Predictors of Symptom Improvement in Cognitive Behavioural Therapy for Obsessive Compulsive Disorder

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Abstract

Cognitive behavioural therapy (CBT) is a highly effective treatment for obsessive-compulsive symptoms. However, there is contention about the mechanisms of symptom improvement in CBT for Obsessive-Compulsive Disorder (OCD). The present investigation explored the role of idiographic responsibility interpretations as a mechanism of symptom improvement in CBT for OCD. The investigation consisted of three studies. Study 1 and 2 used the Responsibility Interpretations Questionnaire (RIQ) to assess responsibility interpretations, Obsessive-Compulsive Inventory - Revised (OCI-R) to assess obsessive-compulsive symptoms, Generalised Anxiety Disorder- 7 (GAD-7) and Patient Health Questionnaire- 9 (PHQ-9) to measure generalised anxiety and depressive symptoms. Study 1 analysed if RIQ scores predicted greater variance in OCI-R than GAD-7 and PHQ-9. Study 1 also analysed whether idiographic RIQ items (70 points or above) predicted greater variance in the OCI-R than all RIQ items and non-idiographic RIQ items (60 points or below). Study 2 used a single case study design to investigate if changes in idiographic RIQ scores were more closely linked with changes in OCI-R than non-idiographic RIQ scores. Study 3 involved a qualitative analysis of High Intensity (HI) therapists' and OCD experts' views on the key elements of CBT for OCD. Study 1 results showed that total RIQ and idiographic RIQ did not significantly predict obsessive-compulsive symptoms ($p > .05$). GAD-7 was the only significant predictor ($p < .05$). Study 2 showed that idiographic RIQ scores were more closely linked with change in OCI-R scores than non-idiographic RIQ scores. Study 3 revealed that HI therapists and OCD experts reported idiosyncratic interpretations as a key element of formulation and intervention in CBT for OCD. The results of Study 2 and 3 provide preliminary

support for the role of responsibility interpretations in symptom improvement in CBT for OCD. The non-significant results for Study 1 may be due to the measures used. Larger sample sizes, alternative idiographic thresholds and idiographic outcome measures are required to fully substantiate the role of idiographic responsibility interpretations in CBT for OCD.

List of Tables

List of Figures

Table of Contents

Chapter 1

Introduction

Summary of the present investigation

In the last two decades, there has been considerable research supporting the use of Cognitive Behavioural Therapy (CBT) as a treatment for Obsessive Compulsive Disorder (OCD). The National Institute for Health and Care Excellence (NICE, 2005) recommends CBT for individuals with OCD. Several reviews (e.g., Whittal & McLean, 1999; Woody, Whittal, & McLean, 2011) and three meta-analyses (Abramowitz, 1998; Olatunji, Davis, Powers, & Smits, 2013; Rosa-Alcázar, Sánchez-Meca, Gómez-Conesa, & Marín-Martínez, 2008) report that CBT is highly efficacious in treating obsessive-compulsive symptoms. Research also suggests that CBT is specific in treating obsessive-compulsive symptoms (Ponniah, Magiati, & Hollon, 2013) and that symptom improvement is maintained over a follow-up period of five years (e.g., Meyer et al., 2010; Whittal, Robichaud, Thordarson, & McLean, 2008). Although we know CBT is highly efficacious in the treatment of obsessive-compulsive symptoms, there is contention about what mechanisms of change lead to symptom improvement (see Longmore & Worrell, 2007; Olatunji, Cisler, & Deacon, 2010). Cognitive-behavioural models highlight the importance of idiosyncratic cognitions in the development and maintenance of obsessive-compulsive symptoms (e.g., Salkovskis et al., 2000). According to cognitive-behavioural models, the identification of idiosyncratic cognitions within a collaborative formulation and the

modification of idiosyncratic cognitions throughout intervention are key elements of CBT for OCD (Beck, 1970; DeRubeis, Tang, & Beck, 2001). On the basis of this it would be expected that change in idiosyncratic cognitions would result in symptom change. However, the role of change in cognitions in symptom improvement is unclear as there are different levels of idiosyncratic cognitions (e.g., beliefs, interpretations) that can be targeted and different cognitive-behavioural models accentuate the role of different cognitions (e.g., Salkovskis, 1989; Salkovskis, 1985; Wells, 1997, 2000). Researchers have predominantly investigated the role of obsessive-compulsive beliefs in CBT for OCD (e.g., Jónsson, Hougaard, & Bennedsen, 2011). The role of interpretations of intrusions, a key feature outlined in several cognitive-behavioural models of OCD, has received far less attention. Preliminary evidence suggests that responsibility interpretations of intrusions mediate the relationship between beliefs and symptoms (e.g., Pleva & Wade, 2006). As such, it is possible that change in responsibility interpretations of intrusions may be linked to change in obsessive-compulsive symptoms.

Standardised questionnaires are commonly used in research to measure cognitions in OCD. However, the use of these standardised questionnaires has been criticised, as the overall score may not be sufficiently sensitive in capturing highly idiosyncratic cognitions in OCD (Julien et al., 2008). Idiographic questionnaires (i.e., identifying the key idiosyncratic cognitions) and their role in CBT have not been explored in OCD. Use of idiographic questionnaires in other fields suggest that this method is sensitive in capturing idiographic aspects of disorders and predicts symptoms change better than total scores on standardised questionnaires (e.g., Mumma, 2004). An

idiographic approach may also support clinicians in identifying key idiosyncratic cognitions essential for formulations and intervention planning.

Treatment manuals for CBT for OCD (e.g., Wilhelm & Steketee, 2006) list the targeting idiosyncratic interpretations (including responsibility interpretations) of intrusive thoughts as a key element of CBT for OCD. Research findings suggest that the delivery of CBT for OCD is variable, and identifying and targeting idiosyncratic interpretations has not been the focus of treatment for all individuals who had received CBT for OCD (Stobie, Taylor, Quigley, Ewing, & Salkovskis, 2007). Stobie and colleagues (2007) argue that this may be due to the level of training or theoretical orientation. In assessing predictors of symptom improvement and the mechanisms of change, it is essential to determine whether targeting idiosyncratic interpretations of intrusions is considered a key element of CBT for OCD by therapists with varied levels of training.

On the basis of the above, the present chapter will review: (i) the role of beliefs in symptom improvement, (ii) the role of interpretations of intrusions in symptom improvement, (iii) the role of idiographic questionnaire administration in CBT, and (iv) if the targeting of idiosyncratic cognitions is a key element CBT for OCD.

The following sections provide a more detailed background to the research described in this thesis.

Obsessive Compulsive Disorder

OCD is one of the most common anxiety disorders with a prevalence rate of approximately one to two per cent in the general population (Andrews, Henderson, & Hall, 2001; Kessler, Berglund, Demler, Robertson, & Walters, 2005). OCD typically has a gradual onset around adolescence or early adulthood but can also be triggered as an acute response to stressful life events (American Psychiatric Association, APA, 2000; Clark, 2004).

OCD is characterised by intrusive thoughts, images and impulses, that cause marked distress. Obsessions may include intrusive thoughts about being contaminated or harm coming to loved ones (Taylor et al., 2006). These intrusions lead the individual to carry out compulsive behaviours (e.g., checking, hand washing) in an attempt to reduce and/or neutralise the distress associated with intrusions (APA, 2000). Obsessions and compulsions therefore have a strong functional relationship (Clark, 2004). The presence of either obsessions or compulsions can be sufficient in meeting the diagnostic criteria for OCD. However, a majority of individuals with a diagnosis present with both obsessions and compulsions (Akhtar, Wig, Varma, Peershad, & Verma, 1975; Foa & Kozak, 1995). Similar to other anxiety disorders, OCD is often comorbid with other disorders. Of individuals with a diagnosis of OCD, 28 to 38 per cent also meet criteria for major depression (Kessler, Chiu, Demler, & Walters, 2005) and 20 per cent meet criteria for Generalised Anxiety Disorder (GAD; Abramowitz & Foa, 1998). The onset of depression commonly follows the onset of OCD, and it is believed that depression may be a response to obsessive-compulsive difficulties (Bellodi, Sciuto, Diaferia, Ronchi, & Smeraldi, 1992). Recent conceptualisations suggest that co-morbidity between OCD and GAD may be due to similarities in the

function of worry and compulsions (Comer, Kendall, Franklin, Hudson, & Pimentel, 2004).

Current evidence-based therapies for OCD

NICE guidelines (2005) recommend the use of two main evidence-based psychological therapies for OCD: Exposure and Response Prevention (ERP) and CBT. ERP involves exposure to the obsessional intrusion and resisting performing the accompanying compulsion. It has been found that ERP alone and CBT are equally efficacious (for a review see Ponniah et al., 2013). However, other studies report that CBT including ERP has more clinical gains than ERP alone in the treatment of both usual presentations of OCD and medication-refractory OCD (Rector et al., 2005; Van Oppen et al., 1995). Although ERP and CBT are at times considered separate therapies, ERP is often an element of CBT for OCD (Clark & Beck, 2010; Leahy, Holland, & McGinn, 2012). Researchers also argue that both ERP and CBT address maladaptive beliefs and compulsive and avoidance behaviours. However ERP may address these in an indirect manner (Rachman, 1971, 1997; Salkovskis, 1999). It may therefore be best to consider CBT for OCD as consisting of ERP and other cognitive interventions (Clark & Beck, 2010).

NICE (2005) recommends a stepped care approach to OCD. Adults with OCD and mild functional impairment are initially recommended to have low intensity therapy, which includes guided behavioural self-help such as ERP. For individuals where low intensity treatment has proved to be inadequate, NICE guidelines recommend a choice of selective serotonin re-uptake inhibitor (SSRI) or high intensity CBT (including

ERP). High intensity CBT involves more than 10 hours of therapy. For adults with OCD and moderate to severe functional impairment it is recommended that they be offered SSRI and/or high intensity CBT (including ERP).

The different levels of cognition

The Obsessive Compulsive Cognitions Working Group (OCCWG, 1997), an international group of experts in OCD, proposed that cognition in OCD can be conceptualised at three levels. The first level involves unwanted intrusive thoughts, images or impulses. The second level includes interpretations, which involve evaluations and appraisals of the meaning of specific phenomena, commonly the appraisals of unwanted intrusions. Finally, the third level includes beliefs, which are enduring ideas or attitudes held by the individual that may present themselves across situations.

The role of cognitions in symptom improvement

Several cognitions at the third (i.e., belief) level have been identified as maintaining factors for obsessive-compulsive symptoms. These include inflated responsibility (IR), over-importance of thoughts, need for control over thoughts, intolerance of uncertainty, overestimation of threat, and perfectionism (OCCWG, 1997). Cognitive-behavioural models have drawn on one or several of the above beliefs in conceptualising what leads to the development and maintenance of obsessive-compulsive symptoms. The cognitive-behavioural model by Wilhelm and Steketee (2006) incorporates all the above beliefs in their model and the evidence base for this model is therefore very broad and non-specific. The cognitive-behavioural model by Salkovskis (1985; 1989) and the metacognitive model by Wells (1997; 2001) however

emphasise the role of one or more predominant cognition of the six cognitions. A literature search suggested that the field of symptom improvement in CBT for OCD, which focuses on cognitive change, is currently dominated by Salkovskis' and Wells' models of OCD (see Appendix 1). These models are therefore discussed in depth in the following section.

The cognitive-behavioural model of OCD. Salkovskis (1985; 1989) highlighted the importance of IR in the developmental and maintenance of OCD. Salkovskis (1996) defined IR as 'the belief that one has power that is pivotal to bring about or prevent subjectively crucial negative outcomes…(these outcomes) may be actual, that is having consequences in the real world, and/or at a moral level' (p. 32). The model proposes that (i) an individual's beliefs about responsibility can lead them to misinterpret commonly experienced intrusions about harm to mean that they are responsible for harm and, (ii) it is responsibility interpretations of intrusions that cause discomfort, distress and maintain compulsive behaviour(s) (see Figure 1).

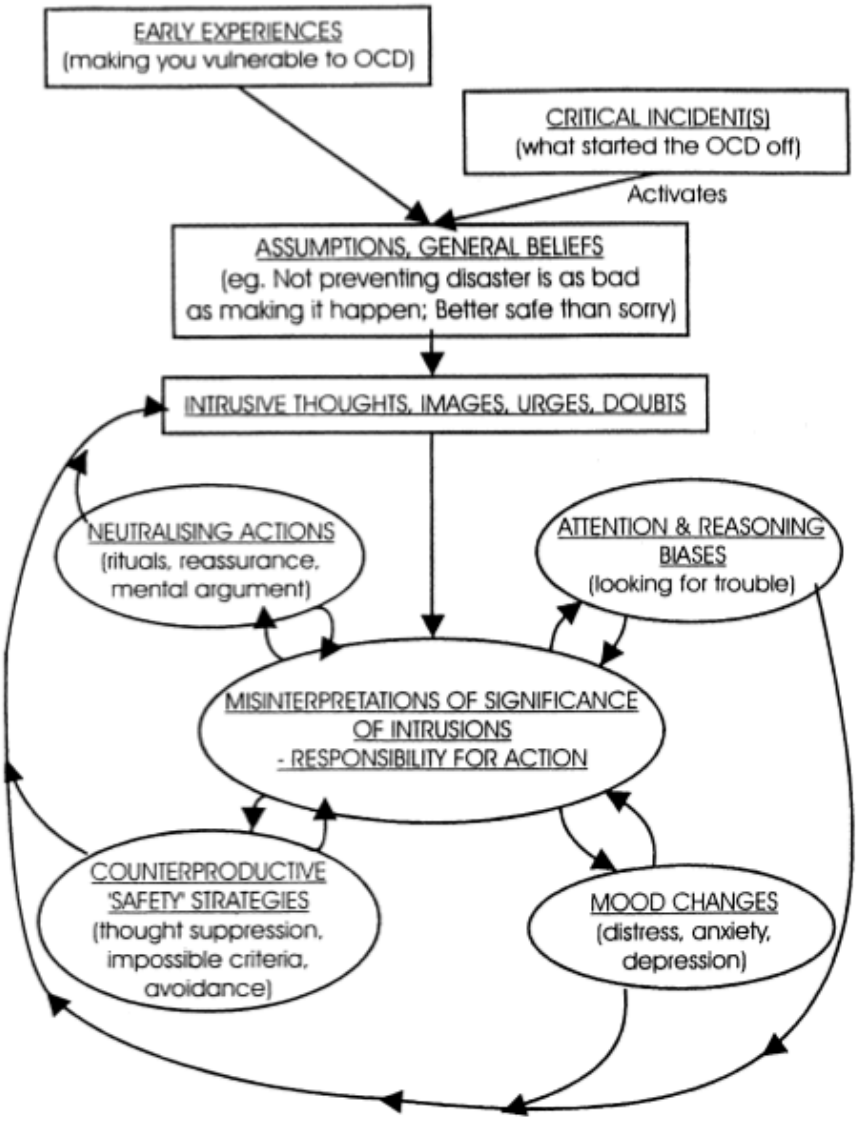

Figure 1. **A cognitive-behavioural model of OCD (Salkovskis et al., 2000).**

Salkovskis and colleagues (2000) developed two questionnaires: the Responsibility Attitudes Scale (RAS); a measure of general responsibility beliefs associated with OCD and the Responsibility Interpretations Questionnaires (RIQ); a measure of responsibility interpretations associated with the individuals' most distressing intrusions. The RIQ also consists of two subscales: frequency of responsibility interpretations and beliefs in responsibility interpretations.

Experimental research. Experimental studies have investigated the association between IR and obsessive-compulsive symptoms through manipulating the participant's sense of responsibility. These studies report that OCD participants in the low responsibility condition showed a significant decrease in the urge to neutralise, estimations for probability of threat and distress, whereas OCD participants in the high responsibility condition showed the opposite trend (Lopatka & Rachman, 1995; Shafran, 1997). Other researchers inducing responsibility in non-clinical participants report increased OCD-like behaviours compared to participants in the control condition (Robert Ladouceur, Rhéaume, & Aublet, 1997; Mancini, D'Olimpio, & Cieri, 2004). However, the above research has been criticised for investigating already developed obsessive-compulsive urges or testing for IR in non-clinical samples. In an attempt to address this criticism, Arntz, Voncken and Goosen (2007) allocated OCD patients, anxiety controls and controls to high or low responsibility conditions. They found that responsibility played a causal role in OCD as (i) new subjective OCD-like experiences were reported and (ii) compulsive behaviours were significantly higher in OCD patients in the high responsibility condition than in all other groups.

Correlational and regression research. Correlational studies on clinical and non-clinical participants using a range of questionnaires report strong correlations between IR and obsessive-compulsive symptoms. IR has been identified as specific to obsessional difficulties as studies report that (i) IR beliefs have stronger associations with a diagnosis of OCD compared to matched controls (Freeston, Ladouceur, Gagnon, & Thibodeau, 1993) and, (ii) IR is significantly correlated with obsessive-

compulsive symptoms after controlling for depression or generalised anxiety symptoms (Salkovskis et al., 2000).

Regression studies report that IR is a significant predictor of obsessive-compulsive symptoms in a non-clinical sample (Freeston, Ladouceaur, Gagnon & Thibodeau, 1992) and a strong predictor of OCD severity in an OCD sample (Rheaume, Ladouceur, Freeston, & Letarte, 1995). Salkovskis and colleagues (2000) also found that the responsibility beliefs, as measured by the RAS significantly predicted obsessive-compulsive symptoms, whereas generalised anxiety symptoms did not.

Longitudinal regression studies report that changes in IR result in symptom improvement. Jónsson and colleagues (2011) investigated the role of IR and Thought Action Fusion (TAF) as predictors of symptom improvement following individual and group CBT for OCD. TAF refers to the belief that thoughts and actions are intricately linked; that thinking about something is equivalent to it happening (Rachman, 1993). The authors found that only IR remained significantly associated with change in obsessive-compulsive symptoms after controlling for depressive symptoms. In a randomised controlled trial, McLean and colleagues (2001) used three beliefs measures (RAS, TAF Scale, and an inventory of beliefs related to obsessions) and found that only changes in IR beliefs, as measured by the RAS, predicted symptom improvement following individual and group CBT. The authors concluded that IR is specifically involved in change mechanisms for both individual and group CBT for OCD.

The above studies have employed correlational or regression analyses and we cannot therefore conclude causality. For instance, it may be possible that obsessive-compulsive symptoms lead to IR or the converse. However, the experimental research on IR may provide a rigorous foundation for the correlational and regression research. Moreover, the longitudinal studies did not control for generalised anxiety symptoms. As there is a considerable overlap in diagnoses between OCD and other anxiety disorders (Nestadt et al., 2001), it is unclear whether IR would predict symptom improvement after controlling for generalised anxiety symptoms.

Well's metacognitive model. Wells (1997; 2000) suggested that obsessive-compulsive symptoms are developed and maintained by metacognitive beliefs. Metacognition refers to the beliefs, processes and strategies that inform appraisals and monitor thinking behaviour (Wells, 2000). The two domains of metacognitive beliefs are: (i) the importance/meaning of thoughts, and (ii) the need to control thoughts and/or perform rituals. The metacognitive model proposes that metacognitive beliefs about the meaning of and dangerous consequences of thoughts can lead individuals to negatively interpret intrusive thoughts and maintain compulsive behaviours (see Figure 2).

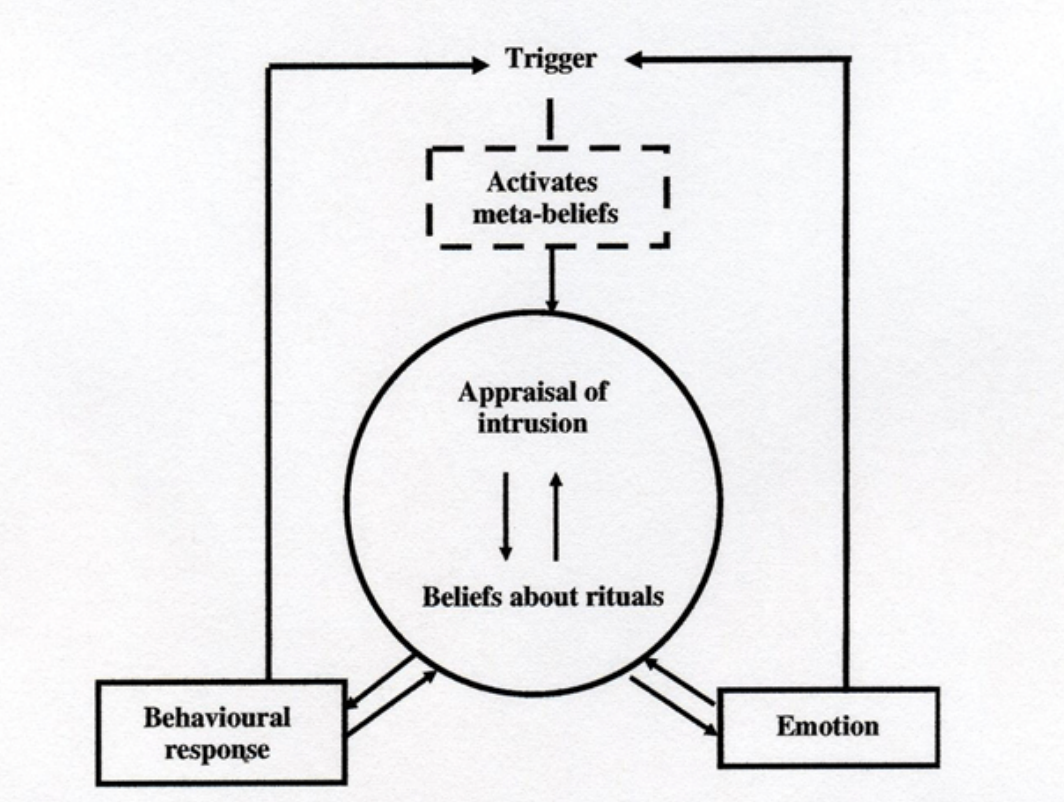

Figure 2. The meta-cognitive model of OCD (Wells, 1997; 2000).

Wells and Cartwright-Hatton (2004) developed the Metacognitions questionnaire (MCQ), which measures five metacognitive dimensions. These dimensions include: positive beliefs about worry, negative beliefs about the controllability of thoughts and corresponding danger, cognitive confidence, negative beliefs about thoughts in general/need to control thoughts and cognitive self-consciousness.

Experimental research. Fisher and Wells (2005) attempted to manipulate metacognitive beliefs by allocating OCD participants to a metacognitive condition (i.e., brief socialisation to modifying metacognitive beliefs) and an ERP condition (i.e., exposure to feared stimuli without being able to carry out compulsions). The metacognitive condition resulted in significantly reduced anxiety and distress, metacognitive beliefs and the urge to neutralise compared to the ERP condition.

One study focused solely on manipulating TAF in non-clinical participants and reported higher frequency of the target distressing thought, discomfort and resistance in the TAF condition (Rassin, Merckelbach, Muris, & Spaan, 1999). Experimental research on metacognitions is sparse, as it may be difficult to manipulate metacognitive beliefs. Moreover, research on TAF may support some aspect of metacognitive beliefs but may not support the construct in OCD as a whole. Researchers exploring TAF therefore did not conclude that their findings support the metacognitive model (e.g., Rassin et al., 1999).

Correlational and regression research. The MCQ has been found to be positively correlated with obsessive-compulsive symptoms (Hermans, Martens, De Cort, Pieters, & Eelen, 2003; Janeck, Calamari, Riemann, & Heffelfinger, 2003) and to differentiate OCD patients from anxious-controls (Cartwright-Hatton & Wells, 1997). Correlational studies on clinical and non-clinical participants using a range of metacognitive questionnaires report that metacognitive beliefs positively correlate with obsessive-compulsive symptoms after controlling for worry (Wells & Papageorgiou, 1998) and depression (Emmelkamp & Aardema, 1999).

Longitudinal research by Solem and colleagues (2009) investigated whether change in metacognitions predicts symptom improvement following ERP in participants with OCD. Hierarchical regression analyses revealed that the MCQ predicted symptom improvement above that predicted by two sub-scales (responsibility/overestimation of threat and perfectionism/certainty) of the Obsessive-Beliefs Questionnaires (OBQ; OCCWG, 2001). This result was significant after controlling for pre-treatment scores

and depressive symptoms. However, this finding has not been replicated in CBT and the researchers did not control for worry or generalised anxiety symptoms.

Studies investigating solely TAF reported that TAF beliefs played a significant role in clinical obsessions (Rachman & Shafran, 1999; Rassin et al., 1999). However, TAF beliefs have been identified in depressive and other anxiety disorders and are arguably a general feature of psychiatric disorders that are characterised by negative affect (Abramowitz & Foa, 1998; Hazlett-Stevens, Zucker, & Craske, 2002). Similarly, maladaptive metacognitions have been defined as a key feature of several psychiatric disorders (e.g., generalised anxiety disorder, Wells & Carter, 2001; psychosis, Morrison, French, & Wells, 2007).

The overlap between IR, metacognitions and other cognitions. Some researchers conceptualise IR as a component of metacognition while others suggest that metacognitions are a component of IR (Gwilliam & Wells, 2004; Salkovskis & Forrester, 2002). Two studies on large non-clinical samples found that (i) the MCQ is positively correlated with obsessive-compulsive symptoms after controlling for IR beliefs (Gwilliam & Wells, 2004) and (ii) when each MCQ dimension was entered into a hypothesised causal sequence, it explained incremental variance in obsessive-compulsive symptoms, after controlling for responsibility and worry (Myers, Fisher, & Wells, 2008). The authors of the above studies concluded that their findings support the notion that metacognitions account for IR. However, some limitations of these studies include the use of non-clinical samples and different questionnaires or questionnaire subscales in measuring IR. Neither of the studies used the RAS or RIQ, both of which show good test-retest reliability and high internal consistency

(Salkovskis et al., 2000). Moreover, neither controlled for depressive symptoms, a variable consistently associated with obsessive-compulsive symptoms (Bolhuis et al., 2013).

Salkovskis and Forrester (2002) proposed theoretical overlaps between IR and the two metacognitive belief domains: over-importance of thoughts and controlling one's thoughts. They suggested that beliefs about the over-importance of thoughts contribute to IR and it is the responsibility interpretations that increase the likelihood of the individual believing they must control their thoughts. IR and over-importance of thoughts have been found to be strongly correlated with one another in a large OCD sample (OCCWG, 2001). Studies reporting that individuals with recurrent obsessions attach importance to their thoughts and regard them as horrific, dangerous and threatening (e.g., Freeston et al., 1993) therefore support both models. In addition, studies with OCD participants report moderate correlations between IR and TAF ($r = 0.6$) after controlling for depression severity (e.g., O'Leary, Rucklidge, & Blampied, 2009). These researchers suggest that IR may partially contribute to the development and maintenance of TAF (Marino-Carpenter, Negy, Burns, & Lunt, 2010) and/or TAF may be a complex form of responsibility belief (Salkovskis, Shafran, Rachman, & Freeston, 1999).

IR has also been found to overlap with other cognitions. The OCCWG (2005) developed the OBQ to assess the six cognitive belief domains. In the process of validating this questionnaire, IR and overestimation of threat items were grouped together as one factor following a factor analysis. The grouping of these factors provided support for the cognitive-behavioural model by Salkovskis (1985; 1989), as

the model hypothesises that IR leads to obsessions about causing or preventing potential harm. In relation to the other cognitive domains, beliefs related to intolerance of uncertainty and perfectionism have been found to be relevant to but not specific to individuals with obsessive-compulsive symptoms (OCCWG, 2005).

The two models highlight the importance of interpretations of intrusions, but argue that the content of these interpretations differ. The research suggests there is relatively more experimental and correlational/regression evidence for IR involvement in OCD, whereas evidence for metacognitions is currently emerging and needs replication. Moreover, there appears to be a significant overlap between IR, metacognitions and other cognitive domains, but, confoundingly, metacognitions and other cognitive domains are common across psychiatric conditions, and exhibit little specificity to OCD. The present state of the research suggests that IR is specific to OCD and may therefore play an important role in symptom improvement during CBT. However, future research on IR needs to control for the influence of both depression and generalised anxiety on symptom improvement.

What is the role of interpretations of intrusions in symptom improvement?

The cognitive-behavioural model of OCD (Salkovskis, 1985) discussed earlier, proposes that an individual's beliefs can lead them to misinterpret commonly experienced intrusions about harm to mean that they are responsible for harm, thereby maintaining obsessive-compulsive symptoms. Salkovksis' model suggests that interpretations of intrusions motivate compulsive behaviours, which in turn strengthen and maintain responsibility interpretations (Salkovskis, 1999). Rachman (1997) stated that 'obsessions are caused by catastrophic misinterpretations of the significance of

one's unwanted intrusive thoughts. The obsessions persist as long as these misinterpretations continue and diminish when the misinterpretations diminish' (p. 793). From this perspective, beliefs and interpretations of intrusions are linked but are seen as theoretically distinct (Salkovskis et al., 2000). The research outlined thus far has largely investigated beliefs rather than interpretations of specific intrusions. However, Salkovksis' and Rachman's theoretical account suggests that obsessive-compulsive symptoms may be more closely tied to interpretations of intrusions than beliefs.

The mediating role of interpretations of intrusions. Regression analyses suggest that interpretations of intrusions have a mediating role between IR beliefs and obsessive-compulsive symptoms. Pleva and Wade (2006) investigated the pathway mediating IR in an individual's belief system on non-clinical participants. They used the RAS, RIQ and an obsessive-compulsive symptom questionnaire in a hierarchical regression analysis and found that intrusive thoughts mediated the relationship between IR and obsessive-compulsive symptoms. In a longitudinal study, Abramowitz, Nelson, Rygwall and Khandker (2007) used a range of questionnaires (e.g., OBQ, Interpretations of Intrusions Inventory-III; OCCWG, 2003) with first time expecting parents during postpartum. They found that negative interpretations of the occurrence and significance of intrusive infant-related thoughts in the early postpartum mediated the relationship between pre-childbirth obsessive beliefs and late post-partum obsessive-compulsive symptoms.

Interpretations of intrusions and obsessive-compulsive symptoms. Studies investigating the links between obsessive-compulsive beliefs and interpretation of

intrusions questionnaires report that the two are highly correlated and may therefore represent overlapping features of dysfunctional thinking in OCD (OCCWG, 2003). However, few studies have focused on the link between interpretations of intrusions and obsessive-compulsive symptoms. Emmelkamp, van Oppen, and van Balkom, (2002) carried out two studies investigating cognitive change following ERP in participants with OCD. They reported a significant reduction in OBQ and III scores following treatment. However, further analyses revealed that only the III differentiated between ERP responders and non-responders. The OCCWG (2005) also found that the III predicted harming thoughts, whereas subscales of the OBQ commonly associated with harming thoughts such as importance of thoughts and need to control thoughts did not.

