Portfolio for Professional Doctorate in Counselling Psychology (DPsych)

Do attachment-informed EMDR interventions, used in conjunction with a CBT protocol, improve treatment outcomes for individuals with OCD?

A mixed methods study

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Declaration

I hereby declare that the work presented in this portfolio is the result of my own efforts, under the supervision of Dr Tanya Lecchi and Dr Ciara Masterson.

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PREFACE

I was deeply moved by Dr Gabor Mate's documentary *The Wisdom of Trauma (*Benazzo & Benazzo, 2022). In the film Mate describes children as adaptive beings who do their best to thrive in the environment they are born into. However, whilst children's coping strategies may have made sense for them at the time, these behaviours may prove unhelpful in the longer term. Mate explains that trauma is not just about extreme events such as war, violence or sexual exploitation. Traumatic events happen to all of us and we individually and collectively carry a backlog of pain that we are unlikely to have ever explored fully with others. Mate describes his vision for a society where people are no longer pathologized and/or judged for their unhelpful and/or antisocial behaviours, rather they are facilitated in expressing their hurt at their unmet needs and helped to explore the source of their pain. Whilst Mate acknowledges that trauma cannot always be overcome, he suggests that it can always be listened to and held with love and compassion.

I have selected *The Wisdom of Trauma* as the theme that binds together the three components of this portfolio. These comprise the doctoral research (Part A), the client case study and process report (Part B) and the publishable journal article (Part C). Each of these sections considers the client's issues through the lens of Bowlby's (1958) attachment theory, with their difficulties conceptualized as a coping strategy they acquired in response to earlier trauma. From my own experience, this makes sense. I grew up in a household with three older brothers which left me quite phobic about 'putting myself out there' due to the risk of being teased. I believe that this was the aetiology of my fear of public speaking. I have since had plenty of exposure to giving presentations and I am far less anxious nowadays. I can, however, see that it made perfect sense as an adaptive strategy from childhood to avoid putting myself centre-stage if it had potential to cause me humiliation and/or shame. If I am honest though, my heart still sinks a little bit if someone suggests that we play Charades at Christmas.

In the doctoral research (Part A) eight participants with obsessive-compulsive disorder (OCD) presented with an idiosyncratic range of obsessions and/or compulsions. It was interesting to note that they had a far higher ratio of adverse childhood experiences than the norm, with all participants reporting frequent parental emotional abuse. Each participant's narrative suggested that their OCD had provided some form of protection in their childhood, with these individuals being more vigilant to the potential impact of their behaviours. Obsessive Compulsive (OC) symptoms also appeared to serve as a distraction from the true source of the individual's anxiety and pain. Within this conceptualization, OCD is a protective response, with the mind and body showing wisdom to protect the child from further traumatization.

Having worked in the National Health Service (NHS) for many years, my colleagues and I regularly discussed the difficulties of treating some clients with OCD solely using the prescribed methodology of Cognitive Behavioural Therapy (CBT). However carefully we planned the exposure task it was apparent that these individuals experienced anxiety that was akin to a trauma response. Van der Kolk (2014) describes how the parts of the brain that have evolved to monitor for danger remain overactive in trauma survivors. He explains how even the slightest sign of danger, real or misperceived, can trigger an acute stress response. Intuitively it was apparent that these clients needed to have better ability to self-soothe prior to undertaking exposure and response prevention (ERP).

The case study and process report (Part B) describes therapeutic work with Peter who met the criteria for a diagnosis of Social Anxiety Disorder (SAD). Despite having a successful career and good friends, Peter had a harsh inner critic, low self-worth and he had developed complex rules in his interactions with others. He would avoid using the word 'I' and would ask lots of questions of others to take the focus away from himself. Peter described how his father went off with another woman around the time he was born. On his eighth birthday he saw his father

come to the door with a present, but his father did not bother to come in and just posted the gift through the letterbox. Peter's father then went on to have two daughters with his new partner and would compare Peter to them in an unfavourable manner during their sporadic outings together. Peter's underlying beliefs were that he was not good enough, unacceptable and that he was bound to be rejected, which formed the foundation for his social anxiety.

The final component of this portfolio (Part C) is the journal article which is an abridged form of my doctoral research. As can be seen above, these three components all highlight the wisdom of trauma when it is perceived as an adaptive coping strategy implemented to protect the individual from further emotional harm.

In all three components of this research I use CBT and attachment-informed eye movement desensitization and reprocessing (AI-EMDR) as my therapeutic interventions of preference. As an accredited CBT practitioner I appreciate the benefits of this approach and I do believe that psychoeducation, testing predictions with behavioural experiments and experiential learning can all play an important role in therapy. However, for many clients it is apparent that their difficulties developed in response to adverse childhood experiences and there is a growing body of research to suggest an association between childhood trauma and the onset of later mental illness (Lippard & Nemeroff, 2020; McKay et. al., 2020). I concur with Van der Kolk (2014) who describes how certain parts of the brain shut down when people really go into their trauma and at this point words become less useful. For this reason he advocates somatic work, including EMDR for treatment.

Valiente-Gomez et al. (2017) describe how EMDR is now used to treat a range of anxiety disorders where traumatic events may have contributed to the aetiology of the condition. Parnell (2013) developed attachment-focused EMDR (AF-EMDR - the American nomenclature

for AI-EMDR) from the original EMDR protocol. She describes the way that AF-EMDR interventions can help anxious individuals develop more positive self-talk and calm the brain's right hemisphere in order to create new neural pathways. This is compatible with neuropsychological research suggesting that right brain systems are relevant for attachment, affect regulation and developmental change (Perry, 2006; Schore & Schore, 2007; Siegel, 2003). This integration of CBT and AI-EMDR paradigms gives clients insight into the processes involved in their trauma responses, whilst also addressing the client's more visual and somatic experiences. In my experience clients are usually responsive to conceptualising their difficulties as a protective coping mechanism and they relate to the wisdom of their trauma response.

A further source of trauma in this research was the fact that this study was undertaken in 2021, when the COVID-19 pandemic had spread across the globe and many countries went into lockdown. In an interview with Aljazeera (2022) Mate discusses the potential for collective trauma in the aftermath of the pandemic. He describes how there has been a sharp rise in alcoholism, domestic violence and mental health issues since the pandemic and lockdowns occurred. Mate describes how individuals who had adverse experiences in childhood were more likely to have a worse reaction to the pandemic. Interestingly he suggests that the anti-vaxxers potentially have a misplaced political outlet for their mistrust of others. He goes on to cite an article which suggests that reluctance to get vaccinated was three times higher among people who had experienced four or more types of trauma as a child (BMJ Open, 2022). Another article in the BBC (Prideaux, 2021) concurs with Mate's view and suggests that the lasting danger of mass trauma is the problem of forgetting. He argues that, when collective trauma goes unprocessed and is repressed, cracks form in the societal structure which remain unhealed, with the potential for individual trauma to fester under these cracks.

In summary, this portfolio of work is an attempt to synthesize clients' reports of their current difficulties as adaptive processes that may have benefitted them at an earlier stage in their life. This makes sense from an evolutionary perspective, where trauma responses developed in order to give the individual the best possible potential to survive. The potential for further trauma is also considered within the wider context of the Covid-19 pandemic that was ongoing at the time this research was undertaken. This portfolio of work endorses Mate's view that, whilst it may not be immediately apparent, an individual's behaviour may make more sense when it is viewed through the lens of the Wisdom of Trauma.

PART A: DOCTORAL RESEARCH

Do attachment-informed EMDR interventions, used in conjunction with a CBT protocol, improve treatment outcomes for individuals with OCD?

A mixed methods study

Abstract

Introduction: *Whilst evidence shows that cognitive behavioural therapy (CBT) and/or pharmacological interventions are the most effective treatments for obsessive-compulsive disorder (OCD), around 25% of individuals refuse treatment or fail to benefit. Further research suggests that individuals who have experienced frequent adverse childhood events (ACE) may be more susceptible to OCD. OCD and post-traumatic stress disorder (PTSD) have been conceptualised as two disorders on the same continuum, with OCD behaviours undertaken as a coping strategy to avoid trauma-related symptoms. It may prove beneficial, therefore, to directly target trauma in OCD treatment. Attachment-informed eye movement desensitization (AI-EMDR) developed from EMDR and integrates an attachment-based modification to the EMDR approach. Within this paradigm the focus is on the processing and repair of early ruptures from childhood. The aim in this study was to use AI-EMDR to process childhood trauma in order to soothe the participants' threat system and facilitate them in undertaking exposure and response prevention (ERP) activities.* ***Methods:*** *This mixed methods study included a single-case experimental design (SCED) across eight participants with OCD, conducted over a twelve-week period. All participants had previously undertaken CBT/ERP treatment with limited success. Measures included participants' subjective daily ratings of severity of their OCD, their mood and their ability to undertake ERP tasks. The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) and the Obsessive-Compulsive Inventory-Revised (OCI-R) outcome measures were also completed at the commencement and at the end of the trial. Four weeks after completion of treatment, a semi-structured interview was conducted with all participants and a template analysis was undertaken in order to add nuance to the quantitative results.*

Results: *Assessment reports showed that seven of the eight participants presented in the 'responsibility for harm' and 'unacceptable thoughts' OCD dimensions. In keeping with the rationale for this study, they had higher than average ACE scores. They all reported frequent parental verbal abuse and all presented with anxious and/or avoidant attachment styles. One participant's data was excluded from the final analysis as he did not complete treatment as intended. Of the remaining seven participants, six showed an overall improvement in their subjective ratings of the severity of their OCD and they all showed an improvement in mood over the course of the trial. Three participants showed an improved ability to engage in ERP activities during the AI-EMDR treatment phase. These findings were endorsed in the standardised measures where all participants showed an overall improvement on their OCI-R and Y-BOCS scores, with five showing reliable improvement on the Y-BOCS obsessions measure. However, whilst there was good evidence to suggest that treatment was effective overall, the specific hypothesis regarding the mechanisms and impact of AI-EMDR were not supported by the majority, as some participants showed greater improvement during the assessment and/or CBT phases of treatment. The qualitative analysis suggested an overall positive response to treatment, with three participants reporting that their OCD was more manageable that it had ever been and attributing this to the AI-EMDR interventions. These findings were further endorsed by participants' high level of engagement and low attrition rate throughout the study.* **Discussion:** *These mixed results do not directly endorse the hypothesis that AI-EMDR interventions improve treatment outcomes when used alongside a CBT protocol. However, there was evidence to suggest that AI-EMDR may be effective as a stand-alone intervention for some individuals with treatment-resistant OCD. It may also prove a helpful augmentation to CBT treatment in general, with the qualitative analysis suggesting that AI-EMDR provided participants with helpful grounding resources and a more compassionate conceptualisation of their OCD which appeared to enhance their ability to self-soothe.*

Abbreviations

ACE:	Adverse childhood experiences
AF-EMDR:	Attachment-focused eye-movement desensitization and reprocessing
AI-EMDR:	Attachment-informed eye-movement desensitization and reprocessing
AIP:	Adaptive information processing
ANOVA:	Analysis of variance
APA:	American Psychological Association
BLS	Bilateral stimulation
BPS:	British Psychological Society
BSDR:	Bilateral sounds desensitization and reprocessing
CBT:	Cognitive behavioural therapy
DSM-5:	Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition
DV:	Dependent variable
ECR-R:	Experiences in close relationships - revised
EMDR:	Eye-movement desensitization and reprocessing
ERP:	Exposure and response prevention
GDPR:	General Data Protection Regulation
GP:	General practitioner
ICD-11:	International Classification of Diseases – eleventh edition
IV:	Independent variable
NHS:	National Health Service
NICE:	National Institute for Health and Care Excellence
OC:	Obsessive compulsive
OCD:	Obsessive compulsive disorder
OCI-R:	Obsessive compulsive inventory – revised
PDM-2	Psychodynamic Diagnostic Manual – second edition

PTSD:	Post-traumatic stress disorder
RCT:	Randomized-controlled trial
SAM:	Self-ambivalence measure
SCED:	Single-case experimental design
SUD:	Subjective units of distress
SSRI:	Selective serotonin reuptake inhibitors
TA:	Template analysis
TAF:	Thought-action fusion
WHO:	World Health Organisation
Y-BOCS:	Yale-Brown Obsessive Compulsive Scale

Note: AF-EMDR is the American nomenclature and AI-EMDR is commonly used in the UK. Hence Parnell's work is referred to in the American style.

Chapter 1. Introduction

There was a synchronicity of events that led to me undertaking this research project. One Friday in July 2019, a potential client, Rose, contacted my private practice and asked if I had any experience in 'developmental EMDR for the treatment of OCD'. I told her that I was trained in eye-movement desensitization and reprocessing (EMDR) and, coincidentally, I was attending a workshop on attachment-informed EMDR (AI-EMDR) that weekend, so we agreed to have our first session the following Monday. I found the attachment-informed EMDR training weekend (EMDR Focus, 2019) really inspiring and it transformed the way I conceptualized EMDR for the treatment of complex trauma. More detailed information on the AI-EMDR approach is included in chapters 2 and 3 of this dissertation.

When Rose and I met she told me about her struggles with obsessive-compulsive disorder (OCD) and the extent of her past treatment. Rose had a long history of OCD and was experiencing intrusive images regarding her sexuality, with these images sometimes occurring hundreds of times a day. She had been on a long, difficult therapeutic journey to address her OCD. Rose had seen a psychodynamic therapist where her OCD was conceptualized as her 'repressing her sexuality'. She attended a course of cognitive behavioural therapy (CBT) which included quite aggressive exposure work including exposure to hard-core pornography. She had also participated on trials of the selective serotonin reuptake inhibitors (SSRIs) Citalopram and Sertraline for the treatment of OCD, but described how the medications made her feel emotionally numb. This was the backdrop for Rose and my collaborative journey, using attachment-informed EMDR alongside CBT interventions, to address her OCD.

Shortly after I started seeing Rose I worked with more clients with OCD and used AI-EMDR to good effect. There did appear to be several common themes in these clients' narratives, with

nearly all of them describing a disproportionate level of adverse experiences in their childhood. Many had parents with alcohol issues and/or severe mental health issues and most of these individuals reported being subject to physical and/or verbal abuse during their early years.

The majority of these clients had previous experience of CBT therapy, where they had struggled to undertake the exposure and response prevention (ERP) activities that are central to treatment. During ERP treatment, the individual is gradually exposed to situations that are designed to provoke their obsessions in a controlled way. They are given psychoeducation and taught skills to help prevent them reacting with their usual maladaptive response. As a result, the individual should become accustomed to experiencing a trigger and resisting their urge to undertake a compulsion (Hezel & Simpson, 2019). During our sessions, it was apparent that many of my clients had struggled with ERP primarily as a consequence of their difficulties with affect regulation and their limited ability to self-soothe when undertaking the exposure work. The high levels of affect shown by these clients, along with their potential to dissociate during EMDR, felt akin to a trauma response.

1.1. The definition of trauma

The definition of trauma has evolved over time and it is still conceptualized differently depending on the theoretical approach being implemented. It may, therefore, be helpful at this point to outline the evolution of the conceptualization and definitions of trauma in order to explain how the term is used within this study.

