducted between the independent variable of expected engagement with the therapy received, mediator of OEE and dependent variable of symptomatic improvement (see Figure 2). Therapy type was included in the analyses as a moderator. Bootstrapping was performed to adjust for any non-normal distributions.

Therapy Type

Figure 2-Planned moderated mediation model for cognitive/ humanistic expected engagement

**6.4 Results**

**6.4.1 Missing Data**

There was no missing data on any variables.

**6.4.2 Data Distribution.**

Expected engagement on ShEETS-cog, *W* (41) = .90, *p* = .001, ShEETS-hum, *W* (41) =.92, *p* =.008, and ShEETS-FCS, *W* (41) = .93, *p* = .012, were significantly not normally distributed due to negative skew, with no outliers.Number of sessions was also significantly not normally distributed for those allocated to CBT, *W* (23) = .90, *p* = .021, with no outliers.All other variables were normally distributed, *p*s > .05, with no extreme outliers (see Appendix W for more detail).

**Expected Engagement-Observed Early Engagement (OEE)*.*** Shapiro-Wilk tests of normality and Q-Q plots of homoscedasticity revealed the residuals of the OEE scores to be normally distributed for expected engagement on ShEETS-cog, *W* (42) =.97, *p* = .439, ShEETS-hum, *W* (42) =.97, *p* = .295, and ShEETS-FCS, *W* (42) = .98, *p* = .605, with consistent variance observable from the Q-Q plots of the data. There were no extreme outliers for OEE residuals for any of the expected engagement subscales.

**Expected Engagement-Symptomatic Improvement.**The residuals for expected engagement on ShEETS-cog, *W* (42) = .96, *p* = .165 and ShEETS-FCS on symptomatic improvement were normally distributed, *W* (42) = .95, *p* =.054, with normal homoscedasticity.There were no outliers for symptomatic improvement residuals for any of the expected engagement subscales. The residuals for expected engagement on ShEETS-hum on symptomatic improvement were not normally distributed, *W* (42) = .93, *p* = .011, with slight heteroscedasticity, but no outliers.

**Observed Early Engagement (OEE)-Symptomatic Improvement*.*** The residuals for OEE score on symptomatic improvement were normally distributed, *W* (42) = .97, *p* = .318, with consistent variance. There were no outliers for the residuals of symptomatic improvement for OEE score.

Levene’s test of homoscedasticity confirmed equal variances by therapy type for symptomatic improvement, *F* (1, 40) = .02, *p* = .885, and OEE, *F* (1, 40) = 3.47, *p* = .07, thus revealing the data to be appropriate for further analyses.

**6.4.3 Descriptive Statistics**

**Expected Engagement.**The mean expected engagement scores were high for expected engagement on ShEETS-cog (*M* = 13.05, *SD* = 2.35), ShEETS-hum (*M* = 13.12, *SD* = 2.21) and ShEETS-FCS (*M* = 12.55, *SD* = 2.63). A Kruskal-Wallis test showed these scores to not differ significantly from each other, χ *2* (2) = .81, *p* = .667. Mann-Whitney U tests were conducted to detect any differences in ShEETS- cog, ShEETS-hum and ShEETS-FCS expected engagement scores by therapy assignment. There were no significant differences in expected engagement scores on ShEETS-cog, *U* = 146.0, *Z* = -1.81, *p* = .071, SHEETS-hum, *U* = 174.0, *Z* = -1.08, *p* = .279, or ShEETS-FCS, *U* = 181.5, *Z* = -.89, *p* = .374.

**OEE.**The mean OEE score across both therapies was 53.31 (*SD* = 19.89). The difference in OEE scores between those who received CBT (*M* = 54.54, *SD* = 22.72) and CfD (*M* = 51.67, *SD* = 15.84) was not significant, *t* (40) = .46, *p* = .649.

**6.4.4 Correlates of OEE and Symptomatic Improvement**

All correlations were not significant at the *p* > .05 level (adjusted *α* of .003 after Bonferroni correction for Pearson’s correlations; see Table 6.2). Despite a lack of significant direct relationships between expected engagement, OEE and symptomatic improvement, an indirect effect between expected engagement and improvement due to the mediation of OEE could still be present (Hayes, 2013). Hence, mediation analyses were still conducted.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table 6.2  *Study 5: Correlations between expected engagement, potential covariates, observed early engagement and symptomatic improvement* | | | | | | | | | | | | | | | | | | |
| CBT | Symptomatic Improvement | | | Completion | | | ShEETS-cog Expected Engagement | | | ShEETS-hum Expected Engagement | | | Therapy session length | | | Age | | | | |
|  | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | |
| OEE Score | .31 | 24 | .147 | .41 | 23 | .052 | .19 | 24 | .375 | .19 | 24 | .371 | .34 | 24 | .101 | .25 | 24 | .237 | |
| Symptomatic Improvement | - | - | - | .53 | 23 | .01 | .51 | 24 | .01 | .45 | 24 | .028 | .35 | 24 | .091 | -.03 | 24 | .904 | |

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| Table 6.2 Cont.  *Study 5: Correlations between expected engagement, potential covariates, observed early engagement and symptomatic improvement* | | | | | | | | | | | | | | | | | | |
|  | Baseline severity | | | Credibility | | | Expectancy | | | Number of sessions | | | Gender | | | Preference | | |
| CBT | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *t* | *df* | *p* | *F* | *df* | *p* |
| OEE Score | .11 | 24 | .599 | .36 | 23 | .094 | .39 | 23 | .063 | .36 | 24 | .088 | -.51 | 22 | .613 | .29 | 2, 21 | .752 |
| Symptomatic Improvement | .43 | 24 | .035 | .38 | 23 | .072 | .47 | 23 | .025 | .47 | 24 | .021 | -.42 | 22 | .679 | 1.22 | 2, 21 | .314 |

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| Table 6.2 Cont.  *Study 5: Correlations between expected engagement, potential covariates, observed early engagement and symptomatic improvement* | | | | | | | | | | | | | | | | | | | | |
|  | Symptomatic Improvement | | | Completion | | | ShEETS-cog Expected Engagement | | | ShEETS-hum Expected Engagement | | | Therapy session length | | | Age | | | |
| CfD | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* |
| OEE Score | -.31 | 18 | .205 | -.35 | 18 | .152 | -.07 | 18 | .782 | -.10 | 18 | .682 | .27 | 18 | .283 | -.05 | 18 | .843 |
| Symptomatic Improvement | - | - | - | .49 | 18 | .039 | .11 | 18 | .659 | .09 | 18 | .725 | -.52 | 18 | .026 | -.25 | 18 | .319 |

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| Table 6.2 Cont.  *Study 5: Correlations between expected engagement, potential covariates, observed early engagement and symptomatic improvement* | | | | | | | | | | | | | | | | | | |
|  | Baseline severity | | | Credibility | | | Expectancy | | | Number of sessions | | | Gender | | | Preference | | |
| CfD | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *r* | *df* | *p* | *t* | *df* | *p* | *F* | *df* | *p* |
| OEE Score | -.26 | 18 | .299 | -.18 | 18 | .478 | .05 | 18 | .838 | -.27 | 18 | .284 | -1.64 | 16 | .120 | 1.81 | 2, 15 | .197 |
| Symptomatic Improvement | .36 | 18 | .137 | -.29 | 18 | .245 | -.12 | 18 | .626 | .15 | 18 | .566 | 2.12 | 16 | .05 | .07 | 2, 15 | .933 |

*Note.* \* = significant correlation at *p* < .05 (*p* < .003 for Pearson’s correlations)

**6.4.5 Assumptions of Regression**

The independent variables to be included in the model did not have mutlicollinearity with expected engagement with a cognitive or humanistic approach, variance inflation factor < 5. Outliers and leverage were calculated for each model, which revealed some outliers. However, none of these were found to be influential on the regressions (see Appendix X for more detail).

**6.4.6 Regression model of Expected Engagement on Symptomatic Improvement**

Expected engagement was entered into the model as the independent variable (separately for ShEETS-cog and ShEETS-hum), with OEE score as the mediator, therapy type as the moderator and symptomatic improvement as the dependent variable.

**ShEETS-cog Expected Engagement.** The model with ShEETS-cog expected engagement as the independent variable was significant, *F* (4, 37) =3.16, *p* = .025, *R2* = .21. As found in the previous chapter, expected engagement with a cognitive approach predicted improvement, *b* = .98, *SE* = .47, *t* (37) = 2.09, *p* = .044, whereby those with higher expected engagement with a cognitive approach had significantly more improvement in CBT, *b* = 1.57, *SE* = .62, *t* (37) = 2.54, *p* = .015, *95% CIs* (.32 – 2.82) but not CfD, *b* = .19, *SE* = .75, *t* (37) = .25, *p* = .803, *95% CIs* (-1.33 – 1.70). As shown in Table 6.3, OEE did not mediate the relationship between ShEETS-cog expected engagement and symptomatic improvement, *b* = -.03, *SE* = .20, *p* > .05.

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| Table 6.3  *Study 5: Moderated mediation models of cognitive expected engagement, observed early engagement and symptomatic improvement* | | | | | | | |
|  | *b* | *b SE* | *t* | *df* | *p* | *95% CIs* |
| Path a  Outcome: OEE  Moderator: therapy type  Predictor: ShEETS-cog EE | -3.30  .71 | 7.37  1.75 | -.45  .40 | 38  38 | .657  .689 | -18.22 - 11.62  -2.84 – 4.25 |
| Path b  Outcome: symptomatic improvement  Predictor: OEE | .01 | .05 | .24 | 37 | .808 | -.09 - .12 |
| Path c  Outcome: symptomatic improvement  Mediator: OEE  Moderator: therapy type  Predictor: ShEETS-cog EE | -.03  -1.38  .98 | .20  .99  .47 | -1.40  2.09 | 37  37 | .170  .044\* | -.75 - .22  -3.38 - .62  .03 – 1.93 |

*Note.* EE= expected engagement, OEE = observed early engagement (OEE).

\* = significant at *p* < .05

**ShEETS-hum Expected Engagement**. For expected engagement on ShEETS-hum the model was not significant, *F* (4, 37) = 2.13, *p* = .096, *R2* = .20 (see Table 6.4). As expected from the results reported in the previous chapter, there was a trend for expected engagement with a humanistic approach to predict improvement, *b* = 1.07, *SE* = .59, *t* (37) = 1.81, *p* = .079, which was only present in CBT, *b* = 1.42, *SE* = .75, *t* (37) = 1.91, *p* = .064, *95% CIs* (-.09 – 2.94) and not CfD, *b* = .59, *SE* = .99, *t* (37) = .59, *p* = .556, *95% CIs* (-1.41 – 2.59). As with ShEETS-cog expected engagement, OEE did not mediate this trend, *b* = -.07, *SE* = .22, *p* > .05.

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| Table 6.4 | | | | | | |
| Study 5: Moderated mediation models of humanistic expected engagement, observed early engagement and symptomatic improvement | | | | | | |
|  | *b* | *b SE* | *t* | *df* | *p* | *95% CIs* | |
| Path a  Outcome: OEE  Moderator: therapy type  Predictor: ShEETS-hum EE | -2.26  -.27 | 3.70  1.93 | -.61  -.14 | 38  38 | .544  .892 | -9.75 – 5.22  -4.18 – 3.65 | |
| Path b  Outcome: symptomatic improvement  Predictor: OEE | .03 | .06 | .55 | 37 | .585 | -.08 - .14 | |
| Path c  Outcome: symptomatic improvement  Mediator: OEE  Moderator: therapy type  Predictor: ShEET-hum EE | -.07  -.84  1.07 | .22  1.26  .59 | -.66  1.81 | 37  37 | .511  .079 | -.83 - .18  -3.39 – 1.72  .-13 – 2.26 | |

*Note.* EE= expected engagement, OEE = observed early engagement

\* = significant at *p* < .05

**6.5 Discussion**

The present study did not find OEE with therapy to mediate the relationship between expected engagement and symptomatic improvement. This was despite confirmation of the significant relationship found in Study 4 between expected engagement with a cognitive approach and symptomatic improvement in CBT.

The present study’s findings are in contrast to a range of literature which has found engagement and its related constructs to mediate the relationship between expectations and symptomatic improvement (Abouguendia et al., 2004; Joyce et al., 2003; Meyer et al., 2002). Most previous research has assessed engagement in relation to expectancy, although it has been noted that a relational aspect of engagement such as alliance may be more pragmatically associated with role expectations, which are similar to expected engagement (Dew & Bickman, 2005). Indeed, although research on the effect of role expectations on the alliance is sparse, previous research has found a significant positive relationship between congruent expectations of the relationship between therapist and client and alliance (Al-Darmaki & Kivilghan, 1993). Hence, it is surprising that expected engagement was not associated with OEE.

The definition and measurement of engagement in the present study focussed more on engagement with the therapeutic techniques rather than alliance with the therapist which may have contributed to the different findings. Engagement has often been ambiguously equated to alliance and other such concepts (Loewenthal, 1996). Hence, the present study attempted to build on existing research by extending findings on the expectations-alliance relationship to the wider area of engagement.

**6.5.1 Limitations**

The CIS is the only known observer-rated multi-faceted pan-theoretical engagement measure appropriate for therapies for depression, with previous studies typically assessing client or therapist ratings of the alliance (Catty, 2004; Morris et al., 2014). It is possible that observer-rating engagement rather than using client-rated engagement limited the potential of the study. As an area of research specifically focussed on the client’s perceptions of therapy, it may have been more useful to explore expected engagement in relation to clients’ perceived engagement. A benefit of using client ratings could be that the client’s perception of engagement could provide more accurate information on the effects of expected engagement and the prediction of symptomatic improvement. However, the method of observer-rating was chosen to add a more comprehensive analysis of the therapy session. Client ratings of engagement would have been retrospective so would be less likely to assess engagement across the whole therapy session. On the whole, perhaps it would have been beneficial for both methods to be employed so that a comparison could be made between the two to determine whether each captures a different aspect of engagement.

There are a number of confounds which could have influenced engagement, not all of which could be explored in the present study. Factors such as preference and gender have been identified as influences on engagement, which allowed for the exploration of their possible influence in the present research (Kwan, Dimidjian, & Rizvi, 2010; Staton-Tindall et al., 2007). Despite an effect of gender on symptomatic improvement in Study 4, whereby females improved more than males, there was no effect of gender on OEE. Surprisingly, preference also did not affect OEE or symptomatic improvement. However, other factors discussed in Chapter 2 that have been found to influence symptomatic improvement such as cognitive functioning may also influence engagement, although this relationship has received little research (Choi & Twamley, 2013). Methods such as patient profiling which take into account the effects of all client factors would be useful to fully understand influences on engagement (Delgadillo et al., 2017). Hence, future research should aim to identify the full range of factors that may influence engagement with therapy so that confounds can be controlled.

The sample size in the current study was smaller than anticipated and may have increased the likelihood of a Type II error for detecting a relationship between expected engagement, OEE and symptomatic improvement. Future research should aim to collect enough data to understand the relationship between expected engagement and therapy outcome with optimal power so that further analyses can be undertaken on the mediating ability of engagement.

A key consideration is that the second session of therapy may have been too early in the therapeutic process to identify adequate engagement. The second session was selected to be rated for engagement as previous research has shown drop out to typically occur in the early stages of therapy (Bados, Balaguer, & Saldaña, 2007; Pang, Lum, Ungvari, Wong, & Leung, 1996; Trepka, 1986). Hence, early engagement was assessed to be used as a predictor of drop out from therapy. However, the IAPT service uses the first therapy session as an assessment session that mainly consists of information-giving from the client, which perhaps does not provide much opportunity for engagement by the second session.

**6.5.2 Implications and Future Research**

Future research should aim to be comprehensive in its assessment of engagement with therapy by rating engagement at various stages of the therapeutic process. As discussed, early engagement at session two may not provide an accurate representation of the client’s engagement at other stages in therapy. Therefore, it is recommended that future research investigates average engagement scores from various points of therapy to understand engagement with therapy more broadly. Furthermore, engagement at later stages of therapy, when some change has already occurred, may be more likely to be associated with symptomatic improvement.

Alternatively, future research could investigate disengagement. The present study inferred a lack of engagement from a low level of engagement behaviours in one therapy session but did not specifically explore disengagement after engagement had occurred in a longitudinal manner. Disengagement could be measured as a decline in engagement as treatment progresses, as a negative change in engagement from timepoint one to timepoint two as treatment progresses. Hence, the difference between lack of engagement and disengagement being that a lack of engagement could be consistent throughout therapy whereas disengagement indicates that there has been a decrease in the level of engagement. As a different construct to engagement or a lack of engagement, disengagement may be predicted by different factors more appropriate to its longitudinal nature, such as a rupture in the therapeutic relationship (Safran, Crocker, McMain, & Murray, 1990). Disengagement is typically equated with drop out so identification of disengagement behaviours in could provide useful predictive information on drop out (O’Brien, Fahmy, & Singh, 2009).

An opportunity to build on the current research would be to explore the different engagement behaviours displayed in the two therapeutic approaches. The CIS is pan-theoretical, hence providing an opportunity for the two therapies to be fairly compared. It is possible that there may be more frequent displays of behaviours such as “therapy thoughts” in CBT due to completing homework outside of therapy, while an emotion-focussed behaviour such as “previous emotion” may be more frequently displayed in CfD.

**7. Chapter 7: General Discussion**

**7.1 Chapter Overview**

The aims of this chapter are to discuss the findings of this thesis in relation to the literature and summarise the potential implications of client expected engagement on the process and outcomes of therapy. The rationale for the research in this thesis was to use an evidence-driven approach to determine and further research a client factor which may predict therapy outcome. The extent to which this has been achieved will be discussed, with considerations for future research to develop the findings.

**7.2 Discussion**

The Dodo Bird verdict that psychotherapies are equally effective has often driven further research into the comparative effectiveness of therapies (Luborsky et al., 2002; Rosenzweig, 1936). Evidence of therapy equivalence has spurred on the theory that therapies are effective due to their shared common factors, rather than the specific effects found in different therapies. However, in Chapter 1, an argument was made for the importance of specific effects which may improve the effectiveness of therapy for the individual. Stiles, Shapiro and Elliott (1986) recognised that the Dodo Bird verdict may be mistaken despite evidence for therapy equivalence, due to several different reasons, including its methodological oversight of “what works for whom” (Norcross & Wampold, 2011). Clinical decision-making regarding which treatment might be better for which clients requires an understanding of pre-therapy prescriptive factors. However, research in this area has not produced consistent findings, which has made future research directions difficult to determine.