Two studies explored the relationship between responsibility interpretations (using the RIQ) and obsessive-compulsive symptoms. Williams, Salkovskis, Forrester, and Allsopp (2002) found high correlations (rs = 0.92-0.95) between the two subscales of the RIQ and obsessive-compulsive symptoms when they pooled self-report data in their adolescent OCD sample. Salkovskis and colleagues (2000) found that the frequency subscale of the RIQ predicted obsessive-compulsive symptoms after controlling for depressive symptoms and generalised anxiety symptoms, whereas the belief in interpretations subscale of the RIQ did not. Salkovskis and colleagues (2000) used the Obsessive Compulsive Inventory (Foa et al., 1998) to measure obsessive-compulsive symptoms in their study. Wroe (1997) looked more closely at subscales of the OCI and found that the interpretation belief subscale of the RIQ predicted obsessions and neutralising subscales of OCI, whereas the frequency subscale of the RIQ predicted washing and checking subscales of the OCI. These findings suggest

associations between responsibility interpretations and obsessive-compulsive symptoms. The findings also indicate that different subscales of RIQ may better predict different types of obsessive-compulsive symptoms.

Longitudinal studies investigating the role of responsibility interpretations in symptom improvement report promising results. Williams and colleagues (2005) found that both frequency and belief in interpretation subscales of the RIQ decreased at the same rate as obsessive-compulsive symptoms (as measured by the OCI) in adolescents with OCD during CBT. Another study explored responsibility interpretations (Haraguchi et al., 2011) in Japanese adults with OCD pre and post group CBT using the RIQ. They found a significant reduction from pre to post-treatment in the belief in interpretation subscale of the RIQ and obsessive-compulsive symptoms (as measured by the Yale-Brown Obsessive Compulsive Scale, Y-BOCS; Goodman et al., 1989), but not the frequency subscale of RIQ. The findings of the above studies more consistently support the role of the belief in interpretations subscale of the RIQ in longitudinal research.

Overlap with other cognitive domains. The OCCWG (2005) developed the III to assess interpretations for the six cognitive domains discussed earlier. However, factor analytic studies on large sample sizes supported a single factor structure: negative interpretations of intrusions. The overlap between interpretations of intrusions across cognitive domains can also be seen when looking at the items of the RIQ. The RIQ, for instance, contains items that show overlap between control of thoughts and responsibility (e.g., 'If I don't resist these thoughts it means I am being irresponsible'), and with thought action fusion (e.g., ''Thinking this could make it

happen') (Wroe, 1997). These findings suggest that there may not be a clear difference between interpretations of intrusions across the cognitive domains.

Critical evaluation of the role of interpretations in symptom improvement. The studies reviewed in this chapter suggest the importance of interpretations of intrusions as (i) mediators between beliefs and obsessive-compulsive symptoms and, as (ii) predictors of obsessive-compulsive symptoms. However, the studies do have some limitations. For instance, the studies investigating the mediating role of IR interpretations have been carried out in non-clinical samples. Salkovskis and colleagues (2000) findings were also based on the combined scores of three participant groups (OCD, anxious controls and non-clinical). It is therefore possible that the findings of these studies may not be applicable to individuals with OCD. The reviewed studies have also not been replicated. For instance, the inconsistent findings reported by Salkovskis and colleagues (2000) have not received support from other studies.

The longitudinal studies are limited in their generalisability as they have used small (Williams et al., 2005) and non-adult sample sizes (Haraguchi, Shimizu & Ogura, 2011), and specifically targeted responsibility interpretations during CBT. Moreover, Haraguchi Shimizu and Ogura (2011) carried out t-tests to detect pre and post symptom improvement, which could not control for depressive and generalised anxiety symptoms. Due to high levels of co-morbidity between OCD, depression and other anxiety disorders, it cannot be concluded that symptom improvement was the result of responsibility interpretations alone. To substantiate if interpretations of intrusions are more sensitive to detecting obsessive-compulsive symptoms, studies

need to include participants with OCD undergoing non-specific OCD and control for depressive and generalised anxiety symptoms.

What is the role of idiographic questionnaire administration in symptom improvement?

Salkovskis (2004) suggested that OCD is a heterogeneous disorder and CBT for OCD should therefore involve identifying idiosyncratic interpretations of intrusions that may be maintaining obsessive-compulsive symptoms. However, researchers have commonly used standardised belief questionnaires to measure change in beliefs in CBT for OCD. Julien and colleagues (2008) argued that standardised OCD belief questionnaires that provide an average score are insufficiently sensitive in capturing highly idiosyncratic and strongly held cognitions. In support of this, researchers investigating idiographic approaches (e.g., Mumma, 2004) argue that standardised questionnaires capture inter-individual variance (i.e., differences between individuals) but do not consider intra-individual variance (i.e., variability in an individual's responses on a measure of a over time). Intra-individual variance may be particularly important when measuring the role of highly idiosyncratic interpretations of intrusions in symptom improvement.

Idiographic approaches in OCD. There has been some use of idiographic approaches in the field of OCD. Several semi-idiographic measures have been developed that specifically focus on interpretations of intrusions rather than general beliefs (e.g., RIQ, Salkovksis et al., 2000; III, OCCWG, 2003). These measures ask participants to select key distressing intrusive thoughts and rate validated items about the key distressing intrusions. Several of these questionnaires have been used in

symptom improvement research. However, these questionnaires are only idiographic in that they ask participants to rate validated items related to idiosyncratic intrusions and therefore cannot be compared to a standardised version of the questionnaire.

Other researchers in OCD have used idiographic stimuli in experimental domains. Tolin and colleagues (2001) asked participants with OCD to rate a list of seventy-eight stimuli as safe, unsafe or neutral, following which the top eight rated in each category were used during the experimental manipulation of memory recall and memory confidence. Similarly, Amir, Nader, Najmi and Mirrison (2009) asked participants to select stimuli from a list of 163 words and rate each word on a negative to positive emotionality scale. Ratings were used to compile a set of eighteen words for each participant that were relevant to their specific concerns when assessing informational processing biases towards threat. The use of semi-idiographic questionnaires and idiographic stimuli highlights the importance of idiographic approaches in OCD.

Ladouceur, Freeston, Gagnon, Thibodeau, and Dumont (1993) used a single case study design to investigate change in idiographic obsessional intrusions following ERP for three participants. They found reductions in idiographic obsessional intrusions following ERP. They concluded that alongside behavioural change, cognitive change in the interpretation of obsessional thoughts was essential to symptom improvement. Another study by Careau, O'Connor, Turgeon, and Freeston (2014) also employed a single case study design to explore the relationship between the occurrence of idiographic elevated mood-states and idiographic interpretations in eight participants as they were undergoing CBT for OCD. They found that (i)

conviction in idiographic interpretations significantly decreased throughout treatment and, (ii) there were significant co-variations between idiographic mood-states and idiographic interpretations for seven of the eight participants throughout the course of treatment. Careau and colleagues (2014) also found that obsessive-compulsive beliefs and depressed mood were not significant correlates with idiographic mood-states and idiographic interpretations. These studies provide support for the use of idiographic assessment to measure idiosyncratic cognitions throughout treatment of obsessive-compulsive symptoms. Careau and colleagues (2014) findings also provide some preliminary support that idiographic interpretations may be more closely linked to symptoms compared to beliefs.

Idiographic questionnaire administration in fields other than OCD. Research on idiographic questionnaire administration has taken place across several fields and has employed various idiographic approaches. Caldwell, Cervone, and Rubin (2008) used idiographic and standardised questionnaire methods to predict intra-individual variability in humour. The idiographic assessment involved participants listing beliefs about humour and then ranking them in order of relevance. The likelihood of humour varied substantially as a function of the idiographic situations and not the situations identified on the standardised questionnaire. Mumma (2004) carried out a case study on a 44-year old female with anxiety and depressive disorders, where idiographic measures were compared to standardised ones. The idiosyncratic daily questionnaire included key idiosyncratic cognitions and items with high relevance ratings (i.e., 5 and above on a 0-10 scale). The standardised questionnaires measured symptoms, distress and cognitions. Mumma (2004) reported that the idiographic questionnaire predicted

an incremental six per cent daily variability in symptoms and distress than standardised cognition questionnaires.

Other research fields have explored the difference between standardised and idiographic questionnaires without specifically considering intra-individual variance. Solomon, Arnow, Gotlib, and Wind (2003) for instance, used two questionnaires measuring irrational beliefs about demandingness (a standardised and an idiographic measure) to test the hypothesis that demandingness is a stable characteristic of depression-prone females. The idiographic approach involved participants selecting items out of several self-evaluative domains and rating them according to degree of self-demand. After controlling for residual depressive and anxiety symptoms, a significant difference between 20 depression-prone and 20 closely matched non-depression prone females was detected by the idiographic measure but not the standardised measure.

A study on symptom improvement following intervention by Hopko, Bell, Armento, Hunt, and Lejuez (2005) investigated the effects of behaviour therapy with depressed cancer patients using idiographic assessments. Each client rated his or her weekly progress on 15 individually selected activities (e.g., involvement in social situations) on a scale from 'easiest to accomplish' to 'most difficult to accomplish'. Weekly evaluations by the therapist of each client's progress were used to guide the development of individualised treatment programs with weekly behavioural goals. The authors reported a significant improvement post-treatment on ratings of depression, quality of life and medical outcomes (with moderate to large effect sizes).

Critical evaluation of idiographic questionnaire administration. The studies reviewed in this section have used a range of methods in identifying and analysing an idiographic approach with limited replication. It is therefore unclear what method or analytic approach needs to be used in idiographic questionnaire administration. Haynes, Mumma, and Pinson (2009) attempted to offer a systematic approach following their review of idiographic assessment. They recommended selecting idiographic items from a standardised questionnaire using severity, frequency or relevance ratings and administering questionnaires over several time points. The Haynes, Mumma, and Pinson (2009) recommendations may provide a starting point to developing an idiographic questionnaire that measures symptom improvement in CBT for OCD. The selection of items from a standardised questionnaire may also support comparisons between idiographic, non-idiographic (i.e., remaining items on the questionnaire not rated highly) and standardised questionnaires.

The research discussed in this section has also been largely carried out using small sample sizes and findings have not been consistently replicated. The small sample sizes may be due to the increased resources and time needed to develop idiographic measures, as well as recruiting participants to actively select idiographic items. Research involving participants completing questionnaires over several time periods can lend itself more to single case study design (e.g., Caraeu et al., 2014; Mumma, 2004). Moreover, Eels (2007) reported that case studies allow inferences to be made about the idiographic maintaining factors and mechanisms of change during therapy. Other researchers also argue that repeated measurement with one individual over a period of time gives an understanding of the idiosyncratic relationships between variables of interest as they occur in the individual's natural environment (Careau et

al., 2014). Recent use of single case study design series, where the variable of interest is explored across participants allow inferences to be made about the relationships between variables for several participants (Affleck, Zautra, Tennen, & Armeli, 1999; Kazdin, 2011). Interpretations of intrusions are highly idiosyncratic and single case study designs may be beneficial in capturing the relationship between interpretations of intrusions and obsessive-compulsive symptoms over time.

Single case study design in relation to interpretations of intrusions has been discussed earlier in this section. However, to understand further the usefulness of single case study design in relation to mechanisms of symptom improvement in CBT for OCD, additional research using single case study designs in the field of OCD must be explored. Several single case studies in OCD have largely focused on assessing whether a specific form of therapy or aspect of therapy resulted in symptom improvement for one (Colving & Boddington, 1997; Freeston, 2001; Warnock-Parkes, Salkovskis & Rachman, 2012) or more participants (Freda et al., 2014; Liu, Han & Xu, 2011; Veale et al., in press). For instance, Warnock-Parkes, Salkovskis and Rachman (2012) used a single case study design with a participant suffering from treatment resistance OCD characterised by mental contamination concerns. The authors assessed if standard CBT or adapted CBT for mental contamination resulted in greater symptom improvement. Their findings suggested that when CBT was adapted to target idiographic mental contamination cognitions, greater symptom improvement was achieved. In another study, Veale and colleagues (in press) used a single case experimental design for twelve participants to investigate if imagery re-scripting for idiographic recurrent intrusive distressing images resulted in symptom improvement. They found reliable symptom improvement for nine of the twelve

cases and clinically significant change at follow up. The above studies have used single case experimental designs to explore if change in idiographic cognitions relevant to the individual's OCD presentation resulted in symptom improvement. The findings of these studies suggest that using a single case study design methodology may be beneficial in exploring idiographic elements of OCD and their relation to symptom improvement throughout therapy.

Several advantages to the use of single case study designs have been discussed. However, a key limitation of this approach is generalisability of findings (Kennedy, 1979). Single case study designs may offer in –depth assessment of a variable that results in symptom improvement but we are unable to say whether targeting this variable would result in symptom improvement for other individuals with a similar presentation (e.g., Careau et al., 2014). Given this limitation, it may be important to use single case study designs alongside quantitative studies with larger sample sizes. Using single case and quantitative studies may help assess idiographic cognitions at an individual level and at a population level.

Is the targeting of idiosyncratic interpretations a key element of CBT for OCD?

Treatment manuals in CBT for OCD and the Centre for Outcome Research Effectiveness (CORE) competencies for OCD outline the following key elements of CBT for OCD: (i) assessment of the client's understanding of intrusions and interpretations of intrusions, (ii) identifying general cognitive errors and their relation to interpretation of intrusions, (iii) identifying idiosyncratic interpretations using downward arrowing and Socratic questioning, (iv) administering relevant questionnaires to understand pattern of symptoms, (v) challenging interpretations of

intrusions through cognitive restructuring, (vi) monitoring of idiosyncratic cognitions, and (vii) carrying out exposure and response prevention (Roth & Pilling, 2007; Whittal & McLean, 1999; Wilhelm & Steketee, 2006).

Treatment manuals outline the key elements of CBT for OCD, it is however unclear whether the delivery of CBT for OCD by clinician groups includes these elements. The introduction of the No Health Without Mental Health strategy (Department of Health, 2011) has resulted in increased provision of evidence-based psychological treatments in primary care settings such as Improving Access to Psychological Therapies (IAPT) services. Psychological therapies are provided by a range of professionals in these settings with varying degrees of training. The varying degree of training may therefore result in variability in the delivery of CBT for OCD (McManus al., 2012).

The variability in the delivery of CBT for OCD. The variability in the delivery of CBT for OCD has been demonstrated by research in two main areas: therapist delivery of CBT for OCD and client experiences of therapy. Ponniah and colleagues (2013) carried out an extensive review on the efficacy of psychological treatments for OCD and reported that there was a substantial variability in the way CBT for OCD was provided across studies. Some studies for instance combined generic cognitive restructuring with ERP, while others provided interventions focused on specific cognitions (e.g., IR). Moreover, it is difficult to establish what training or supervision therapists had as not all studies provided this information. Geffken, Storch, Gelfand, Adkins, and Goodman (2004) reviewed treatment techniques in CBT for OCD offered by nurses and found that clients did not receive empirically validated interventions.

Geffken and colleagues (2004) concluded this may have been due to limited knowledge about CBT among mental health professionals.

Stobie and colleagues (2007) focused on client experiences and carried out a pilot study on treatment histories of individuals of OCD. They found that 40 per cent of participants who were provided CBT did not meet minimum criteria for adequate CBT. For instance, the research group found that participants did not do exposure exercises, homework and spent majority of the sessions either speaking freely or about their childhoods. Moreover, they found that only 36 per cent of participants reported having modified misinterpretations in CBT for OCD. Stobie and colleagues (2007) concluded that delivery of CBT for OCD may therefore vary depending on the therapists' theoretical orientation and skill. They also suggested that highly skilled clinicians may devise highly idiosyncratic formulations and intervention plans. Other researchers also argue that therapists providing CBT often have limited access to supervision and training and this may further impact the quality of CBT that is delivered to clients (e.g., McManus, Rakovshil, Kennerley, Fennell & Westbrook, 2012; Shafran et al., 2009).

Therapist use of formulation. The development of a formulation, or shared understanding of the problem, is a key component of psychological therapy as it supports client engagement and guides selection and focus of intervention (Hallam, 2013; Kuyken, Padesky & Dudley, 2009). Formulation in CBT for OCD requires identification of key interpretations which maintain beliefs and behaviours, and supporting the client in considering helpful alternatives (Salkovskis 1985; 1989). However, it is not known the extent to which therapists are competent and confident

in formulation techniques in CBT in OCD. Research on the use of formulation in CBT has been focused on mental health conditions other than OCD. These research findings may nevertheless extend to CBT for OCD.

In a study investigating the use formulation by mental health therapists, Kuyken, Fothergill, Musa and Chadwick (2005) provided 115 mental health therapists with the same case vignette and asked the therapists to produce formulations. The authors assessed the quality of formulations on a scale ranging from poor to good and found that less than half (44%) of the formulations were 'at least good enough'. Other researchers have explored the relationship between quality of formulation and therapist experience. Eels and colleagues (2005) compared formulations produced by cognitive-behavioural with varying levels of experience (novice, experienced and experts). The criteria for quality assessment included comprehensiveness, elaboration and complexity. They found that experts produced better quality formulations when compared to experienced and novice therapists. Eels and Lombart (2010) explored quality of formulations in cognitive-behavioural therapists with varying levels of experience but also went on to assess how formulations informed therapist treatment preconceptions. They found several differences between experts and experienced and novice therapists in relation to formulation and treatment preconceptions. For instance, experts reported needing more information to develop the formulation and reported that the client would need a greater number of treatment sessions compared to experienced and novice therapists. Another study by Dudley, Ingham, Sowerby and Freeston (2015) explored how experts and non-experts used a pre-constructed CBT formulation for treatment planning and how the therapists used their own formulations for treatment planning. The authors found that experts and non-experts used similar

aspects of the pre-constructed CBT formulation for treatment planning. However, when participants had to develop their own formulations, experts demonstrated greater parsimony, internal consistency and chose more relevant treatment options. These studies suggest that there may be differences in therapist formulations due to level of experience. It may therefore be important to consider expert and non-expert views when exploring key elements of formulation and intervention.

Methodologies used in exploring therapist views on CBT. In recent years, researchers have begun to investigate therapist views on formulation and intervention in CBT. These studies have commonly employed two methodologies: questionnaires or semi-structured interviews. Studies using questionnaires have investigated therapist views on CBT for a particular disorder and therapist views on ways of working. For instance, McAleavey, Castonguay and Goldfried (2014) used a questionnaire to explore CBT therapist views on barriers to implementing manualised CBT for social phobia and Jones, Bale and Morera (2013) used a semi-structured questionnaire to investigate IAPT therapist's experiences of and attitudes towards telephone assessments.

Other researchers have used qualitative approaches when exploring therapist views. Kroese and colleagues (2014) conducted semi-structured interviews with CBT therapists to explore therapist views and expectations of CBT with adults with intellectual disabilities. Naeem, Gobbi, Ayub and Kingdon (2010) explored psychologist views on providing CBT in Pakistan to better understand elements of culturally-sensitive CBT. These studies used thematic analysis to identify themes associated with therapist views of therapy.

Research on therapist views suggests that both questionnaires and semi-structured interviews can be useful when investigating therapist views. The above research has explored therapist views of CBT in a general manner. One study (Morrison & Barratt, 2010) has specifically focused on what therapists perceive as key elements of CBT. Morrison & Barratt (2010) aimed to investigate what a group of experts in CBT for psychosis viewed as the key elements of CBT for psychosis. Experts were asked to produce and rate statements on several aspects of treatment (e.g., assessment, formulation, homework). The authors found that by using expert generated statements and ratings, they were able to compile a list of items considered essential for CBT for psychosis.

Critical evaluation. Ponniah and colleagues (2013), and Stobie and colleagues (2007), report variability in CBT for OCD, however it is unclear what key elements were set as criteria for CBT for OCD. For instance, Stobie and colleagues (2007) assessed whether participants received adequate CBT for OCD, but did not outline what elements needed to be present for therapy to be considered adequate.

Although research suggests the importance of formulation as a key element of CBT, less is known about therapists' view of the key elements of CBT. The previously mentioned study by Morrison & Barratt (2010) found CBT expert views on therapy was a feasible approach to determining the key elements of CBT for psychosis. They reported that such findings help us see the overlap between expert views, current clinical practice and recommendations in treatment manuals. However, the study did not explore formulation in particular. A detailed literature search found that to date,

there have been no studies exploring what therapists consider as the key elements of CBT for OCD (see Appendix 1).

The reviewed research also suggests that therapist views of therapy may differ depending on their experience (e.g., Dudley et al., 2015). Exploring the views of therapist with varying levels of experience and training may further help us understand whether therapist views of key elements of therapy differ depending on experience and training.

Previous studies on therapist experience have used questionnaires (e.g., De Haan & Lee, 2014; Jones, Bale & Morera, 2013) or qualitative approaches involving thematic analysis (Kroese et al., 2014; Naeem et al., 2010). Studies using questionnaires (e.g., Jones, Bale & Morera, 2013) report that questionnaires are a useful method as clinicians often have restricted time and questionnaires do not need to be done in person. However, studies using semi-structured interviews and thematic analysis have highlighted the usefulness of this approach in capturing the breadth of therapist experience and views (e.g., Jones, Bale & Morera, 2013). Semi-structured interviews involving thematic analysis allow a broader exploration of the topic area as questions are open-ended and the researcher is able to ask follow-up questions. The flexible process of thematic analysis can also result in identification of themes that may not have been previously associated with the topic (Guest, MacQueen, & Namey, 2012). Therefore, in exploring therapist views on the key elements of CBT for OCD, it may be beneficial to employ a flexible approach using semi-structured interviews and thematic analysis.

Using various methods

Recent literature suggests that using a range of methods (e.g., randomised controlled trials, qualitative methods, case studies) may help researchers move beyond just investigating the effectiveness of psychological interventions to investigating the mechanisms underlying symptom improvement during interventions (e.g., Dattilio, Edwards, & Fishman, 2010). For instance, Edwards (2007) reviewed studies using various methods and identified their unique contributions in the treatment of post-traumatic stress disorder. Findings from case studies and qualitative research may therefore complement large-scale research findings (Barlow & Nock, 2009; Creswell, 2014). The present literature has thus far outlined the usefulness of three separately methods. These include quantitative, single case study design and qualitative thematic analysis. Given the limited amount of single case design studies and qualitative studies investigating predictors of symptom improvement in OCD, using quantitative, single case study design and qualitative methodology may offer a multifaceted, detailed and more generalisable account of predictors of symptom improvement in CBT for OCD.

The present investigation

In light of the reviewed research, the present investigation used three studies to explore the role of idiographic responsibility interpretations in CBT for OCD. Studies 1 and 2 aimed to investigate the role of responsibility interpretations and idiographic responsibility interpretations in predicting obsessive-compulsive symptoms and the role of idiographic responsibility interpretations in symptom improvement. Study 3 aimed to investigate if idiosyncratic interpretations are considered a key element of CBT for OCD by clinicians with different training backgrounds.

Studies have largely focused on cross-sectional links between IR and obsessive-compulsive symptoms with little attention paid to responsibility interpretations of intrusions. Study 1 aimed to use both a cross-sectional and longitudinal approach to investigate whether responsibility interpretations and idiographic responsibility interpretations predict symptom improvement in CBT for OCD. The RIQ was chosen for the present investigation over the III as (i) the reviewed research suggests that responsibility cognitions are specific to OCD, (ii) the III assesses one overall factor: negative interpretations that include responsibility interpretations, and (iii) the III has twice as many items as the RIQ and would increase response burden. Moreover, the belief in interpretations subscale of the RIQ was used in the present investigation as (i) longitudinal studies more consistently report the role of belief in interpretations in CBT for OCD (e.g., Haraguchi et al., 2011; Careau et al., 2014), and (ii) belief ratings for interpretations of intrusions are commonly used in CBT for OCD (Wilhelm & Steketee, 2006).

As Williams and colleagues (2005), and Haraguchi and colleagues (2011), reported a significant change in responsibility interpretations, the present study aimed to replicate these findings in adults undergoing non-specific individual CBT for obsessive-compulsive symptoms. Moreover, as depressive and generalised anxiety symptoms may influence symptom improvement, the present study also aimed to control for the influence of both on obsessive-compulsive symptoms and symptom improvement.

Idiographic approaches to questionnaire administration in OCD have been sparse. As interpretations of intrusions are highly idiosyncratic, standardised questionnaires may not capture their specific role in symptom improvement in CBT for OCD. Studies 1 and 2 used an idiographic approach to questionnaire administration by compiling an idiographic RIQ score which consisted of RIQ items with high belief ratings (70 and above on a 0-100 scale). The idiographic RIQ was then compared to the total RIQ score and the non-idiographic RIQ (items with belief ratings of 70 and below). Study 1 aimed to explore whether total RIQ scores predicted obsessive-compulsive symptoms and if the idiographic RIQ predicted symptoms/symptom improvement more than the total RIQ and the non-idiographic RIQ. Study 2 aimed to explore the relationship between idiographic RIQ, non-idiographic RIQ scores and obsessive-compulsive symptoms over several time points during treatment using a single case study design. A single case study design was chosen for Study 2 as (i) repeated measurements from one participant may best capture the idiosyncratic relationships between variables of interest as they occur in the individual's natural environment, and (ii) the pattern of these relationships can be compared across participants (Affleck, Zautra, Tennen, & Armeli, 1999; Kazdin, 2011).

There is limited research on what therapists feel are the key elements of CBT for OCD. An account of therapists' views may elucidate the underlying mechanisms of symptom improvement targeted by clinicians. As researchers have suggested that delivery of CBT may be influenced by therapist level of training, it may be informative to assess for differences in views across clinicians with different training backgrounds. Study 3 therefore aimed to use qualitative interviews to investigate if OCD expert and non-expert (High Intensity therapists) clinicians viewed idiosyncratic

interpretations as a key element of CBT for OCD and if OCD experts provided more in-depth examples of how they targeted idiosyncratic interpretations in their work.

Aim and hypotheses. The present investigation aimed to explore the predictors of symptom improvement in CBT for OCD by investigating four hypotheses across three studies:

Study 1

- Hypothesis 1: Responsibility interpretations (as measured by RIQ total scores) will predict greater variance in obsessive-compulsive symptoms (OCI-R) than generalised anxiety (GAD-7) and depressive (PHQ-9) symptoms (i) at pre-treatment and, (ii) pre- to post –treatment;
- Hypothesis 2: The idiographic RIQ will predict greater variance in obsessive-compulsive symptoms (OCI-R) than the (i) total RIQ and (ii) non-idiographic RIQ scores;

Study 2

- Hypothesis 3: Idiographic RIQ scores will be more closely linked to change in OCI-total score than the non-idiographic RIQ scores, and;

Study 3

- Hypothesis 4: High Intensity therapists and OCD experts will report that idiosyncratic interpretations are a key element of CBT for OCD. However,

OCD experts will provide more and in-depth examples of targeting idiosyncratic cognitions in their clinical practice.

Chapter 2

Method

The present investigation consisted of three studies. This chapter describes the methodology for each study.

Study 1

Design. Study 1 followed a quasi-experimental longitudinal repeated-measures design. This design consisted of three independent variables as predictors. These included: responsibility interpretations (total RIQ), idiographic responsibility interpretations (idiographic RIQ) and non-idiographic responsibility interpretations (non-idiographic RIQ). The dependent variable was the distress caused by symptoms (OCI-R). Generalised anxiety (GAD-7) and depression (PHQ-9) ratings were added as predictor variables to control for any confounding effects they may have on the relationship between the independent and dependent variables. This was in line with previous studies using regression models to detect change pre and post treatment (e.g. Solem et al., 2009; Jonsson, Jougaard & Bennedsen, 2011).

Participants. 60 participants were approached at Berkshire outpatient Improving Access to Psychological Therapies (IAPT) services. 52 participants agreed to participate in the study. Of these participants, 17 withdrew during the study and seven did not complete their treatment and were therefore excluded from the study. The final sample consisted of 28 participants at pre-treatment and eight participants at post-treatment. The participants were aged between 18 and 42 and included 20 females and eight males. Participants were informed about the study by IAPT staff members at

triage assessment or while they were on a waiting list to receive CBT for obsessive-compulsive symptoms.

Inclusion and exclusion criteria. Inclusion criteria for participation in the study required participants to:

1) Have a primary label of OCD on the IAPT computerised system;
2) Be aged 18 to 65;
3) Be sufficiently proficient in written and spoken English and;
4) Be undergoing low or high intensity treatment for symptoms of OCD.

The exclusion criteria included a:

1) Diagnosis of organic brain disease;
2) Primary diagnosis of Diagnostic and Statistical Manual of Mental Disorders -5 (DSM-5; APA, 2013) disorders other than OCD (i.e., current psychotic episode, severe substance abuse disorder, Bipolar affective disorder and severe depressive disorder, personality disorders and developmental disorders).

To establish if participants met inclusion and exclusion criteria, notes from triage and intervention on the IAPT computerised system were consulted.

Effect size and power analysis. For the purpose of this study, previous research was reviewed to establish the necessary effect size. Two power analyses were carried out: one for the pre-treatment data and one for pre to post-treatment data.

Pre-treatment data. Salkovskis and colleagues (2000) used the frequency subscale of RIQ to predict obsessive-compulsive symptoms on participants. The effect size calculator (Soper, 2015a) was used to determine effect size using Salkovskis and colleagues reported statistics. This calculation suggested a large effect size ($f^2 = 0.52$). A statistics calculator (Soper, 2015b) was used to determine the minimum number of participants needed to detect a large effect size of 0.52 for a regression analysis with three predictors (total RIQ scores, GAD-7 and PHQ-9 scores). The total RIQ scores, idiographic RIQ scores and non-idiographic RIQ scores were to be entered separately into three different regression models. The analysis suggested that a minimum of 23 participants were required to detect a large effect size with a power of 0.8.

Pre- to post-treatment. No previous study has used a regression analysis to investigate whether responsibility interpretations of intrusions predict symptom improvement (see Appendix 1 for literature search details). However, previous studies have used a regression analysis to investigate whether obsessive beliefs as measured by the OBQ predict symptom improvement. The subscales of the OBQ and its counterpart, III are highly correlated (rs = 0.56-0.71; OCCWG, 2003). The III had the closest possible relation to the RIQ as both aim to measure interpretations of intrusions. Due to the strong correlation between the OBQ and III, the OBQ was used as the basis for power analysis.

The only study using a regression analysis with the OBQ to measure pre and post improvement in obsessive-compulsive symptoms following individual CBT in an outpatient setting (Solem et al., 2009) revealed a large effect size ($f^2 = 0.37$; Soper, 2015a). A statistics calculator (Soper, 2015b) was used to determine the minimum

number of participants needed to increase the likelihood of detecting a large effect size for a regression analysis with three predictors (total RIQ scores, GAD-7 and PHQ-9 scores). To be able to detect a large effect size of 0.37 with three predictors in a hierarchical regression analysis with a power of 0.8, a minimum of 30 participants were required.

The power of the pre-treatment sample obtained (n = 28) was 0.07 for the hierarchical regression analysis involving the total RIQ and 0.13 for the hierarchical regression analysis involving the idiographic RIQ (Soper, 2015c). The power of the pre to post-treatment sample could not be calculated as the sample size was too small (n = 8) and statistical analyses were therefore not carried out on this data.

Ethical Approval. Permission to conduct studies 1 and 2 was obtained from City Road and Hampstead NHS Research Ethics Committee (REC; see Appendix 2) and the Royal Holloway, University of London Research Ethics Committee (see Appendix 3). Local approval was gained from Berkshire Healthcare NHS Foundation Trust Research and Development Department (see Appendix 4) to carry out research within IAPT services in the trust.