In the nineteenth century, the French neurologist, Charcot, made significant contributions to the understanding of trauma with his work on hysteria, which formed a foundation for the recognition of trauma-related disorders (Charcot, 1887). Around the same time, Freud introduced the concept of trauma neurosis in his work, with his theories on repression and the

unconscious mind facilitating a greater understanding of the ways that traumatic experiences can impact on mental health (Freud & Breuer, 2004). In the early twentieth century, Janet (1907) developed the concept of dissociation to give further insight into the ways that individuals cope with traumatic memories. Myers (1915) conducted groundbreaking research into the condition that later became known as shell shock and Brewer (1938) emphasised the role of shock in traumatic experiences. In the latter half of the twentieth century, Herman (1992) produced her influential work which focused on the experiences of the survivors of trauma, where she emphasised the importance of validating their experiences.

Within the medical model, PTSD was first introduced as a category in the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III) in 1980. At that time, trauma was defined as a response to an event outside the range of usual human experience that would be markedly distressing to anyone (American Psychiatric Association (APA), 1980). This definition of trauma was further refined and expanded in DSM-IV (APA, 1994). In the current version, DSM-V (APA, 2013), the criterion used to describe a traumatic event were broadened, primarily being that the individual was exposed to actual or threatened death, serious injury or sexual violence. This exposure not only includes directly experiencing the traumatic event(s) or witnessing in person the event(s) as it occurred to others, but learning that the traumatic event(s) occurred to a close family member or a close friend. Symptoms of PTSD are categorized into three clusters: re-experiencing, avoidance/numbing and hyperarousal (APA, 2013).

Shapiro (2001), who developed the EMDR protocol, introduced the concept of large-T and small-t trauma in her work. Large-T traumas would include events such as a car accident, an explosion, sexual abuse etc., which could all potentially be perceived as life-threatening and would meet the diagnostic criteria for PTSD in the medical model. However, Shapiro (2001)

also describes the way that small-t traumatic events such as rejections, humiliations and disappointments in childhood can all have lasting adverse effects. Whilst these small-t traumas may not lead to the intrusive imagery that is common in PTSD, these events can still generate emotions, beliefs and physical reactions that lead to unhappiness, anxiety and/or maladaptive behaviours in the present. Many experts on trauma and attachment acknowledge the potential impact of these small-t traumas on a child's development.

Bowlby's attachment theory was influential in challenging the medical definition of trauma beyond the conventional categories of physical harm or threat. Bowlby (1973) highlighted the way that emotional harm and disruptions to attachment bonds can be extremely traumatic especially during childhood. Bowlby (1973) describes how parental misattunement, where a parent shows a lack of emotional attunement or responsiveness to a child's needs, has potential to have far reaching consequences on a child's emotional and psychological development. The still-face experiment (Tronick et al., 1978) demonstrates the impact of parental misattunement on infants' behaviours. In this study, mothers were instructed to interact with their infant in a three-phase sequence. In the first phase mothers engaged in typical social exchanges with their child, using smiles, interactions and gestures. The second phase was the still-face phase, where mothers were instructed to maintain an unresponsive demeanour for two minutes and 'froze' their facial expressions and emotional reactions. In the final reunion phase the mothers were allowed to resume their usual interactive behaviours. The reaction of the infants during the still-face phase is difficult to watch. The baby initially tries to re-engage their mother, but when this doesn't work they respond with a range of distress cues including fussing, crying and screeching. Towards the end of this phase the infants react with intense wariness and eventual withdrawal. This classic study highlighted the importance of parental interactional reciprocity in order for infants to regulate their own emotions.

Siegel (1999) describes how parental misattunement can encompass various aspects of caregiving, including caregivers failing to provide emotional support and validation; caregivers giving dismissive responses that leave the child feeling unheard or emotionally confused and/or the caregiver being inconsistent in meeting the child's needs and thus creating insecurity and anxiety for the child. Schore is a leading developmental psychologist and he emphasizes the neurobiological aspects of attachment trauma. Schore (2015) describes how early traumatic experiences can be seen to alter brain development, especially in regions responsible for emotional regulation. This is compatible with Siegel's (2010) work in interpersonal psychology. Siegel (2010) suggests that attachment trauma disrupts the development of the brain's social circuitry leading to difficulties in empathy, self-regulation and emotional attunement.

Many contemporary trauma experts endorse the broad conceptualization of trauma. Siegel (2010) defines trauma as experiences that overwhelm an individual's capacity to cope and their ability to integrate the emotions and sensations associated with those experiences. This is compatible with Van der Kolk's (2015) definition of trauma where he describes how trauma is not only about the event itself, but also relates to the impact it has on the individual's emotional, psychological and physiological well-being. In his documentary, The Wisdom of Trauma *(*Benazzo & Benazzo, 2022), Mate provides the following definition of trauma:

> *Trauma is a psychic wound that hardens you psychologically that then interferes with your ability to grow and develop. It pains you and now you're acting out of pain. It induces fear and now you're acting out of fear. Trauma is not what happens to you, it's what happens inside you as a result of what happened to you. Trauma is that scarring that makes you less flexible, more rigid, less feeling and more defended.*

Throughout this dissertation, the term 'trauma' is used to describe both large-T and small-t trauma. As discussed later in this study (section 2.8) OCD is conceptualized as a trauma response that commonly develops as a consequence of adverse events in childhood (e.g., Gershuny et. al., 2003; Miller & Brock, 2017). When commencing AI-EMDR with clients who have OCD I offer them grounding resources prior to processing their past traumas, such as creating an imaginary safe place where they feel at peace. This is compatible with the way I was trained to work with individuals with post-traumatic stress disorder (PTSD) in the National Health Service (NHS). However, when using AI-EMDR, I incorporate a far wider range of grounding resources, which are detailed later in this dissertation.

My practice-based observations, conceptualizing OCD as an adaptive trauma response and using AI-EMDR alongside a CBT protocol for treatment, appeared quietly promising. I was keen to undertake more formal research into this phenomenon and the result is this dissertation. The content of which is outlined below.

Chapter two comprises the literature review. This commences with an exploration of the current understanding of OCD, with details of the epidemiology and diagnostic criteria. The current evidence-based treatments for OCD and their limitations are then examined. This chapter then describes the societal/relational components that may be relevant in the development and treatment of OCD. There is a growing body of research to suggest that OCD may actually be a trauma response that develops as a consequence of adverse events in childhood (e.g., Gershuny et. al., 2003; Miller & Brock, 2017). This is endorsed by research suggesting that parents who were emotionally abusive or neglectful may have hampered the child's ability to self-regulate or self-soothe (Mate, 2012; Parnell, 2013; Perry et al., 2018; Schore & Schore, 2007), thus laying the foundations for OCD. This may be compatible with research suggesting that some individuals with OCD have developed an almost phobic-like

reaction to emotions such as shame (Weingarden & Renshaw, 2015) and/or guilt (Mancini, 2019). This chapter continues with a review of existing research into the use of EMDR for the treatment of OCD. Finally, a rationale for the use of AI-EMDR is provided, with the proposal that grounding and processing adverse experiences may promote the individual's potential to self-regulate and self-soothe and, in turn, enhance their ability to undertake ERP.

Chapter three presents the methodology for this mixed methods research study, which was undertaken using an explanatory sequential design. In this way, the qualitative template analysis (TA), was implemented to explain and add nuance to the results of the quantitative single-case experimental design (SCED) (Cresswell & Plano Clark, 2015). This chapter commences with an overview of the methodology and this is considered in relation to its philosophical and theoretical context. The mixed methods research design across eight participants is further explored in relation to the impact of the Covid-19 pandemic that was ongoing during the course of this study. Subsequent sections provide a detailed description of the methods, along with a description of the quantitative and qualitative data collection and analysis. This chapter concludes with an outline of my reflexive stance, along with the ethical and data protection considerations and a discussion on internal and external validity.

Chapter four presents the quantitative analysis for all eight participants in this study. The case series data is initially presented and analysed separately for each participant. This is undertaken using individual portraits which detail the participant's demographics and their idiosyncratic experience of OCD. Participants' scores on two assessment measures, the Experiences in Close Relationships-Revised (ECR-R) questionnaire (Fraley et. al., 2000) and the Adverse Childhood Experiences (ACE) questionnaire (Centers for Disease Control and Prevention, 2014) were also incorporated to gain further insight into each participant's difficulties. Three graphs were incorporated for each participant displaying their subjective daily rating of OCD

severity, mood and their ability to undertake ERP tasks throughout the research process. These are subsequently interpreted, with the analytic workings shown in Appendix K. The chapter continues with an analysis of the quantitative data at group level. The hypotheses' outcomes are reviewed and interpreted across all participants. These were subsequently triangulated with participants' outcome scores on the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) questionnaire (Goodman et al., 1989) and the Obsessive-Compulsive Inventory-Revised (OCI-R) questionnaire (Foa et al., 2002).

In **Chapter five** the qualitative results are reviewed for all eight participants, with the analytic development process shown in Appendix M. The final TA coding, comprising 5 first-level, 10 second-level and 9 third level themes, was developed in order to gain further insight into the quantitative results.

Chapter six discusses the quantitative and qualitative findings within the context of the research questions and the broader literature. This chapter also incorporates an account of my reflexivity throughout this research process. Whilst the results of this study did not directly endorse the hypothesis that AI-EMDR interventions enhance treatment outcomes when used alongside a CBT protocol, there was good evidence to suggest that treatment did prove beneficial overall. There was also evidence to suggest that AI-EMDR may be effective as a stand-alone intervention for some individuals with OCD. This is especially relevant given that this study was only open to applicants who had limited success with previous treatments which primarily comprised of CBT/ERP interventions. The implications of these findings are explored in this chapter along with suggestions for further research.

Chapter 2. Literature review

2.1 Introduction

This chapter reviews the literature that provides the rationale for this study. The chapter commences with an exploration of the current understanding of OCD. This includes a review of the epidemiology (2.2) and the diagnostic criteria for OCD, along with a description of the heterogenous characteristics of obsessions and compulsions in this condition (2.3). Contemporary neuropsychological research into the aetiology of OCD is then briefly explored (2.4). The current evidence-based treatments, which comprise of CBT with ERP and medication, are then reviewed in section 2.5. The above sections all conform to the medical model of treatment and this will be discussed further in Chapter 3.

Subsequent sections of this chapter review alternative treatment options that place more emphasis on the inter-personal phenomena that may be relevant to the aetiology of OCD. Section 2.8 explores research that conceptualises OCD as an inter-personal trauma response arising from adverse childhood experiences and this is considered in the context of Bowlby's (1958) attachment theory. There is now a considerable body of research to suggest that low self-worth (Tibi et al., 2020), shame (Weingarden & Renshaw, 2015).and guilt (Mancini, 2019) may all play a role in the development of OCD.

The following sections discuss the rationale for the use of EMDR to treat OCD. Whilst EMDR is currently only approved for the treatment of PTSD (National Institute for Health and Care Excellence (NICE), 2018), it has been argued that EMDR has potential adaptability to treat any psychological disorder that may stem from adverse life events, including OCD (Logie, 2014). There is currently a small, but increasing body of research to suggest that EMDR may prove beneficial for OCD treatment. Section 2.12 provides the rationale for incorporating AI-EMDR into

this study. AI-EMDR is also known as attachment-focused EMDR (AF-EMDR) in America and these terms will be used interchangeably as appropriate. AI-EMDR developed from Shapiro's (1989) original EMDR protocol. The key difference in AI-EMDR compared with the standard protocol is that clients' presentations, however complex, are conceptualised as being rooted in early-life experiences and their attachment to primary caregivers. The aim in AI-EMDR, therefore, is to address and repair emotional ruptures from childhood and enhance the individual's ability to self-soothe (Brayne, 2022). This chapter concludes with details of the research questions and hypotheses developed for this mixed-methods study (2.13).

2.1.1. Search Procedure

Literature was searched through the *City University Library*, *PsycInfo*, *ResearchGate*, *Google Scholar* as well as reviewing reference lists. Key search terms used were: *eye movement desensitization reprocessing*, *EMDR* AND *obsessive compulsive disorder* or *OCD* entered in all four possible configurations, Similarly, *CBT, cognitive behavioural therapy* AND *OCD* or *obsessive compulsive disorder* were searched, along with the terms *OCD, obsessive compulsive disorder* AND *attachment and attachment-focused EMDR.* Specialist researchers in these fields were also searched. This produced around 350 results in total, which were reduced according to relevance. It is acknowledged that some paradigms (e.g., psychoanalytic, person-centred) are unlikely to use the term OCD, which does have potential to undermine the breadth of this literature search. However, the focus was on CBT and AI-EMDR approaches in this search as these were the primary therapeutic interventions under review.

2.2 The epidemiology and burden of OCD

It is estimated that 2-3% of the general population will experience OCD during their lifetime (Kessler et al. 2005) with the prevalence appearing relatively consistent across cultures (Williams & Steever, 2015). Torres (2017) describes how recognition and treatment of OCD is

often delayed for many years, due to the individual's lack of knowledge and/or sense of shame about discussing their condition. This delay in seeking help has potential to exacerbate the burden for both sufferers and their families. The World Health Organisation (WHO) listed OCD as the fifth most disabling of mental health conditions based on lost income and a decrease in quality of life (Murray & Lopez, 1996). However, subsequent WHO publications have included OCD under the category of 'anxiety disorders' which makes it more difficult to elicit the percentage of anxious individuals who are experiencing OCD symptoms (OCD-UK, 2018). More recently the WHO listed anxiety disorders, including OCD, as the sixth largest contributor to health loss globally (WHO, 2017). Overall, these statistics highlight the importance of further research to gain a better understanding of this debilitating condition.

2.3 The diagnostic criteria for OCD

The criteria for a diagnosis of OCD are included in the International Classification of Diseases – Eleventh Edition (ICD-11) (WHO, 2019) and the Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition (DSM-5), which is published by the American Psychiatric Association (APA) (APA, 2013). The diagnostic criteria for both publications can be seen in Table 2.1.

There is a long history of debate regarding the categorisation of mental health. The DSM has been criticised for oversimplifying a vast continuum of human behaviour (Nemeroff et al., 2013), with potential for misdiagnosis and stigmatisation of the individual (Young, 2016). Whilst these arguments may be valid, most of my clients with OCD described their palpable sense of relief when they did receive a diagnosis, especially those with harm and/or paedophile OCD. During my time working as a CBT practitioner in the NHS, the DSM-5 criteria were the primary source used for a provisional diagnosis.

Table 2.1: *ICD-11 and DSM-5 criteria for the diagnosis of obsessive-compulsive disorder*

International Classification of Disease (ICD-11) criteria for a diagnosis of obsessive-compulsive disorder (OCD) (WHO, 2019)

Obsessions are repetitive and persistent

- thoughts,
- images, or
- impulses/urges

that are intrusive, unwanted, and are commonly associated with anxiety.
The individual attempts to ignore or suppress obsessions or to neutralize them by performing compulsions.
Compulsions are repetitive behaviours including repetitive mental acts that the individual feels driven to perform

- in response to an obsession,
- according to rigid rules, or
- to achieve a sense of 'completeness'.

In order for obsessive-compulsive disorder to be diagnosed, obsessions and compulsions must be:

- time consuming (e.g., taking more than an hour per day) or
- result in significant distress or
- significant impairment in personal, family, social, educational, occupational or other important areas of functioning.

Diagnostic and Statistical Manual-5 (DSM-5) criteria for a diagnosis of OCD (APA, 2013)

A. Presence of obsessions, compulsions, or both:

Obsessions are defined by **(1)** and **(2)**:

1. Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress.
2. The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with some other thought or action (i.e., by performing a compulsion).

Compulsions are defined by **(1)** and **(2)**:

1. Repetitive behaviors (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly.
2. The behaviors or mental acts are aimed at preventing or reducing anxiety or distress, or preventing some dreaded event or situation; however, these behaviors or mental acts are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive.