The systematic review of client factors in Chapter 2 was conducted to produce a comprehensive picture of the current state of research on client factors that are prognostic and prescriptive predictors of therapy outcome for depression. The review confirmed inconsistent and sparse research into several client factors, although it identified some factors that were predictive of outcome including age, marital status, coping style, cognitive and social functioning, significant life events and expectations. Prescriptive predictors were more difficult to determine due to a lack of research into a range of therapies. The factors under review formed two categories of personal factors and perceptions of therapy, with only expectations comprising the latter category. A recent narrative review emphasized the role of clients’ perceptions, such as expectations of therapy, on therapy outcome (Bohart & Wade, 2013). In this thesis, therefore, a decision was made to focus on the role of perceptions of therapy as a shift in direction for client factors research. Furthermore, some previous research has confirmed expectations to be a promising form of client perceptions which can predict symptomatic improvement (Norcross & Wampold, 2011). As with other factors, therapy completion/drop out was severely under-researched, with only three studies conducted on the effects of expectations on therapy completion (Schindler et al., 2013; Tsai et al., 2014; Zlotnick et al., 1998). However, unlike other factors, all studies on expectations found a significant effect on completion. This provided additional evidence of an association between expectations and therapy outcome, which requires further research and was therefore the focus of this thesis.

Expectations of therapy have been named the ‘ignored common factor’ in psychotherapy due to the lack of research attention (Weinberger & Eig, 1999). However, there has been an increase in the last 30 years in research into the client’s expectation of their role in therapy (Arnkoff et al., 2002). Chapters 3 and 4 discussed the need for a client-focussed measure of expectations that also takes into account the specific therapy process. It was argued that assessing the client’s role combined with highlighting the specific effects that differ between therapies would allow for clients to give more focussed expectations.

The ShEETS was devised to provide a measure of expected engagement with a cognitive and a humanistic therapy approach so that different levels of expected engagement with the two approaches could be identified. The therapist competency scales from which the therapeutic techniques were derived provided an appropriate starting point to capture the differences between the two therapeutic approaches. Studies 1, 2 and 3 detailed the development of the ShEETS, as well as its validation and factor structure confirmation with a second non-clinical and a clinical sample.

Chapter 5 described the testing of the ShEETS’ predictive ability with a clinical sample. Previous research has shown clients’ ideas about themselves in relation to therapy to influence their response to therapy (Hubble, Duncan, & Miller, 1999; Philips, Werbart, Wennberg, & Schubert, 2007). Hence, the aim of this study was to use client-rated expected engagement to predict therapy outcome, with the hypothesis that a higher expected engagement with the allocated therapy would predict more symptomatic improvement and higher completion rates than lower expected engagement. Therapy type was included in the analyses so that the predictive ability of expected engagement could be compared between those who received the therapy that they rated highly and those who did not.

The results were partially in line with the hypothesis, in which higher expected engagement with a cognitive approach was predictive of more symptomatic improvement but only in CBT. Interestingly, these results are in contrast to Hardy et al.’s (1995) findings that high credibility scores for CBT and Psychodynamic Interpersonal Therapy (PIT) predicted therapy outcome only in PIT. The authors explained that high credibility may have tapped into another concept of psychological mindedness prior to therapy, which is more necessary for PIT than CBT, in which psychoeducation is a major aspect of the therapy process (Beck et al., 1979). Although different results were found for expected engagement in the present study and credibility in Hardy et al.’s (1995) study, these previous findings may go some way in explaining the role of credibility in the present study. When credibility was low, high expected engagement predicted outcome in CBT. As Hardy et al. (1995) described, credibility may tap into psychological mindedness so perhaps when credibility is low, another type of expectation, such as expected engagement, is needed to tap into this trait. It is interesting that expected engagement does not play a role in outcome when credibility is high, which indicates that the two types of expectation may only be influential in the other’s absence.

As discussed in Chapter 5, differences in the therapeutic processes of CBT and CfD may have influenced the results found in Study 4, as with Hardy et al.’s (1995) study. The differences in techniques and skills between CBT and CfD may have contributed to CBT providing a more structured context in which it was easier to recognise when expectations had been met, thus contributing to symptomatic improvement. Therefore, therapeutic techniques typical of CBT could have acted more as a mediator of the relationship between expected engagement and therapy outcome rather than as a moderator as the present study explored. A mediator would be the variable that caused expected engagement to predict outcome, rather than a moderator which would produce variation of the strength of relationship between expected engagement and outcome. CBT techniques may have facilitated a stronger relationship between expected engagement and outcome than engagement. There has been little research into the differences between therapies in how expectations affect therapy outcome so these results highlight that there may be important differences between therapy processes that can benefit those with high expected engagement.

Chapter 6 formed the last empirical study of this thesis, the aim of which was to further explore the relationship between expected engagement and symptomatic improvement for mediation by observed early engagement (OEE). OEE was rated for the clients’ second sessions of therapy using content analysis and was included in the analyses as a mediator of the expected engagement-symptomatic improvement relationship. It was hypothesised that a higher level of OEE would be a major contributor to the relationship between expected engagement and symptomatic improvement. Unexpectedly, there was no relationship between expected engagement and OEE or OEE and symptomatic improvement.

The research in Chapter 6 was novel, utilising a new measure of client involvement, which has not previously been investigated in relation to expected engagement. Therefore, it may be that the definition of pan-theoretical engagement needs further refinement. Previous research has found a mediating effect of the closely-related concept of therapeutic alliance between expectations and therapy outcome (Abouguendia, Joyce, Piper, & Ogrodniczuk, 2004; Joyce, Ogrodniczuk, Piper, & McCallum, 2003; Meyer et al., 2002). However, as discussed in Chapter 6, therapeutic alliance only forms one aspect of engagement. It may be that, unlike therapeutic alliance, engagement is more difficult to assess pan-theoretically and requires therapy-specific criteria, as were devised for the ShEETS. Clearly there is still much scope for development in this research area. Additionally, the method utilised in Study 5 could be applied to measure the construct of disengagement over the course of therapy. As discussed in Chapter 6, disengagement is a construct that requires a longitudinal study design as well as a comprehensive assessment of the different criteria that constitute engagement in order to identify a decline in engagement throughout therapy. The novel method used in this research for assessing engagement has provided a useful tool that can be extended to future research.

It should be noted that factors such as age which were identified in the systematic review in Chapter 2 as predictive of therapy outcome did not influence therapy outcome in Studies 4 or 5. This further demonstrates the inconsistency present in the client factors literature. It may be that study design influences which client factors are predictive of therapy outcome. Studies 4 and 5 were conducted in the context of a pragmatic RCT set in the NHS IAPT service rather than RCTs set in academic centres as many of the systematic review studies were. Such unpredictability in the role of client factors creates difficulty in estimating the correct level of power and sample size based on an unknown number of client factors in regression models such as those in Studies 4 and 5. Hence, although the present research advanced understanding of the role of expected engagement in therapy outcome, there is still much research to be conducted to improve knowledge of other client factors’ roles in therapy outcome.

**7.3 Contributions to the field**

The present research furthers the knowledge of “what works for whom”, which aims to provide optimal treatment for the individual (Norcross & Wampold, 2011; Schleidgen, Klingler, Bertram, Rogowski, & Marckmann, 2013). There are several evidence-based therapies that have been shown to be effective and are recommended for the treatment of depression in the UK, including CBT, interpersonal psychotherapy, behavioural couples therapy, counselling and brief dynamic therapy (National Institute for Clinical Excellence, 2004, 2009, 2011).However, for those who do not respond to standard treatments, it is important to explore alternative therapies that may be better suited to them as an individual. Therapy matched to relevant client factors and quality of therapeutic relationship has been found to account for up to 90% of the variance in therapy outcome (Beutler et al., 1999). With this in mind, this thesis focussed on the development of a measure which is able to differentiate between expected engagement with alternative therapies so that it can be used for prescriptive treatment.

The concept of expected engagement builds on a promising existing literature base that shows other forms of expectations and engagement to predict therapy outcome (Baekeland & Lundwall, 1975; Glenn et al., 2013; Gomes-Schwartz, 1978; Mooney, Gibbons, Gallop, Mack, & Crits-Christoph, 2014; Persons, Burns & Perloff, 1988). Recent recommendations have noted the importance of the client’s perception of their own treatment outcome and the ShEETS aims to build on this by combining client expectations with the specific techniques of different therapies to devise an evidence-based clinical tool (Norcross & Wampold, 2011).

The present research is very timely, as it advocates a personalised, or precision, medicine approach which is fast becoming a priority for healthcare authorities (Cohen & DeRubeis, 2018; Hamburg & Collins, 2010; Katsnelson, 2013). Personalised medicine is important in its very essence of recognising the individuality of the client and allowing the client to have an active role in their treatment. Cuijpers et al. (2012) conducted a systematic review that revealed some basic differences in outcome for depressed clients who received medication, psychotherapy or both. The research in this thesis extends personalised medicine beyond physical healthcare to a clinical context for the treatment of depression with talking therapies.

Another implication of the current research is that interventions could be developed to improve expected engagement. Previous research has shown an increase in expectancy in approximately half of clients after manipulation of their expectations (Tinsley, Bowman, & Ray, 1988). Expectations are a particularly valuable client factor as they are malleable and can be improved prior to therapy so that outcomes may be improved (Nock & Kazdin, 2001). Hence, the utility of expected engagement is not limited to predicting therapy outcome but could also be used to improve clients’ expectations of therapy**.**

**7.4 Limitations and future research**

There is much potential for future research that has arisen from the development of the ShEETS. To date, the ShEETS has only been clinically validated and tested for reliability with a university sample and a moderately to severely depressed sample of patients in a pragmatic RCT. To be appropriate for use in a range of clinical contexts as intended, the ShEETS requires further testing with samples of differing severities and mental health issues and in the context of different interventions. Furthermore, the sample was restricted to clients in the Sheffield IAPT service. Future research could aim to confirm the generalisability of the ShEETS to other regions and services through further testing.

An important consideration is to what extent the effect of expected engagement on therapy outcome can be attributed to alternative therapeutic processes. As suggested previously, the therapy process of CBT may have mediated, rather than moderated, the relationship between expected engagement and symptomatic improvement in Study 4. Further research is recommended which explores whether the CBT therapeutic process mediates the relationship between expected engagement and symptomatic improvement.

The present research failed to find a mediating effect of engagement between expected engagement and symptomatic improvement. This could be for several reasons, including the timing of the session that was rated for engagement. As discussed in the previous chapter, session two may have been too early in the therapeutic process for clients to fully engage with therapy, which may have created an inaccurate depiction of the overall level of engagement. Future research should look to rate engagement in mid-therapy sessions and test the mediating effect of mid, rather than early, observed engagement.

A potential limitation is that the ShEETS, as with any other therapy-matching tool, can only be used for therapy-matching when there is a choice of therapies available to the client. However, as there becomes more of a focus on personalised medicine in mental healthcare, it may be that choice of therapy becomes more common. Hence, the ShEETS and other methods of therapy outcome prediction may increase in utility as mental healthcare progresses.

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**Appendix A: Literature Search Terms**

|  |  |
| --- | --- |
| Search engine | Search (S) terms |
| Cochrane | S1 (patient near/5 factor\*.ti.ab.kw) |
| S2 (client near/5 factor\*ti.ab.kw) |
| S3 (patient near/5 characteristic\*ti.ab.kw) |
| S4 (client near/5 characteristic\*ti.ab.kw) |
| S5 (predispos\* near/5 factor\*ti.ab.kw) |
| S6 (predispos\* near/5 characteristic\*ti.ab.kw) |
| S7 (patient near/5 facet\*.ti.ab.kw) |
| S8 (client near/5 facet\*.ti.ab.kw) |
| S9 (predictor\* near/5 differential near/5 response.ti.ab.kw) |
| S10 (patient-treatment near/5 fit.ti.ab.kw) |
| S11 (client-treatment near/5 fit.ti.ab.kw) |
| S12 (patient near/5 variable\*.ti.ab.kw) |
| S13 (client near/5 variable.ti.ab.kw) |
| S14 (\*therap\*.ti.ab.kw) |
| S15 (depress\*.ti.ab.kw) |
| S16 (S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 and S14 and S15) |
| MEDline | S1 (predictor near 5 differential next response.ti.) |
| S2 (predictor near 5 differential next response.ab.) |
| S3 (patient-treatment near 5 fit.ab.) |
| S4 (patient-treatment near 5 fit.ti). |
| S5 (patient near 5 variable.ab.) |
| S6 (patient near 5 variable.ti.) |
| S7 (client near 5 variable.ab.) |
| S8 (client near 5 variable.ti.) |
| S9 (patient near 5 factor.ab.) |
| S10 (patient near 5 factor.ti.) |
| S11 (client near 5 factor.ab.) |
| S12 (client near 5 factor.ti.) |
| S13 (patient near 5 characteristic.ab.) |
| S14 (patient near 5 characteristic.ti.) |
| S15 (client near 5 characteristic.ab.) |
| S16 (client near 5 characteristic.ti.) |
| S17 (predispos near 5 factor.ab.) |
| S18 (predispos near 5 factor.ti.) |
| S19 (predispos near 5 characteristic.ab.) |
| S20 (predispos near 5 characteristic.ti.) |
| S21 (patient near 5 facet.ab.) |
| S22 (patient near 5 facet.ti.) |
| S23 (client near 5 facet.ab.) |
| S24 (client near 5 facet.ti.) |
| S25 (client-treatment near 5 fit.ab.) |
| S26 (client-treatment near 5 fit.ti.) |
| S27 (depress.ab.) |
| S28 (depress.ti.) |
| S29 (therap.ab.) |
| S30 (therap.ti.) |
| S31 (S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20 or S21 or S22 or S23 or S24 or S25 or S26 and S27 (or S28) and S29 (or S30)) |
| PubMed | S1 (client factor\*[Title/Abstract]) |
| S2 (patient factor\*[Title/Abstract]) |
| S3 (patient characteristic\*[Title/Abstract]) |
| S4 (client characteristic\*[Title/Abstract]) |
| S5 ((predispos\*) and (factor\*[Title/Abstract])) |
| S6 ((predispos\*) AND (characteristic\*[Title/Abstract])) |
| S7 (patient facet\*[Title/Abstract]) |
| S8 (client facet\*[Title/Abstract]) |
| S9 ((predictor\*) and (of differential response[Title/Abstract])) |
| S10 (patient-treatment fit[Title/Abstract])) |
| S11 (client-treatment fit[Title/Abstract]) |
| S12 (client variable\*[Title/Abstract]) |
| S13 (patient variable\*[Title/Abstract]) |
| S14 (depress\*[Title/Abstract]) |
| S15 (\*therap\*[Title/Abstract])  S16 (S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 and S14 and S15) |
| Cinahl | S1 (TI patient N5 facet\*) |
| S2 (AB patient N5 facet\*) |
| S3 (TI client N5 facet\*) |
| S4 (AB client N5 facet\*) |
| S5 (TI predictor\* N5 differential N5 response) |
| S6 (AB predictor\* N5 differential N5 response) |
| S7 (TI patient-treatment N5 fit) |
| S8 (AB patient-treatment N5 fit) |
| S9 (TI client-treatment N5 fit) |
| S10 (AB client-treatment N5 fit) |
| S11 (TI patient N5 variable\*) |
| S12 (AB patient N5 variable\*) |
| S13 (TI patient N5 factor\*) |
| S14 (AB patient N5 factor\*) |
| S15 (TI client N5 factor\*) |
| S16 (AB client N5 factor\*) |
| S17 (TI patient N5 characteristic\*) |
| S18 (AB patient N5 characteristic\*) |
| S19 (TI client N5 characteristic\*) |
| S20 (AB client N5 characteristic\*) |
| S21 (TI predispos\* N5 factor\*) |
| S22 (AB predispos\* N5 factor\*) |
| S23 (TI predispos\* N5 characteristic\*) |
| S24 (AB predispos\* N5 characteristic\*) |
| S25 (TI client N5 variable\*) |
| S26 (AB client N5 variable\*) |
| S27 (TI depress\*) |
| S28 (AB depress\*) |
| S29 (TI \*therap\*) |
| S30 (AB \*therap\*) |
| S31 (S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or S12 or S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20 or S21 or S22 or S23 or S24 or S25 or S26 and S27 (or S28) and S29 (or S30)) |
| PsycArticles | S1 (client characteristic.ab) |
| S2 (client factor.ab) |
| S3 (patient factor.ab) |
| S4 (patient characteristic.ab) |
| S5 (patient facet.ab) |
| S6 (client facet.ab) |
| S7 (predictor of differential response.ab) |
| S8 (patient treatment fit.ab) |
| S9 (client treatment fit.ab) |
| S10 (patient variable.ab) |
| S11 (client variable.ab) |
| S12 (predispos\* adj5 factor.ab) |
| S13 (predispose\* adj5 characteristic.ab) |
| S14 (client characteristic.ti) |
| S15 (client factor.ti) |
| S16 (patient factor.ti) |
| S17 (patient characteristic.ti) |
| S18 (patient facet.ti) |
| S19 (client facet.ti) |
| S20 (predictor of differential response.ti) |
| S21 (patient treatment fit.ti) |
| S22 (client treatment fit.ti) |
| S23 (patient variable.ti) |
| S24 (client variable.ti) |
| S25 (predispos\* adj5 factor.ti) |
| S26 (predispose\* adj5 characteristic.ti) |
| S27 (client characteristic.id) |
| S28 (client factor.id) |
| S29 (patient factor.id) |
| S30 (patient characteristic.id) |
| S31 (patient facet.id) |
| S32 (client facet.id) |
| S33 (predictor of differential response.id) |
| S34 (patient treatment fit.id) |
| S35 (client treatment fit.id) |
| S36 (patient variable.id) |
| S37 (client variable.id) |
| S38 (predispos\* adj5 factor.id) |
| S39 (predispose\* adj5 characteristic.id) |
| S40 (depress\*.ab) |
| S41 (depress\*.ti) |
| S42 (depress\*.id) |
| S43 (\*therap\*.ab) |
| S44 (\*therap\*.ti) |
| S45 (\*therap\*.id) |
| S46 (S1 or S2 or S3 or S4 or S5 or S6 or S7 or S8 or S9 or S10 or S11 or s12 or S13 or S14 or S15 or S16 or S17 or S18 or S19 or S20 or S21 or S22 or S23 or S24 or S25 or S26 or S27 or S28 or S29 or S30 or S31 or S32 or S33 or S34 or S35 or S36 or S37 or S38 or S39 and S40 (or S41 or S42) and S43 (or S44 or S45)) |

**Appendix B: Table of Abbreviations**

|  |  |
| --- | --- |
| Abbreviation | Full Name |
| BAT | Behavioural Activation Therapy |
| BRIT | Brief Relational Insight Therapy |
| BSP | Brief Supportive Psychotherapy |
| BT | Behaviour Therapy |
| CBASP | Cognitive Behavioural Analysis System of Psychotherapy |
| CBT | Cognitive Behavioural Therapy |
| C-CT | Continuation phase Cognitive Therapy |
| CT | Cognitive Therapy |
| FEP | Focussed Expressive Psychotherapy |
| IPT | Interpersonal Therapy |
| PC | Pastoral Counselling |
| PDT | Psychodynamic Therapy |
| PIT | Psychodynamic Interpersonal Therapy |
| PST | Problem-Solving Therapy |
| RT | Reminiscence Therapy |
| SBFT | Systemic Behaviour Family Therapy |
| SEDP | Supportive Expressive Dynamic Therapy |
| SEFT | Supportive Emotion Focussed Therapy |
| SEGT | Supportive Expressive Group Therapy |