Following the commencement of recruitment, the researcher submitted a substantial amendment to the REC to improve response rates. The amendment requested (i) the addition of a prize draw, (ii) for the researcher to be able to follow-up participants after sending questionnaire packs with one phone call and, (iii) to broaden inclusion criteria to include clients receiving low intensity cognitive-behavioural therapy. This substantial amendment was approved by City Road and Hampstead NHS REC (see

Appendix 5). The amendment also received approval by the Berkshire Healthcare NHS Foundation Trust Research and Development Department (see Appendix 6).

Service user consultation. Clients were consulted in the development of the questionnaire pack. Firstly, a former client currently working as a researcher in the field of OCD was approached and asked her views on how to make the questionnaire completion process easier for participants. As a result of this consultation, a brief information sheet about maintaining well-being when completing the questionnaire was added to the questionnaire pack (see Appendix 7).

Secondly, two current clients receiving CBT for obsessive-compulsive symptoms at Berkshire IAPT services volunteered to complete the questionnaires and provide feedback on the content and process of completion. As a result of this, a word in the instructions on one questionnaire was change from 'check' to 'tick' and the colours of the questionnaires were changed from grey and white to blue and white.

Questionnaire measures. A battery of six questionnaires was used to collect pre-treatment data. A battery of four questionnaires was used to collect every three session and post-treatment data. Only four questionnaires were required for data collected after pre-treatment, as questionnaires used to support the diagnostic label were no longer needed.

The Psychiatric Diagnostic Screening Questionnaire. The Psychiatric Diagnostic Screening Questionnaire (PDSQ; Zimmerman & Mattia, 2001; see Appendix 8) was developed to screen for DSM-IV Axis I disorders commonly encountered in

outpatient mental health settings. In the present investigation, the PDSQ was used as a screening tool to assess if participants met screening criteria for OCD and psychosis. The PDSQ measured current and recent (two weeks prior to evaluation) symptoms using a yes or no response scale.

The OCD sub-scale of this questionnaire consists of seven items and the psychosis sub-scale consists of six items. Participants needed one "Yes" response on both subscales to meet threshold level for further diagnostic screening. The authors of the screening tool established this threshold because 92 per cent of individuals with a diagnosis of OCD responded "Yes" to one or more items and 75 per cent of individuals with a diagnosis of psychotic disorder responded "Yes" to one or more items.

The PDSQ has undergone a series of validation processes involving primary care psychiatric outpatients (n = 124-701). Throughout these studies the PDSQ has been refined. The validation study on the final version of the PDSQ found internal consistency ranging from good to questionable (George & Mallory, 2003) with a Cronbach's alpha of 0.83 for the OCD and 0.66 for the psychosis subscales. Test-retest reliability coefficients were found to be 0.85 and 0.73 for the OCD and psychosis subscales respectively. The sensitivity ratings for the OCD and psychosis subscales were 80 and 75 per cent respectively (Zimmerman & Mattia, 2001), without co-morbid diagnoses being taken into account. In addition, the OCD and psychosis subscales were significantly correlated with measures of a similar syndrome (OCD = Maudsley Obsession-Compulsion Questionnaire; Hodgson & Rachman, 1977, and psychosis = The Psychosis and Paranoia subscales of the Symptom-Rating Test;

Kellner, 1985) with values of 0.64 for the OCD subscale and 0.58 for the psychosis subscale.

Internal consistency was calculated for the PDSQ subscales for the present study using participant ratings. Internal consistency for PDSQ OCD (α = .35) and psychosis (α = -.19) subscales suggested unacceptable internal consistency. Reasons for low internal consistency may be due to small number of items on the subscales or poor inter-relatedness between the items for the current sample (Schmitt, 1996; Tavakol & Dennick, 2011).

The Yale-Brown Obsessive-Compulsive Scale - Self-report. The Yale-Brown Obsessive Compulsive Scale self-report (Y-BOCS; Rosenfield, Dar, Anderson, Kobak, & Greist, 1992; see Appendix 9) is a 10-item questionnaire that assesses severity of obsessive and compulsive symptoms. The Y-BOCS self-report was used in the present investigation to support the screening by PDSQ OCD subscale and to assess severity of symptoms. Obsessions and compulsions on this scale are rated separately using a 5-point Likert scale (0-4; content of scales vary according to question). Participants were asked to list their key obsessions and compulsions and to rate the ten items on the basis of the list. The Y-BOCS provides a subtotal by obsessions or compulsions and also a total score across all ten items. The Y-BOCS also provides cut offs for varying levels of severity (less than 10 = very mild OCD symptoms, 10-15 = mild OCD symptoms, 16-25 = moderate OCD symptoms and more than 25 = severe OCD symptoms).

The Y-BOCS self-report version was validated with 180 undergraduate students and

50 medical patients (Warren, Zgourides, & Monto, 1993) and found to have excellent internal consistency for both subscales and total score. The Y-BOCS interview version is considered a gold standard for assessing outcome in OCD research (Jonsson et al., 2011). Researchers have therefore compared the psychometric properties of the Y-BOCS self-report to the clinician rated Y-BOCS interview. Steketee, Frost, and Bogart (1996) compared the Y-BOCS interview to the Y-BOCS self-report in non-clinical (n= 70), clinical control (n=10) and OCD (n= 36) groups. They found that for the non-clinical sample the self-report version had excellent internal consistency with Cronbach's alphas of 0.84 or above. For the OCD sample, the Cronbach's alpha was questionable (0.55) for the obsessional subscale and acceptable (0.71 – 0.78) for compulsions subscale and total scores. The authors also measured test-retest reliability for the non-clinical sample and found it to be excellent with high correlations for subscale (r = 0.87 obsessions subscale; 0.82 compulsions subscale) and total scores (r = 0.88) at Time 1 and Time 2.

They also found that the Y-BOCS self-report had strong convergent validity, as demonstrated by its strong positive correlations with the Y-BOCS interview for the non-clinical sample (r = 0.65 - 0.75) and for the clinical sample (r = 0.73 - 0.79). The Y-BOCS self-report was also found to have good discriminant validity when comparing scores by OCD, clinical controls and non-clinical groups. The threshold score of 16 was found to have good sensitivity.

Internal consistency was calculated for the Y-BOCS for the present study using participant ratings. The Cronbach's alpha found suggested poor internal consistency ($\alpha = .52$).

The Obsessive Compulsive Inventory- Revised. The Obsessive Compulsive Inventory (OCI-R; Foa et al., 2002; see Appendix 10) assesses distress caused by obsessive-compulsive symptoms. This questionnaire was used because (i) previous research employing idiographic approaches (Mumma, 2004) have used questionnaires assessing distress/symptoms to estimate the strength of relationship between idiographic assessment and symptoms/distress, and (ii) to identify if subtypes of OCD symptoms influence interpretations of intrusions.

The OCI-R is an 18-item questionnaire. Participants rate responses on a 5-point Likert scale from 0 (not at all distressing) to 4 (extremely distressing). The OCI-R produces a total score, and scores by subscales differentiating between types of OCD (i.e., washing, checking, ordering, obsessing, hoarding, mental neutralising).

Foa and colleagues (2002) investigated the psychometric properties of the OCI-R with three groups: OCD (n= 118), anxious controls (n = 146) and non-anxious controls (n = 74). They found that the subscales internal consistency using Cronbach's alpha ranged from 0.81 - 0.80 for the OCD group, 0.76 - 0.91 for the anxious control group and 0.34 - 0.89 for non-anxious controls. They also reported the test-retest reliability coefficients were excellent for the subscale and total scores (0.74 - 0.91) for the OCD group and good to excellent for non-anxious controls (0.57 - 0.87). Foa and colleagues (2002) found significant positive correlations (r = 0.53 – 0.85) between the OCI-R and other OCD measures (e.g. Y-BOCS interview and MOCI; Hodgson & Rachman, 1977), suggesting good convergent validity. To establish divergent validity, Foa and colleagues (2002) looked at correlations between the OCI-R and Beck Depression

Inventory (Beck, Rush, & Shaw, 1979) and reported a strong correlation (r = 0.70), suggesting poor divergent validity. The overlap between OCD and depression measures is well recognised (Taylor, 1998) and may be due to the diagnostic overlap between OCD and depression.

Internal consistency was calculated for the OCI-R for the present study using participant ratings. The Cronbach's alpha found suggested good internal consistency ($\alpha = .84$).

The Responsibility Interpretations Questionnaire. The Responsibility Interpretations Questionnaire (Salkovskis et al., 2000; see Appendix 11) belief in interpretations subscale consists of 16-items that assess belief in responsibility interpretations of intrusions. The questionnaire required participants to write down unwanted intrusions that they had experienced in the last two weeks. Participants were then asked to rate the frequency and how much they believed in the 16 statements related to their noted intrusions. Responses were rated on a scale from 0 (I did not believe this idea at all) to 100 (I was completely convinced this idea was true). The RIQ was scored by dividing the total score by the number of items.

Salkovskis and colleagues (2000) investigated the reliability and validity of the RIQ with three groups: OCD (n = 49), anxious controls (n = 38) and non-clinical group (n = 144). They found that internal consistency was excellent with Cronbach's alpha ratings of 0.92 and test-retest reliability coefficients of 0.8. Convergent validity was established by looking at correlations between the RIQ and other OCD measures (i.e., MOCI and OCI) and found to be significantly positively correlated with the MOCI (r

= 0.55) and OCI (r = 0.63). Salkovskis and colleagues (2000) also reported good criterion validity as the RIQ differentiated between the anxious control and non-clinical group.

Internal consistency was calculated for the total RIQ for the present study using participant ratings. The Cronbach's alpha found suggested good internal consistency (α = .88).

The idiographic Responsibility Interpretations Questionnaire. Previous studies have used two main methods of identifying idiographic items from questionnaires: relevance ratings (Mumma, 2004) and severity ratings (Solomon et al., 2003). The present study used severity ratings only to determine how much the participant believed in the interpretation of the intrusion when they rated the RIQ items. Previous research has used ratings of 50 and above out of a 100 scale (Mumma, 2004). The present study used a threshold of 70 and above out of 100 scale, to allow meaningful comparisons between the idiographic and non-idiographic RIQ. Relevance ratings were not used in the present investigation as (i) it is likely that high severity ratings may also capture high relevance items and, (ii) to decrease response burden.

The non-idiographic Responsibility Interpretations Questionnaire. The non-idiographic RIQ consisted of all items rated 60 and below.

Internal consistency could not be calculated for the idiographic and non-idiographic RIQ for the present study as participant scores consisted of different items.

Generalised Anxiety Disorder-7. The Generalised Anxiety Disorder-7 (GAD- 7; (Spitzer, Kroenke, Williams, & Löwe, 2006; see Appendix 12) is a 7-item questionnaire used primarily as a screening and severity measure for GAD in primary care outpatient mental health services. The items of the GAD-7 are derived from the DSM-IV classification of GAD. The GAD-7 was used in the present investigation to control for the influence of generalised anxiety symptoms on obsessive-compulsive symptoms and symptom improvement.

The GAD-7 required participants to rate how bothered they were by a list of symptoms over the last two weeks on a 4-point Likert scale ranging from 0 (Not at all) to 3 (Nearly every day). The GAD-7 provides a total score that can be categorised into mild (5), moderate (10) and moderately severe (15). The GAD-7 has a threshold of 10 points or greater for identifying individuals suffering from GAD.

Spitzer and colleagues (2006) carried out validation studies on 2149 outpatients. The GAD-7 was found to have excellent internal consistency with a Cronbach's alpha of 0.92 and good test-retest reliability with a coefficient of 0.83 (Spitzer et al., 2006). Further investigation showed that GAD-7 has good convergent validity when correlated with related measures such as the Beck Anxiety Inventory (Beck, Epstein, Brown, & Steer, 1988; $r = 0.71$) and good criterion and construct validity as evidenced by its comparison with diagnoses made by mental health professionals and functional status measures (Spitzer et al., 2006).

Internal consistency was calculated for the GAD-7 for the present study using participant ratings. The Cronbach's alpha found suggested acceptable internal consistency ($\alpha = .75$).

Patient Health Questionnaire-9. The Patient Health Questionnaire-9 (PHQ-9; (Kroenke & Spitzer, 2002; see Appendix 12) is a 9-item questionnaire used as a screening and severity measure for depression in primary care outpatient mental health services. The items of the PHQ-9 are derived the from the DSM-IV classification of Major Depressive Disorder. The PHQ-9 was used in the present study to control for the influence of depressive symptoms on obsessive-compulsive symptoms and symptom improvement.

Similar to the GAD-7, the PHQ-9 requires participants to rate how bothered they are by a list symptoms over the last 2 weeks on a 4-point Likert scale ranging from 0 (Not at all) to 3 (Nearly every day). It then provides a total score that can be categorised into mild (5), moderate (10) and moderately severe (15). The PHQ-9 has a threshold of 10 points or greater for identifying individuals suffering from depressive symptoms.

In a primary care outpatient sample (n = 580), the PHQ-9 has shown excellent internal consistency with a Cronbach's alpha of 0.89 and excellent test-retest reliability with a coefficient of 0.84 (Kroenke & Spitzer, 2002; Löwe, Kroenke, Herzog, & Gräfe, 2004). It also has superior criterion validity as evidenced by its comparison to a diagnostic interview (Kroenke, Spitzer, & Williams, 2001) and good construct

validity, as strong associations were found between total scores, functional status, disability days and symptom-related difficulties. Löwe and colleagues (2004) also found that the PHQ-9 shows sensitivity to changes in depression ratings over time as compared to the Structured Clinical Interview for DSM-IV diagnoses. This finding supports its use in longitudinal studies.

Internal consistency was calculated for the PHQ-9 for the present study using participant ratings. The Cronbach's alpha found suggested good internal consistency ($\alpha = .84$).

Procedure. The details of the study were added to the weekly newsletter emailed to all IAPT staff members. Potential participants meeting inclusion criteria were informed about the study at triage assessments carried out by Psychological Wellbeing Practitioners (PWPs). Clients who consented to participating were asked whether they would like to be sent a questionnaire pack home or complete the questionnaires over the phone. If participants agreed to participate the 'OCD research' label was ticked on the IAPT computerised system and a note was made. Any participants missed at this stage were picked up by a PWP reviewing the waiting list weekly and contacting any suitable participants to see if they would like to participate. The PWP then forwarded a report to the researcher with the participant's details. The researcher then either sent an information sheet (see Appendices 13 – 16) and questionnaire pack to the participants or called the participant to complete the questionnaires over the phone. The questionnaire packs took approximately 20 minutes to complete. Participants returned questionnaire packs directly to the researcher in pre-paid envelopes. The researcher called participants if the questionnaire packs were not returned within two

weeks. This follow-up call allowed the researcher to answer any questions regarding the questionnaires or study and to see if the participant would prefer to complete the questionnaire pack over the phone.

The PWP sent the researcher a weekly update on the number of sessions participants had completed. The researcher either mailed or called participants to complete the every three session and post-treatment questionnaires.

A voucher incentive involving entry into a prize draw to win up to £50 worth of Sainsbury's vouchers was implemented to improve response rates. Participants were entered into the prize draw if they returned a completed prize draw form or consented to being entered into the prize draw over the phone (see Appendix 17).

Debrief. As the researcher was unable to recruit the minimum amount of participants needed to run statistical analysis on post-treatment data, the researcher will continue recruitment. Following completion of the investigation, participants will be sent a summary sheet on the aims and findings. Three participants will also be approached to participate in the feedback of the results of the study to the Berkshire IAPT teams. The aim and findings of the study will be presented at two team meetings collaboratively with the clients.

Study 2

Design. Study 2 followed a single case study design. Three participants from the larger participant pool completed questionnaires at four or five time-points: pre-treatment, session 3, 6, 9 and post-treatment. This design involved exploring the

relationship between four variables: responsibility interpretations (total RIQ), idiographic responsibility interpretations (idiographic RIQ), non-idiographic responsibility interpretations (non-idiographic RIQ) and distress caused by symptoms (OCI-R). This design allowed the exploring of questionnaire ratings without any manipulation, to establish how changes in interpretations of intrusions influence symptoms/distress ratings over time.

Participants. All participants who agreed to participate in Study 1 were approached to participate in Study 2. A total of seven participants agreed to participate in Study 2. Of these participants, none withdrew during the study and four did not complete their treatment and were therefore excluded from the study. The final sample consisted of three participants. The participants were aged between 21 and 42 years and included three females. Participants were informed about the study by IAPT staff members at triage assessment or while they were on a waiting list to receive cognitive-behavioural therapy for obsessive-compulsive symptoms.

Sample size. Studies that used case designs in adolescent OCD and were able to detect symptom improvement following intervention aimed at reducing negative interpretation of intrusions had sample sizes of six (Williams et al., 2002) and two (Shafran & Somers, 1998). Based on the samples of the above studies and the scope of the present study, the aim was to recruit ten participants.

Analytic strategy. Data from single case study design can be analysed visually and/or statistically. Researchers have suggested that visual analysis should be the only or primary method for analysing single case study designs, as any large effects and

relationships between variables should be easily observable (Baer, 1977; Michael, 1974; Parsonson & Baer, 1978, 1986). At present, it is unclear if statistical methods contribute anything more to interpretation of findings than visual analysis of data (Brossart, Parker, Olson, & Mahadevan, 2006). The present study therefore used visual analysis alone.

Visual analysis can be difficult to interpret effectively if: (i) the scale of measurement and axes bias the data in a particular direction or does not allow unbiased visual comparison across participants; (ii) if there is high variability in the data making it difficult to visually detect a trend and; (iii) if small differences are present but not easily detected visually, increasing the possibility of a Type I error (Brossart et al., 2006; Morley, 2015). To overcome the above obstacles, scales and axes were kept the same for all participants, the variables included were kept to a minimum and trend lines were applied to the data. The graphs consisted of the key variables of interest: total RIQ, idiographic RIQ, non-idiographic RIQ and OCI-scores. A trend line was fitted to each variable by calculating the line of best fit.

Replication. Replication aims to establish if the patterns observed from repeated measurement of one individual level are consistent across several individuals (Kazdin, 2011). The present study therefore aimed to compare patterns across participants.

Ethical approval. For details see ethical approval section for Study 1.

Service user consultation. For details see service user consultation section for Study 1.

Questionnaire measures. For details see questionnaire measures section for Study 1.

Procedure. Study 1 and 2 followed the same procedure with the exception that participants involved in Study 2 completed questionnaires every three sessions rather than at pre and post-treatment only. For details see procedure section for Study 1.

Debrief. For details see debrief section for Study 1.

Study 3

Design. Study 3 involved a qualitative thematic analysis approach to exploring therapists' views on the key elements of CBT for OCD. Thematic analysis is a method used to identify, analyse, and report themes within data. The detail of the data are organised according to differing themes (Braun & Clarke, 2006). Thematic analysis was favoured for the present study above other approaches such as grounded theory and Interpretive Phenomenological Analysis (IPA). Grounded theory aims to develop a theory from themes arising from participants' accounts (Glaser & Strauss, 1967). The present study investigated an area that had not previously been studied and aimed to establish whether participants' views were influenced by cognitive-behavioural theory. The purpose of the study was therefore to broadly explore therapist views as opposed to develop a theory. Thematic analysis therefore allowed a flexible approach better suited to the study aims than grounded theory.

Thematic analysis was considered more suitable for the present study as opposed to IPA, because IPA is concerned with understanding participants' idiographic phenomenological experience and its relation to the wider social and cultural contexts

(Larkin, Watts, & Clifton, 2006; Smith, Flower, & Larkin, 2009). The aims of the present study were however to explore similarities and differences across participant groups and analyse data from a realist as opposed to interpretative approach.

Therapist position. The researcher assumed a realist position to investigation. This realist position held that the participants' language reflected the meaning and experience of the phenomenon under investigation (Widdicombe & Wooffitt, 1995). The realist approach was assumed as it complemented both the research question and quantitative approaches.

Sampling approach. This study involved a theoretical sampling approach within a thematic analyses framework. Theoretical sampling is method of collecting data whereby the researcher generates themes as data is collected, coded and analysed (Glaser, 1978). As theoretical sampling is commonly used in grounded theory, qualitative research literature in grounded theory was used to inform the sampling approach. Thematic analysis is a flexible qualitative approach, which can overlap with other qualitative approaches discussed earlier (Guest, MacQueen, & Namey, 2012). Literature from grounded theory therefore also extends to thematic analysis.

Initial decisions when using a theoretical sampling approach are not based on a theoretical framework; the researcher instead attempts to collect data in a way that will address the general area of investigation. As data is collected the researcher identifies key areas of interest and these provide the foundation for further data collection and the continual evolving of the themes (Glaser & Strauss, 1967). In theoretical sampling, data is collected and themes evolve until the researcher reaches

thematic saturation. Saturation refers to a point after which gathering of new data does not add anything new to the developed themes (Strauss & Corbin, 1990). At that point, the themes are considered fully developed in the context of the data collected (Schwandt, 2001).

Participants. Initially, six High Intensity (HI) therapists were approached at both recruitment sites that had provided CBT for OCD. The therapists were selected as they had provided therapy to a participant in Study 1 and therefore their views on the focus of CBT for OCD, could shed some light on the findings of Study 1. Two therapists agreed to participate in the study, and consisted of one female and one male aged 30 and 53 years, respectively.

Six HI therapists who had not worked with the participants of Study 1 or 2 but had provided CBT for OCD to clients were approached, to help the researcher gain a general understanding of what therapists who work with a range of client presentations felt were the focus of CBT for OCD. All six therapists agreed to participate in the study. This therapist group consisted of four females and two males aged between 28 and 48 years, three of which were of White British ethnicity, two of British Irish ethnicity and one of British Asian ethnicity. The therapists had between two and 15 years of experience following HI intensity training.

In addition, six experts within the field of OCD were approached. OCD experts were approached to explore views of clinicians with longer experience of working with OCD clients and within specialist OCD settings. Experts in the field were labelled as experts if (i) they had extensive clinical experience in CBT for OCD (e.g. more than

three years), (ii) were currently working in or had experience of working in specialist OCD clinics and (iii) had peer reviewed publications in OCD. The experts consisted of four females and two males aged between 38 and 45 years, all of which were of White British ethnicity. The expert participants had three to ten years of experience working with OCD clients following Clinical Psychology training.

Ethical Approval. Permission to conduct Study 3 was obtained from the Royal Holloway, University of London Research Ethics Committee (see Appendix 18). Ethical approval was not required from a regional Research Ethics Committee as the study only involved staff members. Local approval was also gained from Berkshire Healthcare NHS Foundation Trust Research and Development Department (see Appendix 19) to recruit staff members within IAPT services in the trust.

Procedure.

Initial interview schedule. The initial interview schedule consisted of eight questions. Prompt questions were asked only if a participant's response did not cover the main area of interest. These questions aimed at capturing broad clinical elements relevant to working therapeutically with individuals with OCD (e.g. formulation, outcome monitoring using questionnaires and therapeutic techniques). HI therapists who had worked with the participants in Study 1 were asked specific questions about whether they targeted idiosyncratic responsibility interpretations in sessions based on participants RIQ ratings. Other High Intensity Therapists and OCD experts were asked more general questions about what they felt was the focus of CBT for OCD (see Appendix 20).

Participant consultation. The initial interview schedule was sent to a Clinical Psychologist working in an IAPT service for feedback. The feedback suggested that the schedule was clear and succinct. No changes were therefore made to the initial interview schedule.

Two pilot interviews were carried out prior to recruitment. One interview was carried out with an OCD expert and one with a HI therapist. Both interviews were carried out over the phone. Feedback from these interviews was used to devise instructions for future interviews. As a result of the feedback, the instructions, (i) made clearer that the questions were concerning an individual with a typical presentation of OCD and with no significant co-morbid conditions, and (ii) emphasised that there are no right or wrong answers and that the researcher was interested in elements of daily practice based on training and experience, and (iii) encouraged participants to take their time to answer the questions as they may have felt rushed over the phone.

The altered interview schedule. The initial interview schedule was altered following piloting. An additional question was added to the interview schedule that focused on challenges of working with clients with OCD. This question was added because it gave therapists the opportunity to discuss potential challenges in targeting interpretations in CBT for OCD.

Following the initial two interviews, additional prompt questions were also added. Participants were prompted about what cognitive-behavioural models they used when providing CBT for OCD and were asked when they found it most helpful to use questionnaires in CBT for OCD (see Appendix 21).

Interview procedure. The interviews were carried out over the phone with all participants. Participants were provided an information sheet (see Appendix 22) and consent form (see Appendix 23) a week before the interview was to be carried out. All participants mailed signed consent forms to the research prior to the interview.

The interviews lasted approximately 30 minutes. Participants were interviewed over a period of three months.

Transcription. Each interview was transcribed verbatim by the researcher and did not include non-verbal utterances and pauses. To maintain anonymity, therapists were given participant numbers. The two participant groups consisting of HI therapists were numbered together and differentiated between by using the note: HI therapist who provided therapy to a participant in Study 1. The OCD expert group was numbered separately.

Analytic strategy.

Identifying a theme. 'A theme captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set' (Braun & Clark, 2006 p. 10). As there is no precise method of selecting themes, the researcher aimed to be flexible in the process of theme identification as data was collected. As a minimum rule, themes were classified if mentioned by two or more participants. Themes can also be identified at different levels: semantic or explicit and, latent or interpretative (Boyatzis, 1998). Given the aims of the present study, data was thematically analysed at a semantic level.

An inductive approach to theme identification was chosen. This approach allowed the identification of themes that were closely linked to the data (Patton, 1990). This approach was appropriate in capturing therapists' views on the key elements of CBT for OCD in the broadest sense. This approach also corresponded to the researcher's realist position and allowed for results and interpretation of data to more closely correspond with the results of the quantitative analyses.

Stages of thematic analysis. The study followed the four stages of thematic analysis outlined by Braun and Clarke (2006). The stages included:

1) The researcher immersing themselves during the transcription of the data so as to familiarise themselves with the depth and content of the interviews. The researcher accomplished this by reading and re-reading the transcripts and identifying patterns during this process. The researcher also started taking notes of ideas for coding (see Appendix 24 for sample transcription);
2) Generating an initial thematic coding frame by organising chunks of data into meaningful categories;
3) Searching for themes and sub-themes by developing an initial thematic map, and;
4) Reviewing, defining and naming themes by contrasting them with previous themes and considering any other data collected that does not fit into thematic categories.

Validity. To avoid researcher bias effects on coding, during stage two, a third-year Trainee Clinical Psychologist with experience in thematic analysis assisted with the

validity analysis. The Trainee Clinical Psychologist developed a separate coding frame based on a random selection of 20 passages from all transcripts. This coding frame was compared to the main researchers and overlap and lack of overlap was discussed.

To ensure that the present qualitative investigation met quality criteria for good qualitative research, guidelines by Elliott, Fischer, and Rennie (1999) were drawn upon as the researcher carried out the stages of the thematic analysis outlined earlier.

Debrief. Participants were debriefed about the aims and hypotheses of the study verbally after the interview was completed. Participants were also given the opportunity to ask any questions about the study. Participants were emailed the abstract for the present study after completion of the study and asked to contact the researcher with any questions.

Summary

The present investigation consisted of three studies. Study 1 analysed if RIQ scores predicted greater variance in OCI-R than GAD-7 and PHQ-9. Study 1 also analysed whether idiographic RIQ items (70 points or above) predicted greater variance in the OCI-R than all RIQ items and non-idiographic RIQ items (60 points or below). Study 2 used a single case study design to investigate if changes in idiographic RIQ scores were more closely linked with changes in OCI-R than non-idiographic RIQ scores. Finally, Study 3 involved a qualitative analysis of HI therapists' and OCD experts' views on the key elements of CBT for OCD.

Chapter 3

Results

Overview

The investigation describes three studies. The present chapter addresses each study and its hypotheses in turn.

Study 1 – A quantitative approach to investigating the role of responsibility interpretations and idiographic responsibility interpretations in predicting obsessive-compulsive symptoms

Data exploration. There was a value missing for the Y-BOCS total score for one participant; however, as Y-BOCS scores were not part of the main analysis, no further steps were taken to replace this value. Boxplots were conducted on the data and no outliers (i.e., a data point more than three standard deviations away from the mean) were identified.

Assumptions for parametric testing. The sample size for the pre-treatment data was 28 and the sample size for the post-treatment data was eight. Assumptions for parametric testing were only explored for pre-treatment data as the post-treatment sample was too small. The data met the initial assumptions for parametric testing as the variables showed independence and were at interval level. Skewness and kurtosis

were tested conservatively and pre-treatment data was normally distributed ($z < 2.58$, $p < .01$).

Prior to conducting the hierarchical regression analyses, the data was explored to ensure that the relevant assumptions of this statistical analysis were met. Firstly, a sample size of 28 for pre-treatment data was deemed adequate for analyses involving three predictor variables. The assumption of singularity (i.e., that independent variables were not a combination of other variables) was met by entering the independent variables: total RIQ, idiographic RIQ and non-idiographic RIQ into three separate regression models. Tests of collinearity revealed that collinearity statistics were all within acceptable limits (i.e., VIF = 1.3 – 1.5; Tolerance = 0.67 - 0.88) and multicollinearity was therefore not a concern. Furthermore, the effect size for each step of the hierarchical regression is only described in the text if the model as a whole was significant.

Demographic and diagnostic characteristics of the sample. Descriptive statistics were analysed for a fuller description of the participant sample (see Table 1). The majority of the sample had received high intensity therapy rather than low intensity therapy.

Table 1

Mean and Standard Deviation Score for Age and breakdown by Percentage of sample for Sex, Ethnicity and Intensity of therapy for the Total Sample at Pre-treatment (N = 28).

Variable		
Age		
Mean	29.63	
Standard deviation	7.49	
Variable	N	%
Sex		
Male	8	28.6
Female	20	71.4
Ethnicity		
White British	26	92.9
British Asian	1	3.6
Asian Pakistani	1	3.6
Intensity of therapy		
High Intensity	24	85.7
Low intensity	4	14.3

The diagnostic characteristics of the sample are summarised in Table 2. The participants needed a score of 1 on both OCD and psychosis subscales to meet threshold level for further diagnostic screening. All participants endorsed more than four items consistent with a diagnosis of OCD. Eight participants endorsed one item consistent with a diagnosis of psychosis and therefore needed further diagnostic screening for psychosis. All participants scored within the mild to moderate OCD symptoms range on the Y-BOCS, with a majority scoring within the severe OCD symptoms range.

Table 2

Number of Participants and Percentage of participants scoring below and above Thresholds on the Diagnostic Screening Questionnaires for the Total Sample at Pre-treatment (N = 27-28).

Variable	**N**	**%**
PDSQ OCD subscale (N = 28)		
0	0	0
1	0	0
4 and above	28	100
PDSQ Psychosis subscale (N = 28)		
0	20	71.4
1	8	28.6
2 and above	0	0
Y-BOCS total score (N = 27)		
Very mild OCD symptoms	0	0
Mild OCD symptoms	1	3.7
Moderate OCD symptoms	9	33.3
Severe OCD symptoms	17	63

Note. PDSQ = Psychiatric Diagnostic Screening Questionnaire; Y-BOCS = Yale Brown Obsessive Compulsive Scale.