B. The obsessions or compulsions are time-consuming (e.g., take more than 1 hour per day) or cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
C. The obsessive-compulsive symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.
D. The disturbance is not better explained by the symptoms of another mental disorder.

2.3.1. Characteristics of obsessions and compulsions

McKay et al. (2004) describe how individuals who receive a diagnosis of OCD may present with a diverse range of obsessions and compulsions. However, a common feature of the distressing thoughts reported by individuals with OCD is that they are ego-dystonic and inconsistent with the individual's actual beliefs about themselves and others (Robbins et al., 2019).

Research suggests there are four, empirically supported, theme-based dimensions to OCD. These include contamination, responsibility for harm, unacceptable thoughts, and symmetry (Abramowitz et al., 2010; McKay et al., 2004). Compulsions may be performed overtly (e.g., ordering, cleaning, counting or reassurance seeking) or covertly (thought suppression, mental distraction or avoidance). The function of the compulsions and avoidance rituals is to alleviate anxiety and/or prevent a perceived risk of harm to self or others (APA, 2013).

Further research examined the potential relationship between obsessive beliefs and symptoms and there is some evidence to suggest that certain obsessive beliefs were predictors of certain OCD symptom dimensions (Hellberg et al., 2019; Reuman et al., 2018; Wheaton et al., 2010). For example, symmetry symptoms were found to be related to perfectionism and/or certainty beliefs, while contamination symptoms were predicted by responsibility and threat estimation beliefs (Wheaton et al., 2010). Williams et al. (2014) researched the impact of symptom dimensions on outcome after ERP treatment. They concluded that the unacceptable thoughts dimension was less responsive to treatment relative to other dimensions. This is compatible with earlier research suggesting that harm, sexual taboo and religious blasphemy are particularly hard to treat (Ferrao et al. 2006; Rufer et al. 2005 and Mataix-Cols et al. 2002). Further research suggests that obsessions around unfavourable judgement can be especially difficult to ameliorate with CBT/ERP interventions (Keeley et al. 2008; Steketee et al. 2011). The role of shame and guilt in the aetiology of OCD is explored later in this chapter.

Calamari et. al. (2006) suggest that the heterogeneity of OCD symptoms can present a significant challenge for clinicians when treating OCD and for researchers attempting to formulate comprehensive theories regarding the aetiology of this condition. They highlight the need for rigorous qualitative research to provide further insights and understanding regarding this heterogeneity in OCD.

2.4. Neuropsychological research into the aetiology of OCD

Despite much research being undertaken, there is still only a limited understanding of the aetiology and neuropsychology of OCD (Robbins et. al., 2019). On balance, research suggests that there are neuropsychological deficits amongst individuals with OCD. The majority of these studies highlight the potential involvement of brain regions such as the orbitofrontal cortex and basal ganglia. Several of these studies suggest impairments in higher cognitive functions, with deficits in executive function and also in attention and response inhibition (Bannon et al, 2002). However, the findings regarding neuropsychological deficits in the OCD population are not robust and often contradictory across studies (Grant & Chamberlain, 2020).

The prevailing model that has emerged from neuropsychology and functional neuroimaging is that OCD is caused by a dysfunction in the cortico-striato-thalamo-cortical circuitry (Pauls et al., 2014). This fronto-striatal model suggests that an imbalance in the feedback loop leads to hyperactivity of the orbito-frontal-subcortical pathways (Melloni et al., 2012). This imbalance may lead to individuals with OCD showing a bias and paying excessive attention to threatening stimuli (Pauls et al., 2014). This model is compatible with research suggesting that it is more difficult for individuals with OCD to ascertain whether a situation in safe or risky (Apergis-Schoute et al, 2017). However, Robbins et al. (2019) argue that the cortico-striatal systems are relevant to nearly all major psychiatric disorders. They highlight the importance of determining the precise cortico-striatal substrates that differentiate OCD symptoms from other conditions.

Abramowitz & Cooperman (2015) highlight the fact that, despite the substantial amount of research into neuropsychological test performance in OCD, no single neuropsychological profile has emerged. These inconsistent outcomes could be a consequence of much of the research treating OCD participants as an homogenous group, despite the heterogeneity of the condition. Grant & Chamberlain (2020) highlight the fact that it is not currently possible to identify individuals with OCD from a brain scan as the changes are so subtle. It is also not clear whether the differences that have been found are a cause or an effect of environmental conditions. Interestingly, Takahashi et al. (2004) found similar brain activity between OCD patients exposed to stimuli eliciting OCD symptoms, and nonclinical subjects exposed to stimuli eliciting guilt. The potential role of guilt in OCD is discussed later in this chapter.

A meta-analysis by Thorsen et al. (2018) examined the evidence for neural changes following psychotherapy in participants with OCD. All studies reviewed reported neural changes following therapy-related clinical improvement. These included reduction of activity in the caudate nucleus, orbitofrontal, prefrontal and anterior cingulate regions, followed by the thalamus, temporal and occipital cortices. Whilst these results are in keeping with the prevailing theoretical framework regarding altered recruitment of the cortico-striato-thalamo-cortical circuits, they also suggest that OCD may be state-dependent and reversible.

2.5. The current 'gold standard' treatment for OCD

The National Institute for Health and Care Excellence (NICE) guidelines propose that adults with OCD should be treated within a stepped care model (NICE, 2005) as detailed in Table 2.2. The Roth and Pilling (2007) competency framework promotes the use of the Steketee (1993) and Kozac and Foa (1997) CBT protocols for OCD, which both incorporate ERP.

Table 2.2: *Stepped-care treatment for OCD (NICE, 2005)*

Steps	Responsibility for Care	Treatment Options
One	Individuals, public organisations, NHS	Information *Step up as necessary*
Two	GPs, practice nurses, school health advisors	Information *Step up as necessary*
Three	GPs and primary care team, primary care mental health worker, family support team	Brief CBT (including ERP) <10 therapist hours individual or group. *Step up if patient does not engage or treatment is inadequate.*
Four	Local multidisciplinary care (GP or psychiatrist)	Intensive CBT (including ERP) >10 therapist hours *or* SSRI *Step up if patient still shows an inadequate response at 12 weeks.*
Five	Multidisciplinary teams with specific expertise in the management of OCD (regional)	Combined CBT (including ERP) *and* SSRI
Six	Inpatient care or intensive treatment programmes (national)	

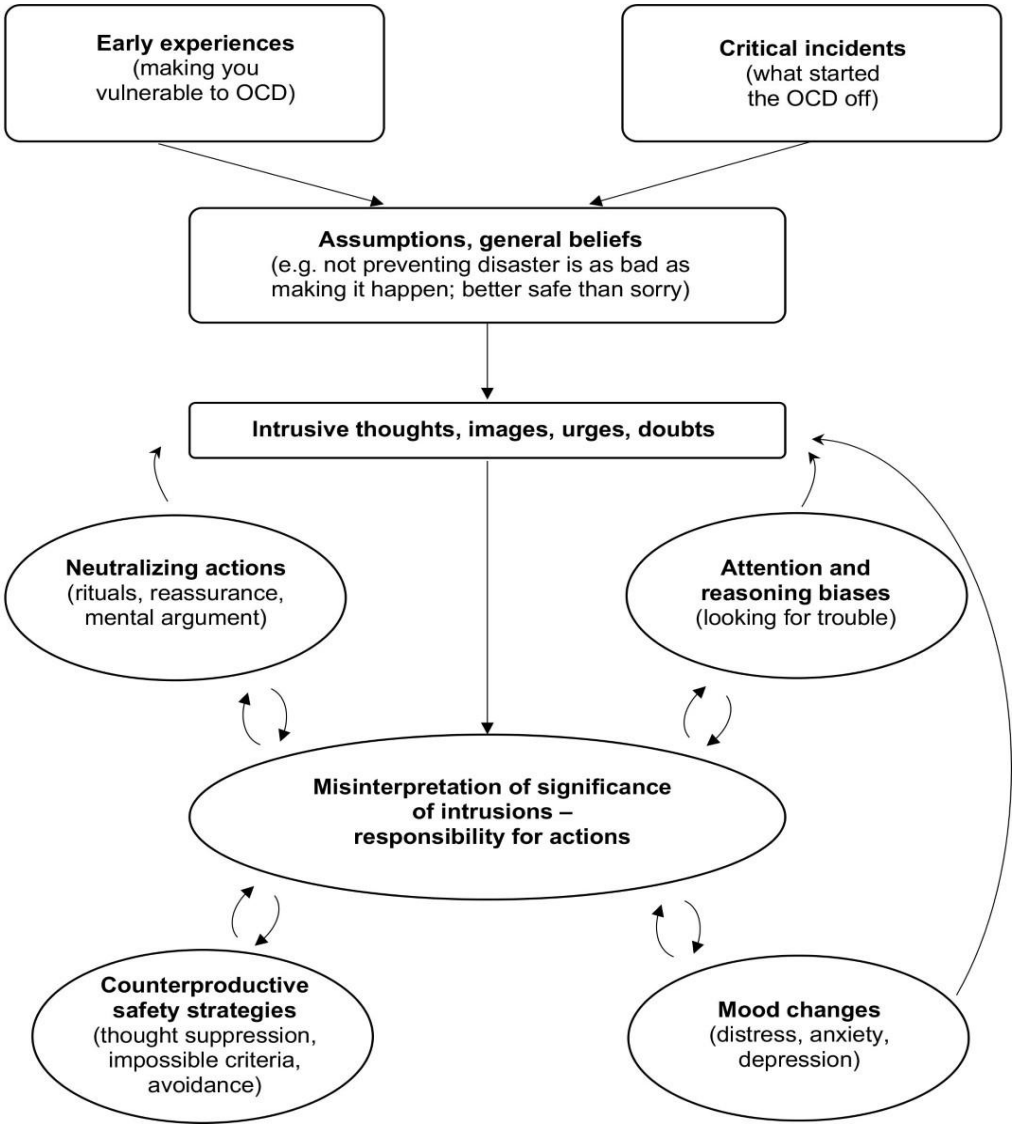
2.5.1. The CBT Model of OCD

The central tenet of the CBT model of OCD is that it is the client's misinterpretation of their intrusive thoughts which causes distress and generates maladaptive responses (Salkovskis et al., 1998). Purdon & Clark (1993) conducted a study with 293 students and asked them to complete a 52-item self-report based on the characteristics found in clinical obsessions. They concluded that 99% of these non-clinical participants had experienced intrusive thoughts, images and impulses that were similar in content to those experienced by individuals with OCD. This endorsed the theory that OCD is a consequence of the individual's subjective evaluation of the intrusive thoughts and images.

Further research suggested that these evaluations commonly contain underlying beliefs that there is something bad about the individual or that they are personally responsible for

preventing harm to others (Radomsky et al., 2014; Moulding & Kyrios, 2006; Rachman & de Silva, 1978). The obsessional preoccupations and compulsions are undertaken in order to alleviate the distress caused by these beliefs (Clark, 2004; Rachman, 1998; Shafran et al., 1996). Figure 2.1 shows Salkovskis et. al. (1998) CBT model of OCD.

Figure 2.1. *Cognitive Behavioural Model of OCD (Salkovskis et al., 1998)*



A further consideration in CBT is the role of thought-action fusion (TAF) in OCD, where the individual is perceived as having a cognitive bias which equates having bad thoughts as the moral equivalent of acting upon them (Rachman 1993; Shafran & Rachman 2004). In CBT treatment clients are facilitated in developing a less-threatening interpretation of their intrusive thoughts, which can be tested through a process of symptom monitoring, behavioural experiments and exposure exercises. ERP treatment focuses on graded exposure to feared situations where the individual is exposed to a trigger situation and requested not to undertake any physical or mental compulsions until their anxiety has reduced through habituation (Hezel & Simpson, 2019). However, for many individuals with OCD these ERP exercises can prove taxing (Abramowitz, 2006).

2.5.2. Imagery rescripting in CBT treatment for OCD

Relatively recent research by some of the leading experts in treating OCD with CBT suggests that imagery rescripting has a potential therapeutic effect for treatment if the OCD images may be emotionally linked to past aversive memories (Veale et al., 2015). This is interesting as imagery rescripting is commonly undertaken alongside CBT to process trauma and it entails similar processes to those used in AI-EMDR. Imagery rescripting is an experiential technique that is used to target the intrusive images in PTSD in order to change the content and meaning. It involves working directly with the emotionally laden images, rather than just talking about them. Most often the client imagines the traumatic event and focusses on the most distressing components in some detail. They then imagine themselves (or a trusted individual) going back in time and intervening. The client then imagines the change in affect after the intervention has taken place (Looney et al., 2020). Other clients may prefer to alter the images (e.g., shrinking the image of their childhood bully to the size of a mouse) to ameliorate the image's effect (Center for Clinical Interventions, 2020). The similarities between imagery rescripting and AI-EMDR are further explored later in this chapter.

2.5.3. The efficacy of CBT for OCD treatment

NICE guidelines promote CBT as the 'gold standard' therapeutic option for the treatment of OCD (NICE, 2005). Whilst there is a large body of empirical evidence to endorse this view, recent studies have highlighted issues regarding the endorsement of CBT as the exclusive form of therapeutic intervention for OCD as discussed below.

Reid et al (2021) conducted a systematic review and meta-analysis of randomised controlled trials of CBT with ERP in patients of all ages with OCD. The primary outcome measure used was end-of-trial OCD symptom scores. Thirty-six studies were reviewed involving 2020 patients, with 1005 assigned to CBT with ERP and 1015 to control conditions. The analysis outcome showed a large pooled effect size in favour of CBT with ERP when compared against all control conditions. However, CBT was not found to be more effective that other active forms of therapy, such as cognitive therapy and (interestingly) EMDR. Similarly, while CBT with ERP was found to be significantly superior when compared to all forms of pharmacological treatment, the effect became marginal when compared with adequate dosages of pharmacotherapy for OCD. The researchers concluded that, whilst a large effect size was found for CBT with ERP in reducing OCD symptoms, the outcome was dependant on the comparator control. The meta-analysis also highlighted concerns about the methodological rigour and reporting of published studies regarding the efficacy of CBT with ERP for treating OCD.

Further research by Kathmann et al. (2022) tested the generalizability of CBT with ERP for OCD in routine care settings. They found that 46.3% of participants experienced remission and concluded that CBT for OCD should be strongly recommended for routine care. However, they also acknowledged the need for alternative treatment strategies for patients who did not respond sufficiently to this approach. These findings are compatible with earlier research by

Simpson et al. (2006) who found that only around half of the patients who underwent CBT treatment experienced complete symptom remission.

Ost et al. (2015) conducted a systematic review and meta-analysis of 37 randomised trials that used graded exposure and self-imposed response prevention. He concluded that cognitive behavioural therapies were superior in reducing symptoms compared to other psychological therapies. However, Ost described how an average of 15% of patients declined the offer of ERP treatment. The rate of attrition in these studies varied from 0% to 63% and it was not clear whether patients refused treatment due to their fear of exposure therapy or some other factor. Abramowitz (2006) found that approximately 20–30% of patients refuse treatment, drop out of ERP prematurely or fail to benefit, which he suggests may well be a consequence of the challenging nature of ERP treatment.

The above studies all highlight the need for further research into alternative treatments for OCD and potentially endorse the rationale for incorporating AI-EMDR into treatment.