**Appendix C: Systematic Review-Quality Assessment Scoring Breakdown**

*Systematic Review-Quality Assessment Scoring Breakdown Cont.*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Reporting | Clear main outcomes | Patient characteristics | Intervention description | Distribution of confounders | Clear results | Random variability | Adverse events | Lost to follow up | *P* values | *Reporting Total (%)* |
| Carter et al (2011) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | N/A | 1 | 100 |
| Vittengl et al (2015) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 1 | 1 | 1 | 100 |
| Arnow et al (2007) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | N/A | 1 | 100 |
| Menchetti et al (2013) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 1 | 1 | 0 | 89 |
| Arnow et al (2003) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | N/A | 1 | 100 |
| Manber et al (2008) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | N/A | 1 | 100 |
| Harkness et al (2012) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | N/A | 1 | 100 |
| Van et al (2008) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | N/A | 1 | 90 |
| Frank et al (2011) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 1 | N/A | 1 | 100 |
| Coffman et al (2007) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | N/A | 1 | 90 |
| Button et al (2012) | 1 | 1 | 1 | 0 | N/A | 1 | 1 | 0 | 1 | 1 | 78 |
| Lorenzo-Luaces et al (2014) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 0 | N/A | 0 | 75 |
| Hopko et al (2015) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 0 | 0 | 0 | 67 |
| Stulz et al (2010) | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | N/A | 1 | 80 |
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| *Systematic Review-Quality Assessment Scoring Breakdown Cont.* | | | | | | | | | | | | |  |  | |  | |  |
| Study | | Reporting | Clear main outcomes | Patient characteristics | | Intervention description | Distribution of confounders | | Clear results | Random variability | | | Adverse events | Lost to follow up | | *P* values | | *Reporting Total (%)* |
| Areán et al (2005) | | 1 | 1 | 1 | | 1 | 2 | | 1 | 1 | | | 0 | 1 | | 1 | | 91 |
| Schulberg et al (1998) | | 1 | 1 | 1 | | 1 | 2 | | 1 | 1 | | | 0 | 1 | | 1 | | 91 |
| Simons et al (1995) | | 1 | 1 | 1 | | 1 | N/A | | 1 | 1 | | | 0 | N/A | | 0 | | 75 |
| Kuyken et al (2001) | | 1 | 1 | 0 | | 1 | 2 | | 1 | 1 | | | 0 | N/A | | 0 | | 70 |
| Blatt et al (1995) | | 1 | 1 | 1 | | 1 | 2 | | 0 | 1 | | | 0 | N/A | | 1 | | 80 |
| Leykin et al (2007) | | 1 | 1 | 1 | | 1 | N/A | | 0 | 0 | | | 0 | N/A | | 0 | | 50 |
| Beutler et al (1993) | | 1 | 1 | 1 | | 1 | 2 | | 1 | 1 | | | 1 | 1 | | 0 | | 91 |
| Burns & Nolen-Hoeksema (1991) | | 1 | 1 | 0 | | 1 | N/A | | 1 | 1 | | | 0 | 1 | | 1 | | 78 |
| Mohr et al (2000) | | 1 | 1 | 1 | | 1 | 2 | | 1 | 1 | | | 0 | N/A | | 1 | | 90 |
| Barber & Muenz (1996) | | 1 | 1 | 1 | | 1 | 2 | | 1 | 1 | | | 0 | N/A | | 1 | | 90 |
| de Graaf et al (2010) | | 1 | 1 | 1 | | 1 | 0 | | 0 | 1 | | | 0 | 1 | | 0 | | 55 |
| Dobkin et al (2012) | | 1 | 1 | 1 | | 1 | N/A | | 1 | 1 | | | 0 | 0 | | 1 | | 78 |
| Beutler et al (1991) | | 1 | 1 | 1 | | 1 | 2 | | 1 | 1 | | | 1 | 0 | | 0 | | 82 |
| Kolko et al (2000) | | 1 | 1 | 1 | | 1 | 2 | | 1 | 1 | | | 0 | 0 | | 0 | | 73 |
| Shapiro et al (1994) | 1 | | 1 | 1 | 1 | | 2 | 1 | | | 1 | 0 | | | 0 | | 1 | 82 |
| Jarrett et al (2013) | 1 | | 1 | 1 | 1 | | N/A | 0 | | | 1 | 0 | | | N/A | | 1 | 75 |
| McEvoy et al (2013) | 1 | | 1 | 1 | 1 | | N/A | 1 | | | 1 | 0 | | | N/A | | 0 | 75 |
| Webb et al (2014) | 1 | | 1 | 1 | 1 | | N/A | 1 | | | 1 | 0 | | | N/A | | 0 | 75 |
| Zlotnick et al (1998) | 1 | | 1 | 1 | 1 | | 1 | 1 | | | 1 | 0 | | | N/A | | 1 | 80 |
| Propst et al (1992) | 1 | | 1 | 1 | 1 | | 2 | 1 | | | 1 | 0 | | | 1 | | 0 | 82 |
| Beutler et al (1987) | 1 | | 1 | 1 | 1 | | 2 | 1 | | | 1 | 0 | | | 1 | | 0 | 82 |
| Bagby et al (2008) | 1 | | 1 | 1 | 1 | | N/A | 0 | | | 0 | 0 | | | N/A | | 1 | 63 |
| Siegle et al (2012) | 1 | | 1 | 0 | 1 | | N/A | 1 | | | 0 | 0 | | | N/A | | 1 | 63 |
| Vittengl et al (2010) | 1 | | 1 | 1 | 1 | | N/A | 0 | | | 1 | 0 | | | 0 | | 0 | 56 |

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| *Systematic Review-Quality Assessment Scoring Breakdown Cont.* | | | | | | | |  |  |  |  |
| Study | Reporting | Clear main outcomes | Patient characteristics | Intervention description | Distribution of confounders | Clear results | Random variability | Adverse events | Lost to follow up | *P* values | *Reporting Total (%)* |
| Shankman et al (2013) | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | N/A | 0 | 70 |
| Merrill et al (2003) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | N/A | 0 | 70 |
| Hart et al (2008) | 1 | 1 | 1 | 1 | N/A | 0 | 1 | 0 | 1 | 0 | 67 |
| Lewis et al (2012) | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 0 | N/A | 0 | 60 |
| Hardy et al (2001) | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | N/A | 0 | 50 |
| Siddique et al (2012) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 0 | 0 | 1 | 78 |
| Tsai et al (2014) | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 1 | 73 |
| Huibers et al (2014) | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 64 |
| Hogg & Deffenbacher (1988) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 73 |
| Hardy et al (1998) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 73 |
| Steinert et al (2015) | 1 | 1 | 0 | 1 | N/A | 1 | 0 | 0 | 0 | 0 | 44 |
| Steinmetz et al (1983) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 0 | 0 | 0 | 67 |
| Rossello et al (1999) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 1 | 0 | 82 |
| Areán et al (1993) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 73 |
| Barber et al (2014) | 1 | 1 | 0 | 1 | N/A | 1 | 1 | 0 | N/A | 1 | 75 |
| Thompson et al (1987) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | N/A | 0 | 80 |
| Steuer et al (1984) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | N/A | 0 | 80 |
| Marquett et al (2013) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | N/A | 0 | 70 |
| Mohr et al (2001) | 1 | 1 | 1 | 1 | 2 | 0 | 1 | 0 | 1 | 1 | 82 |
| Gallagher & Thompson (1982) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 64 |
| Jacobson et al (1993) | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 64 |
| Sotsky et al (1991) | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | N/A | 0 | 40 |
| Gaston et al (1989) | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | N/A | 0 | 60 |
| Schindler et al (2013) | 1 | 1 | 1 | 0 | N/A | 1 | 1 | 0 | N/A | 1 | 75 |
| Rohde et al (1994) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | N/A | 0 | 70 |

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| *Systematic Review-Quality Assessment Scoring Breakdown* | | | | | | | | |
| Study | Representative sample | Representative participants | Representative treatment | *External Validity Total (%)* | Blinded participants | Blinded researchers | Data dredging |
| Carter et al (2011) | 1 | 0 | 1 | 67 | N/A | 1 | 1 |
| Vittengl et al (2015) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Arnow et al (2007) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Menchetti et al (2013) | 0 | 1 | 0 | 33 | N/A | 1 | 1 |
| Arnow et al (2003) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Manber et al (2008) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Harkness et al (2012) | 0 | 1 | 1 | 67 | N/A | 1 | 1 |
| Van et al (2008) | 1 | 0 | 1 | 67 | N/A | 1 | 1 |
| Frank et al (2011) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Coffman et al (2007) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Button et al (2012) | 0 | 1 | 0 | 33 | N/A | 1 | 1 |
| Lorenzo-Luaces et al (2014) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Hopko et al (2015) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Stulz et al (2010) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |

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| *Systematic Review-Quality Assessment Scoring Breakdown* | | | | | | |  |
| Study | Representative sample | Representative participants | Representative treatment | *External Validity Total (%)* | Blinded participants | Blinded researchers | Data dredging |
| Areán et al (2005) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Schulberg et al (1998) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Simons et al (1995) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Kuyken et al (2001) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Blatt et al (1995) | 1 | 0 | 1 | 67 | N/A | 1 | 1 |
| Leykin et al (2007) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Beutler et al (1993) | 0 | 1 | 1 | 67 | N/A | 0 | 1 |
| Burns & Nolen-Hoeksema (1991) | 1 | 0 | 0 | 33 | N/A | N/A | 1 |
| Mohr et al (2000) | 1 | 0 | 1 | 67 | N/A | 0 | 1 |
| Barber & Muenz (1996) | 1 | 0 | 1 | 67 | N/A | 1 | 1 |
| de Graaf et al (2010) | 1 | 0 | 1 | 67 | N/A | 0 | 1 |
| Dobkin et al (2012) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Beutler et al (1991) | 0 | 1 | 1 | 67 | N/A | 0 | 1 |
| Kolko et al (2000) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Shapiro et al (1994) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Jarrett et al (2013) | 0 | 1 | 0 | 33 | N/A | N/A | 1 |
| McEvoy et al (2013) | 1 | 0 | 0 | 33 | N/A | N/A | 1 |
| Webb et al (2014) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Zlotnick et al (1998) | 1 | 0 | 1 | 67 | N/A | 1 | 1 |
| Propst et al (1992) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Beutler et al (1987) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Bagby et al (2008) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Siegle et al (2012) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Vittengl et al (2010) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |

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| *Systematic Review-Quality Assessment Scoring Breakdown Cont.* | | | | | | |  |
| Study | Representative sample | Representative participants | Representative treatment | *External Validity Total (%)* | Blinded participants | Blinded researchers | Data dredging |
| Shankman et al (2013) | 0 | 0 | 0 | 0 | N/A | 1 | 1 |
| Merrill et al (2003) | 0 | 0 | 0 | 0 | N/A | N/A | 1 |
| Hart et al (2008) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Lewis et al (2012) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Hardy et al (2001) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Siddique et al (2012) | 0 | 0 | 0 | 0 | N/A | 1 | 1 |
| Tsai et al (2014) | 0 | 0 | 0 | 0 | N/A | N/A | 1 |
| Huibers et al (2014) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Hogg & Deffenbacher (1988) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Hardy et al (1998) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Steinert et al (2015) | 1 | 0 | 1 | 67 | N/A | N/A | 1 |
| Steinmetz et al (1983) | 0 | 0 | 1 | 33 | N/A | N/A | 1 |
| Rossello et al (1999) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Areán et al (1993) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Barber et al (2014) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Thompson et al (1987) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Steuer et al (1984) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Marquett et al (2013) | 0 | 0 | 0 | 0 | N/A | N/A | 0 |
| Mohr et al (2001) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Gallagher & Thompson (1982) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Jacobson et al (1993) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |
| Sotsky et al (1991) | 1 | 0 | 1 | 67 | N/A | 1 | 1 |
| Gaston et al (1989) | 1 | 0 | 1 | 67 | N/A | 0 | 1 |
| Schindler et al (2013) | 0 | 0 | 0 | 0 | N/A | N/A | 1 |
| Rohde et al (1994) | 0 | 0 | 1 | 33 | N/A | 0 | 1 |

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| *Systematic Review-Quality Assessment Scoring Breakdown Cont.* | | | | | |
| Study | Follow up time | Appropriate statistics | Intervention compliance | Reliable outcome measures | *Internal Validity (Bias) Total (%)* |
| Carter et al (2011) | N/A | 1 | 1 | 1 | 100 |
| Vittengl et al (2015) | 1 | 1 | 1 | 1 | 100 |
| Arnow et al (2007) | N/A | 1 | 1 | 1 | 100 |
| Menchetti et al (2013) | N/A | 1 | 1 | 1 | 100 |
| Arnow et al (2003) | N/A | 1 | 1 | 1 | 100 |
| Manber et al (2008) | N/A | 1 | 1 | 1 | 100 |
| Harkness et al (2012) | N/A | 1 | 0 | 1 | 80 |
| Van et al (2008) | N/A | 1 | 0 | 1 | 80 |
| Frank et al (2011) | N/A | 1 | 1 | 1 | 80 |
| Coffman et al (2007) | N/A | 1 | 1 | 1 | 100 |
| Button et al (2012) | N/A | 1 | 1 | 1 | 100 |
| Lorenzo-Luaces et al (2014) | N/A | 1 | 0 | 1 | 80 |
| Hopko et al (2015) | N/A | 1 | 1 | 1 | 100 |
| Stulz et al (2010) | N/A | 1 | 1 | 1 | 100 |

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| *Systematic Review-Quality Assessment Scoring Breakdown Cont.* | | | | | |  |  |  |  |  |  |
| Study | Follow up time | Appropriate statistics | Intervention compliance | Reliable outcome measures | *Internal Validity (Bias) Total (%)* |
| Areán et al (2005) | 1 | 1 | 1 | 1 | 100 |
| Schulberg et al (1998) | 1 | 1 | 0 | 1 | 83 |
| Simons et al (1995) | N/A | 1 | 1 | 1 | 100 |
| Kuyken et al (2001) | N/A | 1 | 1 | 1 | 100 |
| Blatt et al (1995) | N/A | 1 | 0 | 1 | 80 |
| Leykin et al (2007) | N/A | 1 | 1 | 1 | 100 |
| Beutler et al (1993) | 1 | 1 | 1 | 1 | 83 |
| Burns & Nolen-Hoeksema (1991) | N/A | 1 | 0 | 1 | 75 |
| Mohr et al (2000) | N/A | 1 | 0 | 1 | 60 |
| Barber & Muenz (1996) | N/A | 1 | 0 | 1 | 80 |
| de Graaf et al (2010) | 1 | 1 | 0 | 1 | 67 |
| Dobkin et al (2012) | N/A | 1 | 0 | 1 | 80 |
| Beutler et al (1991) | 1 | 1 | 1 | 1 | 83 |
| Kolko et al (2000) | 1 | 1 | 1 | 1 | 100 |
| Shapiro et al (1994) | 1 | 1 | 0 | 1 | 67 |
| Jarrett et al (2013) | N/A | 1 | 0 | 1 | 75 |
| McEvoy et al (2013) | N/A | 1 | 0 | 1 | 75 |
| Webb et al (2014) | N/A | 1 | 0 | 1 | 75 |
| Zlotnick et al (1998) | N/A | 1 | 0 | 1 | 80 |
| Propst et al (1992) | 1 | 1 | 0 | 1 | 83 |
| Beutler et al (1987) | 1 | 1 | 0 | 1 | 83 |
| Bagby et al (2008) | N/A | 1 | 0 | 1 | 75 |
| Siegle et al (2012) | N/A | 1 | 0 | 1 | 75 |
| Vittengl et al (2010) | 1 | 1 | 1 | 1 | 100 |

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| *Systematic Review-Quality Assessment Scoring Breakdown Cont.* | | |  |  |  |
| Study | Follow up time | Appropriate statistics | Intervention compliance | Reliable outcome measures | *Internal Validity (Bias) Total (%)* |
| Shankman et al (2013) | N/A | 1 | 0 | 1 | 80 |
| Merrill et al (2003) | N/A | 1 | 1 | 1 | 100 |
| Hart et al (2008) | N/A | 1 | 0 | 1 | 75 |
| Lewis et al (2012) | N/A | 1 | 1 | 1 | 100 |
| Hardy et al (2001) | N/A | 1 | 1 | 1 | 100 |
| Siddique et al (2012) | N/A | 1 | 0 | 1 | 80 |
| Tsai et al (2014) | N/A | 1 | 0 | 1 | 75 |
| Huibers et al (2014) | 1 | 1 | 0 | 1 | 80 |
| Hogg & Deffenbacher (1988) | 1 | 1 | 0 | 1 | 67 |
| Hardy et al (1998) | 1 | 1 | 1 | 1 | 83 |
| Steinert et al (2015) | N/A | 1 | 1 | 1 | 100 |
| Steinmetz et al (1983) | N/A | 1 | 0 | 1 | 75 |
| Rossello et al (1999) | 1 | 1 | 0 | 1 | 67 |
| Areán et al (1993) | 1 | 1 | 0 | 1 | 83 |
| Barber et al (2014) | N/A | 1 | 0 | 1 | 60 |
| Thompson et al (1987) | N/A | 1 | 0 | 1 | 60 |
| Steuer et al (1984) | N/A | 1 | 0 | 1 | 60 |
| Marquett et al (2013) | N/A | 1 | 0 | 1 | 50 |
| Mohr et al (2001) | 0 | 1 | 0 | 1 | 50 |
| Gallagher & Thompson (1982) | 1 | 1 | 0 | 1 | 83 |
| Jacobson et al (1993) | 1 | 1 | 1 | 1 | 83 |
| Sotsky et al (1991) | N/A | 1 | 0 | 1 | 80 |
| Gaston et al (1989) | N/A | 1 | 0 | 1 | 60 |
| Schindler et al (2013) | N/A | 1 | 0 | 0 | 50 |
| Rohde et al (1994) | N/A | 1 | 0 | 1 | 60 |