Hypothesis 1: Responsibility interpretations (as measured by RIQ total scores) predict greater variance in obsessive-compulsive symptoms (OCI-R) than

generalised anxiety (GAD-7) and depressive (PHQ-9) symptoms (i) at pre-treatment and (ii) pre- to post-treatment. As mentioned earlier in this chapter, Hypothesis 1 could not be fully addressed, as the post-treatment sample size was too small to be included in a hierarchical regression analysis. The results described below are therefore based on pre-treatment scores.

Correlational analyses. Pearson's correlational analyses were carried out between the total RIQ, GAD-7, PHQ-9, OCI-R total scores to explore the associations between variables prior to entering them into a regression model (see Table 3). There was a significant positive correlation between total RIQ scores and GAD-7 scores, and between OCI-R total scores and GAD-7 scores.

Table 3

Pearson r correlations between Total RIQ and OCI-R Total, GAD-7 and PHQ-9 Scores.

Questionnaire	**1**	**2**	**3**
1. Total RIQ score	-		
2. OCI-R total score	.30	-	
3. GAD-7 score	.49*	.51*	-
4. PHQ-9 score	.22	.08	.34

Note. RIQ = Responsibility Interpretations Questionnaire; OCI-R = Obsessive Compulsive Inventory-Revised; GAD-7 = Generalised Anxiety Disorder -7; and PHQ-9 = Patient Health Questionnaire-9.

* $p < .05$

Hierarchical regression analysis. A two-step hierarchical regression was performed with OCI-R total scores as the outcome variable and GAD-7, PHQ-9 and total RIQ scores as predictor variables (see Table 4). In line with previous research, (Solem et al., 2009), variables that may influence the relationship between total RIQ and OCI-R total scores (GAD-7 and PHQ-9 scores) were entered at Step 1 and the key variable of interest (total RIQ scores) was entered at Step 2. The results indicated that at Step 1, GAD-7 and PHQ-9 scores contributed significantly to the regression model and explained 26%, $R^2 = .26$, $F(2, 25) = 4.48$, $p < .05$ of the variance in OCI-R total scores. GAD-7 scores had a significant unique contribution to explaining variance in OCI-R total scores. The analysis indicated that the addition of total RIQ scores at Step 2 did not explain significant additional variance in OCI-R total scores. However, GAD-7 scores continued to make a significant unique contribution to explaining variance in OCI-R total scores at Step 2. The results indicated that responsibility interpretations (as measured by RIQ total scores) did not predict greater variance in obsessive-compulsive symptoms (OCI-R) than generalised anxiety (GAD-7) and depressive (PHQ-9) symptoms at pre-treatment.

Table 4

Summary of Hierarchical Regression Analysis for GAD-7, PHQ-9 and Total RIQ scores predicting OCI-R total scores.

Variable	***F* for change in R^2**	***B***	***SE B***	***β***	***t***
Step 1	4.48				
GAD-7		1.52	.52	.54	2.95*
PHQ-9		-.21	.39	-.10	-.54
Step 2	.17				
GAD-7		1.41	.59	.50	2.41*
PHQ-9		-.22	.39	-.11	-.563
Total RIQ		.06	.14	.08	.41

Note. R^2 = .26 for Step 1 ($p < .05$); ΔR^2 = .01 for Step 2 ($p > .05$), ΔR^2 effect size = .01

* $p < .05$

Hypothesis 2: The idiographic RIQ will predict greater variance in obsessive-compulsive symptoms (OCI-R) than the (i) total RIQ and (ii) non-idiographic RIQ.

Correlational analyses. Pearson's correlational analyses were carried out between the idiographic RIQ, GAD-7, PHQ-9, OCI-R total scores and the non-idiographic RIQ, GAD-7, PHQ-9, OCI-R total scores to explore the associations between variables prior to entering them into a regression model (see Table 5 & 6). No significant correlations were found.

Table 5

Pearson r correlations between Idiographic RIQ and OCI-R total, GAD-7 and PHQ-9 scores.

Questionnaire	**1**	**2**	**3**
1. Idiographic RIQ score	-		
2. OCI-R total score	-.15	-	
3. GAD-7 score	-.24	.51*	-
4. PHQ-9 score	.33	.11	.34

Note. RIQ = Responsibility Interpretations Questionnaire; OCI-R = Obsessive Compulsive Inventory-Revised; GAD-7 = Generalised Anxiety Disorder -7; and PHQ-9 = Patient Health Questionnaire-9.

* $p < .05$

Table 6

Pearson r correlations between Non-idiographic RIQ and OCI-R total, GAD-7 and PHQ-9 scores.

Questionnaire	**1**	**2**	**3**
1. Non-idiographic RIQ score	-		
2. OCI-R total score	-.19	-	
3. GAD-7 score	.11	.51*	-
4. PHQ-9 score	-.26	.08	.34

Note. RIQ = Responsibility Interpretations Questionnaire; OCI-R = Obsessive Compulsive Inventory-Revised; GAD-7 = Generalised Anxiety Disorder -7; and PHQ-9 = Patient Health Questionnaire-9.

* $p < .05$

Hierarchical regression analyses. To address Hypothesis 2, two additional hierarchical regression analyses were performed. In both regression analyses OCI-R total scores were entered as the outcome variable and GAD-7 and PHQ-9 scores were entered in Step 1. As the previous hierarchical regression model also included GAD-7 and PHQ-9 scores at Step 1 for the same sample, the results of Step 1 are not described again in the remaining hierarchical regression analyses.

In the first regression model, idiographic RIQ scores were entered as a predictor at Step 2 (see Table 7). The results indicated that idiographic RIQ scores did not explain

significant additional variance in OCI-R total scores. However, GAD-7 scores continued to make a significant unique contribution to explaining variance in OCI-R total scores at Step 2. The results indicated that the idiographic RIQ scores did not predict greater variance in obsessive-compulsive symptoms (OCI-R) than the total RIQ scores, as both total RIQ and idiographic RIQ were not significant predictors in explaining variance in obsessive-compulsive symptoms (OCI-R).

Table 7

Summary of Hierarchical Regression Analysis for GAD-7, PHQ-9 and Idiographic RIQ scores predicting OCI-R total scores.

Variable	***F* for change in R^2**	***B***	***SE B***	***β***	***t***
Step 1	4.48*				
GAD-7		1.52	.52	.54	2.95*
PHQ-9		-.21	.39	-.10	-.54
Step 2	.37				
GAD-7		1.60	.54	.57	2.97*
PHQ-9		-.15	.40	-.07	-.37
Idiographic RIQ		-.19	.32	-.12	-.60

Note. R^2 = .26 for Step 1 ($p < .05$); ΔR^2 = .01 for Step 2 ($p > .05$), ΔR^2 effect size = .03

* $p < .05$

In the second regression model, the non-idiographic RIQ scores were entered as the predictor variable at Step 2 (see Table 8). The analysis indicated that the addition of non-idiographic RIQ scores at Step 2 did not explain significant additional variance in OCI-R scores. GAD-7 score continued to a significant unique contribution to explaining variance in OCI-R total scores at Step 2. The results indicated that the idiographic RIQ does not predict greater variance in obsessive-compulsive symptoms (OCI-R) than the (i) total RIQ and (ii) non-idiographic RIQ.

Table 8

Summary of Hierarchical Regression Analysis for GAD-7, PHQ-9 and Non-idiographic RIQ scores predicting OCI-R total scores.

Variable	***F* for change in R^2**	***B***	***SE B***	***β***	***t***
Step 1	4.48				
GAD-7		1.52	.52	.54	2.95*
PHQ-9		-.21	.39	-.10	-.54
Step 2	3.55				
GAD-7		1.75	.51	.62	3.46*
PHQ-9		-.10	.37	-.04	-.24
Non- idiographic RIQ		.26	.14	.33	1.88

Note. R^2 = .26 for Step 1 ($p < .05$); ΔR^2 = .09 for Step 2 ($p > .05$), ΔR^2 effect size = .14

* $p < .05$

Comparing correlations. Tabachnick and Fidell (2013) reported that when there is an interest in establishing if one set of predictors predict an outcome variable better than another set of independent variables in a regression analysis, correlations between each predictor variable and outcome variable can be compared using Steiger's Z (Steiger, 1980). As such, the Steiger's Z was deemed appropriate to assess if

idiographic RIQ was a better predictor of obsessive-compulsive symptoms compared to total RIQ and non-idiographic RIQ. To address Hypothesis 2, correlations between total RIQ, idiographic RIQ, non-idiographic RIQ with OCI-R were compared in this analysis.

A Steiger's Z statistics calculator was used (Hoerger, 2013). This calculator converted the correlation coefficients into z-scores using Fisher's t-to-z transformation and then used Steiger's (1980) equations to calculate the asymptotic co-variance of the estimates. The hypothesis was one-tailed and according to the unit normal distribution, a value of 2.58 and above was considered significant. The first analysis involved a comparison between two correlations: (i) idiographic RIQ and OCI-R scores and, (ii) total RIQ and OCI-R scores. The analysis indicated no significant difference between idiographic RIQ and total RIQ correlations with OCI-R, $Z_H = -0.78$, $p = 0.44$. The second analysis involved a comparison between two correlations: (i) idiographic RIQ and OCI-R scores and, (ii) non-idiographic RIQ and OCI-R scores. The analysis indicated no significant difference between idiographic RIQ and total RIQ correlations with OCI-R, $Z_H = -0.16$, $p = 0.87$.

Additional regression analyses. An additional regression analysis was carried out to investigate whether the inclusion of GAD-7 scores at Step 1 was leaving little variance to be explained by the idiographic RIQ scores at Step 2. The order in which the variables were inserted into the hierarchical regression model was therefore reversed. Idiographic RIQ scores were entered at Step 1, and GAD-7 and PHQ-9 scores at Step 2. Idiographic RIQ did not predict significant variance in OCI-R scores

at Step 1, R^2 = .04, F(1, 26) = 1.04, p >.05. GAD-7 continued to remain the only significant predictor at Step 2, β = .76, p < .05.

Wroe (1997) found that the belief in interpretation subscale of the RIQ predicted obsessing and neutralising subscales of the OCI. Additional regression analyses were carried out, where GAD-7 and PHQ-9 scores were entered as predictors at Step 1 and the total RIQ or idiographic RIQ scores were entered as predictors at Step 2. The obsessing or neutralising subscale scores of the OCI-R was entered as the outcome measure. Total RIQ scores did not predict significant variance in OCI obsessing scores, R^2 = .07, F(1, 24) = 1.20, p >.05 and OCI neutralising scores, R^2 = .19, F(1, 24) = 1.20, p >.05. The idiographic RIQ scores did not predict significant variance in OCI obsessing scores, R^2 = .03, F(1, 24) = .07, p >.05, and OCI neutralising scores, R^2 = .19, F(1, 24) = .07, p >.05. In the above models, GAD-7 was only a significant predictor at Step 1 or 2 with neutralising subscale as the outcome measure, β = .45 - .46, p < .05 but not with obsession subscale as the outcome measure, β = .03-.07, p < .05.

Summary. The results indicated that both Hypothesis 1 and Hypothesis 2 were not supported by the main or additional analyses. Findings therefore indicated that responsibility interpretations did not predict greater variance in obsessive-compulsive symptoms than generalised anxiety and depressive symptoms at pre-treatment and; the idiographic RIQ did not predict greater variance in obsessive-compulsive symptoms than the (i) total RIQ and (ii) non-idiographic RIQ. The results indicated that in all four regression models of the main analysis, GAD-7 score had a significant unique contribution in explaining the variance in obsessive-compulsive symptoms.

Study 2 – A single case study design approach to investigating the role of idiographic responsibility interpretations in CBT for OCD

Hypothesis 3: Idiographic RIQ scores will be more closely linked to change in OCI-R total score than the non-idiographic RIQ scores. To address Hypothesis 3, the idiographic RIQ, total RIQ and non-idiographic RIQ and OCI-R total scores were explored for three participants at four or five time points throughout treatment. Only the main variables of interest were retained in the graphs to allow meaningful visual analysis. As the total RIQ scores contains both idiographic and non-idiographic items, the total RIQ scores were plotted on the graph for baseline comparison and the idiographic and non-idiographic RIQ scores were analysed as the main variables.

Participant 1. Participant 1 was a 42-year-old female. Participant 1 described her key concerns involved damage to her home and harm coming to a loved one. She explained her key compulsions included repetitive checking. Participant 1's Y-BOCS score suggested she had severe OCD symptoms. On the OCI-R, Participant 1 described difficulties on five (checking, hoarding, neutralising, obsessing, ordering) of the six subscales. Participant 1 scored 70 and above on 15 of the 16 items on the RIQ. Her non-idiographic RIQ score was therefore based on one item. Participant 1 completed ten sessions of CBT.

A visual analysis of Participant 1's scores over time (see Figure 3) illustrated that her total RIQ score, idiographic and OCI-R total scores decreased over the course of treatment, whereas non-idiographic RIQ scores increased towards the end of treatment. The trend lines in Figure 4 also support this observation. The gradient of

the trend line was steeper for idiographic RIQ scores when compared to the OCI-R total scores; suggesting that there was a greater decline in idiographic RIQ scores when compared to OCI-R total scores. However, the non-idiographic scores suggest an upward trend in scores towards the end of treatment. This trend is opposite to that observed in idiographic RIQ and OCI-R scores, indicating that for Participant 1, idiographic RIQ scores were more closely linked to change in OCI-R total scores than the non-idiographic RIQ scores.

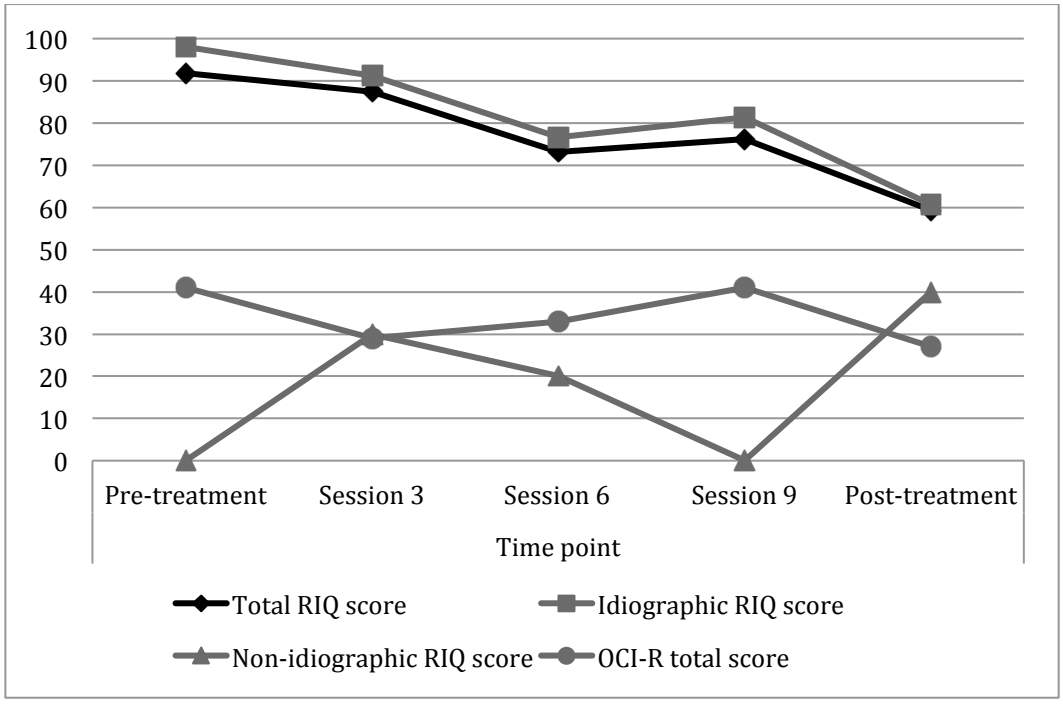

Figure 3. Participant 1's scores on total RIQ, idiographic, non-idiographic RIQ and OCI-R total over the course of treatment.

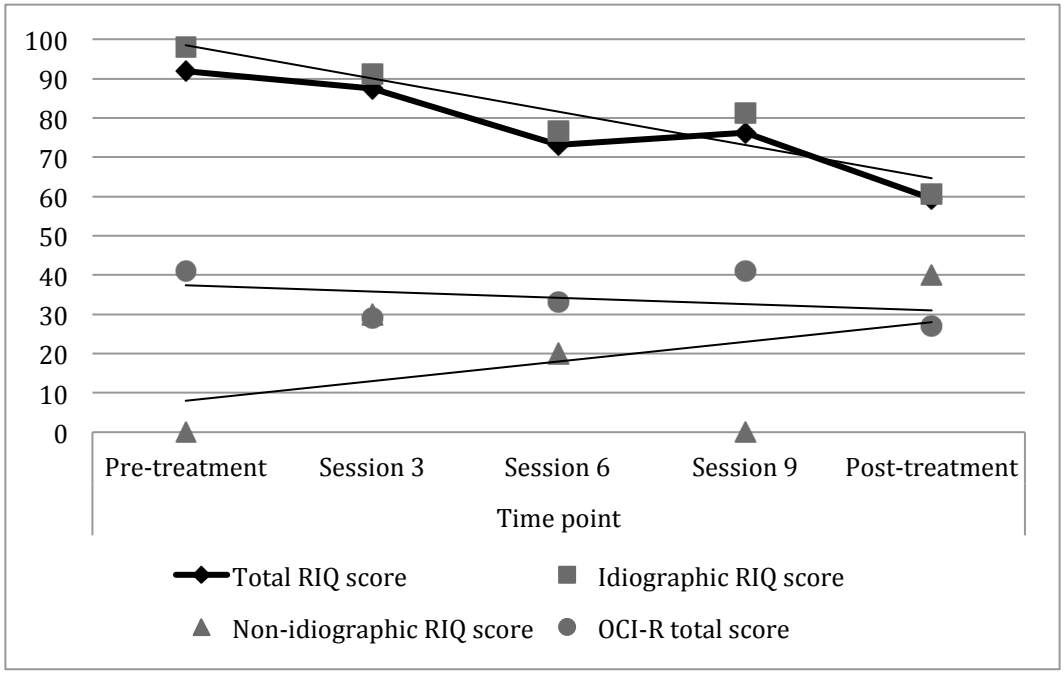

Figure 4. Trend lines applied to Participant 1's scores on idiographic, non-idiographic RIQ and OCI-R total scores.

Participant 2. Participant 2 was a 26-year-old female. Participant 2 described her key concerns were of harm coming to a loved one and being contaminated. She explained her key compulsions included repetitive checking and hand washing. Participant 2's Y-BOCS scores suggested she had severe OCD symptoms. On the OCI-R, Participant 2 described difficulties on four (checking, obsessing, ordering, washing) of the six subscales. Participant 2 scored 70 and above on eight of the 16 items on the RIQ. Her non-idiographic RIQ score was therefore based on the remaining eight items. Participant 2 completed nine sessions of CBT.

A visual analysis of Participant 2's scores over time (see Figure 5) illustrated that her total RIQ score, idiographic RIQ, non-idiographic RIQ and OCI-R total scores decreased over the course of treatment. From pre-treatment to Session 3, Participant 2's idiographic RIQ scores decreased. However, there was a slight increase in OCI-R scores. The OCI-R total scores caught up with the drop in idiographic RIQ at Session 6, where OCI-R total scores decreased and idiographic RIQ scores remained approximately at the same level. The non-idiographic RIQ scores followed a similar pattern of change throughout treatment to the OCI-R total scores.

The trend lines in Figure 6 suggest an overall trend of decrease in scores throughout treatment on all variables. The gradient of the trend line is steeper for idiographic RIQ scores when compared to the OCI-R total scores; suggesting that there was a greater decline in idiographic RIQ scores when compared to OCI-R total scores. However, non-idiographic RIQ scores and OCI-R total scores show a similar gradient of steepness in trend lines. Therefore for Participant 2, idiographic RIQ scores were not

more closely linked to change in OCI-R total scores than the non-idiographic RIQ scores.

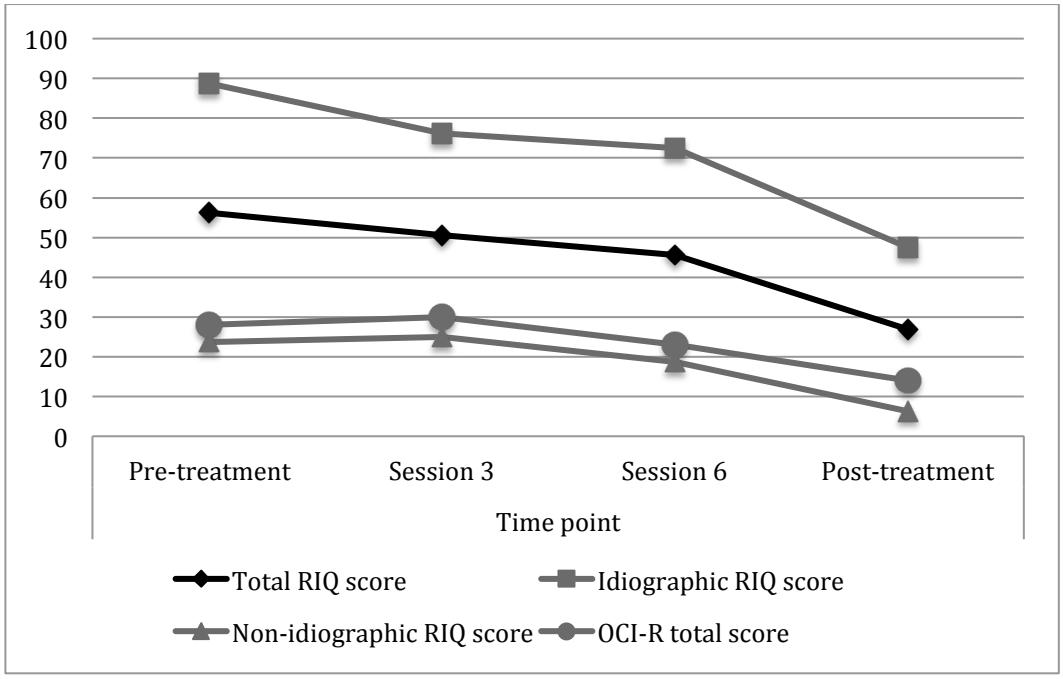

Figure 5. Participant 2's scores on total RIQ, idiographic, non-idiographic RIQ and OCI-R total over the course of treatment.

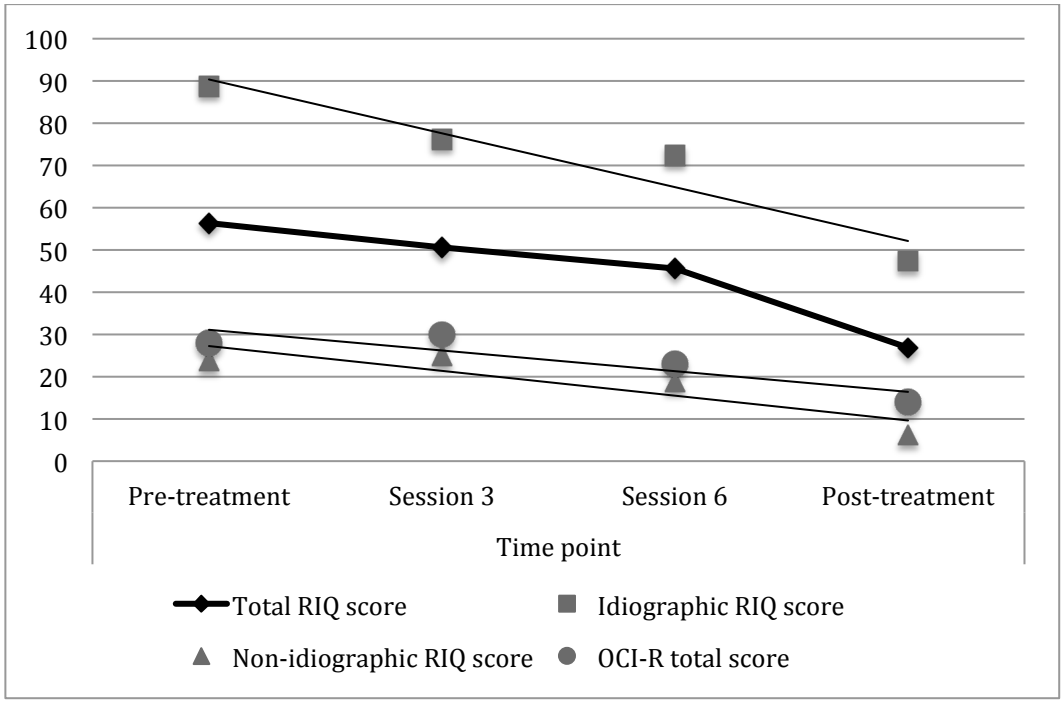

Figure 6. Trend lines applied to Participant 2's scores on idiographic, non-idiographic RIQ and OCI-R total scores.

Participant 3. Participant 3 was a 23-year-old female. Participant 3 described her key concerns involved contamination and harm coming to loved ones. She explained her key compulsions included repetitive hand washing and checking. Participant 3's Y-BOCS scores suggested she had severe OCD symptoms. On the OCI-R, Participant 3 described difficulties on three (checking, obsessing, washing) of the six subscales. Participant 3 scored 70 and above on eight of the 16 items on the RIQ. Her non-idiographic RIQ score was therefore based on the remaining eight items. Participant 3 completed nine sessions of CBT.

A visual analysis of Participant 3's scores over time (see Figure 7) illustrated that her total RIQ, idiographic RIQ, non-idiographic RIQ and OCI-R total scores decreased over the course of treatment. From pre-treatment to Session 3, Participant 3's idiographic RIQ decreased substantially and OCI-R scores decreased to a lesser extent. From Session 3 to 6, there was however a rise in idiographic RIQ and non-idiographic RIQ scores, whereas OCI-R total scores remained the same. The pattern of change from Session 6 to post-treatment was the same for idiographic RIQ and OCI-R total scores; whereas non-idiographic RIQ scores decreased slightly. The non-idiographic RIQ scores showed greater fluctuations in every three-session compared to idiographic RIQ and OCI-R total scores.

The trend lines in Figure 8 suggest an overall trend of decrease in scores throughout treatment on all variables. The gradient of the trend line is steeper for idiographic RIQ scores when compared to the OCI-R total scores; indicative of a greater decline in idiographic RIQ scores when compared to OCI-R total scores. The gradient of the

trend line of non-idiographic scores and OCI-R total scores are similar. However, these trend lines are not taking into account the greater fluctuations in non-idiographic RIQ scores observed in Figure 8. The visual analysis of Participant 3's scores suggests that idiographic RIQ scores were more closely linked to change in OCI-R total scores than the non-idiographic RIQ scores.

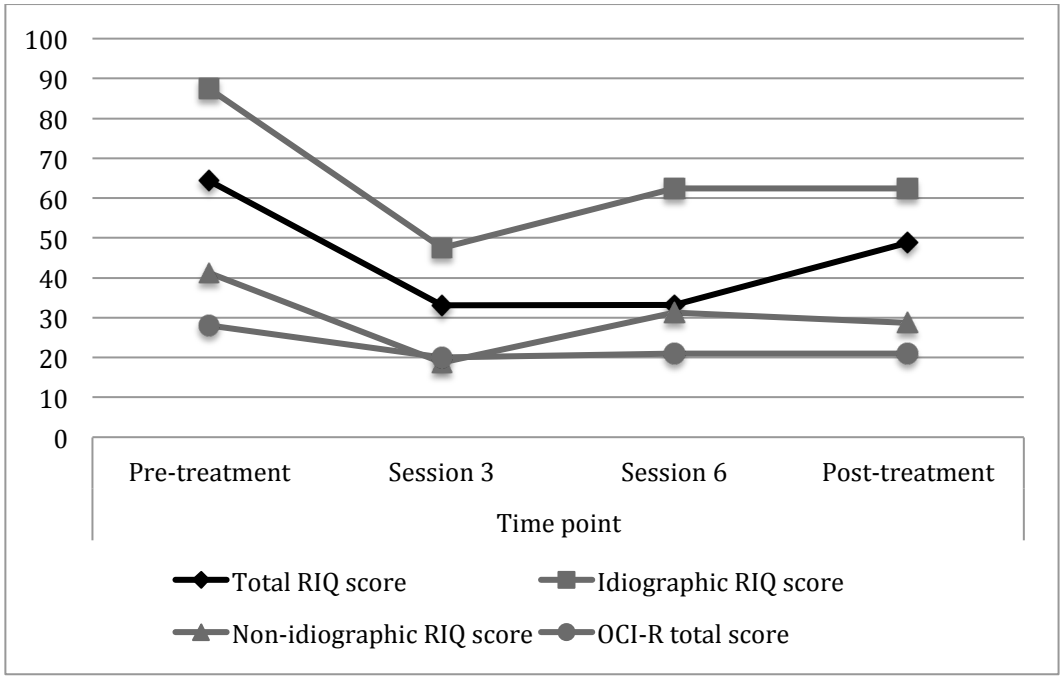

Figure 7. Participant 3's scores on total RIQ, idiographic, non-idiographic RIQ and OCI-R total over the course of treatment.

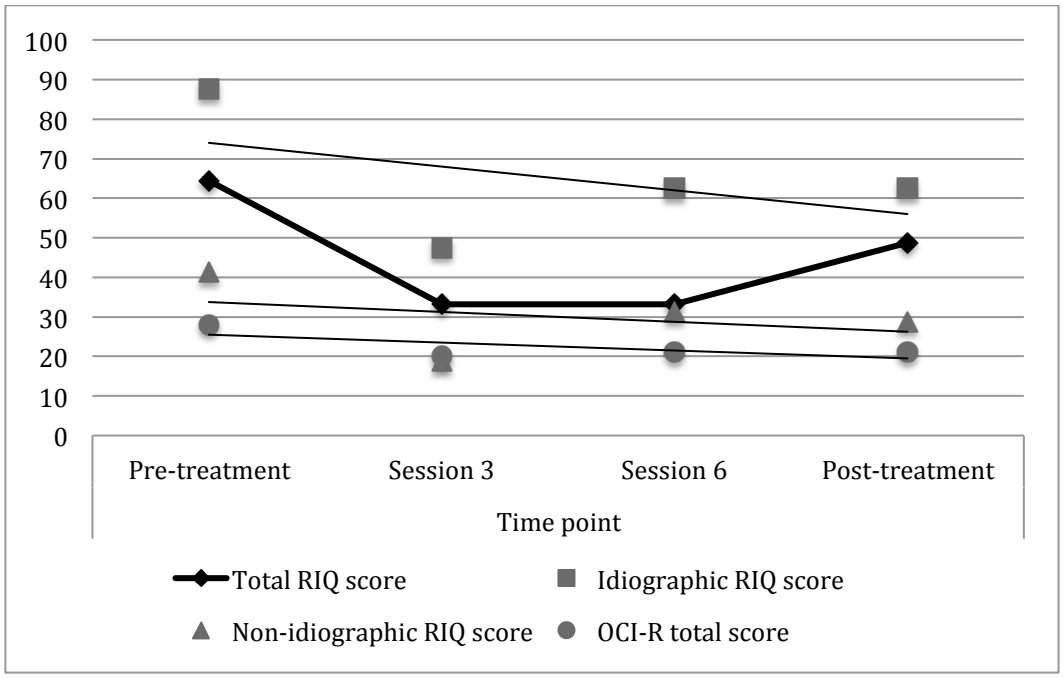

Figure 8. Trend lines applied to Participant 3's scores on idiographic, non-idiographic RIQ and OCI-R total scores.