2.5.4. The efficacy of pharmaceutical interventions for the treatment of OCD

There is good evidence to suggest that selective serotonin reuptake inhibitors (SSRIs) can be efficacious in the treatment of OCD for some individuals, especially when prescribed alongside CBT treatment. One issue with these medications is that it can take up to twelve weeks before patients notice any benefit (NHS,2023) with many patients needing encouragement to continue due to the response to treatment seeming frustratingly slow (Harris et. al., 2019). Further research (below) showed mixed results for the efficacy of these medications for OCD treatment.

A meta-analysis by Skapinakis et. al. (2016) included 7643 patients in randomised trials. They concluded that a combination of psychotherapeutic and psychopharmacological interventions

was more likely to be effective than psychotherapeutic interventions alone, at least in severe obsessive-compulsive disorder.

Hirschtritt et al (2017) conducted a review of contemporary data regarding the screening, diagnosis and treatment options for OCD. They concluded that, even after adequate treatment trials, one third of individuals with OCD do not respond to pharmacological treatment options. There was substantial evidence to support the joint use of CBT and SSRIs in the treatment of OCD which are often used together in clinical practice. However, even with the combined treatment options of CBT and medication, 40% to 60% of patients still showed residual, impairing OCD symptoms after treatment.

Pittenger (2023) summarised the evidence regarding the efficacy of the established pharmacological options for the treatment of OCD. He concluded that SSRIs are effective as a monotreatment for around 50% of patients. Pittenger (2023) highlighted the need for more research into the neurobiological mechanisms of OCD and the need for greater understanding regarding the heterogeneity of this condition in order to facilitate the development of more effective pharmacological interventions.

The outcome of this research into the efficacy of CBT and medications for OCD highlights the need for improved therapeutic interventions for those individuals with OCD who struggle to maintain therapeutic engagement and/or do not respond to pharmacological treatment.

2.6. Research into alternative treatment options for OCD

Relatively few treatment options have been developed for individuals with OCD who show resistance to evidence-based therapeutic and/or pharmacological treatments. Research has, however, highlighted the potential usefulness of some additional approaches.

Sookman & Pinnard (2007) evaluated a long-term schema-based CBT protocol delivered through weekly sessions, with a mean treatment duration of ten months. Results showed that approximately 80% of the patients achieved clinically significant improvement. Whilst these results are positive, it should be noted that this is an extensive period of treatment compared with the duration of therapeutic input in comparable research studies.

Wilkinson-Tough et al. (2010) completed a case-series with three participants using mindfulness-based therapy. All participants' scores on the Y-BOCS measure (Goodman et al, 1989), had improved immediately post-therapy, with two maintaining this improvement in the two-month follow up review. This was, however, a very small study that had some methodological limitations. The authors acknowledged that the introduction of a small amount of psycho-education to the study makes it difficult to disentangle the relative contributions of the psycho-education component compared to the mindfulness intervention. It also had a relatively short follow-up period.

Petrocchi et al (2021) conducted a SCED with eight participants to explore the potential of compassion-focused group therapy for treatment-resistant OCD over an eight-week period. Whilst this was a small study the results appeared promising and, by the end of treatment, all participants demonstrated a reliable decrease in OCD symptoms. The intervention was also associated with improvements in participants' fear of guilt, self-criticism and their capacity for self-reassurance. However, there was little diversity in this small sample and a lack of heterogeneity in OCD types.

The relatively positive outcomes in all the above studies facilitated participants in modifying their negative self-beliefs, addressing their feelings of guilt and shame and enhancing their ability to

self-soothe. This further endorses the rationale for the current study where AI-EMDR is used to address all of these components in treatment.

2.7 OCD as an inter-personal phenomenon

There is some evidence to suggest that environmental factors and context do play a role in the phenomenology of OCD, with the obsessional content often being dependent on societal relevance as to what constitutes a taboo or moral issue (Williams et al., 2014). For example, concerns about contamination may focus on syphilis in one region, or on HIV in another (Lewis-Fernandez et al., 2010). OCD with a religious theme is more prevalent in countries where religion has an important role in society (Matsunaga & Seedat, 2007). This cultural influence on the characteristics of obsessive-compulsive symptoms suggests that OCD is at least, in part, a relational phenomenon. Petrocchi et al. (2021) purport that the sub-optimal capacity to treat OCD may be partly a consequence of CBT treatments primarily focussing on the intrapersonal/cognitive determinants of the condition, whilst overlooking the importance of social/relational elements.

The following sections will explore relational conceptualisations of the aetiology of OCD, with these findings contributing to the rationale for the use of AI-EMDR interventions in this study. The next section reviews studies which suggest that OCD may develop as an inter-personal trauma response and the potential relationship between trauma and OCD is subsequently explored (2.8). The role of attachment is then considered, followed by an exploration of the way that adverse childhood experiences may contribute to the development of OCD.

2.8. OCD as an inter-personal trauma response

As discussed in Chapter One, the term trauma is conceptualized using a broader definition in this study, rather than the DSM-V (APA, 2013) criteria. This study utilizes Shapiro's (2001)

conceptualization of large-T and small-t trauma, where she describes the way that life-threatening events (i.e., large-T traumas) as well as humiliations and rejections in childhood (i.e., small-t traumas) can both have lasting adverse effects that may lead to unhappiness and/or maladaptive behaviours in the present. Inter-personal trauma is conceptualized as a consequence of interaction(s) between people that overwhelm the individual's capacity to cope and their ability to integrate the emotions and sensations associated with those experiences (Siegel, 2010). This is incorporated alongside Van der Kolk's (2015) definition of trauma where he describes how trauma is not only about the event itself, but also relates to the impact it has on the individual's emotional, psychological and physiological well-being.

Pinciotti & Fisher (2022) discuss the subjective nature of trauma and they highlight the difficulties of providing a clear definition. They describe how many individuals with OCD may anecdotally describe a discrete stressful life event that they believe precipitated the onset of their OCD. However, these events may not meet the DSM-5 criteria for a diagnosis of PTSD. A literature review by Cromer et al. (2007) suggested a high prevalence rate (32-82%) of OCD among individuals with a traumatic history in comparison to the prevalence rate of 1.1-1.8% in the general population. However, the reported prevalence rates of OCD onset following potentially traumatic exposure did vary widely depending on the criterion used to define trauma.

Current evidence-based treatment views OCD as a 'stand-alone' disorder and, whilst adverse traumatic experiences are acknowledged, they are not central to CBT treatment. There is, however, a growing body of research to suggest that the aetiology of OCD does originate from inter-personal, traumatic experiences.

Doron et al. (2009) investigated whether adult attachment orientations related to OCD cognitions and symptoms. Using structural equation modelling with 446 students they found

evidence that attachment dimensions contributed to OCD symptoms via OCD related cognitions. Further research by De Silva & Marks (1999) reviewed seven clinical cases in order to explore the role of traumatic stress in the genesis of OCD. They concluded that there was a causal link between severe trauma and the onset of OCD. Whilst this study provided interesting insights, it is not possible to generalise from this small sample.

Mathews et al. (2008) conducted a study examining the relationship between childhood trauma, personality facets and OCD in 938 college students using OCD and personality questionnaires. They found a small but significant association between obsessive-compulsive symptoms and childhood trauma, specifically in relation to emotional abuse and physical neglect. One limitation of this study was that it only used self-report questionnaires, with no clinical assessments or psychiatric diagnoses to confirm that the participants did actually have OCD.

Carpenter & Chung (2011) conducted an analysis with 82 individuals with OCD and 92 comparison participants using internet-mediated administration of OCD, alexithymia (challenges in recognising and describing one's own emotions) and childhood trauma questionnaires. The results showed a significant positive correlation between childhood trauma and attachment avoidance, which was significantly positively associated with alexithymia. Alexithymia, in turn, was found to be significantly associated with the severity and range of OCD symptoms. However, the authors' highlight the fact that this study did not give insight into the causal pathways between these constructs, which may be better understood using a longitudinal design.

Gershuny et al. (2003) argue that OCD and PTSD are actually two disorders on the same continuum, with OCD symptoms initiated as a coping strategy undertaken to reduce and avoid trauma-related symptoms and memories. When individuals have PTSD, posttraumatic

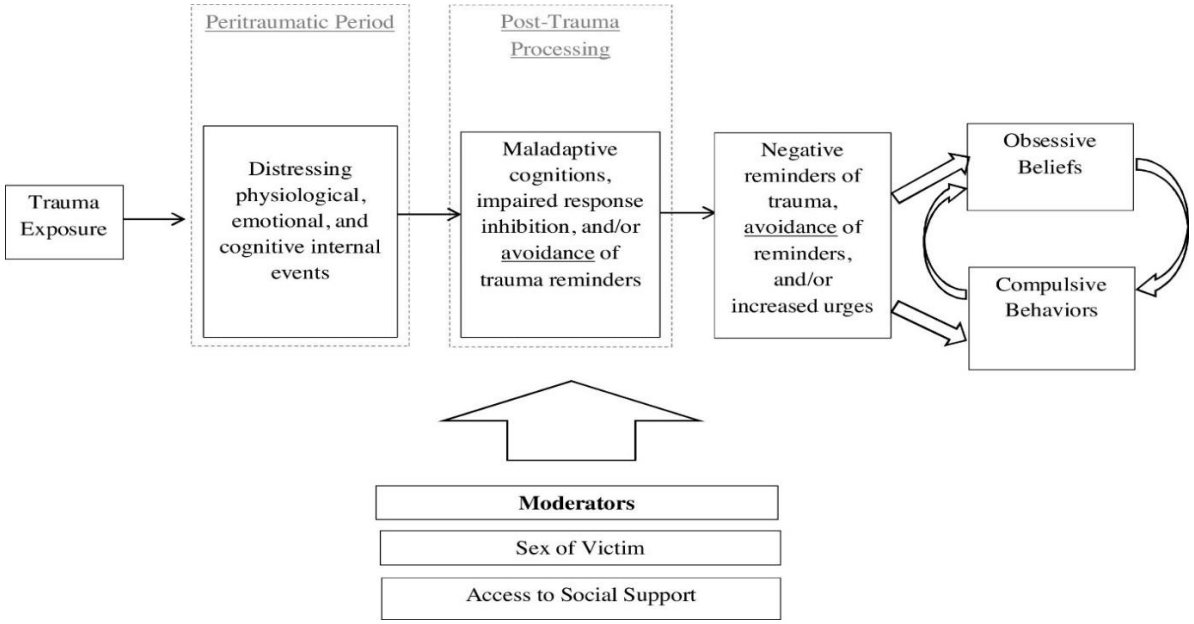
cognitions are believed to maintain the condition by creating a state of perceived threat to (often innocuous) stimuli that relate to the trauma. These stimuli may generate hyperarousal, flashbacks and emotional distress which, in turn, motivates the individual to implement coping strategies such as avoidance or distraction. Whilst these behaviours may be effective in the short term they actually maintain the difficulties, with the individual believing that it is their avoidance of situations that has kept them safe (Ehlers & Clark, 2000). Gershuny et al. (2003) observed that when obsessions and compulsions decreased in trauma survivors, PTSD symptoms were exacerbated. This research by Gershuny et al. (2003) refers to big T trauma, and is compatible with the medical model. The following section incorporates research suggesting that small-t trauma exposure is also associated with more severe OCD symptoms (Miller & Brock, 2017). A graph showing the prevalence of adverse childhood experiences in the general population is included in Appendix A for comparative purposes in later discussion (Bellis et al., 2014).

2.8.1. The relationship between trauma and OCD symptoms

Several theories have been put forward to explain how trauma exposure contributes to obsessive and compulsive symptoms (e.g., Dyskshoorn, 2014; Pinciotti et al., 2021). Pinciotti et al. (2021) suggest a potential relationship between indirectly experienced trauma and symmetry in OCD. Within their conceptualisation, these individuals blame themselves for their inability to prevent a past event occurring and the arranging and ordering compulsions are undertaken to reduce their sense of guilt and restore a sense of control. Research by Wheaton et al. (2010) describes how posttraumatic cognitions may create a bias suggesting that the world is a dangerous place. This cognitive bias may generate an overestimation of threat, leading some individuals to become more prone to obsessions related to contamination and harm to self and/or others. These theories are both compatible with Salkovskis et al. (1995) conceptualisation of responsibility appraisals in CBT.

An analysis by Miller & Brock (2017) found that four types of interpersonal trauma (violence, emotional abuse, sexual abuse, and neglect) were associated with OC symptom severity. In their research, exposure to a traumatic event was defined as an event that caused actual or perceived threat to the physical integrity of an individual or others. Figure 2.2. shows Miller & Brocks' (2017) conceptualisation of the development of OC responses after exposure to trauma.

Figure 2.2. *Conceptualisation of OC responses developing from exposure to trauma (Miller & Brock, 2017)*



The following sections consider how OCD may develop as a consequence of childhood trauma. This is considered through the lens of Bowlby's (1958) attachment theory and other research suggesting that parental rearing styles may contribute to the development of OCD.

2.9 The role of attachment in OCD

Bowlby's (1958) attachment theory describes how the infant's relationship with a primary attachment figure forms the basis for an internal working model of relationships. Within attachment theory, this is how the individual learns to understand, predict and regulate

subsequent interpersonal relationships. If the nurturing provided by the primary caregiver is inadequate this may lead to deficits with regards to mirroring and containment (Winnicott, 1967), emotional proximity (Holmes, 2009) and attunement (Stern, 1985). It may also impact on the individual's capacity to self-soothe.

Bowlby (1958) proposed four attachment styles that develop in childhood, with these attachment profiles commonly being maintained in adulthood. These comprise of secure, avoidant, ambivalent and disorganised attachment styles. These profiles are all considered to be on a continuum, rather than being a definitive label (Fraley et al., 2013). A secure attachment is considered the healthiest form of attachment where the infant is able to seek care consistently from their caregiver and feels comforted by their presence. These individuals are more likely to grow up with higher self-esteem and better potential to form healthy relationships with others.

A dismissive-avoidant attachment style commonly occurs when a parental figure habitually rejects an infants' connection-seeking behaviours during times of distress. Bowlby (1989) proposed that these individuals have an internal working model of a self who is not worthy of care. They may be more prone to shut down emotionally when a potentially hurtful scenario occurs.

Those with an anxious preoccupied attachment style may be more prone to reassurance seeking, with a desire to be close to others, but a fear of rejection. Preoccupied adults commonly have a negative view of themselves and a positive view of others, which may result in them relying on others for reassurance and validation. Bowlby (1989) suggests that these individuals may have received inconsistent and/or mis-attuned care from their primary caregiver when they were younger. As a consequence, they develop a working model of a relationship where they have to be vigilant and attentive in order to get their needs met (Bowlby, 1989).

Individuals with a disorganised attachment style may fluctuate between avoidant and anxious attachment behaviours. They are likely to have a strong desire for intimacy, but commonly withdraw from relationships due to a fear of rejection. This is perceived to be a consequence of erratic parental care, where the parent may have reacted unpredictably. For example, the caregiver may laugh and reward a behaviour one time, whilst reacting with anger at the same behaviour on another occasion. The working model of attachment for these individuals is that other people are dangerous and may cause harm, but these individuals have a strong desire for intimacy (Bowlby, 1989).

Rezvan et al. (2013) conducted research with 24 girls aged 10-12 who had OCD. Twelve were given an attachment-based intervention which comprised of eight 60-minute sessions to be undertaken with their mothers over an eight-week period. The researchers concluded that attachment-based interventions are effective in reducing obsessions and compulsions in paediatric samples. However, the fact that the control group simply remained on the waitlist, without any form of treatment, has potential to undermine these results. These findings may have had more validity if the control group was supplied with a different activity of similar duration to complete with their mothers. It may have been the fact that the girls were spending more time with their parent, possibly at the expense of undertaking other activities, that reduced their OCD symptoms rather than the efficacy of the attachment-based intervention.