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| *Systematic Review-Quality Assessment Scoring Breakdown Cont.* | | | | | | | | | |
| Study | Selection bias | Time selection bias | Randomised | Blind randomisation | Adjusted confounders | Losses to follow up accounted for | *Internal Validity (Confounding) Total (%)* | Power | *Power Total (%)* |
| Carter et al (2011) | 1 | 0 | 1 | 1 | 1 | N/A | 80 | 1 | 100 |
| Vittengl et al (2015) | N/A | N/A | N/A | 0 | N/A | 1 | 50 | 1 | 100 |
| Arnow et al (2007) | 1 | 1 | 1 | 0 | 1 | N/A | 80 | 0 | 0 |
| Menchetti et al (2013) | N/A | N/A | N/A | 1 | N/A | 0 | 50 | 1 | 100 |
| Arnow et al (2003) | 1 | 1 | 1 | 0 | 0 | N/A | 60 | 0 | 0 |
| Manber et al (2008) | 1 | 1 | 1 | 0 | 0 | N/A | 60 | 0 | 0 |
| Harkness et al (2012) | 0 | 1 | 1 | 0 | 1 | N/A | 60 | 0 | 0 |
| Van et al (2008) | 1 | 1 | 1 | 0 | 1 | N/A | 80 | 0 | 0 |
| Frank et al (2011) | N/A | N/A | N/A | 0 | N/A | N/A | 0 | 1 | 100 |
| Coffman et al (2007) | 0 | 1 | 1 | 1 | 0 | N/A | 60 | 0 | 0 |
| Button et al (2012) | N/A | N/A | N/A | 1 | N/A | 1 | 100 | 0 | 0 |
| Lorenzo-Luaces et al (2014) | N/A | N/A | N/A | 1 | N/A | N/A | 100 | 1 | 100 |
| Hopko et al (2015) | N/A | N/A | N/A | N/A | N/A | 1 | 100 | 1 | 100 |
| Stulz et al (2010) | 1 | 1 | 1 | 0 | 0 | N/A | 60 | 0 | 0 |

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| *Systematic Review-Quality Assessment Scoring Breakdown* | | | | | | | | | |
| Study | Selection bias | Time selection bias | Randomised | Blind randomisation | Adjusted confounders | Losses to follow up accounted for | *Internal Validity (Confounding) Total (%)* | Power | *Power Total (%)* |
| Areán et al (2005) | 0 | 0 | 1 | 0 | 1 | 0 | 33 | 0 | 0 |
| Schulberg et al (1998) | 0 | 0 | 1 | 0 | 1 | 1 | 50 | 0 | 0 |
| Simons et al (1995) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0 | 0 |
| Kuyken et al (2001) | N/A | N/A | N/A | N/A | 1 | N/A | 100 | 0 | 0 |
| Blatt et al (1995) | 0 | 0 | 1 | 0 | 0 | N/A | 20 | 1 | 100 |
| Leykin et al (2007) | N/A | N/A | N/A | 1 | N/A | N/A | 100 | 1 | 100 |
| Beutler et al (1993) | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 0 |
| Burns & Nolen-Hoeksema (1991) | N/A | N/A | N/A | N/A | N/A | 1 | 100 | 0 | 0 |
| Mohr et al (2000) | 0 | 0 | 1 | 0 | 1 | N/A | 40 | 0 | 0 |
| Barber & Muenz (1996) | 0 | 0 | 0 | 0 | 1 | N/A | 20 | 0 | 0 |
| de Graaf et al (2010) | 1 | 1 | 1 | 1 | 1 | 0 | 83 | 1 | 100 |
| Dobkin et al (2012) | N/A | N/A | N/A | 0 | N/A | 0 | 0 | 1 | 100 |
| Beutler et al (1991) | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 0 |
| Kolko et al (2000) | 0 | 0 | 1 | 0 | 1 | 0 | 33 | 0 | 0 |
| Shapiro et al (1994) | 0 | 0 | 1 | 0 | 1 | 0 | 33 | 1 | 100 |
| Jarrett et al (2013) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0 | 0 |
| McEvoy et al (2013) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0 | 0 |
| Webb et al (2014) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0 | 0 |
| Zlotnick et al (1998) | 0 | 0 | 1 | 0 | 0 | N/A | 20 | 0 | 0 |
| Propst et al (1992) | 0 | 0 | 1 | 0 | 0 | 0 | 20 | 0 | 0 |
| Beutler et al (1987) | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Bagby et al (2008) | N/A | N/A | N/A | N/A | 0 | N/A | 0 | 1 | 100 |
| Siegle et al (2012) | N/A | N/A | N/A | N/A | 1 | N/A | 100 | 0 | 0 |
| Vittengl et al (2010) | 0 | 0 | 1 | 0 | N/A | 0 | 20 | 1 | 100 |

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| *Systematic Review-Quality Assessment Scoring Breakdown Cont.* | | | | | | | | | |
| Study | Selection bias | Time selection bias | Randomised | Blind randomisation | Adjusted confounders | Losses to follow up accounted for | *Internal Validity (Confounding) Total (%)* | Power | *Power Total (%)* |
| Shankman et al (2013) | 1 | 1 | 1 | 0 | 0 | N/A | 60 | 0 | 0 |
| Merrill et al (2003) | N/A | N/A | N/A | N/A | 0 | N/A | 0 | 0 | 0 |
| Hart et al (2008) | N/A | 0 | N/A | N/A | N/A | 1 | 50 | 0 | 0 |
| Lewis et al (2012) | N/A | N/A | N/A | N/A | 0 | N/A | 0 | 0 | 0 |
| Hardy et al (2001) | N/A | N/A | N/A | N/A | 1 | N/A | 100 | 0 | 0 |
| Siddique et al (2012) | N/A | N/A | N/A | 0 | 0 | 1 | 33 | 0 | 0 |
| Tsai et al (2014) | N/A | N/A | N/A | N/A | 0 | 1 | 50 | 0 | 0 |
| Huibers et al (2014) | 1 | 0 | 0 | N/A | 1 | 0 | 40 | 0 | 0 |
| Hogg & Deffenbacher (1988) | 1 | 1 | 0 | 0 | 0 | 0 | 33 | 0 | 0 |
| Hardy et al (1998) | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 0 |
| Steinert et al (2015) | NA | NA | NA | NA | NA | 0 | 0 | 0 | 0 |
| Steinmetz et al (1983) | N/A | N/A | N/A | N/A | N/A | 0 | 0 | 0 | 0 |
| Rossello et al (1999) | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 0 |
| Areán et al (1993) | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 0 |
| Barber et al (2014) | N/A | N/A | N/A | 0 | N/A | N/A | 0 | 0 | 0 |
| Thompson et al (1987) | 0 | 0 | 1 | 0 | 0 | N/A | 20 | 0 | 0 |
| Steuer et al (1984) | 0 | 0 | 0 | 0 | 1 | N/A | 20 | 0 | 0 |
| Marquett et al (2013) | N/A | N/A | N/A | N/A | 1 | N/A | 100 | 0 | 0 |
| Mohr et al (2001) | 0 | 0 | 0 | 0 | 1 | 0 | 17 | 0 | 0 |
| Gallagher & Thompson (1982) | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 0 |
| Jacobson et al (1993) | 0 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 0 |
| Sotsky et al (1991) | 0 | 0 | 1 | 0 | 1 | N/A | 40 | 0 | 0 |
| Gaston et al (1989) | 0 | 0 | 1 | 0 | 0 | N/A | 20 | 0 | 0 |
| Schindler et al (2013) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 0 | 0 |
| Rohde et al (1994) | 0 | 0 | 1 | 0 | 0 | N/A | 20 | 0 | 0 |

**Appendix D: Second Rating of Quality Assessment in Systematic Review**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Reporting | Clear main outcomes | Patient characteristics | Intervention description | Distribution of confounders | Clear results | Random variability | Adverse events | Lost to follow up | *p* values | *Reporting Total (%)* |
| Vittengl et al (2015) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 1 | 0 | 1 | 89 |
| Menchetti et al (2013) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 1 | 0 | 0 | 78 |
| Manber et al (2008) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | N/A | 1 | 100 |
| Button et al (2012) | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 0 | 1 | 1 | 89 |
| Vittengl et al (2010) | 1 | 1 | 1 | 1 | N/A | 0 | 1 | 0 | 1 | 0 | 67 |
| Thompson et al (1987) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 0 | N/A | 0 | 80 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Representative sample | Representative participants | Representative treatment | *External Validity Total (%)* | Blinded participants | Blinded researchers | Data dredging |
| Vittengl et al (2015) | 0 | 0 | 0 | 0 | N/A | 1 | 1 |
| Menchetti et al (2013) | 0 | 0 | 0 | 0 | N/A | 1 | 1 |
| Manber et al (2008) | 0 | 1 | 0 | 33 | N/A | 1 | 1 |
| Button et al (2012) | 0 | 0 | 1 | 33 | N/A | 1 | 1 |
| Vittengl et al (2010) | 0 | 0 | 0 | 0 | N/A | 1 | 1 |
| Thompson et al (1987) | 1 | 0 | 0 | 33 | N/A | 0 | 1 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Study | Follow up time | Appropriate statistics | Intervention compliance | Reliable outcome measures | *Internal Validity (Bias) Total (%)* |
| Vittengl et al (2015) | 1 | 1 | 1 | 1 | 100 |
| Menchetti et al (2013) | N/A | 1 | 1 | 1 | 100 |
| Manber et al (2008) | N/A | 1 | 1 | 1 | 100 |
| Button et al (2012) | N/A | 1 | 1 | 1 | 100 |
| Vittengl et al (2010) | 1 | 1 | 1 | 1 | 100 |
| Thompson et al (1987) | N/A | 1 | 0 | 1 | 60 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study | Selection bias | Time selection bias | Randomised | Blind randomisation | Adjusted confounders | Losses to follow up accounted for | *Internal Validity (Confounding) Total (%)* | Power | *Power Total (%)* | Total Score (%) |
| Vittengl et al (2015) | N/A | N/A | N/A | 1 | N/A | 1 | 100 | 1 | 100 | 81 |
| Menchetti et al (2013) | N/A | N/A | N/A | 1 | N/A | 1 | 100 | 1 | 100 | 75 |
| Manber et al (2008) | 1 | 1 | 1 | 1 | 1 | N/A | 100 | 0 | 0 | 88 |
| Button et al (2012) | N/A | N/A | N/A | 1 | N/A | 0 | 50 | 0 | 0 | 75 |
| Vittengl et al (2010) | 1 | 1 | 1 | 0 | N/A | 1 | 80 | 1 | 100 | 71 |
| Thompson et al (1987) | 1 | 1 | 1 | 0 | 1 | N/A | 80 | 0 | 0 | 67 |

**Appendix E: Cognitive Therapy Scale-Revised (Blackburn et al., 2001)**

**The rating of the scale**

The present seven point scale (i.e. a 0-6 Likert scale) extends from (0) where the therapist did not adhere to that aspect of therapy (non-adherence) to (6) where there is adherence and very high skill. Thus the scale assesses both adherence to therapy method and skill of the therapist. To aid with the rating of items of the scale, an outline of the key features of each item is provided at the top of each section. A description of the various rating criteria is given in the right hand margin - see example below in Figure 1. Further details are provided in the accompanying manual.

The examples are intended to be used as useful guidelines only. They are not meant to be used as prescriptive scoring criteria, rather providing both illustrative anchor points and guides.

**Adjusting the scale in the presence of patient difficulties**

The scale's dimensions were devised for patients assessed as being well/moderately suited for cognitive therapy (Safran & Segal, 1990). As such, adjustments may need to be made when patient difficulties are evident (e.g. excessive avoidance). Indeed, with problematic patients it is sometimes difficult to apply CT methods successfully; that is, with desirable change. In such circumstances the rater needs to assess the therapist's therapeutic skills in the application of the methods. Thus even though the therapist may be unsuccessful at promoting change, credit should be given for demonstrations of appropriate skilful therapy.

**Figure 1: Example of the scoring layout**

Key features: this is an operationalised description of the item (see examples within the CTS-R). Mark with an 'X' on the vertical line, using whole and half numbers, the level to which you think the therapist has fulfilled the core function. The descriptive features on the right are designed to guide your decision.

N.B. When rating, take into consideration the appropriateness of therapeutic interventions for stage of therapy and perceived patient difficulty.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Absence of feature, or highly inappropriate performance |
| 1 | Inappropriate performance, with major problems evident |
| 2 | Evidence of competence, but numerous problems and lack of consistency |
| 3 | Competent, but some problems and/ or inconsistencies |
| 4 | Good features, but minor problems and/ or inconsistencies |
| 5 | Very good features, , minimal problems and/ or inconsistencies |
| 6 | Excellent performance, even in the face of patient difficulties |

The present scale has incorporated the Dreyfus system (Dreyfus, 1989) for denoting competence, which is described fully in the manual. Please note that the 'top marks (i.e. near the 'expert' end of the continuum) are reserved for those therapists demonstrating highly effective skills, particularly in the face of difficulties (i.e. highly aggressive or avoidant patients; high levels of emotional discharge from the patients; and various situational factors). The `Key Features' describe the important features that need to be considered when scoring each item. When rating the item, you must first identify whether some of the features are present. You must then consider whether the therapist should be regarded as competent with the features. If the therapist includes most of the key features and uses them appropriately (i.e. misses few relevant opportunities to use them), the therapist should be rated very highly.

The `Examples' are only guidelines and should not be regarded as absolute rating criteria.

**Scoring Distribution**

It is important to remember that the scoring profile for this scale should approximate to a normal distribution (i.e. mid-point 3), with relatively few therapists scoring at the extremes.

**Item 1 - Agenda Setting and Adherence**

Key features: To address adequately topics that have been agreed and set in an appropriate way. This involves the setting of discrete and realistic targets collaboratively. The format for setting the agenda may vary according to the stage of therapy - see manual.

Three features need to be considered when scoring this item:

1. presence/absence of an agenda which is explicit, agreed and prioritised, and feasible in the time available;
2. appropriateness of the contents of the agenda (to stage of therapy, current concerns etc.), a standing item being a review of the homework set previously
3. appropriate adherence to the agenda.

NB: Agenda setting requires collaboration and credit for this should be given here, and here alone. Collaboration occurring at any other phase of the session should be scored under Item 3 (Collaboration).

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | No agenda set, highly inappropriate agenda set, or agenda not adhered to. |
| 1 | Inappropriate agenda set (e.g. lack of focus, unrealistic, no account of patient's presentation, homework not reviewed). |
| 2 | An attempt at an agenda made, but major difficulties evident (e.g. unilaterally set). Poor adherence. |
| 3 | Appropriate agenda, which was set well, but some difficulties evident (e.g. poor collaboration). Some adherence. |
| 4 | Appropriate agenda, minor difficulties evident (e.g. no prioritisation), but appropriate features covered (e.g. review of homework). Moderate adherence. |
| 5 | Appropriate agenda set with discrete and prioritised targets - review at the end. Agenda adhered to. Minimal problems. |
| 6 | Excellent agenda set, or highly effective agenda set in the face of difficulties. |

**Item 2 – Feedback**

Key features: The patient's and therapist's understanding of key issues should be helped through the use of two-way feedback: The two major forms of feeding back information are through general summary and chunking of important units of information. The use of appropriate feedback helps both the therapist to understand the patient's situation, and the patient to synthesise material enabling him/her to gain major insight and make therapeutic shifts. It also helps to keep the patient focused.

Three features need to be considered when scoring this item:

1. presence and frequency, or absence, of feedback. Feedback should be given/elicited throughout the therapy - with major summaries both at the beginning (review of week) and end (session summary), while topic reviews (i.e. chunking) should occur throughout the session;
2. appropriateness of the contents of the feedback;
3. manner of its delivery and elicitation (NB: can be written).

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Absence of feedback or highly inappropriate feedback. |
| 1 | Minimal appropriate feedback (verbal and/or written). |
| 2 | Appropriate feedback, but not given frequently enough by therapist, with insufficient attempts to elicit and give feedback, e.g. feedback too vague to provide opportunities for understanding and change. |
| 3 | Appropriate feedback given and elicited frequently, although some difficulties evident in terms of content or method of delivery. |
| 4 | Appropriate feedback given and elicited frequently, facilitating moderate therapeutic gains. Minor problems evident (eg. inconsistent). |
| 5 | Highly appropriate feedback given and elicited regularly, facilitating shared understanding and enabling significant therapeutic gains. Minimal problems. |
| 6 | Excellent use of feedback, or highly effective feedback given and elicited regularly in the face of difficulties. |

**Item 3 - Collaboration**

Key features: The patient should be encouraged to be active in the session. There must be clear evidence of productive teamwork, with the therapist skillfully encouraging the patient to participate fully (e.g. through questioning techniques, shared problem solving and decision making) and take responsibility. However, the therapist must not allow the patient to ramble in an unstructured way.

Three features need to be considered: the therapist style should encourage effective teamwork through his/her use of:

1. verbal skills (e.g. non-hectoring);
2. non-verbal skills (e.g. attention and use of joint activities);
3. sharing of written summaries.

NB: Questioning is a central feature with regard to this item, but questions designed to facilitate reflections and self discovery should be scored under Item 9 (Guided Discovery).

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Patient is actively prevented or discouraged from being collaborative. |
| 1 | The therapist is too controlling, dominating, or passive. |
| 2 | Some occasional attempt at collaboration, but didactic style or passivity of therapist encourages passivity or other problems in the therapeutic relationship. |
| 3 | Teamwork evident, but some problems with collaborative set (e.g. not enough time allowed for the patient to reflect and participate actively). |
| 4 | Effective teamwork is evident, but not consistent. Minor problems evident. |
| 5 | Effective teamwork evident throughout most of the session, both in terms of verbal content and use of written summaries. Minimal problems. |
| 6 | Excellent teamwork, or highly effective teamwork in the face of difficulties. |

**Item 4 – Pacing and Efficient Use of Time**

Key features: The session should be well 'time managed' in relation to the agenda, with the session flowing smoothly through discrete start, middle, and concluding phases. The work must be paced well in relation to the patient's needs, and while important issues need to be followed, unproductive digressions should be dealt with smoothly. The session should not go over time, without good reason.

Three features need to be considered:

1. the degree to which the session flows smoothly through the discrete phases;
2. the appropriateness of the pacing throughout the session;
3. the degree of fit to the learning speed of the patient.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Poor time management leads either to an aimless or overly rigid session. |
| 1 | The session is too slow or too fast for the current needs and capacity of the patient. |
| 2 | Reasonable pacing, but digression or repetitions from therapist and/or patient lead to inefficient use of time; unbalanced allocation of time, over time. |
| 3 | Good pacing evident some of the time, but diffuse at times. Some problems evident. |
| 4 | Balanced allocation of time with discrete start, middle and concluding phases evident. Minor problems evident. |
| 5 | Good time management skills evident, session running smoothly. Therapist working effectively in controlling the flow within the session. Minimal problems. |
| 6 | Excellent time management, or highly effective management evident in the face of difficulties. |

**Item 5 – Interpersonal Effectiveness**

Key features: The patient is put at ease by the therapist's verbal and non-verbal (e.g. listening skills) behaviour. The patient should feel that the core conditions (i.e. warmth, genuineness, empathy and understanding) are present. However, it is important to keep professional boundaries. In situations where the therapist is extremely interpersonally effective, he/she is creative, insightful and inspirational.