Summary. The results indicated that there was a trend towards decrease in idiographic RIQ scores and OCI-R total scores throughout treatment for all three participants. The non-idiographic RIQ scores also showed a trend towards decrease for Participants 2 and 3. For Participant 2, the non-idiographic RIQ scores followed a similar pattern of change throughout treatment to the OCI-R total scores than the idiographic RIQ scores. The results indicated that for two of the three participants idiographic RIQ scores were more closely linked to change in OCI-R total scores than the non-idiographic RIQ scores throughout CBT for OCD.

Study 3: A qualitative approach to investigating the role of idiographic interpretations in CBT for OCD

Hypothesis 4: OCD experts and HI therapists will report that idiosyncratic interpretations are a key element of CBT for OCD. However, OCD experts will provide more and in-depth examples of targeting idiosyncratic cognitions in their clinical practice. Data from three therapist groups (HI therapists who had provided CBT to participants in Study 1; HI therapists who had provided CBT for OCD to clients other than those who participated in Study 1; and OCD experts) were analysed using thematic analysis.

Initial thematic coding frame and maps. The researcher used colour coding to aid the development of initial themes, subthemes and thematic maps. During initial thematic coding, seven main themes and eighteen subthemes were developed. These themes were explored through comparing notes and comparing data obtained from the different participant groups. An initial thematic map was developed to represent the

main themes and subthemes discussed by all participants. Particular attention was paid to the overlap and lack of overlap in themes across participant groups.

Reviewing, defining and naming themes. The initial thematic maps were refined following discussions with supervisors, Trainee Clinical Psychologists conducting thematic analyses and a HI therapist (see Appendix 25).

Reliability. To establish inter-rater reliability, a Trainee Clinical Psychologist with experience in conducting thematic analysis coded 30 randomly selected quotes using the researcher's final thematic coding frame. The Kappa statistic was computed to establish inter-rater reliability and resulting statistic, $K = 0.8$, $p < .001$, 95% CI [0.757, 0.865], indicated there was substantial agreement between the researcher and Trainee Clinical Psychologist (Landis & Koch, 1977).

Finalised thematic coding frame. The final thematic coding frame was organised into three main themes. These themes were further divided into two or four subthemes (see Table 9).

Table 9

Main Themes and Subthemes

Main themes	**Subthemes**
1. Identifying key cognitions	Idiosyncratic formulation
	Recent examples
	CBT techniques
	Questionnaires
2. Challenging cognitions	Less threatening alternative
	Behavioural experiments
3. Monitoring shift in cognitions	Belief ratings
	Questionnaires

Theme 1: Identifying key cognitions. Participants described the importance of identifying key cognitions using three approaches: (i) developing an idiosyncratic formulation, (ii) using recent examples, (iii) employing CBT techniques and, (iv) administering questionnaires. Differences in responses between OCD expert and HI therapist participant groups were identified within this theme. The similarities and differences in responses across groups are discussed in the following subthemes.

Subtheme: Idiosyncratic formulation. Participants spoke about the importance of having a 'shared' and 'idiosyncratic' understanding of the clients's key cognitions within a formulation. All participants explained that they used cognitive-behavioural

formulations to identify key cognitions. OCD experts explained that they used Salkovskis' (1985; 1989) cognitive-behavioural model. The majority of HI therapists explained that they used Steketee and Wilhelm's (2006) cognitive behavioural model. Two HI therapists explained that although they had been trained to use the Steketee and Wilhelm (2006) model with OCD clients, they either used a more behavioural cross-sectional formulation or chose a cognitive-behavioural model that best suited the client's presentation (e.g., Rachman's model, 1976). Participants described that the idiosyncratic formulation consisted of two components: (i) the interpretation, appraisal or meaning associated with intrusive thoughts and, (ii) the maintenance cycles. Participants described the importance of bringing these two components to the client's awareness. For instance, HI therapist 4 explained that supporting the client in finding the link between the intrusive thought and the appraisal was 'key': "The key for me… the space between the intrusion and the appraisal, helping the client to see that… they're applying meaning to having the, the intrusion in the first place".

Further accounts by participants suggested the importance of bringing the maintenance cycles associated with the interpretation to the client's awareness.

> The shared formulation should be… idiosyncratic to them, so, it should feel like it's a really personalised… explanation of what is happening for them, when they get anxious...the really key thing about it is that it has the maintenance cycles, so it should help them to see that what they're doing. (Expert 3)

Participants' accounts suggested that an idiosyncratic formulation engaged the client and supported a collaborative understanding of the rationale for intervention.

> It's the maintenance cycle, the feedback loops that take them from the compulsion, which reduces their anxiety or reduces the stress in some way, but leaves this appraisal intact. And so what we need to do is to, to challenge that appraisal by stopping the behaviour. (HI therapist 4)

Two HI therapists who had provided therapy to participants in Study 1 also explained that they had identified two of the six highly rated interpretations on the RIQ when formulating the client's difficulties. HI therapist 8, who had provided therapy to a participant in Study 1, explained that he had supported the client in identifying the link between the highly rated responsibility interpretation and behaviour. HI therapist 8 explained that the client used Diazepam to cope with the responsibility interpretation: 'I must do something about this thought'. He described that: "he (the client) was using it (Diazepam)…before going to bed because he was fearful of not falling asleep, he had been using Diazepam in the evening to deal with distressing thoughts". HI therapist 8 explained that intervention had therefore focused on reducing Diazepam use to challenge the responsibility interpretation.

Within this subtheme, participants described that a shared and idiosyncratic understanding of interpretations and maintenance cycles further engaged the client and increased their awareness of their difficulties. Participant accounts also suggested that the client's increased awareness supported a shared understanding of the rationale for intervention.

Subtheme: Recent examples. Four OCD experts spoke about exploring a recent example where anxiety had been triggered to identify key idiosyncratic cognitions that

were maintaining the client's obsessive-compulsive symptoms. Participants' accounts suggested this was a useful technique in identifying intrusive thoughts and associated interpretations. For instance, Expert 4 explained that:

> In the first few sessions you go through some recent examples of the problem in action, so there would be some discussion around kind of unpacking... 'talk me through a recent time when you've noticed the OCD causing problems for you'. Trying to identify the specific kind of, kind of thoughts or intrusions that went through their mind and kind of the worst thing about that, trying to elicit the meaning for them.

HI therapist 3 described using a recent example in his work:

We might just look at a recent situation…then we try to pick up…the intrusive thought, try and look at perhaps any assumptions they might have had, we start to look at the appraisals they might have had as well.

Participants' accounts suggested that exploring recent examples where the client had been anxious, created opportunities for picking up on and unpacking intrusive thoughts, assumptions and interpretations.

Subtheme: CBT techniques. All participants spoke briefly of a range of CBT techniques they used with clients to identify key interpretations. All participants described two key techniques in this subtheme: downward arrowing and Socratic dialogue. For instance, Expert 1 explained: "you might use stuff like, downward arrow or so on to get people to kind of, identify specific things which are at the bottom of it". Expert 1's account describes how downward arrowing gets to the interpretation(s)

that are driving the cognitions and behaviours. Participants also spoke about the usefulness of Socratic dialogue in eliciting the key interpretation for the client: "So, a lot of which is Socratic questioning, like asking the client for what the meaning is to them or what happens next" (HI therapist 1).

Three OCD experts also spoke about how they used 'online' or 'in vivo' exposure to identify key cognitions if the clients struggled to access these through discussion alone. For instance, Expert 4 explained that:

> When they have a feeling that something is not quite right but it's difficult to identify what particular thoughts or meanings lie behind that so in those kind of cases, you might try to activate the problem in sessions but encouraging them to confront a tricky situation and try to catch the cognitions online.

HI therapist 3 described trying to "tap into the emotions" to reach difficult to reach cognitions. Participants' accounts within this subtheme suggested the importance of downward arrow and Socratic dialogue in identifying key interpretations. Participants also described how they accessed hard to reach cognitions. OCD experts described using in-vivo exposure, and a HI therapist described tapping into emotions.

Subtheme: Questionnaires. All HI therapists explained that they exclusively use the OCI as the OCD questionnaire in their work as it is a service requirement. Five HI therapists had not previously heard about the RIQ and all HI therapists had not used it in their work. OCD experts, two of who also worked in IAPT settings, spoke about using a range of questionnaires in their work and had heard about the RIQ. Experts

spoke about using diagnostic and cognition questionnaires to identify key thoughts and beliefs.

> From the level of like specific thoughts, you know, there are, you know, the Y-BOCS checklist which will just sort of give you an overview of kind of what people are like experiencing and stuff you know, like the responsibility attitudes questionnaire, that you would use to look at, the second level of thoughts. (Expert 1)

One OCD expert spoke about developing idiosyncratic questionnaires to capture the idiosyncrasies in the client's difficulties alongside the use of standardised questionnaires:

> Interviewer: Do you use questionnaires when working with OCD clients and if so what questionnaires do you use?
>
> Expert 6: So, yes constantly, so in every session and also between sessions. For some I would develop idiosyncratic measures… we would kind of figure out what the belief was and get a rating of that belief so it's not total measures. But I also of course use total measures, they would be…because we are told to do so, you know the IAPT stuff… the basic IAPT set is WSAS, the OCI of course, I would use the Y-BOCS." (Expert 6)

HI therapists did not use questionnaires to identify idiosyncratic cognitions in their work with clients with OCD. OCD experts administered a range of questionnaires to identify idiosyncratic cognitions.

Overall, the main theme of the role of idiosyncratic cognitions, highlighted the importance of identifying key intrusive thoughts and interpretations in CBT for OCD. Participants' accounts suggested that the identification of these key cognitions was done collaboratively in initial sessions. All participants reported that idiosyncratic formulation and CBT techniques supported them in identifying idiosyncratic cognitions. OCD experts described using recent examples and identifying difficult to reach cognitions in more depth. OCD experts also described using standardised and idiographic questionnaires to identify key cognitions.

Theme 2: Challenging cognitions. Participants described two approaches to challenging client cognitions: (i) identifying a less threatening alternative and, (ii) using behavioural experiments.

Subtheme: Less threatening alternative. Three OCD experts spoke about the importance of supporting the client in identifying a less threatening alternative. OCD Expert 2 for instance explained that the therapist's task was to "help people develop, a less threatening understanding of why these thoughts are occurring and to normalise the kind of thoughts that they have". OCD experts spoke particularly about using the Theory A and Theory B framework very early in therapy to help clients develop a less threatening alternative. Expert 5 explained that the rest of the treatment is then informed by Theory A and B work as you continue to gather evidence for each.

> Theory A, Theory B, format, where developing... an alternative belief which is set up as a sort of counterpoint to the… Theory A, would be like the OCD belief, that you know something bad is going to happen and the Theory B would be that actually you know, your worry and you're preoccupied with bad

> things happening but that's it. So, and I think then if that belief (Theory B) is credible and believable, then…the rest of the…treatment goes well because you can build up evidence for the two competing theories. (Expert 5)

HI therapists did not report developing a less threatening alternative using the Theory A and Theory B framework. However, HI therapists spoke about the importance of normalising client experiences. HI therapists also described using a range of cognitive challenging techniques such as thoughts records, responsibility pie charts and continuums to challenge the threatening cognitions.

> Generally using thought diaries are helpful, in getting them to write them (interpretations) down and challenge them. I guess the responsibility pie chart can often be really helpful with OCD coz often there is that overinflated sense of responsibility. (HI therapist 7)

Within this subtheme, OCD experts and HI therapist supported clients in developing a less threatening alternative using different techniques. OCD experts described using the Theory A and Theory B framework, where Theory B was the less threatening alternative. In contrast, HI therapists described using a range of cognitive challenging techniques to develop a less threatening alternative, such as thought diaries and responsibility pie charts.

Subtheme: Behavioural experiments. All participants spoke about the importance of behavioural work and of doing behavioural work as early on in the intervention as possible. Participants described the link between behavioural experiments and

formulation by explaining that: “it is translating their (client’s) new understanding into action” (Expert 2).

Several HI therapists discussed using behavioural experiments as a method of challenging idiosyncratic cognitions and spoke about behavioural experiments as being separate from their cognitive work.

> To help them challenge those beliefs and the question we’re asking is ‘does having a bad thought makes me a bad person’ basically. And once we’ve worked on that, it’s straight for behaviours, behaviour work and working on stopping the reassurance, mental rituals. (HI therapist 2)

Another HI therapist described that they “would marry behaviour work with…the work on cognitions” (HI therapist 3). HI therapists also explained that cognitions were either addressed before or after a behavioural experiment.

> My main focus is on helping someone to identify that when they change their behaviour, they will experience distress and then I ask them, then we explore the, the cognitive element afterwards because later, that’s when you can really challenge the appraisal. (HI therapist 4)

OCD experts spoke about combining cognitive and behavioural work by using behavioural experiments within a Theory A and Theory B framework. For instance, OCD Expert 3 explained:

> We would get a belief rating for Theory A and Theory B at the beginning…and...if we were doing behavioural experiments, we would get a

> belief rating for whichever belief it was that we were particularly testing out with that. (Expert 3)

Overall, all participants described that they challenged key cognitions throughout therapy. There were differences in the approaches OCD experts and HI therapists used to address key cognitions. OCD experts described that the client's Theory A and B, which were identified early on in therapy, continued to inform the basis of challenging cognitions in their work. In particular, OCD experts described behavioural experiments were targeted at gaining evidence for or against Theory A or Theory B. In contrast, HI therapists addressed key cognitions using a range of cognitive techniques and behavioural experiments, however it was unclear whether they were targeting the cognitions identified in formulation.

Theme 3: Monitoring shift in cognitions. All participants explained that they monitored shift in cognitions by tracking idiosyncratic cognitions throughout treatment. OCD experts discussed this within the Theory A and Theory B framework, and HI therapists discussed capturing shift in cognitions following behavioural experiments and by using thought diaries. OCD experts also explained that they used questionnaires to monitor shift in cognitions.

Subtheme: Belief ratings. Four OCD experts spoke about monitoring shifts in idiosyncratic cognitions they had identified when devising a Theory A and Theory B. They explained that they monitored belief ratings regularly throughout therapy. Expert 4's response best encapsulated how these ratings were used:

> I guess that would be through what I was just saying in terms of Theory A and B, so we would take kind of a Theory A and B rating. So the extent to which the person feels that those thoughts mean that they are bad, dangerous, bad person versus these are just mental junk, random thoughts that all of us can have... That would be kind of captured I guess in their Theory, sort of idiosyncratic Theory B that we would kind of draw up and we would kind of take a rating of that, so regularly.

HI therapists explained that they used several ways to monitor idiosyncratic cognitions throughout therapy. These included thought diaries, reviewing the formulation and reviewing goals. HI therapists also described using belief ratings in thought diaries and behavioural experiments. For instance, HI therapist 3 described:

> OCD diaries…is something that I introduce, you know, right from the beginning of the therapy and one of the columns actually has appraisal in it. So towards the end that, you know, what appraisal's about, the, they're coming back to the sessions with their homework in which they are putting down situations they've come across, you know, and what appraisals they might have noticed at that time. So throughout the length of therapy, we're then looking at… how do the appraisals change and are they getting better in terms of their progress.

Several HI therapists including those who provided therapy to a participant in Study 1 explained that they often monitored changes in interpretations using belief ratings following behavioural experiments. HI Therapist 7 who had provided therapy to a

participant in Study 1 explained that "what he (client) does is ERP, so he will kind of write down the thoughts that he's challenging and he'll kind of come back and re-rate his belief in them".

OCD experts monitored changes in idiosyncratic cognitions by asking clients to rate their Theory A and Theory B throughout treatment. All OCD experts explained that these cognitions were monitored regularly, often session by session. HI therapists monitored changes in idiosyncratic cognitions by using belief ratings in thought diaries and before and after behavioural experiments.

Subtheme: Questionnaires. Three OCD experts spoke about using questionnaires to monitor shift in cognitions. These included questionnaires such as the Responsibility Attitudes Scale (RAS) and Responsibility Interpretations Questionnaire (RIQ; Salkovskis et al., 2000). Experts explained that they asked clients to complete questionnaires at regular intervals and then compared ratings over time to see if any progress has been made or if anything still needs addressing.

> So the RAS and the RIQ we would use it at the beginning, middle and end of treatment basically, so at Session 6, which is in theory at the middle of treatment, we would use that to check that things are coming down, and if any of those ratings aren't coming down then that might give us something to focus on in the second half of treatment particular areas that we need to…really make sure that we have covered. (Expert 3)

Expert 1 explained that the RIQ has more testable items and that they select the most relevant ones to address in therapy.

> For the RIQ it has slightly more testable often hypothesis, it can kind of, you know lend itself to that (behavioural experiments). But it's very useful to have, you know it has more than you could probably think about doing you know in a single experiment, but you can pick the certain relevant ones, that the person has selected, or if they haven't kind of articulated in that particular way.

OCD experts used questionnaires to monitor shift in cognitions. The questionnaires allowed them to identify areas that needed further intervention and also gave them the opportunity to select specific highly rated items from the questionnaires to address in intervention.

Within this main theme, all participants described monitoring shift in cognitions. HI therapists monitored the shift using belief ratings and cognitive challenging techniques, with OCD experts also using questionnaires. Throughout this theme, participants also spoke about different level of cognitions (i.e., beliefs and interpretations or appraisals) interchangeably. For instance, interpretations of intrusions were monitored using belief ratings.

Summary. All participants described identifying, challenging and monitoring idiosyncratic interpretations throughout treatment. OCD experts and HI therapists differed in the techniques and tools they used to target idiosyncratic interpretations throughout therapy. The results of the thematic analysis support the hypothesis that OCD experts and HI therapists will identify idiosyncratic interpretations as a key element of CBT for OCD, and that OCD experts will provide more and in-depth examples of targeting idiosyncratic cognitions in their clinical practice.

Chapter 4

Discussion

Overview

The present investigation aimed to provide a multifaceted understanding of the role of idiographic responsibility interpretations in CBT for OCD by examining: (i) the role of responsibility interpretations and idiographic responsibility interpretations in predicting obsessive-compulsive symptoms, (ii) the link between idiographic responsibility interpretations and obsessive-compulsive symptoms throughout CBT for OCD and, (iii) therapist's views on idiosyncratic interpretations as a key element of CBT for OCD. The present investigation consisted of three studies and four hypotheses. The results of the investigation showed mixed findings.

Summary of results

Study 1- The role of responsibility interpretations and idiographic responsibility interpretations in predicting obsessive-compulsive symptoms. Responsibility interpretations and idiographic responsibility interpretations have received little attention in CBT for OCD research (e.g., Salkovskis et al., 2000; Williams et al., 2005). Previous research has also shown mixed findings. Salkovskis and colleagues (2000) reported that frequency of responsibility interpretations predicted obsessive-compulsive symptoms, after controlling for depressive and generalised anxiety symptoms, whereas belief in responsibility interpretations did not. Hypothesis 1 of Study 1 examined if responsibility interpretations predict obsessive-compulsive symptoms more than generalised anxiety and depressive symptoms at pre-treatment.

Correlational analyses suggested that higher levels of generalised anxiety were moderately correlated with higher levels of responsibility interpretations and obsessive-compulsive symptoms. Responsibility interpretations were not significantly correlated with obsessive-compulsive symptoms. The main analysis involving a hierarchical regression did not support Hypothesis 1, as responsibility interpretations did not predict greater variance in obsessive-compulsive symptoms than generalised anxiety and depressive symptoms at pre-treatment. However, generalised anxiety symptoms were found to significantly predict obsessive-compulsive symptoms.

Hypothesis 2 examined if the idiographic responsibility interpretations predicted greater variance in obsessive-compulsive symptoms than (i) responsibility interpretations and, (ii) non-idiographic responsibility interpretations. Correlational analyses suggested there were no significant correlations between idiographic responsibility interpretations, non-idiographic responsibility interpretations and obsessive-compulsive symptoms. The main regression analysis did not support Hypothesis 2, as idiographic responsibility interpretations did not predict greater variance in obsessive-compulsive symptoms than responsibility interpretations and non-idiographic responsibility interpretations. However, similar to the results from Hypothesis 1, generalised anxiety symptoms were found to significantly predict obsessive-compulsive symptoms.

The role of generalised anxiety symptoms in predicting obsessive-compulsive symptoms was further supported by an additional regression analysis. The analysis showed that idiographic responsibility interpretations did not predict obsessive-compulsive symptoms when generalised anxiety and depressive symptoms were not

included in the model. The results therefore consistently highlighted the role of generalised anxiety symptoms in predicting obsessive-compulsive symptoms.

Additional regression analyses explored whether responsibility interpretations and idiographic responsibility interpretations predicted obsessing and neutralising symptoms. The results indicated that neither responsibility interpretations nor idiographic responsibility predicted obsessing and neutralising symptoms. Moreover, the analyses showed that generalised anxiety symptoms significantly predicted neutralising but not obsessing symptoms.

Study 2- The link between idiographic responsibility interpretations and obsessive-compulsive symptoms in CBT for OCD. As post-treatment scores could not be analysed for Study 1, Study 2 allowed a longitudinal perspective on the relationship between idiographic responsibility interpretations and obsessive-compulsive symptoms. The results of the single case study design indicated that there was a trend towards a decrease in idiographic RIQ scores alongside OCI-R total scores throughout treatment for all three participants. The results also indicated that every three-session change in idiographic RIQ scores did not consistently follow the same pattern of change in OCI-R total scores for all three participants.

The non-idiographic RIQ scores showed a trend towards decrease over the course of treatment for two participants. However, non-idiographic RIQ scores showed a trend towards increase for Participant 1 and greater fluctuations throughout the course of treatment for Participant 3. For Participant 2, the non-idiographic RIQ scores followed

a similar pattern of change throughout treatment to the OCI-R total scores than the idiographic RIQ scores.

The results indicated that for two of the three participants idiographic RIQ scores were more closely linked to change in OCI-R total scores than the non-idiographic RIQ scores throughout the course of treatment. The results provided preliminary support for the hypothesis that idiographic responsibility interpretations were more closely linked to change in obsessive-compulsive symptoms than non-idiographic responsibility interpretations throughout the course of treatment.

Study 3- Idiosyncratic interpretations as a key element of CBT for OCD. Therapist views of mechanisms of change for symptom improvement in clinical practice may complement research findings. Study 3 investigated whether idiographic interpretations were considered a key element of CBT for OCD by three groups of therapists. All participants reported the importance of identifying idiosyncratic interpretations of intrusions during formulation. Participants described how developing a shared and idiosyncratic formulation engaged the client in treatment and provided a rationale for intervention. Participants also discussed the usefulness of CBT techniques, such as downward arrowing and Socratic dialogue in identifying idiosyncratic interpretations. OCD experts also described using idiographic and standardised questionnaires to identify key cognitions, including interpretations.

HI therapists described using a range of cognitive and behavioural techniques to challenge idiosyncratic cognitions. These techniques included thought records,

responsibility pie charts and continuums. HI therapists described monitoring idiosyncratic cognitions using belief ratings in thought records, and belief ratings before and after behavioural experiments. This was also the case for HI therapists who had provided therapy to clients in Study 1.

HI therapists who had provided therapy to the clients in Study 1 reported they had addressed two responsibility interpretations rated highly on the RIQ. This suggests that HI therapists were identifying and targeting responsibility interpretations during treatment. This may also suggest that the items on the RIQ captured interpretations that were relevant to the clients in Study 1.

There were differences in the techniques and tools described by HI therapists and OCD experts when identifying, challenging and monitoring change in cognitions. Three OCD experts, for instance, described using in-vivo exposure to identify difficult to reach interpretations, whereas one HI therapist spoke about addressing hard to reach cognitions. OCD experts described using questionnaires to identify and monitor idiosyncratic interpretations. HI therapists did not use questionnaires in their work. OCD experts also discussed how the identification of idiosyncratic interpretations in the Theory A and Theory B in early sessions, later aided the developing of idiosyncratic behavioural experiments to test and challenge idiosyncratic interpretations. It was unclear from the HI therapists accounts how idiosyncratic interpretations identified at the formulation stage were later addressed in therapy. Overall, OCD experts' accounts suggested that their therapy was informed by the Theory A and Theory B framework. HI therapists' accounts suggested that a range of

CBT techniques were useful in identifying, challenging and monitoring change in interpretations.

Relationship to existing literature

Study 1- The role of responsibility interpretations and idiographic responsibility interpretations in predicting obsessive-compulsive symptoms. The results did not support previous research that belief in responsibility interpretations are strongly correlated with obsessive-compulsive symptoms (Williams et al., 2005). The findings suggested that generalised anxiety symptoms were positively correlated with obsessive-compulsive symptoms.

The results of the main analysis support a previous finding by Salkovskis and colleagues (2000) that belief in responsibility interpretations did not predict obsessive-compulsive symptoms using the total score on the OCI. The results of the current study did not support previous findings by Wroe (1997) reporting that the belief in interpretations subscale of the RIQ predicts the obsessing and neutralising subscale scores. Furthermore, the results did not support the finding that generalised anxiety symptoms did not predict obsessive-compulsive symptoms (Salkovskis et al., 2000).

Previous research has employed a range of approaches to identifying idiosyncratic cognitions (e.g., Solomon et al., 2003). However, the most relevant approach to the present study involved selecting items from standardised questionnaires (Mumma, 2004). Previous research has largely focused on comparisons between standardised and idiographic questionnaires (i.e., Caldwell et al., 2008; Mumma, 2004; Solomon et al., 2003). The present investigation aimed to bridge the gap between standardised and

idiographic approaches by selecting the highest rated items on a standardised questionnaire. As the standardised questionnaire in the present investigation consisted of the idiographic items, the idiographic questionnaire was also compared to the non-idiographic questionnaire. The results were not in line with previous research (Mumma, 2004) reporting that idiographic questionnaires predict symptoms to a greater extent than total standardised questionnaire scores, as idiographic responsibility interpretations did not predict obsessive- compulsive symptoms more than total responsibility interpretations and non-idiographic responsibility interpretations.

Potential explanations for findings in Study 1

Responsibility interpretations and obsessive-compulsive symptoms. Previous cross-sectional research exploring the relationship between responsibility interpretations and obsessive-compulsive symptoms reports mixed findings. For instance, Salkovskis and colleagues (2000) found that when both the frequency and belief in interpretations subscales of the RIQ were entered into a regression analyses, the frequency subscale predicted obsessive-compulsive symptoms, whereas the belief in interpretations subscale of the RIQ did not. However, they also found that both the frequency and beliefs subscales were significantly correlated with the OCI after controlling for depression and anxiety. Moreover, Wroe (1997) found that the belief in interpretations subscale of the RIQ predicted significant variance in obsessing and neutralising subscales, whereas the frequency subscale did not. There may be several reasons for previous mixed findings and the findings of the present investigation. One possibility is that frequency of responsibility interpretations is a better predictor of distress caused by obsessive-compulsive symptoms (when considering total scores as opposed

to subscales). Another possibility is that frequency of responsibility interpretations better predicts obsessive-compulsive symptoms in general, compared to belief in responsibility interpretations.

Moreover, it is of interest that the interpretation belief subscale of the RIQ and OCI-R were found not be associated as both are OCD measures. Previous research has used the longer version of the OCI (42 items; e.g., Williams et al., 2005), whereas the present study used the short revised version (18 items). OCI and OCI-R have been found to have excellent psychometric properties and to be highly correlated (Foa et al., 2002). However, several subscales (e.g., hoarding, ordering, obsessions) of the OCI-R have been found not to differentiate between individuals with obsessive-compulsive symptoms and individuals with other anxiety diagnoses (Foa et al., 2002). Furthermore, items on both the OCI and OCI-R are focused on compulsions as opposed to obsessions. The authors of the OCI and OCI-R suggest that the OCI-R may not capture a range of obsessions such as sexual or harm related intrusive obsessions (Foa et al., 2002). However, the belief in interpretations subscale of the RIQ specifically focuses on interpretations linked to a range of obsessive thoughts, images or impulses associated with harm. While a majority of participants presented with overt compulsions, it is possible that the OCI-R may not have fully assessed the presence of harm-related intrusive thoughts for the present sample.

GAD-7 as a measure of generalised anxiety. The present study found that generalised anxiety disorder symptoms predicted obsessive-compulsive symptoms whereas previous research has not (Salkovskis et al., 2000). The discrepancy in findings may be due to the questionnaires used. The present study used the GAD-7, whereas

Salkovskis and colleagues (2000) used the Beck Anxiety Inventory (BAI; Beck et al., 1988). While both GAD-7 and BAI are measures of anxiety, they are different in several respects. The BAI captures both somatic symptoms of anxiety and cognitive aspects associated with anxiety and panic using 21 items. The GAD-7 aims to capture specific symptoms of GAD across seven items. Therefore, the BAI offers a more comprehensive assessment of anxiety symptoms relevant to a range of anxiety disorders (e.g., panic disorder), while GAD-7 may capture generalised anxiety disorder specific symptoms.

The relationship between GAD-7, RIQ and OCI-R. The findings from the correlational and regression analyses may be due to an overlap between the measures, assessing generalised anxiety symptoms, responsibility interpretations, and obsessive-compulsive symptoms. It is well acknowledged that the diagnostic criteria for GAD, which is the basis for the GAD-7 questionnaire, consists of a range of anxiety symptoms that are not specific to the disorder and may be present across several anxiety disorders (Clark & Beck, 2010). It is often difficult to differentiate GAD from other anxiety disorders (Clark & Beck, 2010). In relation to OCD, conceptual similarities are often described between obsessions in OCD and worry in GAD. Furthermore, the terms 'obsessions' and 'worry' are often used interchangeably to describe unpleasant repetitive thoughts (Abramowitz & Foa, 1998). These similarities also extend to self-report questionnaires, as previous studies report considerable shared variance between obsessional thought and perseverative worry self-reporting (Freeston et al., 1994; Zinbarg & Barlow, 1996). Studies also report that (i) individuals with GAD score more highly on OCD measures such as the MOCI (Hodgson & Rachman, 1977), compared to other anxious controls and, (ii) individuals

with OCD and co-morbid GAD, show greater associations between obsessive-compulsive symptoms and responsibility (e.g., Abramowitz & Foa, 1998). As there are conceptual similarities between GAD and OCD, it may be possible that the GAD-7 and OCI-R overlap, and measure elements of the other disorder to some extent. It may also be the case that the RIQ is relevant to individuals with both GAD and OCD. As the participants in the present study may not have had a primary diagnosis of OCD, it is possible the findings are attributable to features of GAD as opposed to OCD.