Further research endorses the view that psychosocial experiences, such as parental rearing style and emotional neglect, may be implicated in the genesis of OCD (Alonso et al. 2004; Cath et al. 2008; Grisham et al. 2008; Rosso et al. 2012). A study by Mancini & Gangemi (2006) found that individuals with OCD, when compared to participants with other anxiety disorders, showed higher levels of distress when shown Ekman's (1976) Pictures of Facial Affect for anger and disgust, especially when they were asked to imagine that these expressions were targeted

at them and that they were deserved. Individuals with OCD were also found to recall being the target of these hostile facial expressions more frequently than the controls in this study.

Research suggests that obsessive individuals are more likely to have experienced a parental rearing style involving criticism, excessively high standards and/or social moralization (Barcaccia et al., 2015; Tenore et al., 2018). Mariaskin (2009) observed that the type of discipline used by parents, especially threats regarding discontinuing the relationship, may be a precursor for OCD.

Tenore et al. (2018) describe how parents who withdraw love and are not prone to forgive, may have taught the child that just making a small mistake is sufficient to receive aggressive, demeaning approaches by a primary caregiver. This dynamic does not allow the possibility for the child to justify themselves or be forgiven and they are left with the perception that their behaviour can determine the end of the relationship. Pace et al. (2011) suggest that OC behaviours may be an adaptive strategy used by the child to obtain approval, with these coping strategies continuing into adult life.

An exploratory study by Ehntholt et al. (1999) described how individuals with OCD expressed greater fear that others would despise them if it was possible that they would cause harm to others, suggesting that they may have a greater sensitivity to blame and criticism. A study by Seah et al. (2018) invited 439 participants to complete online measures for OCD, self-evaluation and attachment style. The results supported the notion that an ambivalent self-concept may predispose some individuals towards OCD beliefs and symptoms. However, as with most of these studies, it is difficult to ascertain what is cause and what is effect in relation to individuals with OCD and their perception of self.

Overall, the findings in the above research are compatible with the theoretical underpinnings of the current study. In this way adverse childhood events, including emotional abuse, are seen as a key factor in the development of OCD and this is the primary target for therapeutic intervention using AI-EMDR. The next section will explore how these difficulties in childhood may impact on the individual's self-perception and beliefs about themselves and others.

2.9.1. Self-perception in OCD

There is a growing body of research into the role that self-perception may play in the development of OCD (e.g., Aardema et al., 2018; Ahern & Kyrios, 2016; Tibi et al., 2020). This has potential to be compatible with the trauma theory of OCD, where experiencing a traumatic event can lead to the development of maladaptive beliefs about oneself, others and the world. These cognitive biases may include viewing oneself as incompetent or damaged (Foa & Jaycox, 1999).

Godwin et al. (2020) describe how the current cognitive models of OCD can be split into appraisal-based and self-doubt models, with the emphasis being on the appraisal-based model in CBT treatment. They conducted a systematic literature review based on eleven studies and found that self-ambivalence and fear of self were significant predictors of OC symptomatology. This concurs with research by Bhar et al. (2015) who concluded that self-ambivalence and the feared self are both common in individuals with OCD. Guidano and Liotti (1983) proposed the concept of self-ambivalence in OCD, where an individual may not have a stable sense of themselves, with a fear that they may be a bad person. This is compatible with Aardema et al. (2018) concept of the 'feared self' which refers to the self the individual is anxious they may become.

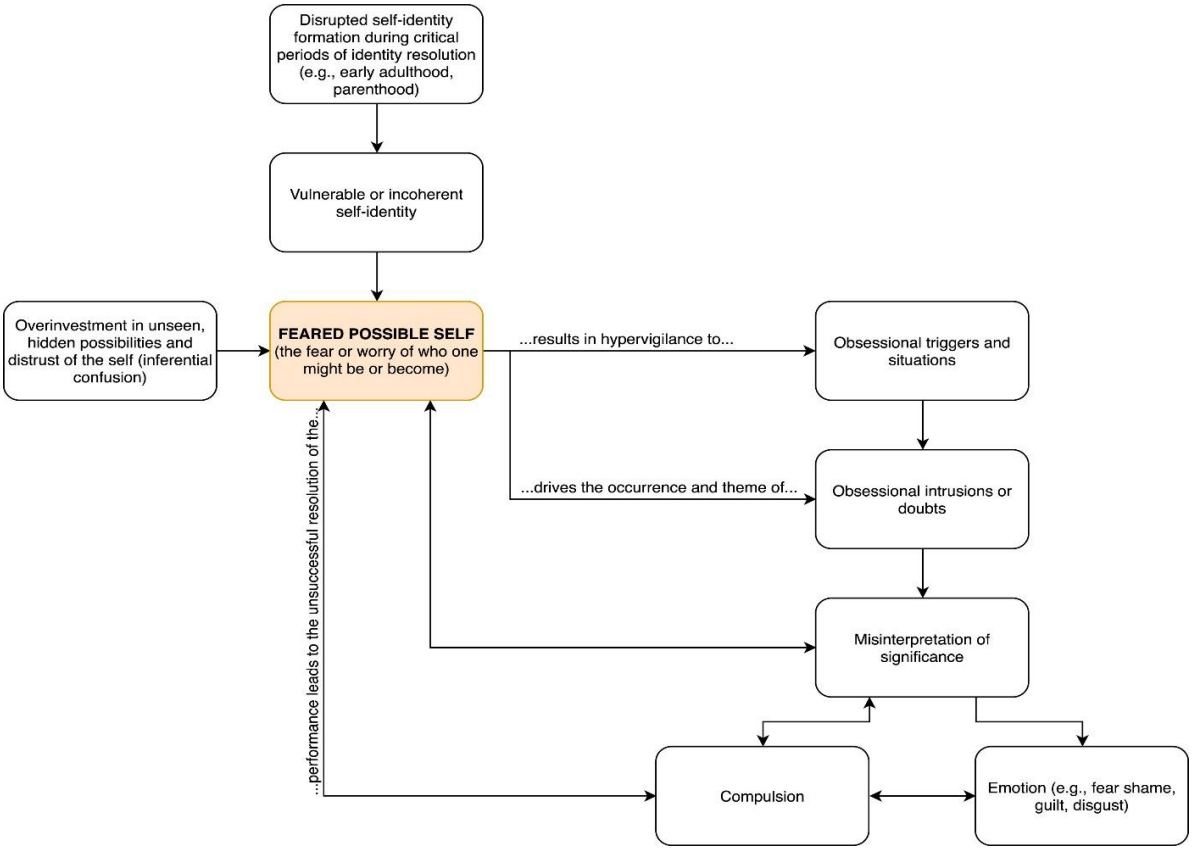
The concept of the feared self may be compatible with Winnicott's (1960) conceptualisation of the 'true' and 'false' self. Within this paradigm the 'true self' denotes an authentic sense of self with little to no contradiction. In contrast, the 'false self' denotes a sense of self that is built on a defensive façade. Winnicott (1960) proposed that if an infant was attended to with 'good enough parenting' this would form a satisfactory basis for the continuing development of the true self. If, however, parental care was inappropriate or lacking, the child's spontaneity may be undermined by the need for compliance to the parents' wishes. This could result in a 'false self' where the needs of the other become the paramount concern, overriding the individuals' sense of authentic self. Winnicott (1960) described how this can lead to the child struggling to regulate their emotions and developing false relationships.

The concept of the feared self is also compatible with Higgins (1987) self-discrepancy theory, which suggests that discrepancies between an 'actual' and 'ought' self generates agitation related emotions including fear and anxiety. They describe the ought self as the person we feel we should be and the actual self as the person that we believe we are. Markus & Nurius (1986) describe how, when these concepts feel incompatible, the actual self becomes more analogous to the feared self. The above research is compatible with Rachman's (1998) cognitive theory of OCD, suggesting that individuals with OCD may pay more attention to intrusive thoughts because they perceive them as personally relevant (i.e., representing an aspect of self that is negative or feared), which leaves them susceptible to developing obsessions. Rachman proposed that obsessions will diminish if these misinterpretations are weakened or altered.

Aardema and Wong (2020) proposed a model in which the feared possible self is responsible for the occurrence and thematic content of obsessions, rather than just their interpretation. They suggest that self-ambivalence, which they refer to as an incoherent self-identity, has an indirect relationship to obsession behaviours, which is mediated by the feared self. In essence, the

suggestion is that individuals with OCD have a propensity to focus on the possible, feared selves, rather than the self that is apparent.

Figure 2.3. *Working model of the role of the feared self as a core construct in OCD (*Aardema & Wong, 2020)



2.9.2. The role of shame and guilt in OCD

Further research has sought to understand the role of shame and guilt that appears to underpin many OC behaviours and may be linked to the feared self. Tracy & Robbins (2004) describe how the congruence or incongruence of self-appraisal with social/moral/personal standards

determine the positive or negative valence of the consequent self-evaluative emotion. Tracy & Robbins (2004) describe how shame originates from identity-related attributions 'I am a bad person', while guilt originates from behaviour-related attributions, for example 'I did a bad thing'.

Research suggests that parental rearing may be implicated in the almost 'phobic like reaction some individuals with OCD have to shame and guilt (Barcaccia et al., 2015; Mancini, 2019). Shame and guilt have consistently been associated with PTSD symptom severity (Cunningham et al., 2019) and may have a causal role in the maintenance of PTSD (Øktedalen et al., 2015). These two emotions will now be explored in greater detail in relation to their potential impact in the aetiology of OCD.

2.9.3. The role of shame in OCD

Stone (1992) defined trauma-related shame as the dissonance between an individual's self-perception, whether real or ideal self, and their interpretation of a traumatic event. Lee et al., (2001) expanded on this definition suggesting that shame is not only generated by dissonance, but will be intensified when a traumatic event is congruent with the individual's existing shame-relevant beliefs and schemata.

Hezel et al. (2012) describe how shame can have a profound effect in OCD, leading to feelings of being morally flawed and maladaptive coping strategies (Weingarden & Renshaw, 2015). Research suggests that individuals with OCD are more susceptible to these types of cognitive attributional biases (Doron et al. 2008; Ferrier & Brewin 2005). Valentiner & Smith (2008) suggest that OCD is characterised by shame, especially when it is associated with moral-laden intrusive thoughts or images relating to sexual, aggressive or religious themes. From a CBT perspective, shame is perceived as compounding OC symptoms due to TAF, where the

individual equates having bad thoughts as the moral equivalent of acting upon them (Shafran & Rachman, 2004).

Rachman (2007) describes how shame may function as a warning signal to the individual, in order to avoid putting themselves in unfavourable situations where they may be rejected. In this way, shame could be seen as an adaptive process that facilitates the individual with OCD in preventing social rejection (Mills, 2005). This interpretation is potentially compatible with attachment theory. Mpavaenda (2016) describes how shame may interfere with CBT/ERP treatment if left unresolved, with the failure of CBT to adequately improve OCD symptoms in some cases, possibly explained by the presence of unresolved shame. This further endorses the rationale for the use of AI-EMDR interventions, where difficult emotions such as shame can be effectively targeted by evoking imagery and feelings during processing. The next section will explore the role of guilt in OCD, which appears to be another common theme.

2.9.4. The role of guilt in OCD

Kubany & Watson (2003) proposed a model of trauma-related guilt which defines guilt as a combination of affective distress and guilt-related cognitions. Empirical evidence suggests that individuals with OCD commonly have a heightened fear of guilt, with obsessive activity undertaken to prevent, reduce, or neutralize the possibility of being guilty (Chiang et al, 2016; Cosentino et al., 2020; Mancini & Gangemi, 2004; Shapiro & Stewart, 2011). Research suggests that parental control including guilt induction, harsh criticism and withdrawal of support, love and/or validation in response to a child's wrongdoing, may be relevant in the aetiology of some forms of OCD by rendering the child fearful of feeling guilty (Barcaccia et al., 2015; Mancini, 2019).

Mancini & Gangemi (2021) suggested that there were two types of guilt which they termed altruistic guilt and deontological guilt. Altruistic guilt occurs when an individual harms an innocent victim through an action or omission. In contrast, deontological guilt arises from the transgression of an internalized norm which generates feelings of unworthiness and expectation of punishment. A study by D'Olimpio & Mancini (2014) comprised of two experiments, where non-clinical participants were asked to listen to stories that induced altruistic guilt, deontological guilt or a neutral control state. In the first study, they were then asked to classify 100 coloured capsules into twelve pots, in the second study they were asked to clean a plexiglas cube. Before and after hearing the story and after completing the task, the participants were asked to complete a visual scale that assessed their current emotions. Participants in the deontological group checked more in the first study and cleaned the cube more often in the second study and also scored higher in doubts and discomfort than the participants in the altruistic or control group. The researchers concluded that deontological guilt is a mental state that specifically relates to checking and cleaning compulsions.

There are a limited number of studies that have directly targeted fear of guilt in OCD in this way. Other studies have primarily used Socratic dialogue and cognitive restructuring. A multiple-baseline study by Cosentino et al. (2012) across four participants with OCD used Socratic dialogue, the two-chairs technique (Perls et al., 1951), self-forgiveness techniques and experiential exercises aimed at exposing patients to feelings of guilt over a twenty-week period. Their results showed that interventions centred on accepting guilt in non-symptomatic domains produced a significant reduction in OCD symptoms.

A single case study by Perdighe & Mancini (2012) comprised of 32 encounters with one client over a period of two years. By the end of treatment he presented with no OC symptoms that interfered significantly in his life. Treatment comprised of psychoeducation, Socratic

questioning and systematic exposure to environments that provoked feelings of guilt in this individual. Whilst both studies suggested positive outcomes they are very small studies, with treatment ongoing for longer than it would in conventional evidence-based practice. It is also not clear whether any components of treatment were more relevant than others for the improvement.

Along with Socratic dialogue and cognitive restructuring, there is also a growing body of evidence to suggest that therapeutic approaches such as compassion-focused therapy (CFT) may be helpful for the individual in alleviating and/or responding more adaptively to feelings of guilt and shame (Gilbert, 2014; Kirby et al., 2015, Petrocchi et al. 2021).

2.10 Summary of the potential relational components in the aetiology of OCD

So far, this chapter has reviewed the current evidence-based treatments for OCD and discussed their limitations. It then moved on to explore approaches that place more emphasis on the societal/relational components that may be relevant in the development of OCD. This included research to suggest that OCD is a coping response that develops as a consequence of adverse (traumatic) events in childhood (Miller & Brock, 2017). These adverse childhood experiences were then viewed in the context of Bowlby's (1958) attachment theory, whereby individuals with OCD will have developed an internal working model that is used to understand, predict and regulate subsequent relationships. Through this lens, the chapter moved on to examine research suggesting that parents who were emotionally abusive or neglectful may have hampered the child's ability to self-regulate or self-soothe, thus laying the foundations for OCD. These limitations in parental rearing may have led to the child developing a 'feared' self (Aardema et al. 2018), with this 'feared self' developing an almost phobic-like reaction to emotions such as shame (Weingarden & Renshaw, 2015) and/or guilt (Mancini, 2019). Within

this context, this chapter now explores the rationale for the use of EMDR, and AI-EMDR in particular, to enhance treatment outcomes for individuals with OCD.