Three features need to be considered:

1. empathy - the therapist is able to understand and enter the patient's feelings imaginatively and uses this understanding to promote change;
2. genuineness - the therapist has established a trusting working relationship;
3. warmth - the patient seems to feel liked and accepted by the therapist.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Therapist's manner and interventions make the patient disengage and become distrustful and/or hostile (absence of/or excessive i, ii, iii). |
| 1 | Difficulty in showing empathy, genuineness and warmth. |
| 2 | Therapist's style (e.g. intellectualisation) at times impedes his/her empathic understanding of the patient's communications. |
| 3 | The therapist is able to understand explicit meanings of patient's communications, resulting in some trust developing. Some evidence of inconsistencies in sustaining relationship. |
| 4 | The therapist is able to understand the implicit, as well as the explicit meanings of the patient's communications and demonstrates it in his/ her manner. Minor problems evident (e.g. inconsistent). |
| 5 | The therapist demonstrates very good interpersonal effectiveness. Patient appears confident that he/she is being understood, which facilitates self disclosure. Minimal problems. |
| 6 | Highly interpersonally effective, even in the face of difficulties. |

**Item 6 — Eliciting of Appropriate Emotional Expression**

Key features: The therapist facilitates the processing of appropriate levels of emotion by the patient. Emotional levels that are too high or too low are likely to interfere with therapy. The therapist must also be able to deal effectively with emotional issues which interfere with effective change (e.g. hostility, anxiety, excessive anger). Effective facilitation will enable the patient to access and express his/her emotions in a way that facilitates change.

Three features have to be considered:

1. facilitation of access to a range of emotions;
2. appropriate use and containment of emotional expression;
3. facilitation of emotional expression; encouraging appropriate access and differentiation of emotions.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Patient is under- or over stimulated (e,g, his her feelings are ignored or dismissed or allowed to reach an unmanaged pitch). Or the therapist’s own mood or strategies (e.g. intellectualization) adversely influences the session. |
| 1 | Failure to facilitate access to, and expression of, appropriate emotional expression. |
| 2 | Facilitation of appropriate emotional expression evident, but many relevant opportunities missed. |
| 3 | Some effective facilitation of appropriate emotional expression, created and/or maintained. Patient enabled to become slightly more aware. |
| 4 | Effective facilitation of appropriate emotional expression leading to the patient becoming more aware of relevant emotions. Minor problems evident. |
| 5 | Very effective facilitation of emotional expression, optimally arousing the patient’s motivation and awareness. Good expression of relevant emotions evident- done in an effective manner. Minimal problems. |
| 6 | Excellent facilitation of appropriate emotional expression, or effective facilitation in the face of difficulties. |

**Item 7 - Eliciting Key Cognitions**

Key features: To help the patient gain access to his/her cognitions (thoughts, assumptions and beliefs) and to understand the relationship between these and their distressing emotions. This can be done through the use of questioning, diaries and monitoring procedures.

Three features need to be considered:

1. eliciting cognitions that are associated with distressing emotions (i.e. selecting key cognitions or hot thoughts); ]
2. the skilfulness and breadth of the methods used (i.e. Socratic questioning; appropriate monitoring, downward arrowing, imagery, role-plays, etc.);
3. choosing the appropriate level of work for the stage of therapy (i.e. automatic thoughts, assumptions, or core beliefs).

NB: This item is concerned with the general work done with eliciting cognitions. If any specific cognitive or behavioural change methods are used, they should be scored under item 1 1 (change methods).

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Therapist fails to elicit relevant cognitions. |
| 1 | Inappropriate cognitions and emotions selected, or key cognitions/emotions ignored. |
| 2 | Some cognitions/emotions (or one key cognition, e.g. core belief) elicited, but links between cognitions and emotions not made clear to patient. |
| 3 | Some cognitions/emotions (or one key cognition) elicited in a competent way, although some problems evident. |
| 4 | A number of cognitions and emotions (or one key cognition) elicited in verbal or written form, leading to a new understanding of their relationship. Minor problems evident. |
| 5 | Effective eliciting and selection of a number of cognitions/emotions (or one key cognition), which are generally dealt with appropriately. Minimal problems. |
| 6 | Excellent work done on key cognition(s) and emotion(s), even in the face of difficulties. |

**Item 8 - Eliciting and Planning Behaviours**

Key features: To help the patient gain insight into the effect of his/her behaviours with respect to the problems. This can be done through the use of questioning; diaries and monitoring procedures. The therapist works with the patient to plan strategies either to overcome or disrupt dysfunctional behavioural patterns.

Two features need to be considered:

1. eliciting behaviours and plans that are associated with distressing emotions;
2. the skilfulness and breadth of the methods used (i.e. Socratic questioning; appropriate monitoring, downward arrowing, imagery, role-plays, etc.);

NB: This item is concerned with the general work done with eliciting behaviours and plans. If any specific cognitive or behavioural change methods are used, they should be scored under item 1 1 (change methods).

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Therapist fails to elicit relevant behaviours and plans. |
| 1 | Inappropriate behaviours focused on and/or plans generated. |
| 2 | Some behaviours and plans elicited, but links between behaviours, cognitions and emotions not made clear to patient. |
| 3 | Some behaviours and plans elicited in a competent way, although some problems evident. |
| 4 | A number of behaviours and plans elicited in verbal or written form, leading to a new understanding of their importance in maintaining problems. Minor difficulties evident. |
| 5 | Effective eliciting and selection of a number of behaviours and plans, which are generally dealt with appropriately. Minimal problems. |
| 6 | Excellent work done on behaviours and plans, even in the face of difficulties. |

**Item 9 - Guided Discovery**

Key features: The patient should be helped -to -develop hypotheses regarding his/her current situation and to generate potential solutions' for him/herself. The patient is helped to develop a range of perspectives regarding his/her experience. Effective guided discovery will create doubt where previously there was certainty, thus providing the opportunity for re-evaluation and new learning to occur.

Two elements need to be considered:

1. the style of the therapist - this should be open and inquisitive;
2. the effective use of questioning techniques (e.g. Socratic questions) should encourage the patient to discover useful information that can be used to help him/her to gain a better level of understanding.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | No attempt at guided discovery (e.g. hectoring and lecturing). |
| 1 | Little opportunity for discovery by patient. Persuasion and debate used excessively. |
| 2 | Minimal opportunity for discovery. Some use of questioning, but unhelpful in assisting the patient to gain access to his/her thoughts or emotions or to make connections between themes. |
| 3 | Some reflection evident. Therapist uses primarily a questioning style which is following a productive line of discovery. |
| 4 | Moderate degree of discovery evident. Therapist uses a questioning style with skill, and this leads to some synthesis. Minor problems evident. |
| 5 | Effective reflection evident. Therapist uses skilful questioning style leading to reflection, discovery, and synthesis. Minimal problems. |
| 6 | Excellent guided discovery leading to a deep patient understanding. Highly effective discovery produced in the face of difficulties, with evidence of a deeper understanding having been developed. |

**Item 10 - Conceptual Integration**

Key features: The patient should be helped to gain an appreciation of the history, triggers and maintaining features of his/her problem in order to bring about change in the present and future. The therapist should help the patient to gain an understanding of how his/her perceptions and interpretations, beliefs, attitudes and rules relate to his/her problem. A good conceptualisation will examine previous cognitions and coping strategies as well as current ones. This theory-based understanding should be well integrated and used to guide the therapy forward.

Two features need to be considered:

1. the presence/absence of an appropriate conceptualisation which is in line with goals of therapy;
2. the manner in which the conceptualisation is used (e.g. used as the platform for interventions, homework etc.).

NB: This item is to do with therapeutic integration (using theory to link present, past and future). If the therapist deals specifically with cognitions and emotions, this should be scored under Items 6 (Facilitation of Emotional Expression) and 7 (Eliciting Key of Cognitions).

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | The absence of an appropriate conceptualisation. |
| 1 | The lack, or inappropriateness or misapplication of a conceptualisation leads to a neutral impact (e.g. interferes with progress or leads to aimless application of procedures). |
| 2 | Some rudimentary conceptualisation arrived at, but not well integrated with goals of therapy. Does not lead to a clear rationale for interventions. |
| 3 | Cognitive conceptualisation partially developed with some integration, but some difficulties evident (e.g. in synthesising and in sharing it with the patient). Leads to coherent interventions. |
| 4 | Cognitive conceptualisation is moderately developed and integrated within the therapy. Minor problems evident. |
| 5 | Cognitive conceptualisation is very well developed and integrated within the therapy - there is a credible cognitive understanding leading to major therapeutic shifts. Minimal problems. |
| 6 | Excellent development and integration evident, or highly effective in the face of difficulties. |

**Item 11- Application of Change Methods**

Key features: Therapist skillfully uses, and helps the patient to use, appropriate cognitive and behavioural techniques in line with the formulation. The therapist helps the patient devise appropriate cognitive methods to evaluate the key cognitions associated with distressing emotions, leading to major new perspectives and shifts in emotions. The therapist also helps the patient to apply behavioural techniques in line with the formulation. The therapist helps the patient to identify potential difficulties and think through the cognitive rationales for performing the tasks. The methods provide useful ways for the patient to test-out cognitions practically and gain experience in dealing with high levels of emotion. The methods also allow the therapist to obtain feedback regarding the patient's level of understanding of prospective practical assignments (i.e. by the patient performing the task in- session).

Three features need to be considered:

1. the appropriateness and range of both cognitive methods (e.g. cognitive change diaries, continua, distancing, responsibility charts, evaluating alternatives, examining pros and cons, determining meanings, imagery restructuring, etc.) and behavioural methods (e.g. behavioural diaries, behavioural tests, role play, graded task assignments, response prevention, reinforcement of patient's work, modeling, applied relaxation, controlled breathing, etc.);
2. the skill in the application of the methods - however, skills such as feedback, interpersonal effectiveness, etc. should be rated separately under their appropriate items;
3. the suitability of the methods for the needs of the patient (i.e. neither too difficult nor complex).

NB: This item is not concerned with accessing or identifying thoughts, rather with their re-evaluation.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Therapist fails to use or misuses appropriate cognitive and behavioural methods. |
| 1 | Therapist applies either insufficient or inappropriate methods, and/or with limited skill or flexibility. |
| 2 | Therapist applies appropriate methods, but major difficulties evident. |
| 3 | Therapist applies a number of methods in competent ways, although some problems evident (e.g. the interventions are incomplete). |
| 4 | Therapist applies a range of methods with skill and flexibility, enabling the patient to develop new perspectives. Minor problems evident. |
| 5 | Therapist systematically applies an appropriate range of methods in a creative, resourceful and effective manner. Minimal problems. |
| 6 | Excellent range and application, or successful application in the face of difficulties. |

**Item 12 - Homework Setting**

Key features: This aspect concerns the setting of an appropriate homework task, one with clear and precise goals. The aims should be to negotiate an appropriate task for the stage of therapy in line with the conceptualisation; to ensure the patient understands the rationale for undertaking the task; to test out ideas, try new experiences, predict and deal with potential obstacles, and experiment with new ways of responding.

There are three aspects to this item:

1. presence/absence of a homework task in which clear and precise goals have been set;
2. the task should be derived from material discussed in the session, such that there is a clear understanding of what will, be learnt from performing the task;
3. the homework task should be set jointly, and sufficient time should be allowed for it to be explained clearly (i.e. explain, discuss relevance, predict obstacles, etc.).

NB: Review of homework from the previous session should be rated in Item 1(Agenda Setting).

|  |  |
| --- | --- |
| Competence Level | Examples |
| 0 | Therapist fails to set homework, or sets inappropriate homework. |
| 1 | Therapist does not negotiate homework. Insufficient time allotted for adequate explanation, leading to ineffectual task being set. |
| 2 | Therapist negotiates homework unilaterally and in a routine fashion, without explaining the rationale for new homework. |
| 3 | Therapist has set an appropriate new homework task, but some problems evident (e.g. not explained sufficiently and/or not developed jointly). |
| 4 | Appropriate new homework jointly negotiated with a clear goals and rationales. However, minor problems evident. |
| 5 | Appropriate homework negotiated jointly and explained well, including an exploration of potential obstacles. Minimal problems. |
| 6 | Excellent homework negotiated, or appropriate one set in the face of difficulties. |

**Appendix F:** **Person Centred and Experiential Psychotherapy Scale (Freire et al., 2014)**

Rate the items according to how well each activity occurred during the therapy segment you’ve just listened to. It is important to attend to your overall sense of the therapist’s immediate experiencing of the client. Try to avoid forming a ‘global impression’ of the therapist early on in the session.

**1. Client Frame of Reference/Track:**

**How much do the therapist’s responses convey an understanding of the client’s**

**experiences as the client themselves understands or perceives it? To what extent is the therapist following the client’s track?**

Do the therapist’s responses convey an understanding of the client’s inner experience or point of view immediately expressed by the client? Or conversely, do therapist’s responses add meaning based on the therapist’s own frame of reference?

Are the therapist’s responses right on client’s track? Conversely, are the therapist’s

responses a diversion from the client’s own train of thoughts/feelings?

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **No tracking:** Therapist’s responses convey no understanding of the client’s frame of reference; or therapist adds meaning based completely on their own frame of reference. |
| 2 | **Minimal tracking:** Therapist’s responses convey a poor understanding of the client’s frame of reference; or therapist adds meaning partially based on their own frame of reference rather than  the client’s. |
| 3 | **Slightly tracking:** Therapist’s responses come close but don’t quite reach an adequate understanding of the client’s frame of reference; therapist’s responses are slight “off” of the client’s frame of reference. |
| 4 | **Adequate tracking:** Therapist’s responses convey an adequate understanding of the client’s frame of reference. |
| 5 | **Good tracking:** Therapist’s responses convey a good understanding of the client’s frame of reference. |
| 6 | **Excellent tracking:** Therapists’ responses convey an accurate understanding of the client’s frame of reference and therapist adds no meaning from their own frame of reference. |

**2. Psychological Holding**

**How well does the therapist metaphorically hold the client when they are experiencing painful, scary, or overwhelming experiences, or when they are connecting with their vulnerabilities?**

High scores refer to therapist maintaining a solid, emotional and empathic connection even when the client is in pain or overwhelmed.

Low scores refer to situations in which the therapist avoids responding or acknowledging painful, frightening or overwhelming experiences of the client.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **No holding:** Therapist oblivious to client’s need to be psychologically held: avoids responding, acknowledging or addressing client’s experience/feelings. |
| 2 | **Minimal holding:** Therapist seems to be aware of the client’s need to be psychologically held but is anxious or insecure when responding to client and diverts or distracts client from their  vulnerability. |
| 3 | **Slight holding:** Therapist conveys a bit of psychological holding, but not enough and with some insecurity. |
| 4 | **Adequate holding:** Therapist manages to hold sufficiently the client’s experience. |
| 5 | **Good holding:** Therapist calmly and solidly holds the client’s experience. |
| 6 | **Excellent holding:** Therapist securely holds client’s experience with trust, groundedness and acceptance, even when the client is experiencing, for example, pain, fear or overwhelmedness. |

**3. Experiential Specificity:**

**How much does the therapist appropriately and skilfully work to help the client focus on, elaborate or differentiate specific, idiosyncratic or personal experiences or memories, as opposed to abstractions or generalities?**

E.g., By reflecting specific client experiences using crisp, precise, differentiated and appropriately empathic reflections; or asking for examples or to specify feelings, meanings, memories or other personal experiences.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **No specificity:** Therapist consistently responds in a highly abstract, vague or intellectual manner. |
| 2 | **Minimal specificity:** Therapist seems to have a concept of specificity but doesn’t implement adequately, consistently or well; therapist is either somewhat vague or abstract or generally fails to encourage experiential specificity where appropriate. |
| 3 | **Slight specificity:** Therapist is often or repeatedly vague or abstract; therapist only slightly or occasionally encourages experiential specificity; sometimes responds in a way that points to experiential specificity, at times they fail to do so, or do so in an awkward manner. |
| 4 | **Adequate specificity:** Where appropriate, therapist generally encourages client experiential specificity, with only minor, temporary lapses or slight awkwardness. |
| 5 | **Good specificity:** Therapist does enough of this and does it skilfully, where appropriate trying to help the client to elaborate and specify particular experiences. |
| 6 | **Excellent specificity:** Therapist does this consistently, skilfully, and even creatively, where appropriate, offering the client crisp, precise reflections or questions. |

**4. Accepting Presence:**

**How well does the therapist’s attitude convey an unconditional acceptance of whatever the client brings?**

Does the therapist’s responses convey a grounded, centred, and acceptant presence?

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **Explicit nonacceptance:** Therapist explicitly communicates disapproval or criticism of client’s experience/ meaning/feelings. |
| 2 | **Implicit nonacceptance:** Therapist implicitly or indirectly communicates disapproval or criticism of client experience/meaning/feelings. |
| 3 | **Incongruent/inconsistent nonacceptance:** Therapist conveys anxiety, worry or defensiveness instead of acceptance; or therapist is not consistent in the communication of acceptance. |
| 4 | **Adequate acceptance:** Therapist demonstrates calm and groundedness, with at least some degree of acceptance of the client’s experience. |
| 5 | **Good acceptance:** Therapist conveys clear, grounded acceptance of the client’s experience; therapist does not demonstrate any kind of judgment towards client’s experience/behaviour |
| 6 | **Excellent acceptance:** Therapist skilfully conveys unconditional acceptance while being clearly grounded and centred in themselves, even in face of intense client vulnerability. |

**5. Content Directiveness:**

**How much do the therapist’s responses intend to direct the client’s content?**

Do the therapists’ responses introduce explicit new content? e.g., do the therapist’s responses convey explanation, interpretation, guidance, teaching, advice, reassurance or confrontation?

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **“Expert” directiveness:** Therapist overtly and consistently assumes the role of expert in directing the content of the session. |
| 2 | **Overt directiveness:** Therapist’s responses direct client overtly towards a new content. |
| 3 | **Slight directiveness:** Therapist’s responses direct client clearly but tentatively towards a new content. |
| 4 | **Adequate nondirectiveness:** Therapist is generally nondirective of content, with only minor, temporary lapses or slight content direction. |
| 5 | **Good nondirectiveness:** Therapist consistently follows the client’s lead when responding to content. |
| 6 | **Excellent nondirectiveness:** Therapist clearly and consistently follows the client’s lead when responding to content in a natural, inviting and unforced manner, with a high level of skill. |

**6. Emotion Focus:**

**How much does the therapist actively work to help the client focus on and actively articulate their emotional experiences and meanings, both explicit and implicit?**

E.g., By helping clients focus their attention inwards; by focusing the client’s attention on bodily sensations; by reflecting toward emotionally poignant content, by inquiring about client feelings, helping client intensify, heighten or deepen their emotions, by helping clients find ways of describing emotions; or by making empathic conjectures about feelings that have not yet been expressed. Lower scores reflect ignoring implicit or explicit emotions; staying with non-emotional content;

focusing on or reflecting generalized emotional states (“feeling bad”) or minimizing emotional states (e.g., reflecting “angry” as “annoyed”).