Study 2- The link between idiographic responsibility interpretations and obsessive-compulsive symptoms in CBT for OCD. As discussed earlier, there is limited previous research on the association between idiographic interpretations and obsessive-compulsive symptoms in individuals with OCD. A previous study that most closely encapsulated the aims of Study 2 (Careau et al., 2014) involved repeated daily measurements of idiographic mood-states and appraisals for eight participants with OCD as they were undergoing CBT. Careau and colleagues (2014) found that (i) conviction in idiographic interpretations significantly decreased throughout treatment and, (ii) there were significant co-variations between idiographic mood-states and idiographic interpretations for seven of the eight participants throughout the course of treatment. Careau and colleagues' (2014) study is different to the present study in several respects. They for instance assessed a range of mood-states (e.g., anxiety, depression, boredom) and carried out statistical analyses. The present study assessed obsessive-compulsive symptoms using visual analysis. The findings of the present study are therefore related broadly to the findings by Careau and colleagues (2014).

The results of the present study supported Careau and colleagues' (2014) finding that belief in idiographic interpretations decreased throughout treatment, as idiographic responsibility interpretations decreased throughout treatment for all three participants. However, the results of the present study indicated a greater decline in idiographic responsibility interpretations compared to obsessive-compulsive symptoms for all three participants. It may be possible that as interpretations of intrusions are more accessible and flexible to change than, for example, beliefs (Salkovskis, 1985; 1989), a larger change in idiographic responsibility interpretations results in a smaller change in obsessive-compulsive symptoms. Alternatively, it may be possible that the OCI-R was not the most relevant outcome measure associated with change in idiographic responsibility interpretations for participants. For instance, Careau and colleagues (2014) used a range of idiographic mood-states (e.g., boredom) and also found that the anxiety mood-state did not have significant co-variations with idiographic interpretations for all participants.

The results did not support Careau and colleagues (2014) finding that there were significant co-variations between idiographic mood-states and idiographic interpretations. Instead, the results of the present study showed that a change in idiographic responsibility interpretations did not consistently follow the same pattern of change in obsessive-compulsive symptoms for all three participants. For one participant, non-idiographic responsibility interpretations more consistently followed the same pattern of change in obsessive-compulsive symptoms than idiographic responsibility interpretations. It is possible that idiographic interpretations and obsessive-compulsive symptoms may not always follow the same pattern of change at

each point of measurement. For instance, Careau and colleagues (2014) found significant co-variations between idiographic responsibility interpretations and idiographic mood-states within each treatment phase as opposed to each daily measurement. Alternatively, it is possible that changes in idiographic responsibility interpretations may not occur at the same time as changes in obsessive-compulsive symptoms. Changes in obsessive-compulsive symptoms may for instance follow change in idiographic responsibility interpretations or the converse.

Study 3- Idiosyncratic interpretations as a key element of CBT for OCD. The results of Study 3 relate to existing cognitive-behavioural theories, CBT for OCD treatment manuals and the CORE competencies (Roth & Pilling, 2007; Whittal & McLean, 1999; Wilhelm & Steketee, 2006). The results indicated that therapists with different training backgrounds report idiosyncratic interpretations as a key element of CBT for OCD. This finding supports the emphasis cognitive-behavioural models (e.g., Salkovskis, 1985; 1989; Wilhelm & Steketee, 2006) place on the interpretation of intrusions as opposed to the content of intrusions.

The results of the present study were also largely in line with the key elements listed in treatment manuals of CBT for OCD and CORE competencies for CBT for OCD (Roth & Pilling, 2007; Whittal & McLean, 1999; Wilhelm & Steketee, 2006). All clinician participants reported that they: (i) identified idiosyncratic interpretations using downward arrowing and Socratic questioning, (ii) challenged interpretations through cognitive restructuring, (iii) monitored idiosyncratic cognitions and, (iv) carried out exposure and response prevention. In addition, OCD experts administered relevant questionnaires to understand pattern of symptoms and monitored

idiosyncratic cognitions using questionnaires and the Theory A and B framework. The results of Hypothesis 4 partially supported previous suggestions by researchers (Stobie et al., 2007) that CBT for OCD may vary depending on level of training.

The differences in responses between HI therapists and OCD experts may be attributable to clinician's previous experience of working with individuals with OCD. OCD experts had experience of working in OCD specialist services whereas HI therapists did not. HI therapists see a range of clients with anxiety and depressive disorders. These differences may explain OCD experts' use of techniques and tools in identifying idiosyncratic cognitions that HI therapists may not be aware of (e.g., in vivo exposure and questionnaire use). HI therapists' reduced use of questionnaires may be due to a lack of training opportunities, restriction by service requirements, or both.

OCD experts described developing idiographic questionnaires or using standardised questionnaires to monitor idiosyncratic cognitions. Several OCD experts also spoke about selecting highly rated items from standardised questionnaires to (i) devise behavioural experiments and (ii) monitor change over time. These findings suggest that OCD experts may be using some idiographic approaches to questionnaire administration in clinical practice.

Previous researchers (Stobie et al., 2007) have suggested that the varied experiences of individuals, who had undergone CBT for OCD, may be due to therapist skill and theoretical orientation. The present study suggests that OCD experts and HI therapists use the same theoretical orientation (i.e., cognitive-behavioural) and there is a

considerable overlap between the techniques reported by HI therapists and OCD experts as necessary in CBT for OCD. In relation to previous studies, the findings of the present study more closely support Dudley and colleagues (2015) finding that there is a considerable overlap in expert and non-expert views. However experts spontaneously report more in-depth and relevant details on formulation and intervention. It is not possible to determine due to the design of the present study if therapist skill was associated with symptom improvement. Norcross and Lambert (2011) explored the elements of therapy that result in symptom improvement and reported that eight per cent was attributed to treatment method and seven per cent was related to variation between therapists. Ginzburg and colleagues (2012) found that therapist skill alone explained 48 per cent of the variance in symptom improvement in a participant group of individuals with social anxiety disorder. The two studies vary considerably in their findings but do suggest that there are other variables in therapy that need to be taken into account. Norcross and Lambert (2011) suggested that adapting intervention to meet the client needs is likely to support outcome through various pathways. It is possible that one of these pathways includes an idiosyncratic understanding of and idiosyncratic targeting of cognitions in CBT for OCD.

The cognitive-behavioural model by Salkovskis (1985; 1989) clearly differentiates between beliefs and interpretations. All participants spoke about these different levels of cognitions interchangeably. This was particularly evident when participants described monitoring idiosyncratic interpretations using belief ratings. The use of the word ‘belief’ is also used in the RIQ, as participants are asked how much they ‘believe’ in the responsibility interpretation. This may be because asking for belief ratings is the simplest way to ask an individual about their conviction in their

interpretation. However, the use of 'belief' and 'belief ratings' may obscure the difference between beliefs and interpretations. The distinction between these two levels of cognition may be important in CBT for OCD, as clients learn to identify and challenge these different levels of cognitions throughout treatment (Wilhelm & Steketee, 2006).

Limitations

Study 1 & Study 2.

Diagnostic limitations. Participants in the present studies were not formally diagnosed with OCD. It may have therefore be possible that participants in the present study had several co-morbid conditions, and their primary diagnosis was not OCD. A clinician led diagnostic interview, such as the Structured Clinical Interview for DSM-IV diagnoses (First, Spitzer, Gibbon, & Williams, 2002) may have provided a more rigorous assessment of whether participants met the inclusion criteria for the present study. A clinician-led diagnostic interview was not used in the present investigation as recruitment was initially focused on sending questionnaires to participants' home via post. Once the researcher had ethical approval to complete questionnaires over the telephone, the self-report Y-BOCS was completed with the majority of participants (n = 18) giving the researcher the opportunity to ask follow up questions. As participants did not receive a formal diagnosis of OCD, the results of the present study may be more applicable to individuals with moderate to severe obsessive-compulsive symptoms than to individuals with a clinical diagnosis of OCD.

The results indicated that eight of the 28 participants required further screening for psychosis as they responded "yes" to one of the six items of the PDSQ psychosis

subscale. Of interest, all participants responded yes to the same one item: "During the past two weeks, were you convinced that other people were watching you, talking about you, or spying on you?" As the researcher completed the questionnaires over the phone with these participants, the researcher was able to ask follow up questions. The follow up questions included clarifying with participants which component of this question participants were saying yes to, which situations they felt this way in, how did they know they were being watched, talked about or spied on and how convinced they were that they were being watched, talked about or spied on. When participants were asked these follow up questions, all participants explained that they responded yes to one component of this item "that other people were watching or talking about you". All participants explained that they were not completely convinced by this idea but were worried about others watching or talking about them as they might have done something wrong, caused something terrible to happen or others were noticing them performing compulsions. This suggests that participants' "yes" responses on this item were capturing an obsessional experience as opposed to a psychotic experience. The PDSQ manual suggests that threshold points should be used flexibly by clinicians. Therefore, for the present study, the threshold of 1 was not deemed appropriate for exclusion of participants as further screening suggested that participants were not presenting with psychotic concerns.

Idiographic approach. The present study aimed to capture idiographic responsibility interpretations by selecting items rated 70 and above on the RIQ. Previous research has used other thresholds such as 50 and above (Mumma, 2004), relevance ratings, or both (Solomon et al., 2003). A higher threshold was used for the present study to allow meaningful comparison between the idiographic and non-idiographic scores.

However, this comparison may not be meaningful for all participants. For instance, Participant 1's non-idiographic RIQ score in Study 2 consisted of one item. It is possible that categorising ratings of 70 and above as idiographic items may not be an adequate method to capturing idiographic responsibility interpretations. The use of both high ratings and relevance ratings may have been a more rigorous approach to selecting idiographic responsibility interpretations.

Cognitions in OCD are highly idiosyncratic (Salkovskis, 1985). It may be possible that associated symptoms are also highly idiosyncratic. The present studies did not use an idiographic outcome measure. However, it is possible that an idiographic outcome measure may have better captured change in idiographic responsibility interpretations than the OCI-R throughout treatment.

Focus on responsibility. The present investigation focused solely on responsibility interpretations. There are however a range of other cognitive domains which have been identified as key to obsessive-compulsive difficulties. As discussed earlier, these include over-importance of thoughts, need for control over thoughts, intolerance of uncertainty, overestimation of threat and perfectionism (OCCWG, 1997). Responsibility interpretations were selected as the focus of the present investigation as a review of the literature suggested there was substantial evidence that IR had a significant role in the development and maintenance of obsessive-compulsive symptoms. Previous research also suggests that interpretations cannot be separated by cognitive domains and are instead best captured as one construct: negative interpretations of intrusions (OCCWG, 1997). It is possible that responsibility

interpretations in the present investigation may also be capturing interpretations relevant to other cognitive domains.

The present investigation also did not measure frequency in responsibility interpretations, as previous research more consistently highlights the role of belief in responsibility interpretations in predicting obsessive-compulsive symptoms, and belief in interpretations are a focus of CBT for OCD. The inclusion of the frequency subscale in the present investigation may have however allowed comparisons between the frequency and belief subscales and furthered understanding of the role of responsibility interpretations in predicting obsessive-compulsive symptoms.

Cause and effect. The present investigation is limited in drawing any cause and effect conclusions between responsibility interpretations, idiographic responsibility interpretations and obsessive-compulsive symptoms. In relation to the findings of Study 2, it is not possible to determine whether change in idiographic responsibility interpretations led to changes in obsessive-compulsive symptoms or the converse. A common criticism of single case research is that the mechanisms of change attributed to the data may in fact be due to other factors (Matyas & Greenwood, 1990). Generalised anxiety and depressive symptoms and their relationship with idiographic responsibility interpretations and obsessive-compulsive symptoms were not explored in Study 2. However, as discussed earlier, given the findings of Study 1, it is possible that generalised anxiety symptoms may have facilitated the relationship between idiographic responsibility interpretations and obsessive-compulsive symptoms. Other factors such as spontaneous recovery may also have influenced findings. Spontaneous recovery is considered rare in OCD (Rasmussen & Tsuang, 1986). However, as the

present study did not monitor idiographic responsibility interpretations and obsessive-compulsive symptoms at baseline and follow-up, and due to the small sample size, it cannot be stated with confidence that the results are not attributable to spontaneous recovery.

Self-report questionnaires. Self-report questionnaires are commonly used in clinical practice and research as they are a quick, easy and cost-effective approach to gathering meaningful data (Miller & Hays, 2000). Self-report questionnaires also capture a range of situational and behavioural patterns (Hawkshead & Krousel-Wood, 2007). While the advantages of self-report measures are plentiful, gathering data using self-report measures also has some limitations. Self-report questionnaires used in the present investigation may be subject to recall bias, social desirability bias and errors in self-observation (Hawkshead & Krousel-Wood, 2007; Paterson, Potoski, & Capitano, 2002). The questionnaires used in the present investigation required participants to rate items based on their experience in the last month (e.g., OCI-R) or two weeks (e.g., RIQ). The questionnaires therefore relied heavily on participants' ability to recall their experiences, behaviours and symptoms. Obsessive-compulsive difficulties are characterised by attentional biases and avoidance behaviours (Salkovskis et al., 2000). Therefore, it is possible that participants have overestimated or underestimated difficulties associated with their experiences, behaviours and symptoms.

It is well acknowledged that individuals with obsessive-compulsive symptoms experience intrusive thoughts, images and impulses, which they perceive as unacceptable and distressing (Rachman, 1971). Participants may therefore consider it unacceptable to report such thoughts, images and impulses and their corresponding

interpretations to a researcher. The researcher encountered these difficulties when completing questionnaires over a phone with two participants. Therefore, participants were given the option of giving key words rather than full descriptions of their intrusive thoughts. Nevertheless, participants may have been motivated by social desirability and fear of negative evaluation and may have responded to questions in line with what they felt would be considered socially acceptable.

Self-observation may involve insight into one's difficulties. Self-report questionnaires, particularly the diagnostic measures in the present study relied on participant insight in reporting symptoms and severity of symptoms. It is generally acknowledged that insight in individuals with OCD varies within and between individuals (Kozak & Foa, 1994). Poorer insight in individuals with OCD has been found to be associated with greater obsessive-compulsive, depressive and generalised anxiety symptoms (Alonso, Menchon, & Segalas, 2008; Fountenelle et al., 2013; Jakubovski, Pittenger, & Torres, 2011). The participants with obsessive-compulsive difficulties in the present study predominantly reported moderate to severe obsessive-compulsive symptoms. The participant sample also reported depressive and generalised anxiety symptoms. Therefore, it is possible that participants in the present study who had been experiencing high levels of symptoms may not have accurately reported their symptoms on self-report questionnaires.

Generalisability. The present investigation aimed to combine a larger scale study with a single case study design to explore the role of idiographic responsibility interpretations in CBT for OCD. The researcher was unable to recruit a large enough sample size for post-treatment data to carry out the necessary statistical analyses. As a

consequence, longitudinal analyses were confined to the single case study design. The single case study design allowed in-depth exploration of the variables of interest for each participant, however as the focus was on three participants, the results are limited in generalisability. A strength of the single case study design in the present investigation is that it allowed the observation of key variables of interest within the participants' natural environment.

Study 3. The interviews were carried out with participants over the phone as opposed to in person. Participants may have felt rushed or uncomfortable, as they were not able to meet the researcher in person and discuss the topic area. Furthermore, there were some difficulties in hearing two participants over the phone due to background noise. It is possible that these interferences may have influenced participants' responses.

The researcher assumed a realist position to qualitative research in the present study, as this best complemented the aims of the investigation. However, it has been argued that, a realist position may be influenced by the researcher's preconceptions and ideas (e.g., Fine, 2002). As such, the researcher may have asked specific prompt questions to further aid the understanding of key elements of CBT for OCD. Given that the researcher had hypothesised that clinicians would report identifying and targeting idiosyncratic cognitions as a key element of CBT for OCD, the prompt questions may have led participants to report this as a key element. However, it is unlikely that the researcher's position would have led all participants to report idiosyncratic interpretations as a key element of CBT for OCD.

It is also possible that OCD experts were more confident in their views about the key elements of CBT for OCD compared to HI therapists due to their clinical and research experience with OCD. HI therapists work with the range of anxiety and depressive presentations, and may not see as many OCD clients as the OCD experts working in specialist services. In relation to the present findings, one HI therapist reported using a recent example to identify idiosyncratic cognitions. Using a recent example is a common element of CBT, and it is likely that HI therapists were searching for more complex approaches and did not mention using a recent example. Therefore, the differences in quality of responses may be attributable to both years of experience and confidence in reporting key elements of CBT for OCD.

Research implications and future research

The present investigation offers insights into the role of idiographic responsibility interpretations on symptom improvement in CBT for OCD. The results from Study 1 suggest that responsibility interpretations and idiographic responsibility interpretations do not predict obsessive-compulsive symptoms. However, the present findings need to be replicated in a study using a larger sample size and a longitudinal design in order to establish if responsibility interpretations are the mechanism of change in CBT for OCD. Moreover, as generalised anxiety played a significant role in the present investigation, it may be essential to control for generalised anxiety symptoms in future research.

The present investigation did not explore both subscales of the RIQ. Future research investigating responsibility interpretations may wish to include both frequency and belief subscales to establish the role of each in predicting obsessive-compulsive

symptoms in CBT for OCD. Moreover, to establish the role generalised anxiety symptoms play in predicting obsessive-compulsive symptoms, future studies may wish to include both GAD-7 and BAI as measures of generalised anxiety.

The present investigation also consisted of a sample that was not formally diagnosed with OCD by a trained clinician. It may be beneficial for future research to replicate the methodology of Study 1 with participants who have a formal diagnosis of OCD as the primary disorder, and with participants who do not have a formal diagnosis of OCD but present with obsessive-compulsive symptoms.

The present investigation used a novel approach to developing an idiographic questionnaire. Idiographic questionnaire administration is currently in its infancy and therefore the current guidelines on how to select idiographic items are not supported by a wealth of research. The threshold of 70 and above, chosen for the present investigation, is an arbitrary cut-off point. A range of thresholds and methods, including relevance ratings, may need to be tested to establish a rigorous approach to idiographic questionnaire administration. As OCD experts reported that they selected highly rated items from a standardised questionnaire when monitoring change during therapy, establishing thresholds with standardised questionnaires may be a fruitful avenue for future research.

The findings from Study 2 provided preliminary support for the link between idiographic responsibility interpretations and obsessive-compulsive symptoms. However, Study 2 did not include (i) baseline and follow-up phases, (ii) visual analysis of changes in generalised anxiety and depressive symptoms and their

relationship to changes in idiographic responsibility interpretations, (iii) measurement of key variables following every treatment session and, (iv) use of an idiographic outcome measure. As the present study was the first to investigate the role of idiographic responsibility interpretations using a single case study design, the findings require replication while addressing the above-mentioned limitations. Addressing these limitations could eliminate the influence of potential confounding factors and further our understanding of the relationship between idiographic responsibility interpretations and obsessive-compulsive symptoms.

The premise behind the hypotheses of the present investigation was that idiographic responsibility interpretations are more closely linked to obsessive-compulsive symptoms than beliefs. A comparison between beliefs and interpretations may have furthered the theoretical foundation for the hypotheses of the present investigation. However, given the scope of the investigation and potential difficulties in recruitment, the addition of this variable would have required additional participants and may have influenced response rates due to increased response burden.

Clinical implications

The findings of the present investigation provided mixed results, but do provide some preliminary support for the importance of idiosyncratic cognitions in CBT for OCD. This was particularly evident in that all HI therapists and OCD experts reported the importance of identifying and targeting idiosyncratic interpretations in CBT for OCD. The findings therefore suggest that idiosyncratic interpretations are important to consider when formulating obsessive-compulsive difficulties.

Hallam (2013) discusses how standardised approaches can be reconciled with idiographic approaches. This debate refers to the reconciling of what some may perceive as the science of clinical practice with what others might suggest is the art of clinical practice (e.g., Held, 1995). This debate highlights two pull factors in therapeutic practice, one pull factor involves using an individualised and person-centred approach while the other includes using a replicable and systematic therapeutic approach. This debate is relevant to the present investigation, as Studies 1 and 2 attempted to bridge the gap between standardised and idiographic questionnaires. The results of the present investigation provide some preliminary support that selecting highly rated items on a standardised questionnaire may be a feasible approach to bridging the gap between standardised and idiographic approaches. It is possible that with further replication of the present findings, the use of idiographic questionnaires may become a useful approach in clinical practice.

Therapist factors may at times impede the development of an idiosyncratic formulation (Kuyken, Padesky, & Dudley, 2009). These factors include the overestimation of the client's presentation being representative of a disorder, theoretical framework, or a pattern observed in similar clients (Kuyken, Padesky & Dudley, 2009). The administration of a standardised questionnaire and the selection of highly rated items for further re-administration by the clinicians, may give clinicians an external tool in tackling therapist bias factors.

Selecting highly rated items from a standardised questionnaire may also aid clinicians in using an idiographic approach in a time efficient manner. Questionnaires such as the RIQ could be useful at assessment as they may open discussion between the

therapist and client about key highly rated interpretations that may be maintaining current difficulties. Therapists may then be able to monitor the key idiographic interpretations over time as opposed to have clients complete the full questionnaire again. The repeated administration of the idiographic questionnaire throughout therapy may also help therapists and clients evaluate the effectiveness of therapy and plan for future sessions. Idiographic questionnaire-use may therefore offer a time-efficient supportive technique in developing a formulation, intervention planning and monitoring, benefiting both therapists and clients.

The results of Study 3 show that clinicians use belief ratings to measure interpretations. The use of 'belief ratings' across different levels of cognitions may result in confusion both for clients and clinicians. For instance, the OCCWG (2005) suggested that the high correlation between the OBQ and III may be because it is difficult for individuals to differentiate between beliefs and interpretations. The differentiation of the different levels of cognitions is a key part of psychoeducation in CBT for OCD (Steketee & Wilhelm, 2006). Therefore it may be essential for clinicians to clearly differentiate between interpretations and beliefs throughout treatment. As an example, clinicians could best differentiate between the two by using different terminology for each, for instance 'conviction ratings' for interpretations and 'belief ratings' for beliefs.

There is an ongoing debate about whether cognitive or behavioural components of CBT for OCD are the mechanisms of symptom improvement (Hofmann, 2008; Longmore & Worrell, 2007). Longmore and Worrell (2007) carried out a review of the literature comparing CBT for various disorders and concluded that there is little

empirical support for cognitive change as a mechanism of change in CBT. However, Hofmann (2008) suggested that the literature reviewed by Longmore and Worrell (2007) was biased, as the studies included could not adequately assess the role of cognitions as a mechanism of symptom improvement in CBT for OCD. Hofmann (2008) also reported that changes in cognitions can result in symptom improvement without the use of cognitive challenging techniques. The findings of the present study suggest that therapists' view change in cognitions as a key element of CBT for OCD and that they target cognitive components through a combination of cognitive and behavioural techniques. Therapists' accounts appear to support Hofmann's (2008) approach and may reflect the complex relationship between cognitive and behavioural work in the clinical practice of CBT for OCD.

Conclusions. The present investigation aimed to explore the mechanisms of change that result in symptom improvement in CBT for OCD by examining the role of idiographic responsibility interpretations. The novel approach of this investigation involved (i) exploring the role of interpretations of intrusions, a level of cognition that had not received much attention in CBT for OCD literature, (ii) exploring the role of idiographic questionnaire administration in CBT for OCD, and (iii) exploring therapists' views on the key elements of CBT for OCD. The present investigation involved three studies to provide a multifaceted approach to the role of idiographic interpretations in CBT for OCD. The results showed mixed findings. The results of Study 1 suggested that responsibility interpretations and idiographic responsibility interpretations did not predict obsessive-compulsive symptoms more than generalised anxiety and depressive symptoms. The results of Study 2 provided preliminary support that idiographic responsibility interpretations were more closely linked to

change in obsessive-compulsive symptoms than non-idiographic responsibility interpretations. Thirdly, the results of the Study 3 indicated that HI therapists and OCD experts report idiosyncratic interpretations as a key element of formulation and intervention in CBT for OCD. The results of Study 2 and 3 suggest tentative support for the importance of idiographic interpretations and idiographic responsibility interpretations in formulation and treatment of OCD. The present investigation had several limitations. To fully substantiate the role of idiographic responsibility interpretations in CBT for OCD, future research needs to replicate the methodology of the present investigation with participants formally diagnosed with OCD, using larger sample sizes, employing a range of idiographic thresholds, using idiographic outcome measures and controlling for generalised anxiety symptoms.

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Appendix 1

Literature search details for (i) symptom improvement in CBT for OCD and (ii) therapist views on key elements of CBT for OCD, and (iii) effect size and power analysis,.

(i) *Literature search details for field of symptom improvement in CBT for OCD.*
Literature search date: 12/02/2015
Database used: Psychinfo
Key words searched:

1. 'Symptom improvement' and 'CBT' – no studies on cognition found
2. 'Symptom improvement' and 'CBT' and 'OCD' – no studies on cognition found
3. 'Cognitive change' and 'CBT' and 'OCD'
   Several studies found
   1 assessing beliefs
   1 assessing IR
   1 assessing IR in group – group and individual CBT (Jonsson et al., 2011)
4. 'Cognitions' and 'CBT' and 'OCD'
   1 single case study design on idiographic interpretations and mood states in CBT for OCD (Careau et al., 2014)
   1 study based on Rachman's model for covert compulsions, CBT vs. Stress management, CBT resulted in most OCD-related cognitions (Whittal et al., 2010)
   1 study on six adolescents CBT for OCD – Salkovskis model (Willaims et al., 2010)
5. 'CBT' and 'OCD'
   1 study on CBT vs. metacognitions (Fisher et al., 2009)
6. 'Treatment outcome' and 'CBT' and 'OCD
   Several studies on 'change in metacognitions predicts outcome in obsessive–compulsive disorder patients undergoing treatment with exposure and response prevention' (Solem et al., 2009)
   Fisher & wells (2005)
   Cartwright-Hatton (1997)
   Hermans et al., (2003)
   Myers et al., (2008)
   Gwilliams & Wells (2004)

(ii) *Literature search details for therapists views of key elements of CBT for OCD.*

Literature search date: 12/02/2015
Database used: Psychinfo
Key words searched:

1. 'Therapists' and 'CBT' and 'OCD'

1 Study on agreement between **therapists**, parents, patients, and independent evaluators on clinical improvement in pediatric obsessive-compulsive disorder.

2. 'Clinicians' and 'CBT' and 'OCD'

No studies investigating therapist views of key elements of CBT for OCD were found.

(iii) *Literature search details for effect size and power analysis*
Literature search date: 21/01/2014
Database used: Psychinfo
Key words searched:

1. 'Intrusions'
2. 'Intrusions' AND 'OCD'
3. 'Intrusions' AND 'symptom change'
   Several studies investigating correlations between interpretations of intrusions and obsessive-compulsive symptoms were found (e.g. O'Leary et al., 2009).
4. 'Interpretations of intrusions' and 'responsibility interpretations'
   One study measuring changes in responsibility interpretations pre and post group CBT using t-tests was found (Haraguchi et al. 2011).
   Two case studies exploring the role of responsibility interpretations in symptom improvement following intervention in adolescents with OCD were found (Williams et al. 2005; Shafran & Somer, 1998).

No studies investigating the role of interpretation of intrusions in symptom improvement following individual CBT in adults with OCD were found.

Appendix 2

Ethical approval letter for Study 1 and 2. Issued by City Road and Hampstead NHS Research Ethics Committee.

NHS
Health Research Authority

NRES Committee London - City Road & Hampstead
Bristol Research Ethics Committee Centre
Level 3, Block B
Whitefriars
Lewins Mead
Bristol
BS1 2NT

Telephone: 0117 342 1385
Facsimile: 0117 342 0445

24 April 2014

Miss Gazal Khan
Camden and Islington NHS Trust
Royal Holloway, University of London
Doctorate in Clinical Psychology
Egham Hill
TW20 0EX

Dear Miss Khan

Study title:	**Predictors of symptom improvement in Cognitive Behavioural Therapy for Obsessive Compulsive Disorder**
REC reference:	**14/LO/0653**
IRAS project ID:	**147597**

Thank you for your letter of 13th April 2014, responding to the Proportionate Review Sub-Committee's request for changes to the documentation for the above study.

The revised documentation has been reviewed and approved by the sub-committee.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator Miss Tina Cavaliere, nrescommittee.london-cityroadandhampstead@nhs.net

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations.

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact Catherine Blewett (catherineblewett@nhs.net), the HRA does not, however, expect exceptions to be made. Guidance on where to register is provided within IRAS.

You should notify the REC in writing once all conditions have been met (except for site approvals from host organisations) and provide copies of any revised documentation with updated version numbers. The REC will acknowledge receipt and provide a final list of the approved documentation for the study, which can be made available to host organisations to facilitate their permission for the study. Failure to provide the final versions to the REC may cause delay in obtaining permissions.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The documents reviewed and approved by the Committee are:

Document	*Version*	*Date*
Investigator CV	Abigail Wroe	01 March 2014
Investigator CV	Gazal Khan	10 March 2014
Letter from Sponsor		11 March 2014
Other: Correspondence with Royal Holloway Research Committee 3	1	24 March 2014
Other: Correspondence with Royal Holloway Research Committee 5	1	24 March 2014
Other: Correspondence with Royal Holloway Research Committee 4	1	24 March 2014
Other: Correspondence with Royal Holloway Research Committee 1	1	24 March 2014
Other: Correspondence with Royal Holloway Research Committee 2	1	24 March 2014
Participant Consent Form	1	11 March 2014
Participant Information Sheet: Part 1	2	13 April 2014
Participant Information Sheet: Part 2	2	13 April 2014
Protocol	1	24 February 2014
Questionnaire: Obsessive Compulsive Inventory	validated	
Questionnaire: Patient Health Questionnaire (PHQ-9)	validated	
Questionnaire: Responsibility Interpretations Questionnaire	validated	
Questionnaire: Yale-Brown Obsessive Compulsive Scale	validated	
Questionnaire: Generalized Anxiety Disorder (GAD-7) Questionnaire	validated	
Questionnaire: Questionnaire pack Coversheet - Your well-being while filling in this questionnaire pack	1	24 March 2014
REC application		28 March 2014
Response to Request for Further Information		13 April 2014

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol

- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

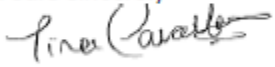
Further information is available at National Research Ethics Service website > After Review

14/LO/0653	**Please quote this number on all correspondence**

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

With the Committee's best wishes for the success of this project.

Yours sincerely



Pp

Mr David Burbidge
Alternate Vice Chair

Email: nrescommittee.london-cityroadandhampstead@nhs.net

Enclosures: *"After ethical review – guidance for researchers"*

Copy to: *Miss Annette Lock*

Ms Sylvia Warwick, Berkshire Healthcare NHS Trust Research and Development Office

Appendix 3

Ethical approval from Royal Holloway, University of London Research Ethics Committee (electronic mail format).

Application Details:	View the form click here Revise the form click here
Applicant Name:	**Gazal Khan**
Application title:	**Predictors of symptom improvement in Cognitive Behaviour Therapy for Obsessive Compulsive Disorder**
Comments:	Approved after an email exchange between the chair of DEC and the applicant, clarifying the issue of consent.