2.11 EMDR for the treatment of OCD

2.11.1. The development of the EMDR protocol

EMDR is now well-established as a treatment of choice for post-traumatic stress disorder (PTSD) (NICE, 2018). Shapiro (2001) describes how she developed this protocol after a chance observation when she was walking in a park in 1987. She noticed the specific effect of saccadic (rapid movement of the eyes between fixation points) eye movements on certain disturbing thoughts she was having, with the emotional affect of these thoughts appearing to spontaneously decrease. She experimented with this phenomenon during the rest of her walk and was keen to investigate whether this process had the same impact on others. She informally investigated her findings with around 70 individuals over a six-month period and found that many of them struggled to generate sufficient saccadic eye movements to achieve the same effect. For this reason, she started to implement a procedure where people tracked their eye movements by watching her move her hand back and forth at eye level around 12 to 14 inches in front of them.

Shapiro (2001) developed further strategies that seemed to contribute to these positive effects. These preliminary investigations allowed her to develop a protocol, where individuals focused on an image, a body sensation, an emotion, a thought or a combination of these elements. They then followed a deliberate set of steps to process the disturbance using saccadic eye movements. Shapiro (2001) found that she was able to reliably achieve a decrease in emotional affect in a wide range of people who were not diagnosed with any identified disorder. The apparent efficacy of this procedure encouraged Shapiro to undertake a controlled trial with individuals with PTSD (Shapiro, 1989). Whilst there were some flaws in this study, partly due to

the lack of standardised measures, Shapiro and others continued to study this paradigm using rigorous controls (e.g., Feske, 1998; Spector & Read, 1999; Van Etten & Taylor, 1998; Spates et al, 2009). The positive outcome in the research studies substantiated the efficacy of EMDR and, as a consequence, the International Society for Traumatic Stress Studies designated EMDR as an effective treatment for PTSD (Chemtob, Tolin, van der Kolk & Pitman, 2000).

The mechanisms that underpin the efficacy of EMDR are still not clear. Farrell (2018) highlights the fact that current research shows support for several different neuro-scientific hypotheses regarding the mechanisms of change in EMDR. These include the rapid eye movement hypothesis (Stickgold, 2002); the working memory account (De Jongh et al., 2013) and the episodic memory account (Propper & Christman, 2008). It is beyond the scope of this chapter to provide a full description of these potential mechanisms of change, but it does seem likely that multiple factors may be at play.

2.11.2. The EMDR Protocol

Shapiro (2001) developed the Adaptive Information Processing (AIP) model to conceptualise the way that new experiences are integrated into pre-existing memory networks. Within this framework, normal events are assimilated into long-term memory using the individual's past experiences and their understanding of themselves and the world they live in. However, if a traumatic incident occurs, the event may become 'frozen', in which case it does not get processed or stored effectively. During the EMDR process, bilateral stimulation is used to desensitize the client to the distressing memory and facilitate reprocessing in order for the associated cognitions to become more adaptive (Logie, 2014).

EMDR is delivered through an eight-stage, three-pronged (as in past-present-future) protocol. The first phase focuses on taking a comprehensive history of the client and creating a

formulation. This is followed by the preparation and stabilization phase, where clients are taught grounding techniques to help them manage the subsequent processing of their distressing memories. The third phase is the assessment, where target memories and negative cognitions are identified. In this phase the client also specifies a positive cognition that will be used to replace the negative cognition during the installation phase. The fourth phase is the desensitization phase where bilateral stimulation (BLS) occurs. During bilateral stimulation the therapist invites the client to track the movement of the therapist's hand (nowadays tactile and/or auditory BLS are also used), whilst also holding the negative memory in mind. It is not currently agreed or understood why all three forms of BLS seem to work effectively and further research is needed in this area. The negative affect associated with the memory is checked at frequent intervals using the 10-point Subjective Units of Distress (SUD) Scale. In the fifth phase, an alternative more positive cognition associated with the memory is installed. For example, Shapiro (2001, p.73) describes how a victim of sexual assault may replace their negative cognition 'I am powerless' with 'I am now in control' in relation to their trauma memory. The therapist may use cognitive interweaves to facilitate clients who are having difficulty in generating a positive cognition, but otherwise therapists do not directly intervene in the content of the EMDR memory. EMDR processing continues until the SUD rating shows that the negative cognition has diminished. The final two stages of the EMDR protocol include a body scan to identify any lingering physical sensations and then closure (Shapiro, 2001).

2.11.3. The use of EMDR to treat OCD

Valiente-Gomez et al. (2017) conducted a systematic literature review and described how EMDR is now used to treat a range of anxiety disorders where traumatic events may have contributed to the aetiology of the condition (e.g., Kim & Lee, 2016; Millan et al., 2017). Bohm (2019) reviewed current research into the use EMDR to treat OCD and concluded that, if traumas are a potential facet of OCD, there is a good rationale for the use of evidence-based

trauma interventions (such as EMDR) alongside a CBT/ERP protocol. This concurs with Logie's (2014) proposal that EMDR has potential adaptability to treat any psychological disorder that may stem from adverse life events, including OCD.

There appears to be a general consensus in EMDR practice that any past traumas should be processed first in order to assist with affect regulation in the treatment of OCD (e.g., Logie & De Jongh, 2014; Bohm & Volderholzer, 2010). Most EMDR protocols then propose moving on to implement a process where the individuals 'worst case scenarios' in OCD are used as the target for processing (Logie & de Jongh, 2014; Bohm & Volderholzer, 2010). Engelhard et al. (2011) describe how EMDR can be effective for processing OCD clients' catastrophic mental representations about future events. Bohm and Volderholzer (2010) highlight the potential for ERP using EMDR, where intrusive mental imagery can be targeted more readily (e.g., obsessions around having sex with a child). Cognitive interweaves can also be used whereby the client is asked to imagine that the compulsive action cannot be executed (e.g., hand-washing) or a trigger contamination situation can be visualised (e.g., touching a door handle). In their case study, Bohm and Volderholzer (2010) describe successfully processing a client's obsessive belief that she would be punished in hell after she died. Komor (2000) describes how EMDR appears to accelerate the rate and depth of anxiety processing and 'supercharge' the in vivo habituation process, whilst also reducing the client's discomfort.

2.11.4. Existing research into the use of EMDR for the treatment of OCD

Whilst there is still only a limited body of research, preliminary studies do suggest that EMDR may prove beneficial for long-standing, severe cases of OCD. Marr (2012) reported the results of two experiments, with two young adult males in each study, who all had a long-standing history of unremitting OCD. Different EMDR protocols were used in each study over a 14-16-week period and all four participants' scores were in the subclinical/mild range by the end of

treatment. Keenan et al. (2018) conducted a case series with eight clients with OCD who had received previous CBT treatment, but were still symptomatic. The results were positive, suggesting an alleviation in anxiety, depression, obsessions, compulsions and subjective levels of disturbance. However, the authors in both studies acknowledge that these are small studies that lack external validity and that further research is required.

A further randomized controlled trial by Marsden et al. (2018) compared EMDR and CBT for the treatment of OCD and found both modalities had comparable completion rates and clinical outcomes. This research was undertaken in an NHS setting, with 29 participants randomly allocated for EMDR and 26 for CBT using standardized 16-session protocols. Overall, 61.8% completed treatment and 30.2% attained reliable and clinically significant improvement in OCD symptoms, with no significant differences between groups ($p > .05$). Whilst these results potentially endorse the efficacy of EMDR, there still appears to be a high attrition rate. This was a relatively small sample and further research would be required to ascertain the generalizability of these findings.

Research by Nazari et al. (2011) indicated that EMDR is more effective than medication for OCD treatment. This single blind randomized controlled trial included 90 participants (47 in the EMDR group and 43 in the Citalopram group) over a 12-week period. The pre-treatment average Y-BOCS (Goodman et al., 1989) score was 25.26 for the Citalopram group and 24.83 for the EMDR group. By the end of treatment participants scores were 19.06 and 13.6 respectively. There was a significant difference between the Yale-Brown scores post-treatment. One major limitation of this study is the timeframe as EMDR would be likely to have a more immediate impact than medication for the treatment of OCD and there was no follow-up after the study.

Keenan et al (2018), conducted an ethno-phenomenological case series with eight participants who had all been diagnosed with OCD and had unsuccessful CBT (ERP) interventions within the past five years. Participants were divided into two groups, with both groups receiving eight sessions of EMDR. Four participants disclosed evidence of a previous trauma related to their OCD and they received the standard EMDR protocol intervention, where processing focused on past events. The remaining four underwent a Flashforward EMDR protocol intervention (Logie & De Jongh, 2014) that focused on their future, 'worst-case' scenario. The aim of this study was actually to examine the efficacy of EMDR as a treatment for OCD, rather than to compare EMDR protocols and the equal division of groups was coincidental. Keenan et al. (2018) concluded that EMDR therapy is a safe and well-tolerated treatment for OCD. This small study suggested that EMDR treatment was more effective with traumatic-component OCD that non-traumatic OCD. However, the fact that different EMDR protocols were used with each group raises the question of whether it was the standard protocol that was more effective than the Flash-forward intervention. Whilst these findings have potential to be attributed to multiple causes, the results again highlight the potential for further research in this area.

It is not possible to generalise from the small studies above regarding the efficacy of EMDR as a potential therapeutic intervention. From my own clinical experience, protocols that use EMDR as a form of ERP run into the same difficulties as exposure work in CBT, with many clients finding the process too difficult to tolerate. This may also explain the high attrition rate in the above study by Marsden et al. (2018). This chapter will now conclude with the rationale for the use of AI-EMDR for the treatment of OCD.

2.12 The rationale for the use of AI-EMDR for the treatment of OCD

As described in Chapter One, I started incorporating AI-EMDR interventions in the treatment of individuals with OCD in my private practice as a consequence of finding that some individuals

with OCD needed to have a greater ability to self-soothe, before they could undertake any form of ERP-type processing, be that in CBT or EMDR form. AI-EMDR has good potential for grounding the individual and facilitating them in processing negative emotions, including guilt and shame, that may stem from their childhood. The positive outcomes I achieved with clients in my private work contributed to my interest and enthusiasm in undertaking this research.

2.12.1. Theoretical underpinnings of Attachment-focused (AF) and AI-EMDR

Parnell (2013) developed an attachment-based modification to the EMDR protocol over a 22-year period, based on the knowledge she acquired from her practice-based observations. Her aim was to facilitate more effective EMDR treatment for clients who had experienced inter-personal traumas and attachment deficits in their early years.

Parnell is an EMDR consultant and trainer who was psycho-dynamically trained with an emphasis on developmental and object relations. Parnell's focus is more on practice-based clinical knowledge, rather than academic research in the field of attachment and trauma psychology. Her books (Parnell, 2007, 2013) have influenced the EMDR community of therapists and she has established her own institute to promote the teaching, training and supervision of hundreds of clinicians to work in this way. Nearly all standard EMDR trainings now include more resourcing interventions (described later in this chapter) as a consequence of Parnell's influential work.

In her book, Parnell (2013) acknowledges the major influence of the Swiss psychologist and psychoanalyst, Alice Miller. Miller's (1981) influential work describes the emotional and psychological harm done to a developing child by parents who do not mirror or value the child for their own worth. Parnell (2013) describes how, in addition to her psychodynamic training, she was also drawn to Jungian psychology and Buddhist meditation practices. She explains

how her work was further influenced by psychologists including Bowlby, Winnicott, Siegel, Schore, van der Kolk and Levine who all contributed to her conceptualisation of trauma and attachment.

In her book, Parnell (2013) describes how individuals whose parents were inconsistent, unavailable or overly intrusive may develop an ambivalent, avoidant or preoccupied attachment response. These individuals may feel shame that 'there is something wrong with me' as a consequence of their needs only being met inconsistently. This is a clear example of the influence of Bowlby's (1958) attachment theory on her work. For many of these individuals parental misattunement may have commenced at a pre-verbal stage of development, resulting in implicit emotional flashback type symptoms that are consistent with some OCD presentations (Dykshoorn et al., 2014). Schwartz (2018) describes the way that healing preverbal trauma involves working with current symptoms of anxiety, panic, dissociation or somatic distress. Parnell (2013) explains how EMDR can be used to work through 'stuck' sensations in the body in order to attend to unmet childhood needs.

Parnell (2013) describes how many of these clients will not necessarily have encountered specific traumas, but AF-EMDR can still be used to address their difficult life events (i.e., their small-t traumas). She proposes that, with a compassionately attuned therapist, the client will take in the relational healing alongside the healing of the original traumas. Parnell (2013) emphasises the need for these clients to have tools to calm their anxiety and soothe their self-criticism and shame. They need to develop positive self-talk in order to counter their negative thoughts and calm the brain's right hemisphere in order to create new neural pathways. This is compatible with neuropsychological research suggesting that right brain systems are relevant for attachment, affect regulation and developmental change (Perry, 2006; Schore & Schore, 2007; Siegel, 2003). In this way, it is hoped that the AF/AI-EMDR interventions will help

participants with OCD improve their ability to self-soothe which should, in turn, facilitate them in undertaking ERP activities. There does not appear to be any research that has incorporated AI-EMDR into the treatment of OCD to date.

2.12.2. The standard EMDR protocol vs. the AF and AI-EMDR protocol

One of the key differences between AF/AI-EMDR and the standard EMDR protocol is the therapeutic focus. Parnell (2013) describes how the AF-EMDR protocol conceptualises the client's presenting difficulties in relation to their attachment history, with the therapist paying particular attention to the client's emotional responses to attachment-related triggers. Brayne (2023) describes how the central aim in AI-EMDR is to identify and repair early attachment ruptures. The primary questions for conceptualising clients' difficulties are: how the person got to be the way they are and how, where and in what context did they learn to emotionally self-soothe?

In contrast to the standard EMDR protocol, AF-EMDR requires an extensive assessment of the client's attachment related issues in order to gain insight into the ways that these might have impacted on the client's current symptoms. The therapist works collaboratively with the client to explore their internal working models, attachment-related schemas and unresolved attachment wounds (Parnell, 2013).

AI-EMDR also differs from the standard EMDR process with its emphasis on the therapeutic relationship, not just the protocol. Conventional EMDR gives a basic, almost generic mention of the importance of the therapeutic relationship (Shapiro, 2001), but there is no elaboration, emphasis or training regarding what that means. The assumption appears to be that the therapist will already have that basic skill. However, a good therapeutic relationship is seen as

imperative in AI-EMDR especially when working with clients who have experienced childhood trauma (Dworkin, 2013) and these relational skills are incorporated into the AI-EMDR training. In AI-EMDR there is a major focus on therapeutic attunement and resourcing. This is in keeping with the work of Schore (2003) and Siegel (2003) who both describe how clients often bring deep-seated emotional issues to therapy that may not be fully accessible through conscious left-brain verbalization. Table 2.3 and 2.4 show the standard and the AI-EMDR protocols.