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **No emotion focus:** Therapist consistently ignores emotions or responds instead in a highly intellectual manner while focusing entirely on non-emotional content. When the client expresses emotions, the therapist consistently deflects the client away from them. |
| 2 | **Minimal emotion focus:** Therapist seems to have a concept of emotion focus but doesn’t implement adequately, consistently or well; therapist may generally stay with non-emotional content; sometimes deflects client way from their emotion; reflects only general emotional states (“bad”) or minimizes client emotion. |
| 3 | **Slight emotion focus:** Therapist often or repeatedly ignores or deflects client away from emotion; therapist only slightly or occasionally helps client to focus on emotion; while they sometimes respond in a way that points to client emotions, at times they fail to do so, or do so in an awkward manner. |
| 4 | **Adequate emotion focus:** Where appropriate, therapist generally encourages client focus on emotions (by either reflections or other responses), with only minor, temporary lapses or slight  awkwardness. |
| 5 | **Good emotion focus:** Therapist does enough of this and does it skilfully, where appropriate trying to help the client to evoke, deepen and express particular emotions. |
| 6 | **Excellent emotion focus:** Therapist does this consistently, skilfully, and even creatively, where appropriate, offering the client powerful, evocative reflections or questions, while at the same time enabling the client to feel safe while doing so. |

**7. Dominant or Overpowering presence:**

**To what extent does the therapist project a sense of dominance or authority in the session with the client?**

Low scores refer to situations in which the therapist is taking charge of the process of the session; acts in a self-indulgent manner or takes over attention or focus for themselves; interrupting, talking over, silence or controlling the process; or acting in a definite, lecturing, or expert manner.

High scores refer to situations in which the therapist offers the client choice or autonomy in the session, allows the client space to develop their own experience, waits for the client finish their thoughts, is patient with the client, or encourages client empowerment in the session.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **Overpowering presence:** Therapist overpowers the client by strongly dominating the interaction, controlling what the client talks about or does in the session; clearly making themselves the centre of attention; or being patronizing toward the client. |
| 2 | **Controlling presence:** Therapist clearly controls the client’s process of the session, acting in an expert, or dominant manner. |
| 3 | **Subtle control:** Therapist subtly, implicitly or indirectly controls what and how the client is in the session. |
| 4 | **Noncontrolling presence:** Therapist generally respects client autonomy in the session; therapist does not try to control client’s process. |
| 5 | **Respectful presence:** Therapist consistently respects client autonomy in the session. |
| 6 | **Empowering presence:** Therapist clearly and consistently promotes or validates the client’s freedom or choice, allowing client space as they desire. |

**8. Clarity of Language:**

**How well does the therapist use language that communicates simply and clearly to the client?**

E.g., therapist’s responses are not too wordy, rambling, unnecessarily long; therapist does not use language that is too academic or too abstract; therapist’s responses do not get in the client’s way.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **No clarity:** Therapist’s responses are long-winded, tangled, and confusing. |
| 2 | **Minimal clarity:** Therapist’s responses are wordy, rambling or unfocused. |
| 3 | **Slight clarity:** Therapist’s responses are somewhat clear, but a bit too abstract or long. |
| 4 | **Adequate clarity:** Therapist’s responses are clear but a bit too long. |
| 5 | **Good clarity:** Therapist’s responses are clear and concise. |
| 6 | **Excellent clarity:** Therapist’s responses are very clear and concise, even elegantly capturing subtle client experiences in a few choice words. |

**9. Core Meaning:**

**How well do the therapist’s responses reflect the core, or essence, of what the client is communicating or experiencing in the moment?**

Responses are not just a reflection of surface content but show an understanding of the client’s central/core experience or meaning that is being communicated either implicitly or explicitly in the moment; responses do not take away from the core meaning of client’s communication.

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **No core meaning:** Therapist’s responses address only the cognitive content or stay exclusively  in the superficial narrative. |
| 2 | **Minimal core meaning:** Therapist’s responses address mainly the cognitive content or the superficial narrative but bring occasional glimpses into the underlying core feeling/ experience/ meaning. |
| 3 | **Slight core meaning:** Therapist’s responses partially but incompletely address the core meaning/feeling/ experience that underlies the client’s expressed content. |
| 4 | **Adequate core meaning:** Therapist’s responses were close to the core meaning/feeling/ experience that underlies the client’s expressed content, but do not quite reach it. |
| 5 | **Good core meaning:** Therapists’ responses accurately address the core meaning/feeling/ experience that underlies the client’s expressed content. |
| 6 | **Excellent core meaning:** Therapists’ responses address with a high degree of accuracy the core meaning/feeling/ experience that underlies the client’s expressed content. |

**10. Emotion Regulation Sensitivity:**

**How much does the therapist actively work to help the client adjust and maintain their level of emotional arousal for productive self-exploration?**

Client agency is central; this is not imposed by the therapist. There are three possible

situations:

(a) If the client is overwhelmed by feelings and wants help in moderating them, does the therapist try to help the client to manage these emotions? E.g., By offering a calming and holding presence; by using containing imagery; or by helping the client self-soothe vs. allowing the client to continue to panic or feel overwhelmed or unsafe.

(b) If the client is out of touch with their feelings and wants help in accessing them, does the therapist try to help them appropriately increase emotional contact? E.g., by helping them review current concerns and focus on the most important or poignant; by helping them remember and explore memories of emotional experiences; by using vivid imagery or language to promote feelings vs. enhancing distance from emotions.

(c) If the client is at an optimal level of emotional arousal for exploration, does the therapist try to help them continue working at this level, rather than deepening or flattening their emotions?)

|  |  |
| --- | --- |
| Competence Level | Examples |
| 1 | **No facilitation:** Therapist consistently ignores issues of client emotional regulation, or generally works against client emotional regulation, i.e., allowing client to continue feel overwhelmed or distanced. |
| 2 | **Minimal facilitation:** Therapist seems to have a concept of facilitating client emotional regulation but doesn’t implement adequately, consistently or well; therapist either generally  ignores the client’s desire to contain overwhelmed emotion or to approach distanced emotion; sometimes they misdirect the client out of a productive, optimal level of emotional arousal, into either stuck or overwhelmed emotion or emotional distance or avoidance. |
| 3 | **Slight facilitation:** Therapist often or repeatedly ignores or deflects client away from their desired level of emotional regulation productive for self-exploration; therapist only slightly facilitates productive self-exploration. While they sometimes respond in a way that facilitates client productive emotional regulation, at times they fail to do so, or do so in an awkward manner. |
| 4 | **Adequate facilitation:** Where appropriate, therapist generally encourages client emotional regulation (e.g., by helping them approach difficult emotions or contain excessive emotional distress as desired by client), with only minor, temporary lapses or slight awkwardness. |
| 5 | **Good facilitation:** Therapist does enough emotional regulation facilitation and does it skilfully and in accordance with client’s desires, where appropriate trying to help the client to maintain a productive level of emotional arousal. |
| 6 | **Excellent facilitation:** Therapist does this consistently, skilfully, and even creatively, where desired, offering the client evocative or focusing responses to help the client approach difficult emotions when they are too distant and to contain overwhelming emotions, all within a safe, holding environment. |

**Appendix G: Facilitative Conditions Scale (Shapiro & Startup, 1990)**

**7. Supportive Encouragement: Was the therapist supportive of the client by acknowledging the client’s gains during therapy OR by reassuring the client that gains will be forthcoming?**

6

7

5

4

2

3

1

not at all some considerably extensively

The purpose of this item is to measure how supportive the therapist is of the client’s efforts in therapy. The therapist might have accomplished this by:

1. Pointing out or acknowledging positive changes the client has made during the time she/he has been in therapy.
2. Reinforcing the client for accomplishments she/he has made thus far (just recently or earlier in therapy).
3. Encouraging the client to continue with the work of therapy because (more) accomplishments will be forthcoming.

The therapist need not have done all of these in order for this item to be rated highly. The gains which the therapist pointed to may range from a client continuing to come to therapy to a client making major positive life changes.

**Examples**

The following are examples of behaviours which should result in a rating of greater than “1” on this item:

1. T: *I’m remembering when first started working together. Your depression has eased since then and you seem to be feeling much more independent lately.*
2. T: *The fact that you are making better eye contact with me is a sign that you are improving.*
3. T: *It’s good you were able to let your boss know you were angry with her when she did something on your project without your knowledge. That’s different from the way you would have reacted before, which would have been to sit and steam over it without letting her know.*
4. T: *I know that being in therapy is hard work. I think it will be very worthwhile for you though. You’re doing the kind of things now that really facilitate improvements over time.*

**8. Convey Expertise: Did the therapist convey that she/he understood the client’s problems and is able to help the client?**

6

7

5

4

2

3

1

not at all some considerably very much

This item is intended to measure the extent to which the therapist conveys to the client her/ his ability to understand and help the client. The use of the word “convey” indicates that this behaviour on the part of the therapist can be either direct or indirect.

Some therapists are trained/ encouraged to be authoritative in the therapy session for the purpose of assuring the client that the therapist is skilled in that therapeutic modality. This can be a means of conveying competence and should be considered in rating this item.

In rating this item, the rater should not consider therapist behaviour which goes beyond the authoritative to the authoritarian. The therapist should be considered authoritarian if she/ he was demanding of the client’s adherence to directions the therapist took in the session without regard for the client’s wishes or input OR if the therapist attempted to impose her/ his opinions on the client without regard for the client’s thoughts or feelings. The rater should attempt to separate out authoritarian behaviour on the part of the therapist from her/ his other efforts to convey competence and consider only the latter in rating this item.

**Examples**

The following examples should be rated greater than “1” on this item because the therapist *directly* conveyed competence:

T: *I’m very familiar with the symptoms you’re describing, as I’ve worked quite a bit with people who are depressed. I’m confident I can help you work through some of those things.*

The following example should be rated greater than “1” on this item because the therapist *indirectly* conveyed competence:

*The client was upset and the therapist handled it effectively and with sensitivity to the client’s thoughts or feelings. As a result, the client was likely to be left with the impression that the therapist both understood why the client was upset and was competent in the way he dealt with it.*

The following example should be rated greater than “1” on this item because the therapist conveyed competence by being authoritative:

C: *It’s been two weeks since I started recording automatic thoughts, like you asked me to, and I don’t feel any better. I work away by the hour writing things down and analysing them, but it doesn’t seem to be doing me any good in the long run.*

T: *It’s not unusual for you to have not noticed improvement after only two weeks. These things take time. Bear in mind that you’ve probably had a rather negative view of things for many years and it takes a while to break such habits. I realise it’s hard work for you making these recordings and naturally you want to see some results. But I have seen this approach help many people before and I’m really quite confident you too will gradually eel some benefit if you only stick with it a while longer.*

Notice in this final example, the therapist demonstrated that she/ he knew what was going on with the client and how to deal with the client’s concerns. The therapist in this example also did not merely dismiss the client’s concerns, insisting in an authoritarian manner that the client follow the therapist’s orders and not worry about nonresponse. Rather, the therapist addressed the client’s concerns in a straightforward, educative manner that would be likely to assure the client that the therapist knew what she/ he was doing.

**9. Therapist’s Communication Style: How interesting is the therapist’s style of communication? (Consider (1) the vividness of her/ his language; (2) the originality of her/ his ideas; (3) the liveliness of her/ his manner of speaking).**

6

7

5

4

2

3

1

dull,

uninteresting less interesting more very

interesting interesting interesting

than average than average

This item is intended to measure how interesting the therapist’s style of communication is relative to the average of other therapists. In rating this item, the rater should carefully consider the three aspects delineated below:

1. Vividness refers to how colourful and descriptive the therapist’s language is.
2. Originality can be conveyed in the therapist’s choice of example, use of analogies, or design of engaging homework assignments, among many other things.
3. Liveliness refers to an engaging manner of speaking on the part of the therapist.

Important Distinctions for Item #9

(See Item #10, *Involvement)*

**10. Involvement: How involved was the therapist?**

6

7

5

4

2

3

1

very somewhat mainly very

detacheddetached involved involved

This item is intended to measure how involved the therapist appears to be in the session. The rater should consider how carefully the therapist paid attention to what the client was saying and how responsive the therapist was to questions or comments by the client.

Ratings for this item should not be based on frequency of therapist verbal response. The therapist may be paying attention to the client but not frequently interjecting her/ his comments. In such cases this item should receive a high rating, despite the fact that the therapist was not verbally active.

The therapist also need *not* have an interesting style of communication in order to be involved. For instance, the therapist’s remarks could be reflective and low key and still evidence a high degree of involvement.

The rater is cautioned not to consider lack of involvement undesirable on the part of the therapist, as the therapist may be deliberately attempting to remain detached. Thus, the rater should not let her/ his ratings of the therapist’s involvement be influenced by whether the rater considers therapist involvement to be good or bad.

Important Distinctions for Item #10

with Item #9, *Communication Style*

The style of the therapist’s communication should be considered in rating Item #9, *Communication Style,* but should not be considered in rating Item #10, *Involvement.* An involved therapist may or may not have an interesting style of communication. Also, an uninvolved therapist may or may not have an interesting style of communication.

**11. Warmth: Did the therapist convey warmth?**

6

7

5

4

2

3

1

not at all some a lot very much

or very little

Warmth, which has been equated with *unconditional positive regard,* has been defined by Rogers (1967) as “the therapist communicating to his client a deep and genuine *caring* for him as a person with human potentialities, a caring uncontaminated by valuations of his thoughts, feelings, or behaviors.” This communication need not be explicit but the therapist’s caring should be made evident by her/ his behaviour. Raters who have developed their own operational definition of Warmth re encouraged to use it only if it is consistent with how Warmth is defined above.

The rater must be careful not to assume that the therapist conveys warmth merely because she/ he is a therapist. The rater must also remember that she/ he is not rating how warm the therapist is in general, but rather how much warmth the therapist conveyed in the session being rated.

This item is one in which it is particularly important for the rater to avoid giving ratings of greater than “1” as default values. The rater must be able to justify from the therapist behaviour any rating on this item which is greater than “1.”

Important Distinctions for Item #11

with Item #12, *Rapport*

The rater should rate Item #12 and Item #11 independently. It is possible for the therapist to be warm and caring and yet not get along with the client. Conversely, it is possible for the therapist to not demonstrate warmth or caring for the client and yet develop strong rapport.

**12. Rapport: How much rapport was there between therapist and client (i.e., how well did the therapist and client get along)?**

6

7

5

4

2

3

1

total absence some considerable excellent

of rapport rapport rapport rapport

This item is intended to measure the extent to which the relationship between the therapist and client is marked by harmony and accord (i.e., how well the therapist and client got along in the session). Raters who have developed their own operational definition of Rapport are encouraged to use it only if it is consistent with how Rapport is defined above.

Among the items in this scale, this item is clearly the most dependent on client behaviour as well as therapist behaviour. Although the rater should assign a low rating to this item is she/ he believes that the therapist made efforts to get along with the client without success, this item should not be given a high rating unless rapport clearly existed between the therapist and client.

Important Distinctions for Item #12

(see Item #11 *Warmth*)

**13. Empathy: Was the therapist empathic toward the client (i.e. did she/ he convey and intimate understanding of and sensitivity to the client’s experiences and feelings)?**

6

7

5

4

2

3

1

not at all some considerably extensively

Accurate empathy has been described by Rogers (1967) as the “ability of the therapist accurately and sensitivity to understand experiences and feelings *and their meaning to the client* during the moment-to-moment encounter of psychotherapy.” This item is intended to measure the extent to which the therapist conveyed to the client that she/ he had an intimate understanding of the client’s experiences and feelings and their meaning to the client. In many cases the therapist will not yet have an intimate understanding of the client’s experience. This item should still be rated highly if the therapist actively attempted to understand the client’s experiences and feelings.

To rate this item, the rater will need to rely to some degree on nonverbal therapist cues including tone of voice, expressiveness, etc. However, it is not correct to assume that the therapist is empathic merely because she/ he is a therapist. This item is one on which it is particularly important for the rater to avoid giving ratings greater than “1” as default values. The rater must be able to justify from the therapist’s behaviour any rating on this item which is greater than “1.”

**Examples**

This item should receive a rating of “1” if throughout the session the therapist:

1. ignored or seemed disinterested in the client’s experiences and feelings.
2. was unable to *and* did not attempt to understand the client’s experiences and feelings.
3. devalued or dismissed the client’s experiences or feelings or the meaning that the client attached to them.

This item should receive a high rating if throughout the session the therapist:

1. attempted to recognise and validate the client’s experience with her/ his thoughts or feelings. (The therapist may ultimately disagree with the client’s beliefs or interpretations of events yet still demonstrate empathy depending on how she/ he voices her/ his disagreement to the client).
2. asked questions of the client in order to understand the client’s experiences and feelings or their meaning to the client (e.g. T: *“You look very hurt right now. Tell me what that feels like…I know it’s very painful”*).

**14. Formality: (Defined as: Strict adherence to the therapeutic role such that little of the therapist’s own personality emerges during the session). Did the therapist adopt a formal stance in her/ his interactions with the client?**

6

7

5

4

2

3

1

not at all somewhat considerably extremely

formal; formal formal formal;

therapist (primarily therapist

emerged as informal) did not

a person emerge as

a person

Formality refers to the extent to which the therapist adopted a formal, “traditional” therapist role such that very little of what the therapist is like s a person emerges in her/ his interactions with the client. The “formal” therapist maintains a studied distance from the client, not conveying her/ his feelings or thoughts apart from what is necessary for the purpose of conducting oneself as a therapist. The therapist should not be considered formal simply because she/ he follows a protocol in the delivery of a specific treatment modality. Nor should the therapist be considered informal if she/ he departs from a treatment protocol. Maintaining a formal role has to do with the therapist defining the therapist role in limited terms and not deviating from that role.

**Appendix H: Measure of Expected Engagement (30 item version)**

Imagine you have recently been to see your GP because of low mood and disinterest in usual activities and they have diagnosed you with depression. To help you, they have suggested you attend a talking therapy with a therapist. If you have previously, or are currently, experiencing depression, you may also use your own personal experiences to answer the questions.