Appendix 4

Research and Development Department Approval from Berkshire Healthcare NHS Foundation Trust.

Healthcare from the heart of your community

Berkshire Healthcare NHS
NHS Foundation Trust

Miss Gazal Khan
Camden and Islington NHS Trust
Royal Holloway, University of London
Doctorate in Clinical Psychology
Egham Hill
Egham, Surrey
TW20 0EX

Research & Development
Fitzwilliam House · Skimped Hill Lane
Bracknell · Berkshire · RG12 1BQ
t: **01344 415825**
f: **01344 415666**
e: **bht@berkshire.nhs.uk**

date: 28 April 2014

Our Ref: 2014/29 **REC Ref: 14/LO/0653**
Study title: Predictors of symptom improvement in CBT for OCD
Start date: 28 April 2014 **End date: 29 May 2015**

Dear Miss Khan

Confirmation of Trust Management Approval

On behalf of Berkshire Healthcare NHS Foundation Trust, I am pleased to confirm Trust Management Approval for the above research on the basis described in the application, protocol and other supporting documents. Approval is conditional on reporting up-to-date recruitment when requested and the submission of a brief final report of research findings. Failure to do so may result in approval being withdrawn.

If there are any changes to the study protocol, the R&D Department must be informed immediately and supplied with any amended documentation as necessary, including confirmation that the amendments have been favourably reviewed by the Sponsor and the Ethics Committee. If the end date changes from that shown above, then please inform BHFT R&D Manager. Trust approval will cease on the end date above. Please contact the R&D Manager to discuss any extension.

The R&D Department is required to monitor the progress of all research in the Trust under the Department of Health's Research Governance Framework. You will be contacted in due course with a request for reports of progress, and for a brief final report of research findings.

If you have any questions about the above, or you require any other assistance, then please contact the R&D Department.

I wish you every success with the study.

Yours sincerely

pp Dr Justin Wilson
Medical Director

Berkshire Healthcare NHS Foundation Trust participates in world class research. For further information about participating in clinical trials and research studies, please ask your health care professional.

Appendix 5

Ethical approval letter for substantial amendment for Study 1 and 2. Issued by City Road and Hampstead NHS Research Ethics Committee.

NHS
Health Research Authority

NRES Committee London - City Road & Hampstead
Bristol Research Ethics Committee Centre
Level 3, Block B
Whitefriars
Lewins Mead
Bristol
BS1 2NT

Telephone: 0117 342 1339

07 November 2014

Miss Gazal Khan
Camden and Islington NHS Trust
Royal Holloway, University of London
Doctorate in Clinical Psychology
Egham Hill
TW20 0EX

Dear Miss Khan

Study title:	**Predictors of symptom improvement in Cognitive Behavioural Therapy for Obsessive Compulsive Disorder**
REC reference:	**14/LO/0653**
Amendment number:	**Version 3 - 24th October 2014**
Amendment date:	**26 October 2014**
IRAS project ID:	**147597**

Thank you for submitting the above amendment, which was received on 27 October 2014. It is noted that this is a modification of an amendment previously rejected by the Committee (our letter of 20 November 2014 refers).

The modified amendment has been considered on behalf of the Committee by the Chair.

Ethical opinion

I am pleased to confirm that the Committee has given a favourable ethical opinion of the modified amendment on the basis described in the notice of amendment form and supporting documentation.

Approved documents

The documents reviewed and approved are:

Document	*Version*	*Date*
Notice of Modified Amendment [MA to SA1 - 1) Change in Protocol 2) Addition of Prize Draw]	Version 3 - 24th October 2014	26 October 2014
Other [Prize draw form]	1	30 September 2014
Participant information sheet (PIS) [Part 1]	3	24 October 2014
Participant information sheet (PIS) [Part 2]	3	24 October 2014

Research protocol or project proposal [Methodology (Procedure) Berkshire IAPT]	3	24 October 2014
Research protocol or project proposal [Methodology (Procedure) SLAM IAPT]	3	24 October 2014

R&D approval

All investigators and research collaborators in the NHS should notify the R&D office for the relevant NHS care organisation of this amendment and check whether it affects R&D approval of the research.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

14/LO/0653:	**Please quote this number on all correspondence**

Yours sincerely

pp
Dr David Slovick
Chair

E-mail: nrescommittee.london-cityroadandhampstead@nhs.net

Copy to: *Ms Sylvia Warwick, Berkshire Healthcare NHS Trust Research and Development Office*
Miss Annette Lock

Appendix 6

Research and Development Department approval letter for substantial amendment for Study 1 and 2. Issued by Berkshire Healthcare NHS Foundation Trust.

Healthcare from the heart of your community

Berkshire Healthcare NHS
NHS Foundation Trust

Research & Development
Fitzwilliam House · Skimped Hill lane
Bracknell · Berkshire · RG12 1BQ
t: **01344 415825**
f: **01344 415666**
e: **research@berkshire.nhs.uk**

Miss Gazal Khan
Camden and Islington NHS Trust
Royal Holloway University of London
Egham Hill
Egham
Surrey TW20 0EX

Date: 31 December 2014

Dear Miss Khan

Re: Minor Amendment 1 to Substantial Amendment 1 to Predictors of symptom improvement in Cognitive Behavioural Therapy (CBT) for Obsessive Compulsive Disorder (OCD)

Following review of the above amendment Berkshire Healthcare NHS Foundation Trust has decided that they can accommodate this amendment.

The amendment may therefore be immediately implemented at this site under the existing NHS Permission. Please note that you may only implement changes that were described in the Notice of Amendment.

Yours sincerely

pp Justin Wilson
Medical Director

Appendix 7

A brief information sheet on maintaining well-being when completing the questionnaire pack.

Before you start to fill out this questionnaire pack you may wish to read about 'your well-being while filling in this questionnaire pack' below. This section is written by a previous service user with OCD who is currently a researcher within the field. We have included this section to ensure that no aspect of completing this questionnaire is distressing to you. This section also has some helpful tips if you feel stuck or confused.

Your well-being while filling in this questionnaire pack[1]

This questionnaire pack includes a few questionnaires on anxiety and wellbeing that are commonly used by health professionals. The questionnaires in this pack are part of a research project that I (Gazal Khan) am completing for my Doctorate in Clinical Psychology. This research will help us understand the role of intrusive thoughts in treatment.

Sometimes filling in questionnaires can be emotionally draining or upsetting. If at any stage you begin to feel you've had enough of the questions, or begin to feel upset by them, please do stop. If you wanted to return to them after a break that would be fine, or if you didn't want to do any more, that would be equally fine. The top priority is your well-being.

Some participants find it helpful to talk over thoughts they have had, while filling in questionnaires like this, with a friend or family member. Of course, if you would like to talk over your experience of filling out this questionnaire, I would be happy to arrange a time to talk on the phone. You can contact me on Gazal.Khan.2012@live.rhul.ac.uk with your contact details and I will get in touch with you as soon as possible. You can also speak to your therapist and also my supervisor, Dr. Abi Wroe on the phone (0178 427 6532) if you felt troubled in any way after filling in the questionnaires.

Thank you very much for your time and energy in completing this questionnaire pack.

[1]Adapted version of the original by Karen Robison from 'Seeking help and receiving appropriate treatment for obsessive compulsive disorder' (2012)

Appendix 8

Psychiatric Diagnostic Screening Questionnaire (Zimmerman & Mattia, 2001; not included due to copyright restrictions)

Appendix 9

The Yale-Brown Obsessive Compulsive Scale self-report (Rosenfeld, Anderson, Kobak & Greist, 1992).

Yale-Brown Obsessive Compulsive scale (Y-BOCS)

Obsessions
An obsession is defined as a frequent and persistent thought, image, or urge that is unwanted and just pops into your mind and provokes distress, and that you cannot easily dismiss. Obsessions are recurring intrusive thoughts, images or impulses.

Compulsions
Compulsions (or rituals) are defined as acts that are repeated with the aim of reducing harm and that a person feels driven to perform.

Take some time to think about the obsessions and compulsions that are most distressing and debilitating as the basis for listing your target obsessions for rating below. This will help you complete the questionnaire on the next page.

Target Symptom List for Rating on the YBOCS

Obsessions

1. _____

2. _____

3. _____

4. _____

5. _____

Compulsions

1. _____

2. _____

3. _____

4. _____

5. _____

Obsessions

Now that you have made a list of your main obsessions, please use the target symptom list for obsessions to help you answer the first five questions. Please think about the last seven days (including today), and tick one answer for each question.

1. How much of your time is preoccupied by obsessional thoughts? How frequently do the obsessive thoughts occur?

___ 0 = None*
___ 1 = Less than 1 hour per day, or occasional intrusions (occur no more than 8 times a day)
___ 2 = 1 to 3 hours per day or frequent intrusions (occur more than 8 times a day, but most hours of the day are free of obsessions)
___ 3 = More than 3 hours and up to 8 hours per day, or very frequent intrusions (occur more than 8 times a day during most hours of the day)
___ 4 = More than 8 hours per day, or near-constant intrusions (too numerous to count, and an hour rarely passes without several obsessions occurring)

** if you ticked this answer, also tick 0 for questions 2, 3, 4, and 5, and proceed to question 6*

2. How much do your obsessive thoughts interfere with your social or work functioning? (If you are currently not working, please think about how much the obsessions interfere with your everyday activities) (In answering the question, please consider whether there is anything you don't do, or that you do less, because of the obsessions)

___ 0 = No interference
___ 1 = Mild, slight interference with social and or occupational activities, but overall performance not impaired
___ 2 = Moderate, definite interference with social or occupational performance, but still manageable
___ 3 = Severe interference, causes substantial impairment in social and occupation performance
___ 4= Extreme, incapacitating interference

3. How much distress do your obsessional thoughts cause you?

___ 0 = None
___ 1 = Mild, infrequent, and not too disturbing distress
___ 2 = Moderate, frequent, and disturbing distress, but still manageable
___ 3 = Severe, very frequent, and very disturbing distress
___ 4 = Extreme, near-constant, and disabling distress

4. How often do you try to disregard these thoughts and let them pass naturally through your mind? (Here we are not interested in knowing how successful you are in disregarding your thoughts, but only in how much or how often you try to do so)

___ 0 = I always let the obsessions pass naturally through my mind
___ 1 = I disregard them most of the time (i.e. more than half the time)
___ 2 = I make some effort to disregard the obsessions
___ 3 = I rarely disregard the obsessions
___ 4 = I never try to disregard the obsessions

5. How *successful* are you in disregarding your obsessive thinking?
Note*: *Do not include here obsessions stopped by doing compulsions

___ 0 = Always successful in disregarding obsessions
___ 1 = Usually successful in disregarding obsessions
___ 2 = Sometimes successful in disregarding obsessions
___ 3 = Rarely successful in disregarding obsessions
___ 4 = I am rarely able to disregard the obsessions even momentarily

Compulsions

Compulsions are behaviours or acts that you feel driven to perform although you may recognize them as senseless or excessive. At times, you may try to resist doing them, but this may prove difficult. You may experience anxiety that does not diminish until the behaviour is completed.

Please use the main compulsions you listed in the target symptom list to help you answer these five questions. Please think about the last seven days (including today), and tick one answer for each question.

6. How much time do you spend performing compulsive behaviour? How frequently do you perform compulsions? (If your rituals involve daily living activities, please consider how much longer it takes you to complete routine activities because of your rituals)

___ 0 = None*
___ 1 = Less than 1 hour per day is spent performing compulsions or occasional performance of compulsive behaviours (no more than 8 times a day)
___ 2 = 1 to 3 hours per day are spent performing compulsions, or frequent performance of compulsive behaviours (more than 8 times a day and during most hours of the day)
___ 3 = More than 3 hours and up to 8 hours per day are spent performing compulsions, or very frequent intrusions (occur more than 8 times a day during most hours of the day)
___ 4 = More than 8 hours per day, or near-constant intrusions (too numerous to count, and an hour rarely passes without several obsessions occurring)

** If you ticked 0 this answer, also tick 0 for questions 7, 8, 9, and 10*

7. How much do your compulsive behaviours interfere with your social or work functioning? (If you are not currently working, please think about your everyday activities)

___ 0 = No interference
___ 1 = Mild, slight interference with social and or occupational activities, but overall performance not impaired
___ 2 = Moderate, definite interference with social or occupational performance, but still manageable
___ 3 = Severe interference, substantial impairment in social and occupation performance
___ 4= Extreme, incapacitating interference

8. How would you feel if prevented from performing your compulsion(s)? How anxious would you become?

___ 0 = Not at all anxious if compulsions prevented
___ 1 = Only slightly anxious if compulsions prevented
___ 2 = Anxiety would mount but remain manageable if compulsions prevented
___ 3 = Prominent and very disturbing increase in anxiety if compulsions interrupted
___ 4 = Extreme, incapacitating anxiety from any intervention aimed at reducing the compulsions

9. How much of an effort do you make to resist the compulsions? Or how often do you try to stop the compulsions? (Rate only how often or how much you try to resist your compulsions, not how successful you actually are in stopping them)

___ 0 = I make an effort always to resist (or the symptoms are so minimal that there is no need to actively resist them)
___ 1 = I try to resist most of the time (i.e. more than half the time)
___ 2 = I make some effort to resist
___ 3 = I yield to almost all compulsions without attempting to control them, but I do so with some reluctance
___ 4 = I completely and willingly yield to all compulsions

10. How much control do you have over the compulsive behaviour? How successful are you in stopping the ritual(s)? (If you rarely try to resist, please think about those rare occasions in which you did *try* to stop the compulsions, in order to answer this question)

___ 0 = I have complete control
___ 1 = Usually I can stop compulsions or rituals with some effort and willpower
___ 2 = Sometimes I can stop compulsive behaviour but only with difficulty
___ 3 = I can only delay the compulsive behaviour, but eventually it must be carried to completion
___ 4 = I am rarely able to delay performing the compulsive behaviour even momentarily

Appendix 10

The Obsessive Compulsive Inventory- Revised (Foa et al., 2002).

Obsessive Compulsive Inventory-Revised (OCI-R)

The following statements refer to experiences that many people have in their everyday lives. Circle the number that best described **HOW MUCH** that experience has **DISTRESSED you or BOTHERED you during the PAST MONTH**. The numbers refer to the following verbal labels.

0	1	2	3	4
Not at all	A little	Moderately	A lot	Extremely

1.	**I have saved up so many things that they get in the way.**	**0**	**1**	**2**	**3**	**4**
2.	I check things more often than necessary.	0	1	2	3	4
3.	I get upset if objects are not arranged properly.	0	1	2	3	4
4.	I feel compelled to count while I am doing things.	0	1	2	3	4
5.	I find it difficult to touch an object when I know it has been touched by strangers or certain people.	0	1	2	3	4
6.	I find it difficult to control my own thoughts.	0	1	2	3	4
7.	I collect things I don't need.	0	1	2	3	4
8.	I repeatedly check doors, windows, drawers, etc.	0	1	2	3	4
9.	I get upset if others change the way I have arranged things.	0	1	2	3	4
10.	I feel I have to repeat certain numbers.	0	1	2	3	4
11.	I sometimes have to wash or clean myself simply because I feel contaminated.	0	1	2	3	4
12.	I am upset by unpleasant thoughts that come into my mind against my will.	0	1	2	3	4
13.	I avoid throwing things away because I am afraid I might need them later.	0	1	2	3	4
14.	I repeatedly check gas and water taps and light switches after turning them off.	0	1	2	3	4
15.	I need things to be arranged in a particular way.	0	1	2	3	4
16.	I feel that there are good and bad numbers.	0	1	2	3	4
17.	I wash my hands more often and longer than necessary.	0	1	2	3	4
18.	I frequently get nasty thoughts and have difficulty in getting rid of them.	0	1	2	3	4

Appendix 11

The Responsibility Interpretations Questionnaire (Salkovskis et al., 2000).

Responsibility Interpretations Questionnaire

We are interested in your reaction to intrusive thoughts that you have had in the last 2 weeks. Intrusive thoughts are thoughts that suddenly enter your mind, may interrupt what you are thinking or doing and tend to recur on separate occasions. They may occur in the form of words, mental image, or an impulse (a sudden urge to carry out some action). We are interested in those intrusive thoughts are unacceptable. Research has shown that most people experience or have experienced such thoughts which they find unacceptable in some way, at some time in their lives, to a greater or lesser degree, so there is nothing unusual about this.

Some examples of unpleasant intrusions are:

Repeated image of attacking someone

Suddenly thinking that your hands are dirty and may cause contamination

Suddenly thinking you might not have turned off the gas, or that you left a door unlocked Repeated senseless images of harm coming to someone you love

Repeated urge to attack or harm somebody (even though you would never do this)

These are just a few examples of intrusions to give you some idea of what we are looking at; people vary tremendously in the type of thoughts that they have.

IMPORTANT

Thinking of INTRUSIONS OF THE TYPE DECRIBED ABOVE that you have had in the last 2 weeks, please answer the following questions with that intrusion in mind. The questions do NOT relate to all thoughts but specifically to your negative intrusions.

Please write down intrusions that you have had in the last 2 weeks:

Overleaf are some ideas that may go through your mind **when you are bothered by worrying intrusive thoughts which you know are probably senseless or unrealistic**. Think of times when you were bothered by intrusive thoughts, impulses and images **in the last 2 weeks**.

Over the last two weeks. When you were bothered by these worrying intrusive thoughts, how much did you **believe** each of these ideas to be true? Rate the belief you had of these ideas when you had the intrusions, using the following scale; mark the point on the line that most accurately applies to your belief at the time of the intrusion.

I did not believe this idea at all — I was completely convinced this idea was true

0 10 20 30 40 50 60 70 80 90 100

1. If I don't resist these thoughts it means I am being irresponsible	0 10 20 30 40 50 60 70 80 90 100
2. I could be responsible for serious harm	0 10 20 30 40 50 60 70 80 90 100
3. I cannot take the risk of this thought coming true	0 10 20 30 40 50 60 70 80 90 100
4. If I don't act now then something terrible will happen and it will be my fault	0 10 20 30 40 50 60 70 80 90 100
5. I need to be certain something awful won't happen	0 10 20 30 40 50 60 70 80 90 100
6. I should not be thinking this kind of thing	0 10 20 30 40 50 60 70 80 90 100
7. It would be irresponsible to ignore these thoughts	0 10 20 30 40 50 60 70 80 90 100
8. I'll feel awful unless I do something about this thought	0 10 20 30 40 50 60 70 80 90 100
9. Because I've thought of bad things happening then I must act to prevent them	0 10 20 30 40 50 60 70 80 90 100
10. Since I've thought of this I must want to happen	0 10 20 30 40 50 60 70 80 90 100
11. Now I've thought of things which could go wrong I have a responsibility to make sure I don't let them happen	0 10 20 30 40 50 60 70 80 90 100

12. Thinking this could make it happen	0 10 20 30 40 50 60 70 80 90 100
13. I must regain control of these thoughts	0 10 20 30 40 50 60 70 80 90 100
14. This could be an omen	0 10 20 30 40 50 60 70 80 90 100
15. It's wrong to ignore these thoughts	0 10 20 30 40 50 60 70 80 90 100
16. Because these thoughts come from my own mind, I must want to have them	0 10 20 30 40 50 60 70 80 90 100

Appendix 12

The Generalised Anxiety Disorder-7 (Spitzer et al., 2006) & the Patient Health Questionnaire-9 (Kroenke & Spitzer, 2002).

GAD-7

Over the last 2 weeks, how often have you been bothered by any of the following problems?		Not at all	Several days	More than half the days	Nearly every day
1	Feeling nervous, anxious or on edge	0	1	2	3
2	Not being able to stop or control worrying	0	1	2	3
3	Worrying too much about different things	0	1	2	3
4	Trouble relaxing	0	1	2	3
5	Being so restless that it is hard to sit still	0	1	2	3
6	Becoming easily annoyed or irritable	0	1	2	3
7	Feeling afraid as if something awful might happen	0	1	2	3
		GAD7 total score			

PHQ- 9

Over the last 2 weeks, how often have you been bothered by any of the following problems?		Not at all	Several days	More than half the days	Nearly every day
1	Little interest or pleasure in doing things	0	1	2	3
2	Feeling down, depressed, or hopeless	0	1	2	3
3	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4	Feeling tired or having little energy	0	1	2	3
5	Poor appetite or overeating	0	1	2	3
6	Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3
		PHQ9 total score			

Appendix 13

Participant Information Sheet for Study 1.

Participant Information Sheet

Study title: Predictors of symptom improvement in Cognitive Behavioural Therapy (CBT) for Obsessive Compulsive Disorder (OCD)

We would like to invite you to take part in our research study. Before you decide we would like you understand why the research is being done and what it would involve for you. Please read the information sheet and contact us if you have any questions. Our contact details are at the end of the information sheet. Please feel free to talk to your therapist and others about the study if you wish.

What is the purpose of the study?

The purpose of this study is to better understand how Cognitive Behavioural Therapy (CBT) may be helpful to people with OCD. In particular, we are hoping to better understand the links between people's beliefs and symptom improvement following therapy. This study is being carried out as part of a thesis for a Doctoral level qualification in Clinical Psychology at Royal Holloway, University of London.

Why have I been invited?

You have been invited because you will be having CBT for your obsessive-compulsive symptoms. You will have been informed about this study at the triage assessment you had at Talking Therapies. We are hoping to have 31 participants take part in the study.

Do I have to take part?

It is up to you to decide to take part in the study. We will describe the study and go through all the details in this information sheet. You are free to withdraw at any time, without giving a reason. If you choose to not take part or withdraw, this will **not** affect the standard of care you receive Talking Therapies.

What will I have to do?

If you do decide to take part, you will be asked to complete six questionnaires related to your obsessive-compulsive symptoms **before you start** CBT and complete four questionnaires **once you have completed** your CBT treatment. These questionnaires have been validated for use with clients with obsessive-compulsive symptoms and are commonly used in clinical practice.

You will be sent the questionnaires in the post and can return them in a pre-paid envelope. We are hoping this will give you the time and space you need in completing the questionnaires. The questionnaires take roughly 10-20 minutes to complete. We may also contact you via telephone. The study will end in May 2015.

What are the possible disadvantages and benefits of taking part?
Some statements on the questionnaires may be sensitive or distressing. To avoid any distress the questionnaire pack will have a cover sheet explaining how to best ensure your well-being when completing the questionnaires.

You might find some statements in the questionnaires related to your obsessive-compulsive symptoms help you learn more about your current difficulties. It may also be re-assuring to know that the statements and questions in these questionnaires are based on common experiences of other individuals with obsessive-compulsive symptoms.

Your participation will also improve our understanding of the role of intrusive thoughts in CBT and potentially help us improve treatment for other people completing CBT for obsessive-compulsive symptoms.

Will my taking part in this study be kept confidential?
Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. During the study, the information you give will be anonymised as soon as we receive it. The questionnaires and other written information will be stored in locked cabinets or on password protected encryption keys. The main researcher and co-researcher will have sole access to this information. Any identifying information will be removed for any presentation or write-up of the research.

What will happen to any information I give?
This study may be published in a scientific journal, in which case the hard copies of the data will be kept secure for five years and then destroyed.

What will happen to the results of the study?
We will send you a summary of the results once the study is completed.

The results of the research may be published in a scientific journal. Your information will remain anonymous and you will not be identified in any report/publication.

Who has reviewed the study?
All research in the NHS is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by the Proportionate Review Sub-Committee of the NRES Committee Research – City Road & Hampstead.

What if I have more questions or any concerns about the research?

If you have any questions or concerns about any aspect of this study, please contact us. You can speak to the main researcher (Gazal Khan – 078 359 889 56) or supervising researcher (Dr. Abigail Wroe – 0178 4276532). We will do our best to answer any questions you may have.

Appendix 14

Participant Information Sheet for Study 2.

Participant Information Sheet

Study title: Predictors of symptom improvement in Cognitive Behavioural Therapy (CBT) for Obsessive Compulsive Disorder (OCD)

We would like to invite you to take part in our research study. Before you decide we would like you understand why the research is being done and what it would involve for you. Please read the information sheet and contact us if you have any questions. Our contact details are at the end of the information sheet. Please feel free to talk to your therapist and others about the study if you wish.

What is the purpose of the study?
The purpose of this study is to better understand how Cognitive Behavioural Therapy (CBT) may be helpful to people with OCD. In particular, we are hoping to better understand the links between people's beliefs and symptom improvement following therapy. This study is being carried out as part of thesis for a Doctoral level qualification in Clinical Psychology at Royal Holloway, University of London.

Why have I been invited?
You have been invited because you will be having CBT for your obsessive-compulsive symptoms. You will have been informed about this study at the triage assessment you had at Talking Therapies. We are hoping to have 31 participants take part in the study.

Do I have to take part?
It is up to you to decide to take part in the study. We will describe the study and go through all the details in this information sheet. If you agree to take part, we will then ask you to sign a consent form. You are free to withdraw at any time, without giving a reason. If you choose to not take part or withdraw, this will **not** affect the standard of care you receive Talking Therapies.

What will I have to do?
If you do decide to take part, you will be asked to complete six questionnaires related to your obsessive-compulsive symptoms **before you start** CBT and four questionnaires **every 3 sessions after that** (for example if you have a total of 10 sessions you will be asked to complete the questionnaires at sessions 3, 6, 9) and **after you have completed** your CBT treatment. These questionnaires have been validated

for use with clients with obsessive-compulsive symptoms and are commonly used in clinical practice.

You will be sent the questionnaires in the post and can return them in a pre-paid envelope. We are hoping this will give you the time and space you need in completing the questionnaires. The questionnaires take roughly 10-20 minutes to complete. We may also contact you via telephone. The study will end in May 2015.

What are the possible disadvantages and benefits of taking part?
Some statements on the questionnaires may be sensitive or distressing. To avoid any distress the questionnaire pack will have a cover sheet explaining how to best ensure your well-being when completing the questionnaires.
You might find some statements in the questionnaires related to your obsessive-compulsive symptoms help you learn more about your current difficulties. It may also be re-assuring to know that the statements and questions in these questionnaires are based on common experiences of other individuals with obsessive-compulsive symptoms.

Your participation will also improve our understanding of the role of intrusive thoughts in CBT and potentially help us improve treatment for other people completing CBT for obsessive-compulsive symptoms.

Will my taking part in this study be kept confidential?
Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. During the study, the information you give will be anonymised as soon as we receive it. The questionnaires and other written information will be stored in locked cabinets or on password protected encryption keys. The main researcher and co-researcher will have sole access to this information. The consent forms will be stored separately from the anonymised data to ensure that your participation is not identified. Any identifying information will be removed for any presentation or write-up of the research.

What will happen to any information I give?
In the longer term, your consent form will be kept for at least two years for research governance monitoring. After two years, your consent form will be destroyed. This study may be published in a scientific journal, in which case the hard copies of the data will be kept secure for five years and then destroyed.

What will happen to the results of the study?
We will send you a summary of the results once the study is completed.

The results of the research may be published in a scientific journal. Your information will remain anonymous and you will not be identified in any report/publication.

Who has reviewed the study?
All research in the NHS is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by the Proportionate Review Sub-Committee of the NRES Committee Research – City Road & Hampstead.

What if I have more questions or any concerns about the research?

If you have any questions or concerns about any aspect of this study, please contact us. You can speak to the main researcher (Gazal Khan – 078 359 889 56) or supervising researcher (Dr. Abigail Wroe – 0178 4276532). We will do our best to answer any questions you may have.

Appendix 15

Updated Participant Information Sheet for Study 1 to include details of substantial amendment.

Participant Information Sheet

Study title: Predictors of symptom improvement in Cognitive Behavioural Therapy (CBT) for Obsessive Compulsive Disorder (OCD)

We would like to invite you to take part in our research study. Before you decide we would like you understand why the research is being done and what it would involve for you. Please read the information sheet and contact us if you have any questions. Our contact details are at the end of the information sheet. Please feel free to talk to your therapist and others about the study if you wish.

What is the purpose of the study?

The purpose of this study is to better understand how Cognitive Behavioural Therapy (CBT) may be helpful to people with OCD. In particular, we are hoping to better understand the links between people's beliefs and symptom improvement following therapy. This study is being carried out as part of thesis for a Doctoral level qualification in Clinical Psychology at Royal Holloway, University of London.

Why have I been invited?

You have been invited because you will be having CBT for your obsessive-compulsive symptoms. You will have been informed about this study at the triage assessment you had at Talking Therapies. We are hoping to have 31 participants take part in the study.

Do I have to take part?

It is up to you to decide to take part in the study. We will describe the study and go through all the details in this information sheet. You are free to withdraw at any time, without giving a reason. If you choose to not take part or withdraw, this will **not** affect the standard of care you receive Talking Therapies.

If you would like to participate, please complete the questionnaire pack attached. We will contact you with one single follow- up telephone call 2 weeks after you have received this information sheet if you have not returned the questionnaire pack. This is to see whether you have any more questions and would like to participate.

What will I have to do?

If you do decide to take part, you will be asked to complete six questionnaires related to your obsessive-compulsive symptoms **before you start** CBT and complete four questionnaires **once you have completed** your CBT treatment. These questionnaires have been validated for use with clients with obsessive-compulsive symptoms and are commonly used in clinical practice.

You will be sent the questionnaires in the post and can return them in a pre-paid envelope. We are hoping this will give you the time and space you need in completing the questionnaires. The questionnaires take roughly 10-20 minutes to complete. The study will end in May 2015.

What are the possible disadvantages and benefits of taking part?
Some statements on the questionnaires may be sensitive or distressing. To avoid any distress the questionnaire pack will have a cover sheet explaining how to best ensure your well-being when completing the questionnaires.
You might find some statements in the questionnaires related to your obsessive-compulsive symptoms help you learn more about your current difficulties. It may also be re-assuring to know that the statements and questions in these questionnaires are based on common experiences of other individuals with obsessive-compulsive symptoms.

Your participation will also improve our understanding of the role of intrusive thoughts in CBT and potentially help us improve treatment for other people completing CBT for obsessive-compulsive symptoms.

Prize Draw
As a thank you for completing the questionnaire pack we can enter you in a prize draw. The prize draw gives you the chance to win up to £50 worth of Sainsbury's vouchers. If you would like to be entered in the prize draw, please write your name and contact details on the prize draw sheet. This prize draw sheet will be kept separate from completed questionnaires to ensure confidentiality.

Will my taking part in this study be kept confidential?
Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. During the study, the information you give will be anonymised as soon as we receive it. The questionnaires and other written information will be stored in locked cabinets or on password protected encryption keys. The main researcher and co-researcher will have sole access to this information. The consent forms will be stored separately from the anonymised data to ensure that your participation is not identified. Any identifying information will be removed for any presentation or write-up of the research.

What will happen to any information I give?
In the longer term, your consent form will be kept for at least two years for research governance monitoring. After two years, your consent form will be destroyed. This study may be published in a scientific journal, in which case the hard copies of the data will be kept secure for five years and then destroyed.

What will happen to the results of the study?

We will send you a summary of the results once the study is completed.
The results of the research may be published in a scientific journal. Your information will remain anonymous and you will not be identified in any report/publication.