Table 2.3: *The standard EMDR protocol (adapted from Shapiro, 2001)*

EMDR – Standard Protocol

Target issue, memory, event, or symptom: *What issue would you like to begin working on?*

Target image: *What image represents the worst part of this event? Which part of this memory bothers you most?*

Negative cognition: *When you think of that incident, what negative thought or belief do you have about yourself now? What negative thing does that incident say about you now? ("I" statement)*

Positive cognition: *When you think of that incident and those negative words [negative cognition] what would you prefer to believe about yourself now? ("I" statement)*

VoC (Validity of Cognition): *When you think of that incident how true do those words [positive cognition] feel to you now on a scale of 1 to 7?*
(Completely false) 1 2 3 4 5 6 7 (Completely true)

Emotions: *When you think of that incident and those words [negative cognition] what emotions do you feel now?*

SUDs (Subjective Units of Distress):
How disturbing does it feel to you now, on a scale from 0 to 10?
(No disturbance) 0 1 2 3 4 5 6 7 8 9 10 (Highest disturbance)

Location of body sensation: *Where do you feel that in your body?*

Table 2.4: *The AI-EMDR protocol (Parnell, 2013, adapted by Brayne, 2019)*

AF-EMDR MODIFIED PROTOCOL

Phase 1: History/Case Conceptualisation:

- *How did this person get to be the way they are?*
- *How did they learn to self-soothe?*
- *What happened?*

Phase 2: Preparation

Special (Calm, Peaceful, Safe) Place (SP).

SP:

- *Location, real or imaginary, where you can imagine feeling relaxed, at peace, calm, supported.*
- *Notice what you can see (colours, quality of the light, sky, clouds, time of day, landscape…)*
- *Notice what you can hear…. touch … sense (the air on your skin, the ground beneath you) …. smell… taste….*

Slow-ish knee taps/ EMs/ buzzers/headphones (>>>).

- *Let me know when you have a good sense of that ("nod", "say when").*

Resource team (real or imaginary, human or animal, historical or contemporary, alive or dead, from your own experience, from history, literature, mythology, religion, Hollywood, fairy tales, comics…)

3 x Nurturing (e.g. qualities of kindness, tenderness, care, compassion, love, playfulness). **Identify all in one go, tap in one by one.**

NF 1, 2, 3:

3 x Protector (e.g. Strength, Determination, Courage, Steadfastness, and yes, Ferocity).

PF 1, 2, 3:

1+ Wise.

WF 1, (2):

Tap in as a team.

Presenting Issue:

Phase 3 Assessment/ Targeting:

1. *Picture/image/moment for worst/most intense part of that experience?*
2. *Connecting with that moment, what is the emotion?*
3. *Where is that happening in your body?*
4. *What's the belief about yourself that goes with that?*

If **bridging** (can also bridge from a shape – size, colour, temp hot or cold, sound high/low, texture hard soft...)

1. ***Trace it/Drop back in time.***
2. ***As far as you can.***
3. ***Without censoring it.***

Target (positioned in space and time):

Phase 4: Desensitisation

AS BEFORE: **Image, Emotion, Body, Belief.**

- *Connecting with that, just notice. >>>*

Sets not too short, not too long. As wave ends, settle, then Return to Target.

- *What are you getting/what do you notice?*

If things are moving, ***Go With That***. Or…

- ***Notice That** / **Follow That** (when a narrative is unfolding) / **Think About That** (in response to an insight) / **Stay with That** (esp. an emotion).*

Interweaves e.g.:

- *Inquiry, Truth, Sorting, Education.*
- *Video camera/context. Press Play.*
- *Rewrite the script, inc Rescue.*
  1. ***What does the child need?***
  2. ***Who can do that?***
  3. ***Would you like to imagine that?***

Phase 5: Installation

Once SUDs 0, check emerging PC. *What's the belief about yourself that goes with that now? (PC).* **Tap in.** If a 0 or more, or 6 or less, *What's keeping it there?*

Phase 6: Body Scan

Scan body (from top to toe). Any disturbance?
If sensation, tap until resolves/subsides.

Phase 7: Closure. ALWAYS check original bridging point before closing, tapping in any positives and checking the body.

Phase 8: Re-evaluation. (Next session)

Check last session's target. How is that now? New target?

As can be seen in Table 2.4, the AI-EMDR adaptations include more imaginal resourcing, with the routine installation of a team of nurturers, protectors and wise figures as well as a peaceful place. Table 2.5 (below) highlights the way that the AI-EMDR protocol has been modified from the standard EMDR protocol. Within AI-EMDR the focus is on the client's more-right brain, emotive experience of trauma. Subsequent chapters of this dissertation describe a range of other grounding and nurturing resources that are also commonly used in AI-EMDR treatment.

Table 2.5: *A comparison of the standard EMDR and the AI-EMDR protocol and brain hemisphere involvement (adapted from Brayne, 2023).*

Standard EMDR Protocol	**Primary Brain hemisphere Activated**	**AI-EMDR Protocol**	**Primary Brain hemisphere Activated**
Event	Right/Left	Event	Right/Left
Image	Right	Image	Right
Negative Cognition	Left	Emotion	Right
Positive Cognition	Left	Body	Right
Validity of Cognition (VOC) (1-7)	Left	Thought/Belief (about self)	Right/Left
Emotion	Right	SUDS (1-10) optional	Left
Subjective Units of Distress (SUDS) (1-10)	Left		
Body Scan	Right		
Closure	Right/Left		

As can be seen in Table 2.5, in AI-EMDR the questions are re-ordered into a simpler and more right-brain structure of Image-Emotion-Body-Belief, with the numerical ratings of positive cognition, validity of the cognition (VOC) and SUDS removed. Parnell (2013, p184) proposes that the VOC rating in EMDR is unnecessary and likens it to 'a maths quiz for a traumatised

person'. She describes how trauma is stored on the right side of the brain and the computation of numbers on the left. Parnell (2013) argues that asking a client to answer numerical questions necessitates them abandoning the trauma memory in order to find the answer to a quiz that they are unlikely to understand. She describes how this has the propensity to leave the client feeling like they cannot do EMDR before they even begin the processing.

Parnell (2013) also endorses more proactive use of what she termed 'bridging'. This process is commonly known as 'floatback' or 'affect bridge' in standard EMDR terminology and this intervention is used in order to trace the client's presenting issues back to their developmental roots (Kaptan & Brayne, 2022).

In the standard EMDR protocol, therapist interweaves (interventions) are generally only used if processing is stuck. In AI-EMDR interweaves are used more frequently in order to help address the client's early developmental deficits. AI-EMDR implements more creative use of a wider range of proactive interweaves when processing narratives from childhood. For example, introducing nurturing figures or a hero with magical powers into the client's recall of the event, in order to change the narrative and facilitate repair of the childhood rupture (Brayne, 2023).

In contrast to the standard EMDR protocol, there is little empirical evidence to support the use of AF and AI-EMDR. Its recognition has generally come from practice-based appreciation of its efficacy from both therapists and clients. It is hoped that this thesis will provide some evidence and insights into the benefits of this approach.

2.13 The commonality between Imagery Rescripting and AI-EMDR

There is currently a lack of consensus regarding recommended best practice for the treatment of childhood trauma (Boterhoven de Haan et al., 2020). Exposure to traumatic memories has

been clearly identified as a central component of treatment with many exposure interventions, such as trauma-focused CBT, relying on prolonged reliving of the traumatic events in order to alleviate trauma symptoms (Foa et al. 1999). However, this type of intervention may be less suitable for the treatment of childhood trauma, which is commonly interpersonal and comprises of multiple events over a longer period of time (de Jongh et al, 2016, Cloitre, 2015). A further challenge for interventions using prolonged trauma exposure is the high drop-out rates from treatment, ranging from 30-40% (Imel et al., 2013).

Boterhoven de Haan et al. (2020) describe how alternative trauma-focused interventions, such as imagery rescripting and EMDR, may be preferable for individuals with traumas from childhood due to the fact that they do not require the individual to describe or be exposed to the entire traumatic event. Both imagery rescripting and AI-EMDR limit the amount of exposure to traumatic memories. Within these paradigms the client only identifies key emotive components of a traumatic experience and, guided by the therapist, is helped to modify the idiosyncratic content, emotional impact and meaning (Morina et al., 2017). For example, a client who experienced adverse events in childhood may be asked to reimagine some of these events, but with the subsequent introduction of a protective figure into the scene, or their adult self may go back in time to protect them. A client who has been sexually abused might rescript her traumatic memory into an image where she successfully defends herself against her assailant (Morina et al., 2017). If the victim is young, this could entail them using imaginal magical powers (Brayne, 2023). The clinical focus in these interventions is on addressing the client's core unmet needs (Boterhoven de Haan et al., 2020) in order to facilitate changes in the client's beliefs and behaviours (Arntz & Weertman, 1999). In AI-EMDR terminology this would be described as filling in the developmental deficits (Brayne, 2023).

Morina et al. (2017) highlight the rather puzzling finding among clients undertaking imagery rescripting that, despite clients being aware that the rescripted image does not accurately represent the event, they still report that the rescripted image is preferable for meeting their emotional needs. This phenomenon, that also applies to AI-EMDR, may be compatible with de Jong's (2019) theory of memory reconsolidation. Research by de Jong (2019) suggests that when we recall a memory it becomes temporarily unstable and open to modification. During this period, new information and experiences can be introduced with potential to alter the emotional charge and the meaning of the original memory.

In keeping with the imagery rescripting process, there is an emphasis in AI-EMDR on establishing a trusting and collaborative relationship with the therapist and the treatment process is overtly discussed. Both approaches address the unmet needs of the client during the traumatic event with the use of imaginal interweaves and/or rescripting, thus changing the outcome of the experience (Holmes et al., 2007; Parnell, 2013). At the end of treatment in both imagery rescripting and AI-EMDR, the patient is helped to calm themselves using imagery grounding techniques, such as a safe place, prior to closing the session (Boterhoven de Haan et al., 2020).

The effectiveness of both of these interventions may be supported by Van der Kolk (2015) who describes the need to address fragments of individual's traumatic experiences, in particular images, sounds and feelings, because that is the way that trauma is experienced. Similar to AI-EMDR, there is a need for further research to better understand the underlying mechanisms of change in the imagery rescripting process (Arntz, 2012).

There is a small, but growing body of evidence to endorse the efficacy of imagery rescripting in clinical treatment where the psychological difficulties are associated with aversive memories.

Veale et al. (2015) conducted a SCED with twelve individuals with OCD who experienced distressing images that may have been related to past aversive memories. Participants had a control intervention of talking about the memory-related image, followed by a single session of imagery rescripting. Veale et al. (2015) concluded that imagery rescripting is a promising therapeutic technique as an adjunct to CBT for some individuals with OCD.

Morina et al. (2017) conducted a meta-analysis of 19 trials (including seven RCTs) with 363 adults with PTSD and other anxiety disorders. The OCD trial described above (Veale et al., 2015) was included in this meta-analysis. Morina et al. (2017) concluded that imagery rescripting appears to be a promising psychological intervention for a variety of mental disorders if they are associated with aversive memories.

At present there does not appear to be any research with regards to the efficacy of AI-EMDR for the treatment of conditions related to aversive memories. Hence the rationale for this study. The fact that there are so many overlaps in the processes used in imagery rescripting and AI-EMDR does, however, add further credence to the rationale for this research. This is especially relevant now that existing evidence-base treatment approaches are starting to endorse the use of imagery rescripting not just for PTSD, but also as an adjunct intervention for OCD treatment (Veale et al., 2015)

The final section of this chapter provides details regarding the research aims, hypotheses and research questions for this study.

2.14 Research aims, hypotheses and research questions.

This chapter has discussed a range of literature regarding the aetiology of OCD and considered existing theories regarding best models of treatment. It has highlighted the clinical need to

enhance treatment for individuals with OCD and the relevance of this integrative approach to counselling psychology. To the best of my knowledge, this is the first study undertaken into the use of attachment-informed EMDR for the treatment of OCD. The mixed-methods design for this study is detailed in the next chapter, along with information regarding the outcome measures used and their validity.

The overarching research question is:

> Do attachment-informed EMDR interventions, when used in conjunction with a CBT/ERP protocol, improve treatment outcomes for individuals with OCD?

The quantitative research hypotheses are:

Hypothesis 1: The subjective severity of OCD symptoms will:

a) Remain stable during the baseline phase (A^1)
b) Remain stable or improve during the assessment phase (A^2)
c) Improve (decrease) during the CBT intervention phase (B^1)
d) Show an enhanced improvement during the AI-EMDR intervention phase (B^2)

Hypothesis 2: Subjective ratings of mood will:

a) Remain stable during the baseline phase (A^1)
b) Remain stable or improve during the assessment phase (A^2)
c) Improve (increase) during the CBT intervention phase. (B^1)
d) Show an enhanced improvement (increase)during the AI-EMDR intervention (B^2)

Hypothesis 3: The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities (ERP)

The qualitative research question is:

How did participants experience their involvement in this research study?

Chapter 3. Methodology

3.1 Introduction

The previous chapter explored the aetiology of OCD and a range of conceptualisations for treatment. The limitations of implementing existing evidence-based interventions as the exclusive method of treatment for OCD were discussed, with A-I EMDR proposed as a promising adjunct psychological intervention. The methodological approach for this study was guided by the research aims and questions detailed at the end of Chapter 2. These were conceptualised through the philosophical lens of pragmatism.

This methodology chapter commences with my rationale for undertaking this research (3.2), which is followed by a methodology overview (3.3). The philosophical and theoretical context is then considered in sections 3.4 to 3.6. The mixed methods research design (incorporating a SCED and a TA) is then discussed in section 3.7, with a consideration of how this design may have been impacted by the Covid lockdown (3.8). Subsequent sections provide a more detailed description of the methods and include information on sampling considerations, participant recruitment, inclusion and exclusion criteria, along with a description of quantitative and qualitative data collection and analysis (sections 3.9 to 3.16). This chapter concludes with an outline of my reflexive stance, along with the ethical and data protection considerations and a discussion on internal and external validity (sections 3.17 to 3.20).

3.2 Rationale for this research

The overarching research question for this study was ‘Do A-I EMDR interventions, when used in conjunction with a CBT/ERP protocol, improve treatment outcomes for individuals with OCD?’.

The previous chapters highlighted the limitations of using CBT/ERP as the sole intervention for some individuals with OCD (Abramowitz, 2006, Simpson et al., 2006). Further research suggests that individuals who have experienced relational trauma may be more susceptible to OCD (Seah et al., 2018). This is compatible with research by Gershuny et al (2003) who propose that OCD and PTSD are actually two disorders on the same continuum, with OCD behaviours initiated as a coping strategy undertaken to reduce and avoid trauma-related symptoms and memories. Parnell (2013) suggests that these individuals are likely to have an overactive neural right-hemisphere and that AI-EMDR has the potential to help alleviate their anxiety and soothe their self-criticism by creating new neural pathways. This is in keeping with Bowlby's (1969) attachment theory and neuropsychological research suggesting that right brain systems are relevant for attachment, affect regulation and developmental change (Perry, 2006; Schore & Schore, 2007; Siegel, 2003). The rationale for this study was to explore whether the implementation of AI-EMDR interventions does help calm these individuals' over-active threat system and increase their ability to self-soothe. The prediction was that AI-EMDR would have a direct impact on participants' overall mood and the perceived severity of their OCD symptoms. It was hoped that this would, in turn, facilitate their ability to undertake ERP activities.

3.3 Methodology overview

The primary aim of this research was to empirically test the hypotheses in order to provide actionable knowledge with clear relevance for the treatment of individuals with OCD in clinical practice. The analytic methods utilised in this mixed methods design were pragmatically selected on this basis. The quantitative research component comprised a complex AB SCED across participants, which was undertaken with eight individuals with OCD. Lundervold & Belwood (2000) describe how single-case research successfully bridges the gap between scientific research and practice, which was in keeping with my aim to provide practice-based evidence. The qualitative component comprised of a template analysis (TA) which is a form of

thematic analysis. This was undertaken as an adjunct to the SCED in order to provide further nuanced insights into participants' experience of the research process and the therapeutic interventions (Brooks et al, 2015). My approach in this TA is limited realism with a commitment to a realistic ontology combined with a constructivist epistemology (King & Brooks, 2017).