If you were to enter into a talking therapy, to what extent would you rate each of these as

***Likely to engage/ involve you*** *– how likely would this be to make you work towards change both IN and OUTSIDE OF therapy? (0=not at all likely, 6=extremely likely)*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 0 (not at all) | 1 (very unlikely) | 2 (unlikely) | 3 (somewhat likely) | 4 (likely) | 5 (very likely) | 6 (extremely) |
| 1. The therapist pacing the session to guide you smoothly through the agenda | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. The therapist unconditionally accepting you | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. Setting an agenda for the course of therapy | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. Feeling like the therapist is not in a position of authority over you | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. The therapist helping you to deal with your emotions to work towards change | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. The therapist supporting you when you experience negative or overwhelming experiences | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. The therapist keeping you on track to stay with your agenda | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. The therapist providing techniques to challenge your thinking patterns and behaviours | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. The therapist encouraging exploration of underlying feelings to foster understanding and make personal sense of them | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. The therapist having an interesting style of communication i.e. vividness of language, originality of ideas, liveliness of manner of speaking | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. The therapist supporting you emotionally | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. The therapist giving feedback on your thoughts/feelings | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. The therapist being empathic towards you | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14. The therapist providing supportive encouragement through recognising previous gains or reassuring that gains will occur | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. The therapist being involved in the therapy | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. Completing homework outside of therapy to try out new ideas and experiences | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 17. Having rapport between the therapist and yourself | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. Identifying and understanding key thoughts in the maintenance of your depression | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 19. The therapist being appropriately formal with you | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. The therapist encouraging you to distinguish specific and personal experiences/ memories from generalities and focusing on these | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. The therapist following your lead for the direction of what is discussed | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 22. The therapist conveying understanding of your problems and that they can help | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 23. Understanding the role of perceptions, beliefs and attitudes in the maintenance of your depression | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 24. You feeling at ease with the therapist | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 25. Developing new ideas and perspectives to help to create solutions | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 26. The therapist using clear and concise language | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 27 The therapist reflecting back the core meaning of your thoughts/ feelings | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 28. The therapist conveying warmth | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 29. Identifying and understanding behaviours in the maintenance of your depression | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 30. The therapist being able to understand the world through your eyes | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

**Appendix I: Study 1-Proof of Ethical Approval**

|  |
| --- |
| **[Fwd: Approval of your research proposal]** 13 messages |

|  |  |
| --- | --- |
| **Gillian Hardy** <g.hardy@sheffield.ac.uk> | 1 May 2015 at 09:37 |
| To: Phillippa Harrison <pharrison1@sheffield.ac.uk>  Cc: Michael <m.barkham@sheffield.ac.uk> | |
| |  | | --- | | -------- Original Message -------- Subject:        Approval of your research proposal Date:   Thu, 30 Apr 2015 18:04:29 +0100 From:   Psychology Research Ethics Application Management System <no\_reply@Psychology Research Ethics Application Management System> To:     [G.Hardy@sheffield.ac.uk](mailto:G.Hardy@sheffield.ac.uk)    Your submission to the Department of Psychology Ethics Sub-Committee (DESC) entitled "Development of a measure to assess perceptions of talking therapy procedures for depression (single study)" has now been reviewed. The committee believed that your methods and procedures conformed to University and BPS Guidelines.  I am therefore pleased to inform you that the ethics of your research are approved. You may now commence the empirical work.  Yours sincerely, Prof Paul Norman  Acting Chair, DESC   --  Gillian Hardy PhD Professor of Clinical Psychology Unit Director Clinical Psychology Unit Department of Psychology University of Sheffield Sheffield S10 2TP  Tel: [+44 (0) 114 2226571](tel:%2B44%20%280%29%20114%202226571) Fax: [+44 (0) 114 2226610](tel:%2B44%20%280%29%20114%202226610)  Centre for Psychological Services Research (<http://www.shef.ac.uk/cpsr/index.html>)  Voted number one for student experience Times Higher Education Student Experience Survey 2014-2015 | | |

**Appendix J: Study 1-Distribution of Data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Distribution of Data from Study 1* | | | | |
| Measure | *W* | *df* | *p* | No of outliers |
| CIS | .99 | 160 | .659 | 0\* |
| Credibility (emotion-focussed) | *.*94 | 93 | .001 | 0\* |
| Credibility (problem-focussed) | .95 | 93 | .001 | 0\* |
| Expectancy (emotion-focussed) | .98 | 69 | .255 | 0 |
| Expectancy (problem-focussed) | .98 | 69 | .283 | 0 |
| PHQ-9 | .89 | 161 | < .001 | 0\* |

*Note.* \*= extreme outliers

**Appendix K: Study 1-Correlation Matrices for PCAs**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Correlation Matrix for PCA on Cognitive Items* | | | | | | | | | | | | | |
| Correlation Matrix | | | | | | | | | | | | | |
|  | | Q1 | Q3 | Q5 | Q7 | Q8 | Q12 | Q16 | Q18 | Q23 | Q24 | Q25 | Q29 |
|  | Q1 | 1.00 | .47 | .40 | .25 | .24 | .39 | .25 | .36 | .18 | .36 | .32 | .32 |
| Q3 | - | 1.00 | .37 | .49 | .36 | .35 | .33 | .37 | .24 | .35 | .38 | .34 |
| Q5 | - | - | 1.00 | .36 | .36 | .48 | .37 | .52 | .41 | .47 | .50 | .48 |
| Q7 | - | - | - | 1.00 | .44 | .30 | .30 | .35 | .42 | .30 | .47 | .42 |
| Q8 | - | - | - | - | 1.00 | .39 | .47 | .48 | .57 | .48 | .61 | .58 |
| Q12 | - | - | - | - | - | 1.00 | .33 | .47 | .42 | .45 | .51 | .49 |
| Q16 | - | - | - | - | - | - | 1.00 | .38 | .38 | .27 | .52 | .34 |
| Q18 | - | - | - | - | - | - | - | 1.00 | .50 | .46 | .57 | .61 |
| Q23 | - | - | - | - | - | - | - | - | 1.00 | .49 | .59 | .59 |
| Q24 | - | - | - | - | - | - | - | - | - | 1.00 | .61 | .54 |
| Q25 | - | - | - | - | - | - | - | - | - | - | 1.00 | .65 |
| Q29 | - | - | - | - | - | - | - | - | - | - | - | 1.00 |

*Correlation Matrix for PCA on Humanistic Items*

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Correlation Matrix | | | | | | | | | | | |
|  | | Q2 | Q4 | Q6 | Q9 | Q11 | Q20 | Q21 | Q26 | Q27 | Q30 |
| Correlation | Q2 | 1.00 | .58 | .62 | .48 | .55 | .20 | .31 | .34 | .33 | .50 |
| Q4 | - | 1.00 | .48 | .38 | .50 | .31 | .35 | .42 | .41 | .38 |
| Q6 | - | - | 1.00 | .62 | .70 | .40 | .35 | .52 | .52 | .55 |
| Q9 | - | - | - | 1.00 | .69 | .47 | .33 | .47 | .50 | .48 |
| Q11 | - | - | - | - | 1.00 | .40 | .31 | .43 | .47 | .54 |
| Q20 | - | - | - | - | - | 1.00 | .30 | .36 | .46 | .28 |
| Q21 | - | - | - | - | - | - | 1.00 | .43 | .37 | .37 |
| Q26 | - | - | - | - | - | - | - | 1.00 | .56 | .53 |
| Q27 | - | - | - | - | - | - | - | - | 1.00 | .46 |
| Q30 | - | - | - | - | - | - | - | - | - | 1.00 |

*Correlation Matrix for PCA on FCS items*

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Correlation Matrix | | | | | | | | | |
|  | | Q10 | Q13 | Q14 | Q15 | Q17 | Q19 | Q22 | Q28 |
| Correlation | Q10 | 1.00 | .47 | .41 | .51 | .47 | .26 | .43 | .42 |
| Q13 | - | 1.00 | .60 | .54 | .58 | .26 | .62 | .76 |
| Q14 | - | - | 1.00 | .53 | .34 | .09 | .60 | .61 |
| Q15 | - | - | - | 1.00 | .61 | .23 | .57 | .62 |
| Q17 | - | - | - | - | 1.00 | .34 | .42 | .53 |
| Q19 | - | - | - | - | - | 1.00 | .26 | .21 |
| Q22 | - | - | - | - | - | - | 1.00 | .61 |
| Q28 | - | - | - | - | - | - | - | 1.00 |

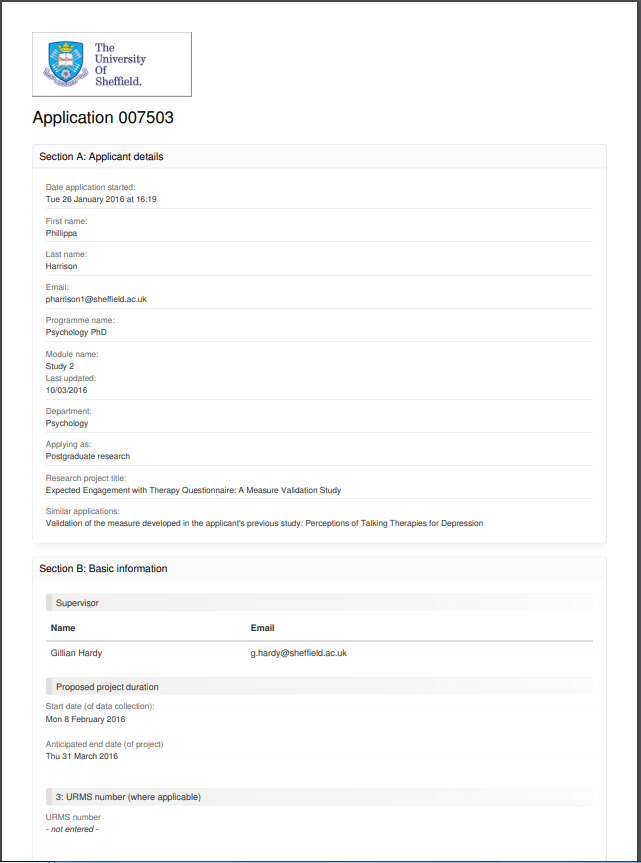
**Appendix L: Sheffield Expected Engagement with Therapy Scale (ShEETS)**

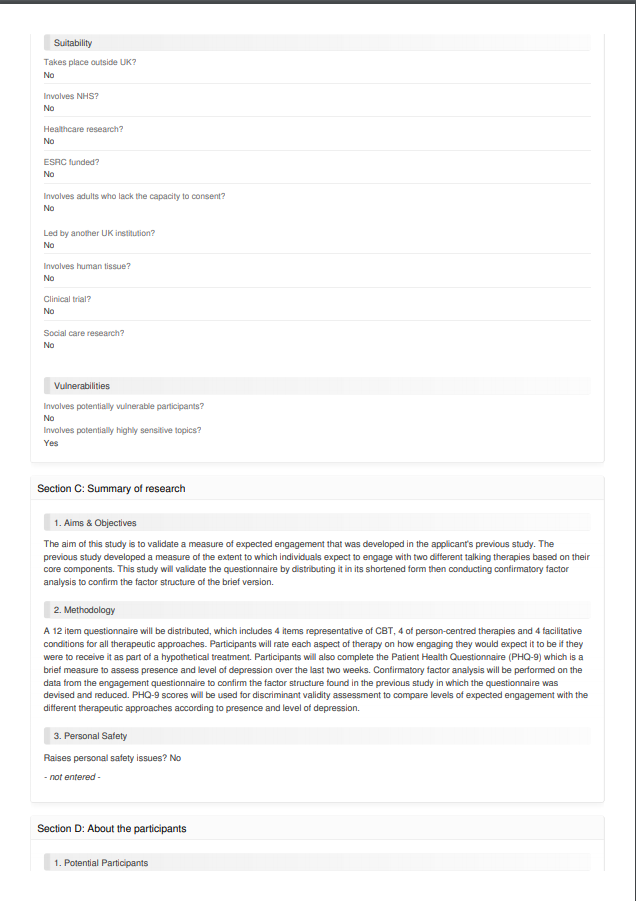
Below are 12 different aspects of therapies. Please rate each aspect from 0 (not at all likely) to 4 (extremely likely) on how likely it would be to *engage* you if it were part of your therapy.

*Engagement=the effort you make in and outside of therapy to work towards change i.e. reducing depressive symptoms*

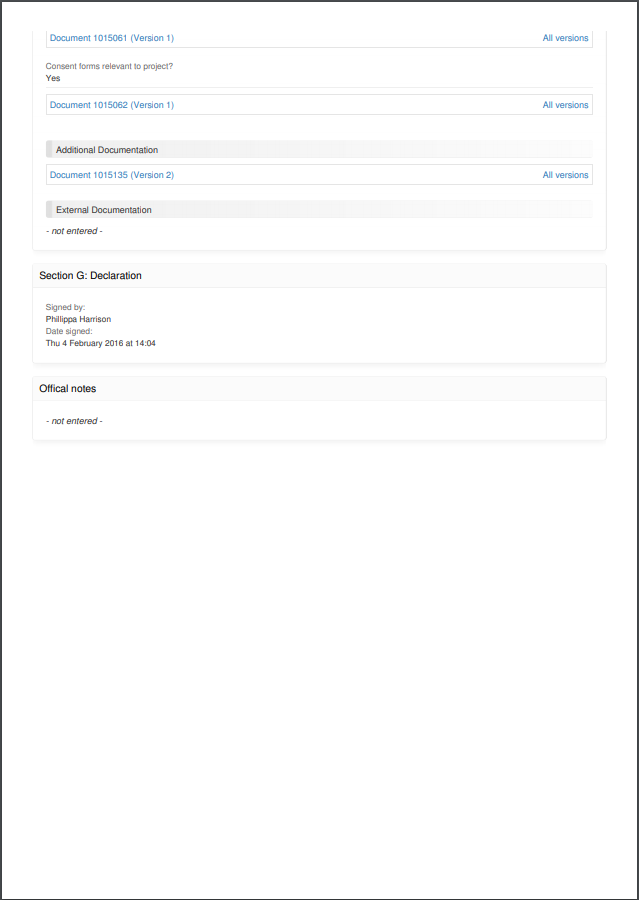
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Not at all | A little | Somewhat | Quite a lot | Extremely |
| The therapist: |  |  |  |  |  |
| 1. Being empathic towards you | 0 | 1 | 2 | 3 | 4 |
| 1. Supporting you emotionally | 0 | 1 | 2 | 3 | 4 |
| 1. Helping you understand behaviours that contribute to your depression | 0 | 1 | 2 | 3 | 4 |
| 1. Being supportive when you experience negative or overwhelming experiences | 0 | 1 | 2 | 3 | 4 |
| 1. Encouraging homework, such as trying out new ideas and experiences outside therapy | 0 | 1 | 2 | 3 | 4 |
| 1. Showing an understanding of your problems | 0 | 1 | 2 | 3 | 4 |
| 1. Reflecting back the meaning of your thoughts and feelings | 0 | 1 | 2 | 3 | 4 |
| 1. Helping you understand thoughts that contribute to your depression | 0 | 1 | 2 | 3 | 4 |
| 1. Showing warmth | 0 | 1 | 2 | 3 | 4 |
| 1. Encouraging exploration of underlying feelings | 0 | 1 | 2 | 3 | 4 |
| 1. Supporting you developing new ideas and perspectives to help create solutions | 0 | 1 | 2 | 3 | 4 |
| 1. Being involved in your therapy | 0 | 1 | 2 | 3 | 4 |

**Appendix M: Study 2-Proof of Ethical Approval**

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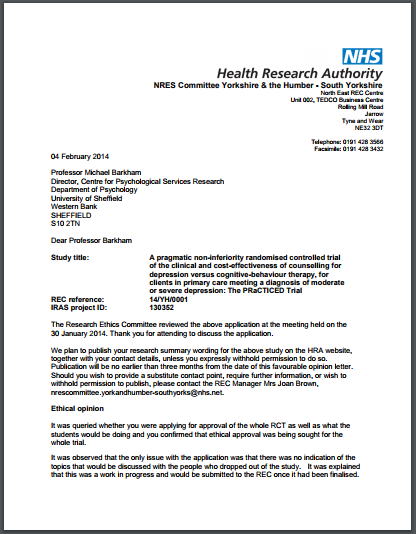
****

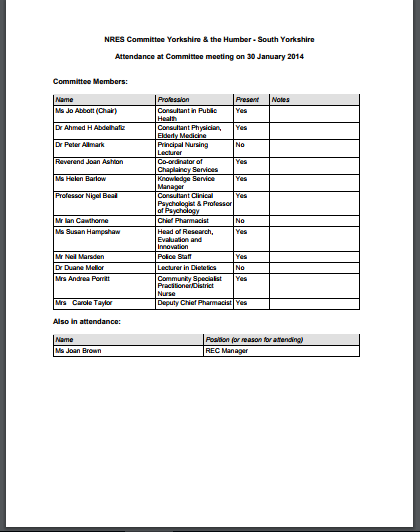
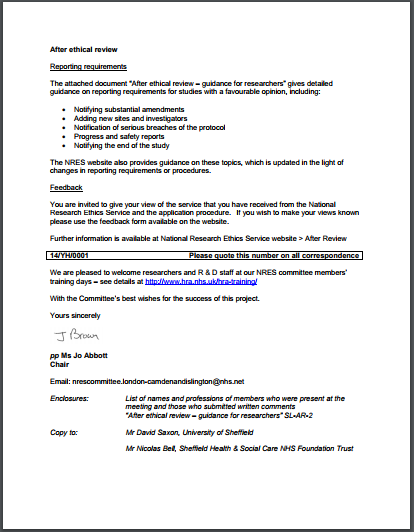
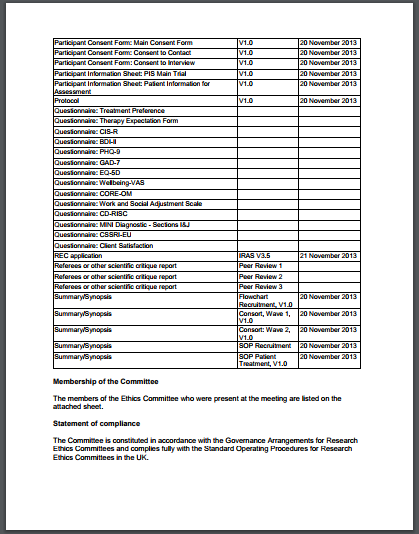
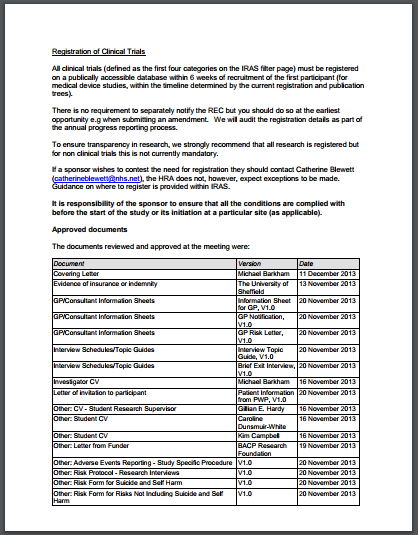
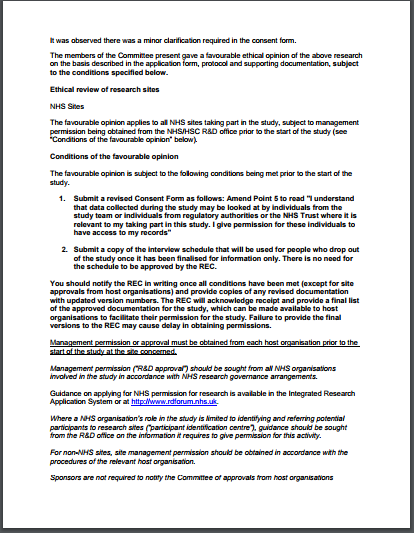
**Appendix N: Study 2-Correlation Matrices for PCAs**