Who has reviewed the study?
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Appendix 16

Updated Participant Information Sheet for Study 1 to include details of substantial amendment.

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What is the purpose of the study?
The purpose of this study is to better understand how Cognitive Behavioural Therapy (CBT) may be helpful to people with OCD. In particular, we are hoping to better understand the links between people's beliefs and symptom improvement following therapy. This study is being carried out as part of thesis for a Doctoral level qualification in Clinical Psychology at Royal Holloway, University of London.

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Do I have to take part?
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If you would like to participate, please complete the questionnaire pack attached. We will contact you with one single follow- up telephone call 2 weeks after you have received this information sheet if you have not returned the questionnaire pack. This is to see whether you have any more questions and would like to participate.

What will I have to do?
If you do decide to take part, you will be asked to complete six questionnaires related to your obsessive-compulsive symptoms **before you start** CBT and four questionnaires **every 3 sessions after that** (for example if you have a total of 10 sessions you will be asked to complete the questionnaires at sessions 3, 6, 9) and **after you have completed** your CBT treatment. These questionnaires have been validated

for use with clients with obsessive-compulsive symptoms and are commonly used in clinical practice.

You will be sent the questionnaires in the post and can return them in a pre-paid envelope. We are hoping this will give you the time and space you need in completing the questionnaires. The questionnaires take roughly 10-20 minutes to complete. The study will end in May 2015.

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You might find some statements in the questionnaires related to your obsessive-compulsive symptoms help you learn more about your current difficulties. It may also be re-assuring to know that the statements and questions in these questionnaires are based on common experiences of other individuals with obsessive-compulsive symptoms.

Your participation will also improve our understanding of the role of intrusive thoughts in CBT and potentially help us improve treatment for other people completing CBT for obsessive-compulsive symptoms.

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What will happen to any information I give?
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Appendix 17

Prize Draw Form.

Win up to £50 worth of Sainsbury's Vouchers

You could win Sainsbury's vouchers if you complete and return this questionnaire pack.

We are hoping to get approximately 62 completed questionnaires. From this the following vouchers can be won:

1 £50 Sainsbury's voucher
3 £30 Sainsbury's vouchers
3 £10 Sainsbury's vouchers

This gives you a 1 in 9 (approximately) chance of winning a voucher!

If you would like to be entered into the prize draw please fill in your name or address below and send this form back with the questionnaires. This information will be stored separately from your questionnaire, ensuring confidentiality of your questionnaire answers.

Name _____

Address _____

Appendix 18

Ethical approval from Royal Holloway, University of London Research Ethics Committee (electronic mail format).

Application Details:	View the form click here Revise the form click here
Applicant Name:	**Abigail Wroe**
Application title:	**A Study on Therapist's views on the key elements of CBT for OCD**
Comments:	Approved after an email exchange between the applicant and the chair of DEC, clarifying the issue of consent.

Appendix 19

Research and Development Department Approval from Berkshire Healthcare NHS Foundation Trust.

Healthcare from the heart of your community

Berkshire Healthcare NHS
NHS Foundation Trust

Miss Gazal Khan
Camden & Islington NHS Trust
Royal Holloway, University of London
Egham Hill
Egham
TW20 0EX

Research & Development
Fitzwilliam House · Skimped Hill lane
Bracknell · Berkshire · RG12 1BQ
t: **01344 415825**
f: **01344 415666**
e: **research@berkshire.nhs.uk**

date: 10 March 2015

Dear Miss Khan

Re: Letter of Access for Research - Therapist's Views on Key Elements of CBT for OCD

Berkshire Healthcare NHS Foundation Trust confirms your right of access to conduct research through the organisation for the purpose and on the terms and conditions set out below. This right of access commences on 10 March 2015 and ends on March 2016 unless terminated earlier in accordance with the clauses below.

As an existing NHS employee you do not require an additional honorary research contract with this NHS Trust. We are satisfied that the research activities that you will undertake in Berkshire Healthcare NHS Foundation Trust are commensurate with the activities you undertake for your employer. Your employer is responsible for ensuring such checks as are necessary have been carried out. Your employer has confirmed in writing to this organisation that the necessary pre-engagement checks are in place in accordance with the role you plan to carry out in the organisation. Evidence of checks should be available on request to Camden & Islington NHS Trust.

You have a right of access to conduct such research as confirmed in writing in the letter of permission for research from this NHS organisation. Please note that you cannot start the research until the Principal Investigator for the research project has received a letter from us giving permission to conduct the project.

You are considered to be a legal visitor to Berkshire Healthcare NHS Foundation Trust premises. You are not entitled to any form of payment or access to other benefits provided by this organisation to employees and this letter does not give rise to any other relationship between you and this NHS organisation, in particular that of an employee.

While undertaking research through Berkshire Healthcare NHS Foundation Trust, you will remain accountable to your employer Camden & Islington NHS Trust but you are required to follow the reasonable instructions of your nominated manager Stephen Zingwe in this NHS Trust or those given on his behalf in relation to the terms of this right of access.

Where any third party claim is made, whether or not legal proceedings are issued, arising out of or in connection with your right of access, you are required to co-operate fully with any investigation by this NHS Trust in connection with any such claim and to give all such assistance as may reasonably be required regarding the conduct of any legal proceedings.

You must act in accordance with Berkshire Healthcare NHS Foundation Trust's policies and procedures, which are available to you upon request, and the Research Governance Framework.

You are required to co-operate with Berkshire Healthcare NHS Foundation Trust in discharging its duties under the Health and Safety at Work Act 1974 and other health and safety legislation and to take reasonable care for the health and safety of yourself and others while on Berkshire Healthcare NHS Foundation Trust premises. Although you are not a contract holder, you must observe the same standards of care and propriety in dealing with patients, staff, visitors, equipment and premises as is expected of a contract holder and you must act appropriately, responsibly and professionally at all times.

If you have a physical or mental health condition or disability which may affect your research role and which might require special adjustments to your role, if you have not already done so, you must notify your employer and Berkshire Healthcare NHS Foundation Trust prior to commencing your research role at this site.

You are required to ensure that all information regarding patients or staff remains secure and **strictly confidential** at all times. You must ensure that you understand and comply with the NHS Confidentiality Code of Practice and the Data Protection Act 1998. Furthermore you should be aware that under the Act, unauthorised disclosure of information is an offence and such disclosures may lead to prosecution.

Berkshire Healthcare NHS Foundation Trust will not indemnify you against any liability incurred as a result of any breach of confidentiality or breach of the Data Protection Act 1998. Any breach of the Data Protection Act 1998 may result in legal action against you and/or your substantive employer.

You should ensure that, where you are issued with an identity or security card, a bleep number, email or library account, keys or protective clothing, these are returned upon termination of this arrangement. Please also ensure that while on the premises you wear your ID badge at all times, or are able to prove your identity if challenged. Please note that this NHS Trust accepts no responsibility for damage to or loss of personal property.

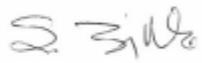
This letter may be revoked and your right to attend the organisation terminated at any time either by giving seven days' written notice to you or immediately without any notice if you are in breach of any of the terms or conditions described in this letter or if you commit any act that we reasonably consider to amount to serious misconduct or to be disruptive and/or prejudicial to the interests and/or business of this NHS Trust or if you are convicted of any criminal offence. You must not undertake regulated activity if you are barred from such work. If you are barred from working with adults or children this letter of access is immediately terminated. Your employer will immediately withdraw you from undertaking this or any other regulated activity and you MUST stop undertaking any regulated activity immediately.

Your substantive employer is responsible for your conduct during this research project and may in the circumstances described above instigate disciplinary action against you.

If your circumstances change in relation to your health, criminal record, professional registration or suitability to work with adults or children, or any other aspect that may impact on your suitability to conduct research, or your role in research changes, you must inform the

NHS organisation that employs you through its normal procedures. You must also inform your nominated manager in this NHS organisation.

Yours sincerely



Stephen Zingwe
Research & Development Manager

Appendix 20

Initial interview schedule.

1. What do you think are the key three aspects when working therapeutically with OCD clients?

   Prompt: Could you tell me more about that?

   Prompt: Are there any other aspects you consider important when working therapeutically with OCD clients?

2. Do you develop a formulation with your OCD clients? If so what you feel are the key elements of the formulation?

3. Do you focus on cognitions in your intervention? If so can you explain in what way?

   Prompt: What techniques do you use to identify and measure cognitions?

4. Do you use questionnaires when working with OCD clients? If so what questionnaires do you use?

   Prompt: any other tools/questionnaires?

   Prompt: do you use any OCD specific questionnaires?

5. Are you familiar with the Responsibility Interpretations Questionnaire (RIQ)? If so, do you use it in your work with OCD clients?

6. **The following interpretations on the RIQ were rated as high by your OCD client. Were you aware that these items were relevant to your client?**

7. **Did you address these interpretations in therapy? If so, in what way?**

   Prompt: What techniques did you use to identify and measure these interpretations?

8. **Did you monitor change in these interpretations throughout therapy, and if so how?*** *Or* do you monitor change in interpretations throughout therapy, and if so how?

*HI therapists who had worked with participants in Study 1 were also asked questions in bold.

Appendix 21

The altered interview schedule.

1. What do you think are the key three aspects when working therapeutically with OCD clients?

   Prompt: Could you tell me more about that?

   Prompt: Are there any other aspects you consider important when working therapeutically with OCD clients?

2. Do you develop a formulation with your OCD clients? If so what you feel are the key elements of the formulation?

   Prompt: Do you use a specific formulation model?

3. Do you focus on cognitions in your intervention? If so can you explain in what way?

   Prompt: What techniques do you use to identify and measure cognitions?

4. Do you use questionnaires when working with OCD clients? If so what questionnaires do you use?

   Prompt: any other tools/questionnaires?

   Prompt: do you use any OCD specific questionnaires?

5. Are you familiar with the Responsibility Interpretations Questionnaire (RIQ)? If so, do you use it in your work with OCD clients?

6. **The following interpretations on the RIQ were rated as high by your OCD client. Were you aware that these items were relevant to your client?**

7. **Did you address these interpretations in therapy? If so, in what way?**

   Prompt: What techniques did you use to identify these interpretations?

   Prompt: What techniques did you use to measure or monitor these interpretations?

9. **Did you monitor change in these interpretations throughout therapy, and if so how?*** *Or* do you monitor change in interpretations throughout therapy, and if so how?

8. What do you think are some of the challenges when working therapeutically with OCD clients?

*HI therapists who had worked with participants in Study 1 were also asked questions in bold.

Appendix 22

Participant Information Sheet - Study 3.

Participant Information Sheet

Study title: Therapist's views on the key elements of CBT for OCD

We would like to invite you to take part in our research study. Before you decide we would like you understand why the research is being done and what it would involve for you. Please read the information sheet and speak to the researcher if you have any questions.

What is the purpose of the study?
The purpose of this study is to learn more about therapist's views of the key elements of CBT for OCD.

Why have I been invited?
You have been invited because you may have provided or may currently be providing CBT to individuals with obsessive-compulsive symptoms.

Do I have to take part?
It is up to you to decide to take part in the study. We will describe the study and go through all the details in this information sheet. If you agree to take part, we will then ask you to sign a consent form. You are free to withdraw at any time, without giving a reason. If you choose to not take part or withdraw, this will **not** affect your role at Talking Therapies in any way.

What will I have to do?
You will be asked to sign a consent form before taking part in the study. You will keep a copy of this consent form. One of the researchers, Gazal will also keep a copy. The original consent document will be kept in a locked cabinet at Royal Holloway, University of London by the research supervisor, Dr Abi Wroe. The other two members of the research team, Dr Gary Brown and Ms Lucy Jezard will have access to only anonymized data.

Once you have signed the consent form, you will meet with Gazal for approximately 30 minutes to answer some questions about your views on the key elements of CBT for OCD.

What are the possible disadvantages and benefits of taking part?

No disadvantages are anticipated when participating in this study, however, sometimes people may feel nervous when discussing their clinical practice. **We would however like to stress, that there is no right or wrong way of practicing and this study aims to explore general therapist's views**. Gazal, will be there to provide you with support and is able to discuss any concerns you might have. You will not have to say anything you do not want to. If you become upset at any time you will have the opportunity to take breaks or to stop talking altogether.

Your participation will help improve our understanding of what therapists feel are the key elements of CBT for OCD. This may help services consider what teaching should be provided to therapists and help further development of CBT for OCD.

Will my taking part in this study be kept confidential?
Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. During the study, the information you give will be anonymised as soon as we receive it. Any information you share with the researcher will not be discussed with any other staff members at Berkshire IAPT services.

This interview will be digitally recorded so that it may be transcribed (written out on a computer) and analysed at a later date. Once it has been analysed the recording will be deleted. Copies of the transcription will not include your name or any identifiable information and will be assigned with a number. The transcription will be kept as a word document and will be password protected on a computer (which will also be locked with a password). Only the main researcher, Gazal, will have access to this document. At the end of the research the written interviews will be kept in a locked filing cabinet in Dr Abi Wroe's office at Royal Holloway, University of London. These will all be anonymised and Dr Wroe will not be given the name of the person being interviewed when looking at the written document.

The consent forms will be stored separately from the anonymised data to ensure that your participation is not identified. Any identifying information will be removed for any presentation or write-up of the research.

What will happen to any information I give?
In the longer term, your consent form will be kept for at least two years for research governance monitoring. After two years, your consent form will be destroyed. This study may be published in a scientific journal, in which case the hard copies of the data will be kept secure for five years and then destroyed.

What will happen to the results of the study?
We will send you a summary of the results once the study is completed. The results of the research may be published in a scientific journal.

Who has reviewed the study?
This study has been reviewed and given favourable opinion by Royal Holloway, University of London Ethics Committee and Berkshire Healthcare NHS Foundation Trust Research and Development Consortium.

What if I have more questions or any concerns about the research?

If you have any questions or concerns about any aspect of this study, please speak to the main researcher before the interview. You can speak to Gazal Khan (078 359 889 56), or Dr. Abigail Wroe (01784 276532) after completing the interview. We will do our best to answer any questions you may have.

Appendix 23

Participant consent form.

Study Site Number:
Participant Identification Number for this study:

Participant Consent Form

Study title: Therapist's views on the key elements of CBT for OCD

Name of Researchers: Ms. Gazal Khan, Ms. Lucy Jezard (Researchers), Dr. Abigail Wroe & Dr. Gary Brown (Supervising Researchers).

1. I confirm that I have read and understand the information sheet dated 19th January 2015 (version 1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my legal rights being affected. ☐

3. I understand that relevant sections of my data collected during the study, may be looked at by individuals from Royal Holloway, University of London, from regulatory authorities or from NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my data. ☐

4. I agree to take part in the above study. ☐

_____	_____	_____
Name of participant	Date	Signature
_____	_____	_____
Name of person taking consent	Date	Signature

When completed: 1 for participant and 1 for researcher site file.

Appendix 24

Example of Initial Notes, Themes and Subthemes on HI Therapist 3's Full Transcript.

	I: I'll start by asking you, what do you think are the three key aspects when working therapeutically with OCD clients? 3: What are the three… I: Yeah, what are the key three aspects and you can take as much time as you want to think about the answers, don't feel like you're rushed by being on the phone at all. 3: Okay. All right, I think the therapeutic alliance is, it's quite important yeah. I think the therapist's understanding of the maintenance cycle for OCD is very important as well. I: Okay. 3: Yeah, I think that the, the client's willingness to change, I think is in therapy, that's also quite important. **I: Would you mind telling me a bit more about the therapeutic alliance?** 3: Okay, yeah, so with the OCD people, people are coming to you with fears that they have about something that is happening either to themselves or happening to their loved ones. So, in order to work on these things, you have to really	
The importance of therapeutic alliance *Therapist knowledge of maintenance cycles* *Motivation to change*		

Supporting behavioural change?	confront their worst fears and you do need to have a good, stable therapeutic alliance in order to be able to help them to confront those fears. Lots of times you find that people have been, probably asking themselves similar questions, you know, about why they have those thoughts in their head. Maybe other people have been telling them to snap out of it, you know, why do they think this way. So again, coming to the therapy, you know, they need to be able to speak to someone who understands where they're at, someone who can actually empathise with them and also help them to move forward and the therapeutic alliance is going to be that anchoring point, you know, in order for that work to take place.	Clients with OCD have fears. Therapy involves addressing these fears and the therapeutic alliance provides the foundation for confronting fears. Does the therapeutic alliance also have to be stable, in the face of fears that may produce instability in mood or anxiety? Client fears are associated with not knowing why they are having the thoughts they are having. Dismissive responses by others may be unhelpful.
Empathy and trust	**I: Okay. Could you tell me a bit more about the therapist's understanding?** 3: Okay, all right, so…NICE guidelines, put CBT as you know, the choice of treatment for OCD. In my experience, when you're treating clients with OCD, you need to have a real good understanding of you know, what is maintaining those problems. You know, most of the time people are aware, so they know that they shouldn't be thinking this	Therapist provides a safe and non-dismissive place by showing empathy to encourage change. Use of anchor as visual imagery describes the foundational nature of the therapeutic alliance.

	way, or they talk about you know, this has been going on for years, no one else, you know, thinks this way, why is it me. So you need to be able to unpick those cognitive mechanisms. You need to be able to marry that with their behaviours and be able to you know, explain to them how they can get out of those vicious cycles. So having that real good understanding of you know, the OCD, I think will help you to help the clients to be able to move on from that.	Therapist knowledge about maintaining factors in OCD is important.
	I: And you also mentioned willingness to engage in therapy, do you mind telling more, me a bit more that?	Looking closely at maintaining factors allow unpicking of cognitive mechanisms.
	3: Yes, yeah, so you might have a client, you know, that might be referred to you because maybe if there's pressure from the referrer who might be say the doctor, perhaps a pressure from the family as well, but, you know, they might not actually see it as a problem. They might not want to change, you know, so you might have someone who(inaudible 03:53) the obsession is around or the compulsion is around cleaning, you know, but they might actually feel ok with that, "well I don't want to change that". So they come into therapy or they find	Linking cognitions to behaviours within maintenance. It sounds like therapist understanding will aid client's understanding.

	themselves in therapy and then you're trying to do this work so the willingness to change won't be there. So then that's going to get in the way of, you know, any progress and there have been times when actually, you know, sort of two sessions later in therapy, we've then decided in the session that it's not the right time because they don't want to let go of their behaviours and they don't see themselves at that point where they're willing to make the changes. So I think that needs to be explicit right from the first session, right from the assessment. So that you're both clear of, you know, what the expectations are for the therapy and then you can think about going into the actual therapy.	External pressures lead to client referral.
Therapy interfering factors - Motivation to change		Client may not be motivated to change because they are not distressed by their compulsions.
		Joint understanding of the expectations of therapy.
Shared understanding of client's difficulties	**I: Okay, great. Do you develop a formulation with your OCD clients and if so, what do you feel are the key elements of the formulation?** 3: Oh ok, yes, so, yes I develop a formulation with my clients and the formulation is something that myself and the client will come up with. It's a way of having a psychological understanding of their problems and in particular we want to understanding, you know, what's keeping those problems going. So, I tend	Maintenance cycles.

Recent example *Shared and detailed understanding of the client's difficulties* *Idiosyncratic formulation*	to work from a cross-sectional formulation, where we might just look at a recent situation in which, you know, the client/patient has had and then we try to pick up, you know, the, say the, intrusive thought, try and look at perhaps any assumptions they might have had, we start to look at the appraisals they might have had as well. We look to any compulsions that they might have had, any neutralising strategies and then the avoidance that they might have engaged in. We also look at the emotions. Some sessions into the therapy we start to build up on that initial cross-sectional formulation, so we tend to add longitudinal aspects to it. Perhaps at this point, the client may be coming up with, you know, things that they have done before, so they might start telling you "well as a child I remembered doing this" or "my mum used to tell me not to do that". So then, we're starting to think this might have perhaps some way been influential in certain beliefs and the functions being formed, so we're adding that to the formulation and it might be that, you know, they're starting to expose themselves to certain situations, so they are starting to make some progress, but	Interpretations of intrusions Starting off with a cross-sectional formulation and then developing a longitudinal formulation for some clients. Beliefs Exposure and response prevention

	then some unhelpful beliefs which relate to the longitudinal aspects of the formulation is what we might need to address, perhaps it's back to reviewing the formulation, working on those other aspects, the longitudinal aspects and then that might actually help in collapsing, you know, the unhelpful beliefs system. I: Okay. And you mentioned interpretations there. 3: I beg your pardon? I: You mentioned interpretations. 3: Yes **I: Would you mind telling me a bit more about that part of the formulation?** 3: Okay, so interpretations…interpretations or appraisals? I: Okay, yeah, sorry, you said appraisals. 3: Yep, okay. So, interpretations or appraisals if you like, so this would really be around, you know, the way that they might view a situation and, you know, what might behind that, so what might be the meaning for them. So perhaps, certain events might happen and you know, we might think about, you know, what would your take be on it. What would someone	Challenging beliefs using exposure. Challenging beliefs to make shift in beliefs The interpretation of the intrusion
Idiosyncratic formulation-interpretation of intrusions		

	else's take be on it and to get that point, they can actually see the difference "well I tend to think the worst of that situation, but someone else might not really think about the worst". So then we're trying to find out, okay, so what might be behind that appraisal, you know, so how come you might be having a different take to the average person. Then we're starting to unpick those appraisals and thinking about other situations in which similar themes related to that appraisal might come up as well.	Using CBT techniques to challenge interpretations
Developing an understanding of the client's difficulties	I: Okay.	Exploring situations in which client has similar appraisals are helpful in developing an understanding of the difficulties.
Idiosyncratic formulation-maintenance cycles	3: And that might actually be one of the key aspects in terms of the maintenance of the OCD problems.	
	I: Okay. So it's appraisals in relation to how they appraise a particular event in their lives?	
	3: That's right, yes.	
	I: And is there any particular model that you use to formulate?	
	3: Okay, well, I mean I tend to maybe take from different approaches, but yeah…tend to base my work on Wilhelm and Steketee. So their formulation seems to lend itself quite well to clients. Salkovskis as well, for some, you know, interesting	Wilhelm and Steketee's model Salkovskis model

	ideas, especially around inflated responsibility, that seems to work quite well as well. Yeah and some ideas from Clark as well, so David Clark, the David Clark in America, yeah.	David Clark's model of anxiety
	I: So are there, would you use these different formulations at different times with people or?	
	3: Okay, sorry I didn't get that.	
	I: So you, when would you use these formulations and for what kind of clients?	
	3: Oh okay, so, I would start from an initial conceptual formulation, so which would be a very simple, sort of just mapping out a recent situation. And then I might move onto a more developed formulation. This pretty much depends on, you know, what the client's problems are.	Tailoring formulation model to client's difficulties.
	Also I'm seeing people that perhaps they have already had some CBT treatment, but then they have been stepped up for more intensive work, so it's more than likely we would need to develop some comprehensive formulation, just so we can fully understand the problems and be able to plan those interventions accordingly.	Usefulness of a comprehensive formulation when clients are stepped up.
Shared and detailed understanding of the difficulties	I: Okay.	Detailed formulation leads to shared understanding and paves way for intervention.

	3: Does that answer your question? I: Yeah, in a way. I was just wondering, because there are so many different, you mentioned three formulations, whether you use that with any particular clients or in particular scenarios, or would you just take things from each one to use in your therapy? 3: Yes, well, like I said, those are more approaches and I think I will use, you know, various elements from those approaches, you know, for any client that I might be seeing. I: Okay. 3: I wouldn't necessarily separate them to say, this particular formulation for this particular client. Because what you might find is, is a, perhaps they might have something around the compulsions, and maybe something around the obsessions as well, you know, perhaps, something that (inaudible) would have included in her work, or something, say especially if it's something around mental contamination, then you might want to look to Rachman's work. Yeah, but again, it might be you've got this one client in front of you, you've got you know, various elements of their disorder and	Formulation as approaches, which can be combined. Rachman's theories

	then you are thinking about, you know, various experts in the field and what you might take that might help that client at that particular time. I: Okay, brilliant, thank you. And do you… 3: Eclectic maybe is what we're talking about, yeah. **I: And do you, focus on cognitions in your intervention and if so, can you explain in what way?** 3: Okay, so, so it's that echo I'm getting it at this end as well. I: Sorry, I'll say that again. 3: Yes please. I: Do you focus on cognitions in your interventions, if so, can you explain in what way? 3: Okay, all right, so I focus on the cognitions in my work with patients and I think right from the beginning, you know, we're really thinking about what thoughts, you know, are they having about different situations that they face. We're really starting to think about, you know, these thoughts, you know, are they behind the compulsions that they're having. You know, we're thinking about the nature of the obsessions in themselves, what's	Using a combination of models and theories to formulate the client's difficulties. Cognitions seem important as addressed from the very beginning.
Shared and detailed		

understanding of the client's difficulties.	keeping them going and what's maintaining them. So we're really trying to unpick those cognitions that we think are the most relevant, that we need to addressing and whether that's going to make significant change to their particular problems. So I would marry behavioural work with a lot of the cognitions, the work on cognitions and particularly if you have someone who finds it difficult to move straight onto exposure work. You probably want to do a lot more work around the cognitions and then think about the exposure work.	Combining behavioural work with cognitive work. Cognitive work can be important when clients are not ready for exposure and response prevention.
CBT techniques	**I: Okay. And what techniques do you use to identify and measure cognitions?** 3: Okay, so in there as much as different techniques, so perhaps we might have had Socratic questioning, might have Socratic dialogue. Might be using a downward arrow technique. Perhaps we might also be, we might also just want to maybe go through various situations that have occurred recently and then think about any particular thoughts that might be coming up and then maybe unpicking those thoughts a little bit as well. But I think it's really going to depend on the interaction with the client, in that moment and how	Socratic dialogue Downward arrow
Recent examples		

Therapeutic alliance	much they're giving you in terms of, you know, that engagement. Because sometimes you might have someone who actually, they're so anxious that even then talking about those unhelpful thoughts is difficult. I: Okay. 3: And this is where again, you might have to go back to the therapeutic alliance and then find out other ways, perhaps more about the emotions, trying to tap into the emotions and then you might get the cognitions that way.	Accessing cognitions can be difficult if client is anxious. Using emotions to reach difficult to reach cognitions.
Identifying key cognitions - Questionnaires	**I: Okay, brilliant. And do you use questionnaires when working with OCD clients?** 3: Yes I do. **I: And what questionnaires do you use?** 3: Okay, so I tend to mainly use the OCI, so yes, that's the one I tend to use and I will also use the PHQ9, GAD7 questionnaires. I: Okay. And are you familiar with the responsibility interpretations questionnaire at all? 3: Sorry, the responsibilities? I: The responsibility interpretations questionnaire. 3: No, is that a Salkovskis?	OCI PHQ-9, GAD-7

	I: Yeah, yeah it is. 3: Yeah, I would say that I'm aware, but not that I use it, no I don't use it. I: Okay. 3: Yeah, but I'm aware of it. **I: Okay. And do you monitor change in interpretations or appraisals throughout therapy? And if so, how?** 3: Okay, yes, so I would be monitoring change in interpretations or appraisals throughout therapy and in fact, we would be doing this together with the client, so we would be thinking about OCD diaries and this is something that I introduce, you know, right from the beginning of the therapy and one of the columns actually has appraisal in it. So towards the end that, you know, what appraisal's about, the, they're coming back to the sessions with their homework in which they are putting down situations they've come across, you know, and what appraisals they might have noticed at that time. So throughout the length of therapy, we're then looking at, you know, how do the appraisals changing and are they getting better in terms of their progress. I: Okay. And are there any other ways that you monitor change in interpretations or	RIQ not used in clinical practice. Change in interpretations monitored throughout therapy jointly with client.
CBT techniques – thought diaries *Monitoring shift in cognitions – thought diaries*		Monitor change in interpretations as a means of symptom improvement.

	appraisals?	
Monitoring shift in cognitions - belief ratings	3: Yes, so we would have belief ratings as well. And we would, attempt to use the OCI fairly routinely in the therapy, so again, I'm going to be looking at certain questions around, you know, belief and interpretation and again, looking at, you know, are there any changes from when they first started the therapy.	Routinely measuring shift in cognitions using the OCI alongside belief ratings?
	I: Okay. And what do you think are some of the challenges when working therapeutically with OCD clients?	
Therapy interfering behaviours – client motivation	3: Okay. I mean some of the challenges, it's like I said you know, the willingness to change, so if you haven't' really got that willingness to change and you know, you're, they're asking about people to confirm some of their worst fears, then that can be quite a challenge in the therapy, so you might have some people who are quite, you know, resistant to change and again, they're, they found themselves in therapy, more because of pressure from others. Sometimes you might find people that have very strong beliefs as well and that can be a particular challenge in the therapy, so it might be that, they make a fair bit of progress up to a point, you know, and this where, you	Client motivation is necessary for treatment Rigid beliefs that may be resistant to change. Co-morbid conditions such as perfectionism and depression.

	now, the beliefs system might really kick in and that just makes it more challenging in order to achieve more progress in the therapy. I think sometimes as well, if you have a co-morbid conditions, you know, so say if you had perfectionism, if you have depression, you know, that can make it quite challenging and just having social factors as well, so sometimes you know, you might have differences, significant others that might have a role in the maintenance of their problems and even though you might make some progress in the therapy sessions, inevitably, when they're then back home, it's like they're going back to those maintenance factors and then that might bring down some of the progress that you might make in the sessions. **I: Okay, brilliant. Is there anything else that you would to add, to any of the questions I've asked? Or would you like me to repeat any of the questions?** 3: No, I mean is there anything else to add in terms of my experience or any particular thing you're asking for? **I: Well, mostly in relation to what I've already asked basically. If you wanted to add anything else to that, you'd more**	Limited number of CBT sessions can be offered to clients. Work has to be brief.

	than welcome. 3: Okay, so maybe those experiences are based on working with people who are in the adult range, I'm talking from at least 18 upwards. And also this is based, working using a limited CBT sessions as well. I: Okay, yeah. So it's in the frame… 3: So in other words, I don't have the luxury of seeing people for say twenty, thirty, forty sessions. My work is pretty much brief, yeah. I: Okay. Anything else at all that you'd like to add. 3: No, I think that's it, yeah, unless you have any other questions for me. I: No, that's it. Thank you very much.	

Appendix 25

Progression of thematic maps.

See pages 238-239.


Therapists views on key elements of CBT for OCD
Developing an understanding of the client's difficulties
Shared and detailed understanding understanding of the difficulties
Idiosyncratic formulation
Therapy interfering behaviours
Avoidance of exposure work
Client motivation
Reassurance seeking
Client's support system
Identifying key cognitions
Recent examples
Using questionnaires
In-vivo exposure
Using CBT techniques
Monitoring shift in cognitions
Using questionnaires
Monitoring idiosyncratic cognitions
Challenging cognitions
Providing a less threatening alternative
Behavioural experiments


Recent examples
CBT techniques
Idiosyncratic formulation
Identifying key cognitions
Questionnaires
Therapists' views on key elements of CBT for OCD
Using questionnaires
Monitoring shift in cognitions
Challenging cognitions
Less threatening alternative
Belief ratings
Behavioural experiments