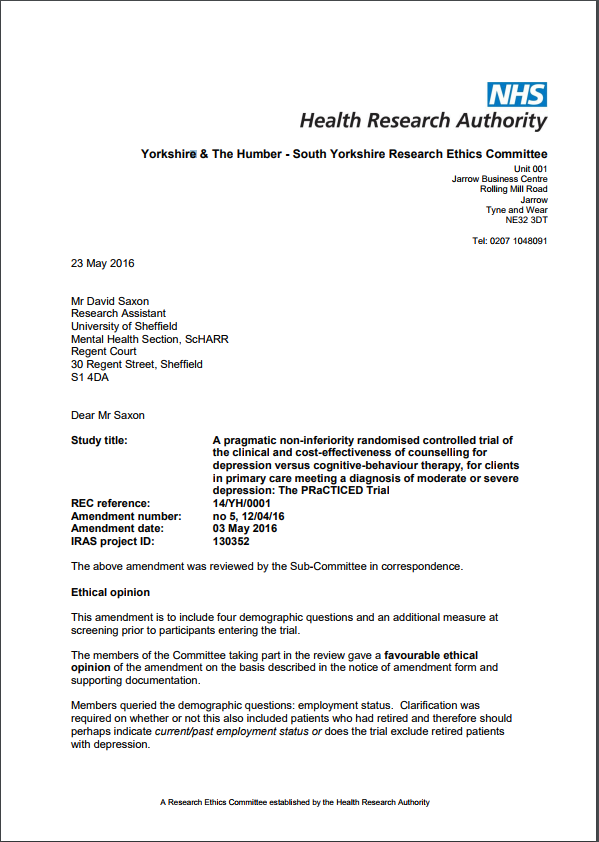
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Correlation Matrix for PCA on Cognitive Items* | | | | | |
| Correlation Matrix | | | | | |
|  | | Understanding depressive  Behaviours | Encouraging homework | Understanding  contributing  thoughts | Developing  new  perspectives |
|  | Understanding  depressive  behaviours | 1.00 | .48 | .78 | .58 |
| Encouraging  Homework | - | 1.00 | .49 | .56 |
| Understanding  contributing  thoughts | - | - | 1.00 | .63 |
| Developing  new  perspectives | - | - | - | 1.00 |

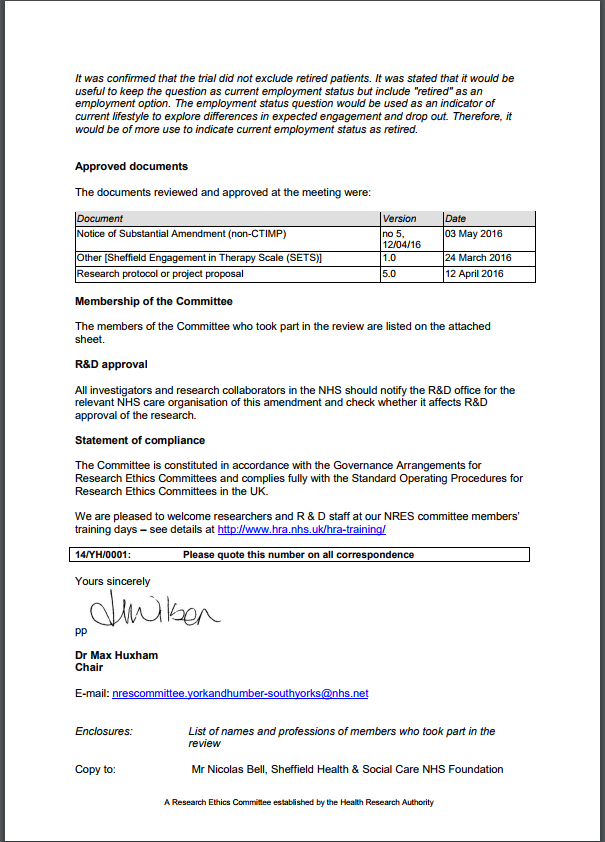
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Correlation Matrix for PCA on Humanistic Items* | | | | | |
| Correlation Matrix | | | | | |
|  | | Supporting you emotionally | Supporting negative emotions | Reflecting meaning of thoughts | Encouraging exploring feelings |
|  | Supporting you emotionally | 1.00 | .63 | .28 | .34 |
| Supporting  negative emotions | - | 1.00 | .31 | .50 |
| Reflecting  meaning of thoughts | - | - | 1.00 | .49 |
| Encouraging exploring feelings | - | - | - | 1.00 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Correlation matrix for PCA on FCS items* | | | | | |
| Correlation Matrix | | | | | |
|  | | Being empathic towards you | Understanding problems | Showing warmth | Involved in therapy |
|  | Being empathic towards you | 1.00 | .44 | .58 | .45 |
| Understanding problems | - | 1.00 | .48 | .47 |
| Showing warmth | - | - | 1.00 | .54 |
| Involved in therapy | - | - | - | 1.00 |

**Appendix O: Study 3-Proof of Ethical Approval**

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**Appendix P: Study 3-Correlation Matrices for PCAs**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Correlation Matrix for PCA on Cognitive Items* | | | | | |
| Correlation Matrix | | | | | |
|  | | Understanding depressive behaviours | Encouraging homework | Understanding contributing thoughts | Developing new perspectives |
|  | Understanding depressive behaviours | 1.00 | .40 | .54 | .29 |
| Encouraging homework | - | 1.00 | .35 | .43 |
| Understanding contributing thoughts | - | - | 1.00 | .51 |
| Developing new perspectives | - | - | - | 1.00 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Correlation Matrix for PCA on Humanistic items* | | | | | |
| Correlation Matrix | | | | | |
|  | | Supporting you emotionally | Supporting negative emotions | Reflecting meaning of thoughts | Encouraging exploring feelings |
|  | Supporting you emotionally | 1.00 | .63 | .27 | .28 |
| Supporting negative emotions | - | 1.00 | .35 | .35 |
| Reflecting meaning of thoughts | - | - | 1.00 | .54 |
| Encouraging exploring feelings | - | - | - | 1.00 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Correlation Matrix for PCA on FCS Items* | | | | | |
| Correlation Matrix | | | | | |
|  | | Being empathic towards you | Understanding problems | Showing warmth | Involved in therapy |
|  | Being empathic towards you | 1.00 | .41 | .47 | .23 |
| Understanding problems | - | 1.00 | .35 | .51 |
| Showing warmth | - | - | 1.00 | .33 |
| Involved in therapy | - | - | - | 1.00 |

**Appendix Q: PRaCTICED Reasons for Termination** **Therapist Form**

**Participant ID:**

**Therapist ID:**

**Date of first session:**

**Date of last session:**

**Date of termination (if different):**

**No of sessions:**

**Whose idea was it to terminate therapy (please circle OR bold)?**Client Therapist Both

**Reason for termination (please circle or bold):**Completed therapy Dropped out Risk to self Risk to others

**Any additional comments about the reason for terminating therapy:**

**Change of participant contact details during therapy (address/ phone number):**

**Appendix R: Study 4-Distribution of Data**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Distribution of Study Four Data* | | | | |  |  |  |  |  |  |  |  |
|  | Across Therapies | | | | CBT |  | | | CfD | | |  |
|  | *W* | *df* | *p* | *Outliers* | *W* | *df* | *p* | *Outliers* | *W* | *df* | *p* | *Outliers* |
| Cognitive Expected Engagement | .90 | 96 | < .001 | 0\* | .91 | 48 | .001 | 0\* | .88 | 43 | < .001 | 0 |
| Humanistic Expected Engagement | .94 | 96 | < .001 | 0\* | .94 | 48 | .015 | 0 | .93 | 43 | .009 | 0 |
| FCS Expected Engagement | .95 | 96 | .001 | 0\* | .94 | 48 | .023 | 0 | .94 | 43 | .032 | 0 |
| Number of Sessions | .92 | 96 | < .001 | 0 | .91 | 48 | .002 | 0 | .92 | 43 | .005 | 0 |
| Age | .96 | 95 | .006 | 0 | .95 | 48 | .044 | 0 | .95 | 43 | .073 | 0 |
| Credibility | .96 | 93 | .012 | 0 | .96 | 48 | .113 | 0 | .96 | 43 | .170 | 0 |
| Expectancy | .98 | 92 | .124 | 0\* | .98 | 48 | .454 | 0 | .98 | 43 | .676 | 0 |
| Baseline Severity | .98 | 96 | .153 | 0\* | .96 | 48 | .067 | 0\* | .97 | 43 | .245 | 0\* |
| Symptomatic Improvement | .97 | 96 | .014 | 0 | .96 | 48 | .061 | 0 | .96 | 43 | .186 | 0 |

**Appendix S: Study 4-Outlier and leverage information**

In the symptomatic improvement models, for expected engagement with a cognitive approach, four values had Cook’s distance > 4/n = .042 and one value with leverage > 2 (independent variables +1/ n) = .104. For expected engagement with a humanistic approach, three values had Cook’s distance > .042 and no values with leverage > .104. In the completion models, the expected engagement with a cognitive approach model had four values with Cook’s distance > .042 and one value with leverage > .083. For expected engagement with a humanistic approach, three values had Cook’s distance > .042 and no values had leverage > .083.

**Appendix T:** **Study 4-Exploratory analyses of relationship between expected engagement and therapy outcome**

**Humanistic Expected Engagement.** The model for expected engagement with a humanistic approach was significant with a similar sized coefficient to the model including cognitive expected engagement, *F* (8, 78) = 5.84, *p* < .001, *R2* = .37. Expected engagement with a humanistic approach did not significantly predict improvement, *b* = .55, *SE* = .37, *t* (78) = 1.49, *p* = .140, and there was no moderator effect of therapy type, *b* = -.29, *SE* = .56, *t* (78) = -.51, *p* = .609, or credibility, *b* = -.16, *SE* = .11, *t* (78) = -1.44, *p* = .153. However, for those who received CBT and rated the treatment credibility as low, higher expected engagement with a humanistic approach predicted more improvement, *b* = .86, *SE* = .37, *t* (78) = 2.32, *p* = .023, *95% CIs* (.12 – 1.60). Further details of the model can be seen in the table below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Study 4: Regression Model of Humanistic Expected Engagement to Predict Symptomatic Improvement* | | | | | | |
|  | *b* | *SE b* | *t* | *df* | *p* | *95% CIs* |
| Humanistic expected engagement | .55 | .37 | 1.49 | 78 | .140 | -.18 – 1.27 |
| Therapy type | -.63 | 1.29 | -.49 | 78 | .624 | -3.19 – 1.93 |
| Humanistic expected engagement \* therapy type | -.29 | .56 | -.51 | 78 | .609 | -1.41 – .83 |
| Credibility | .08 | .28 | .27 | 78 | .786 | -.48 – .63 |
| Humanistic expected engagement \* credibility | -.16 | .11 | -1.44 | 78 | .153 | -.38 – .06 |
| Gender | -2.06 | 1.28 | -1.61 | 78 | .112 | -4.62 – .49 |
| No of sessions | .02 | .13 | .17 | 78 | .867 | -.24 – .28 |
| Completion | 6.28 | 1.59 | 3.95 | 78 | < .001\*\*\* | 3.12 – 9.45 |

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

**FCS Expected Engagement.** The model of symptomatic improvement including expected engagement with FCS was significant, *F* (8, 78) = 4.81, *p* < .001, *R2* = .33. However, expected engagement with FCS did not significantly predict symptomatic improvement, *b* = .14, *SE* = .33, *t* (78) = .41, *p* = .679. Additionally, there was no moderator effect by therapy type, *b* = -.16, *SE* = .53, *t* (78) = -.29, *p* = .769, *95% CIs* (-1.22 – .90), or credibility on expected engagement, *b* = -.05, *SE* = .12, *t* (78) = -.42, *p* = .678, *95% CIs* (-.29 – .19).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Regression Model of FCS Expected Engagement and Symptomatic Improvement* | | | | | | |
|  | *b* | *b SE* | *t* | *df* | *p* | *95% CIs* |
| FCS Expected Engagement | .14 | .33 | .41 | 78 | .679 | -.52 – .79 |
| Therapy Type | -.25 | 1.32 | -.19 | 78 | .850 | -2.89 – 2.38 |
| FCS Expected Engagement \* Therapy Type | -.16 | .53 | -.29 | 78 | .769 | -1.22 – .90 |
| Credibility | .25 | .28 | .90 | 78 | .371 | -.30 – .80 |
| FCS Expected Engagement \* Credibility | -.05 | .12 | -.42 | 78 | .678 | -.29 – .19 |
| Gender | -2.32 | 1.32 | -1.75 | 78 | .083 | -4.94 – .31 |
| No of sessions | .03 | .14 | .20 | 78 | .843 | -.24 – .30 |
| Completion | 6.62 | 1.71 | 3.88 | 78 | < .001\*\*\* | 3.22 – 10.01 |

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

**Appendix U: Study 5-Client Involvement Item Descriptions (Morris & Fitzpatrick, 2014)**

**Item 1 (Takes responsibility):** Client takes responsibility for making present or future changes based on therapeutic work.

**Item 2 (In-session emotion):** Clients talk about an emotional reaction they experienced in session.

**Item 3 (Accept responsibility):** Clients report that they accept responsibility for their past behaviour.

**Item 4 (Therapy thoughts):** Clients report thinking about a therapist comment or discussion topic out-of-session.

**Item 5 (Difficult topic):** Clients discuss a topic which they find difficult.

**Item 6 (New emotion):** Clients report that they are experiencing a new or rarely felt emotion in session.

**Item 7 (Experiential):** Clients participate fully in an in-session experiential activity.

**Item 8 (Dishonest):** Clients mention that they have been dishonest with the therapist.

**Item 9 (Psych strategies):** Clients discuss the past or present psychological strategies (e.g. repression, denial) that protect them from experiencing negative thoughts or emotions.

**Item 10 (Broader view):** Clients link a current discussion to a broader view of themselves.

**Item 11 (Embarrassing):** Clients discuss thoughts or feelings that they are having that they consider embarrassing.

**Item 12 (Here-and-now):** Clients discuss here-and-now issues between themselves and the therapist.

**Item 13 (Maladaptive):** Clients discuss past or current thoughts, reactions or behaviours that they are having which they consider maladaptive or harmful.

**Item 14 (Better understanding):** Clients work with the therapist to better understand why they behave, think, or feel a certain way.

**Item 15 (Change strategies):** Clients discuss present or future strategies that they will use to change their thinking or behaviour.

**Item 16 (Previous emotion):** In response to a therapist query, clients discuss their emotional reactions in a self-reflective manner.

**Item 17** **(Relevant start):** Clients begin the session with therapeutically relevant material.

**Item 18 (Excited):** Clients discuss being excited or interested about some aspect of the session.

**Appendix V: Study 5-Confidentiality Agreement for Rating of Therapy Recordings**

1. I agree not to disclose any of the information I hear on the session recordings or let anyone else listen to the recordings.
2. If I recognise the participant in the recording, I agree to cease rating the session immediately and inform the researcher.
3. I agree to always use headphones when listening to session recordings.
4. I agree to always use an encrypted memory stick to transport and listen to session recordings and not to download the recordings onto a computer or any other device.
5. I agree to store the encrypted memory stick in a locked cabinet which only myself and the research team can access.
6. I agree to hand back all copies of recordings and data to the researcher after I have completed work on them.

**Appendix W: Distributions of Variables in Study 5**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Distribution of Variables in Study 5* | | | | |  |  |  |  |  |  |  |  |
|  | Across Therapies | | | | CBT | | | | CfD | | | |
|  | *W* | *df* | *p* | *Outliers* | *W* | *df* | *p* | *Outliers* | *W* | *df* | *p* | *Outliers* |
| Cognitive Expected Engagement | .90 | 41 | .001 | 0 | .91 | 24 | .037 | 0 | .88 | 18 | .023 | 0 |
| Humanistic Expected Engagement | .92 | 41 | .008 | 0 | .94 | 24 | .142 | 0 | .87 | 18 | .017 | 0 |
| FCS Expected Engagement | .93 | 41 | .012 | 0 | .94 | 24 | .141 | 0 | .91 | 18 | .092 | 0 |
| Number of Sessions | .92 | 41 | .007 | 0 | .90 | 23 | .021 | 0 | .93 | 18 | .190 | 0 |
| Therapy Session Length | .98 | 41 | .562 | 0\* | .93 | 23 | .098 | 0 | .94 | 18 | .251 | 0\* |
| Age | .96 | 41 | .122 | 0 | .93 | 23 | .129 | 0 | .96 | 18 | .618 | 0 |
| Credibility | .96 | 41 | .194 | 0 | .97 | 23 | .719 | 0 | .93 | 18 | .206 | 0 |
| Expectancy | .97 | 41 | .271 | 0\* | .97 | 23 | .690 | 0 | .97 | 18 | .718 | 0\* |
| Engagement | .97 | 41 | .253 | 0 | .95 | 23 | .235 | 0 | .98 | 18 | .929 | 0\* |
| Baseline Severity | .97 | 41 | .455 | 0 | .96 | 23 | .518 | 0 | .96 | 18 | .657 | 0 |
| Symptomatic Improvement | .95 | 42 | .089 | 0 | .94 | 23 | .150 | 0 | .93 | 18 | .219 | 0 |

*Note.* **\***Refers to the number of extreme outliers

**Appendix X: Study 5-Outlier & Leverage Information**

Expected engagement with a cognitive approach on engagement had 2 values with Cook’s distance > 4/n = .095 and no values with leverage > 2 (number of independent variables + 1/n = .143). Expected engagement with a humanistic approach had 3 values with Cook’s distance > .095 and no values > .143 leverage. Expected engagement with a cognitive approach on symptomatic improvement had 2 values with Cook’s distance > .095 and one value with leverage > .190. Expected engagement with a humanistic approach on symptomatic improvement had 3 values with Cook’s distance > .095 and one value with leverage > .190. Expected engagement with a cognitive approach on completion had one value with Cook’s distance > .095 and one value with leverage > .190. Expected engagement with a humanistic approach on completion had three values with Cook’s distance > .095 and one value with leverage > .190.