3.4 Philosophical Worldview: Pragmatism

This research was undertaken within the philosophical framework of Pragmatism. Pragmatism originated in late-19th century America through the works of Peirce (1877), James (1907), Dewey (1920) and Mead (1923). Their primary aim was to break away from the philosophical diversions of attempting to conceptualise truth and instead measure truth by the results found in experience (Morgan, 2014). Pragmatism rejects the notion that reality can be understood using unilateral scientific methods (Maxcey, 2003) and accepts that single or multiple realities may be relevant for empirical inquiry (Cresswell & Plano Clark, 2015). Ontological questions regarding the nature of truth become irrelevant in Pragmatist theory, with knowledge and reality perceived as a social construction (Morgan, 2007).

Teddlie & Tashakkori (2003) describe Pragmatism as the foundation for mixed-methods research. Within this framework there is no fundamental conflict between the aims of qualitative/constructivist and scientific/positivist inquiry, even though the methods and validation of these paradigms may be quite different. Feilzer (2010) describes how a Pragmatist perspective sidesteps ontological and epistemological dichotomies by positioning the research inquiry, rather than the methods, at the heart of the process. In this way the pragmatist researcher can select the most appropriate methodology/ies and will typically use inductive, deductive and abductive reasoning in the creation of data and theory (Goldkuhl, 2012).

Pragmatist axiology asserts that research is only worthwhile when action and reflection are combined throughout the research process (Teddlie & Tashakkori, 2009). The researcher's worldview, which will be influenced by their socio-political location, personal history and their belief system, is overt within the research process (Morgan, 2007).

Despite its potential cohesiveness for research purposes, pragmatism does still attract criticism from both sides of the research debate. Whilst most quantitative researchers appreciate the limitations of their endeavours to find accurate truths, they still see this as the ultimate aim. Conversely, many constructivists dislike the focus on outcome in Pragmatism, which has potential to detract from an exploration of the wider socio-political concerns that led to the research being undertaken in the first place (Yardley, 2007). Wertz (1999) suggests that two major limitations of the pragmatist approach are that deciding 'what works' can be subjective and that not all research is designed to solve practical problems.

Holtrop & Glasgow (2020) describe how pragmatic research has potential to answer important, practical questions regarding the way an intervention may actually be used in clinical practice, which is central to this research study. Yardley (2007), however, highlights the importance of preserving the integrity of the different qualitative and quantitative methods utilised in order to allow each to be validated on their own terms to maximise their unique contribution to knowledge. The theoretical foundations of the methodologies implemented in this study are detailed below.

3.5 Theoretical foundations of methodologies/methods used in this study

3.5.1. Mixed Methods Design: In keeping with a pragmatic framework, this study incorporated a mixed-methods design, with the primary aim being to empirically test my hypotheses and generate theory in order to provide actionable knowledge (Greene & Hall,

2010). A further consideration in choosing this design was that it also needed to fulfil the criteria for completing a DPsych dissertation in Counselling Psychology at City University. A SCED was implemented, followed by a qualitative TA of participants' subjective experience of participation in this study.

3.5.2. Single-case experimental design (SCED): Quantitative single-case research emerged in the 1960s and is rooted in applied psychology and applied behaviour analysis (Morley, 2018). Kazdin (2011) proposes that single-subject research is particularly good for testing the effectiveness of an intervention on individuals, rather than groups. The primary aim of this post-positivist philosophical perspective is to test and refine hypotheses and theories in clinical settings (Crowe et al., 2011). The ontological position of this paradigm is critical realism, where reality exists, but can only be imperfectly understood. The epistemology is modified dualism, whereby 'the knower' and 'the-would-be-known' are perceived as discrete entities that can be separated (Guba & Lincoln, 2005). SCED's axiology emphasises the need for the researcher to review the internal and external validity of their findings and utilises deductive research logic methodologically (Teddlie & Tashakkori, 2009). I considered this paradigm highly relevant for my research with the emphasis on applied research in clinical practice. I do, however, question the issue of the researcher and the researched being discrete, separable entities as I believe we are all relational beings who impact upon each other. For this reason it seemed appropriate to also incorporate a TA in order to provide further insight into participants' experience of the research process.

3.5.3. Template Analysis (TA): This qualitative research method is used across a range of epistemologies and research questions and is compatible with both essentialist and constructionist paradigms. The flexibility of this approach can be seen as advantageous, providing the researcher is explicit about the position they are adopting in their work (King &

Brooks, 2017). My approach in this TA was limited realism, with a commitment to a realistic ontology combined with a constructivist epistemology. This suggests that there is a world that exists beyond our construction of it, but we are constrained in our understanding by our position within it (King & Brooks, 2017). Holloway and Todres (2003) highlight the importance of selecting an analytical approach that is driven by the research question and the content, rather than by the method and I concur with this view.

3.6 Theoretical foundations of the interventions used in this study

3.6.1. Cognitive Behavioural Therapy (CBT)

CBT is a form of empirical realism based on atomism (Bhaskar, 1998). This paradigm suggests that things can be interpreted through analysis into distinct components that are separable and independent of each other. CBT draws on principles from behavioural and cognitive psychology and proposes that people's emotions and behaviours are influenced by their perceptions of events (Beck, 1964). The role of the therapist is to facilitate the client in finding and practicing effective strategies to alleviate symptoms of their disorder with outcome measures used to determine clinical improvement (Schacter, 2012). This study incorporated CBT/ERP interventions which are currently the recommended, 'gold-standard' treatments for OCD (NICE, 2005) and the OCD diagnosis was determined using the DSM-5 criteria (APA. 2013). These processes are all rooted in the positivist medical/psychiatric model. Willig (2019) describes how cognitive paradigms construct a version of the person that is comparable to a computer which can be programmed in different ways to achieve different experiential and behavioural consequences. My rationale for using CBT as the primary intervention in this study was because it is the most commonly utilised/researched protocol for OCD and it therefore provides a benchmark for assessing a new (AI-EMDR) treatment intervention as an additional treatment.

3.6.2. AI-EMDR

EMDR is well-established as a treatment of choice for post-traumatic stress disorder (PTSD) (NICE, 2018). Initially developed by Shapiro in the late 1980s, she used the Adaptive Information Processing (AIP) model to conceptualise the way that bilateral stimulation can facilitate the processing of distressing memories, thus making the associated cognitions more adaptive (Shapiro, 2001). The scientific community were initially sceptical about the efficacy of EMDR (e.g., Herbert et al, 2000) and there has been heated debate regarding the mechanisms of change in this process. Farrell (2018) suggests this lack of clarity is likely to be a consequence of multiple factors being at play in EMDR treatment (e.g., exposure, dual task taxing working memory etc.). Van den Hout and Engelhard (2012) describe how unusual it is for a therapeutically marginal approach to make its way to the centre of a profession. However, in accordance with NICE (2018) and the American Psychiatric Association (APA) (2013) guidelines, EMDR treatment has met the strict positivist criteria for 'best evidence-based practice'.

Parnell (2013), who is psychodynamically trained, subsequently developed an attachment-based modification to the EMDR approach. AI-EMDR integrates Bowlby's (1969) attachment theory and is used to treat clients who have experienced relational trauma and attachment deficits in their early years. Crittenden (2008) describes how, within attachment theory, individuals construct knowledge of their world and act on the basis of this knowledge in order to maximise their safety. She suggests that, in this way, attachment theory could be seen as pragmatic, with the implementation of both objective and subjective knowledge.

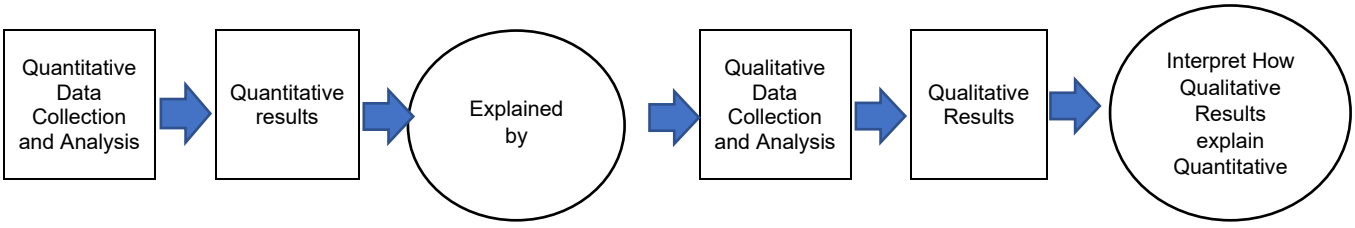
3.7 The Research Design

3.7.1. Mixed methods research. Cresswell & Creswell (2018) highlight the central tenet of mixed methods research whereby the researcher gathers and combines both statistical

trends (quantitative data) with personal experiences (qualitative data). The collective strength of integrating these different methodologies has good potential to provide a better understanding of the research question than from analysis of either form of data alone. Creswell and Plano Clark (2015) highlight at least six potential advantages to integrating methodological approaches. They describe how the strengths of one approach has potential to offset the weaknesses of the other and, when used properly, a combination of methods has potential to answer questions that a single approach cannot. Further advantages are that a mixed method design can encourage interdisciplinary collaboration and promotes the use of multiple worldviews/paradigms. Creswell and Plano Clark (2015) also highlight the way that mixed methods research is practical, in that it permits the use of multiple techniques and approaches that best address the research question.

However, Cresswell & Plano Clark (2015) emphasise the importance of rigorous procedures for both components, which necessitates the researcher having a sufficient level of understanding of both paradigms. As can be seen in Figure 3.1, data integration in this study was undertaken using an explanatory sequential design, whereby the qualitative data (the TA) was implemented to explain and add nuance to the results of the quantitative SCED design (Cresswell & Plano Clark, 2015).

Figure 3.1. *Explanatory Sequential Design for this study (Cresswell & Plano Clark, 2015).*



3.7.2. QUANTITATIVE: Single case experimental design (SCED)

The aim of SCED methodology is to test the effectiveness of an intervention in a rigorous way. In contrast to case-study research, a SCED involves repeated measurements, sequential introduction of an intervention, specific data analysis and statistics (Krasny-Pacini & Evans, 2018). The within-subject randomisation and repeated measurement reduce threats to internal validity by controlling for potential confounding variables (Malott et al., 2004). The power of this paradigm comes from the number of repeated measures, rather than the number of participants (Normand, 2016).

Graham et al. (2012) describes how small-N designs (i.e. SCEDS) have potential to complement larger-N trials. The SCED has the potential to be useful in the early development phase and relates the application of the research to each individual patient.

Morley (2018) acknowledges that randomized-controlled trials, systematic reviews and meta-analyses are invaluable to research. However, the immense power of these methods carries the danger of reducing the clinician to a passive consumer of health-technology, with minimal therapeutic engagement. RCT designs have also been criticised for failing to take into account the uniqueness of human experience (Henwood & Pidgeon, 1992) and failing to capture the potential variability and heterogeneity of the individuals being studied (Deaton & Cartwright, 2018). Morley (2018) suggests that SCED research facilitates the professional researcher in being actively involved in the application and production of knowledge. Barkham et al. (2010) describe how clinicians need effective tools to deliver good health care and to generate robust practice-based evidence, with SCED research offering one such suite of tools. Kazdin (2011) proposes that a SCED may be preferential when examining new areas of research and I took this into account when selecting the research paradigm for this study.

SCED methodology has been criticised for its inability to generalise beyond the individual being studied (Perdices & Tate, 2009). However, Horner et al. (2005) established criteria whereby an intervention could be considered evidence-based if a sufficient number of single cases met design standards and provided positive evidence of a treatment effect. The 'Horner Criteria' comprises the 5-3-20 threshold. This recommendation requires a minimum of five SCEDS, published by three independent research groups from different institutions, with a combined minimum sample size of at least twenty participants. On this basis, it is hoped that this study will provide initial research that may achieve external validity over time with further research by other organizations. More information on the implementation of the SCED design used in this study is detailed later in this chapter (3.11 to 3.15).

3.7.3. QUALITATIVE – Template Analysis

Template Analysis is a form of thematic analysis which implements the use of hierarchical coding. This approach incorporates a relatively high degree of structure in the analytic process, but has the flexibility to adapt the analysis to the idiosyncratic needs of the study (Brooks, et al., 2015). This was especially relevant for this study where I wanted to focus on the research questions and incorporate practical participant feedback that had potential relevance for clinical practice.

I initially considered, and started to implement, a thematic analysis for the qualitative component of this research. However, I changed over to a template analysis due to the fact that it offered more flexibility and was more in keeping with my pragmatic approach. For example, I was keen to incorporate comments that may only have been made by one participant, but were relevant and/or interesting for clinical practice. The flexibility of template analysis facilitated me in incorporating these findings, whereas these 'one-off' comments could not have been included in a conventional thematic analysis as they would not have constituted a theme.

Template analysis does not suggest a set sequence of coding levels in advance and encourages the researcher to develop and expand on themes where the richest data (in relation to the research question) is found. Template Analysis also accommodates the use of both descriptive and interpretive themes (Brooks, et al., 2015).

Semi-structured interviews were undertaken one month after participants completed their twelve-week treatment programme. Whilst participation was optional, all eight participants agreed to take part and their responses provided the data that was subsequently analysed in this TA.

A coding structure was developed from a mix of *a priori* themes and initial engagement with the data, which was then applied to the full data set (Brooks et al., 2015). Using this approach, I was able to incorporate my theoretical understanding of OCD and EMDR to identify some of the underlying themes in the data.

3.8. The implications of the COVID lockdown

3.8.1. Undertaking therapy online

Much of the clinical research for this study was undertaken within the context of the Covid-19 pandemic and subsequent lockdowns. As a consequence, all twelve sessions of therapy for each participant were undertaken online (via Zoom) from my home office. Recent research has explored the advantages and disadvantages of conducting therapy online.

Stoll et al. (2020) conducted a comprehensive review of 249 publications discussing the pros and cons of online therapy. There were many favourable research findings, where online psychotherapy was considered at least as efficient and effective as traditional therapy, or more so. The review concluded that a key advantage of online therapy was the perceived flexibility,

as services could be accessed at any time and from any place. This was especially relevant for this research study which commenced during the national lockdown. Another positive factor I have observed when conducting therapy online is the potential benefit for client's having interactions with their pets during treatment which appears to help with their affect regulation.

Stott et al (2020) found that one of the biggest and most discussed disadvantages of online treatment was the risk with regards to privacy, confidentiality and data security. They cited the need for therapists to undertake further training regarding technical issues that may occur. I do conduct the majority of my work in private practice online and I have ensured that all my security applications are up-to-date and I have secure passwords. This was the case when I commenced work online with participants in this study. The specific advantages and disadvantages of working online for clients with OCD are discussed in more detail in the qualitative analysis in Chapter Five.

3.8.2. The impact of lockdown on participants

Dates of the national lockdown and the easing of lockdown restrictions in relation to the clinical study dates can be seen below in Table 3.1 (Gov.UK., 2021). Research suggests the pandemic and lockdowns will almost certainly have had a negative impact on participants' mental health with issues including loneliness, increased health anxiety and financial concerns exacerbating their difficulties (Chandola et al., 2020; Burn & Mudholkar, 2020, Niedzwiedz et al., 2021). It was, however, apparent during this study that it was the easing of the lockdown restrictions (especially step 3) which generated a great deal of anxiety.

The constraints on socialising also restricted the range of ERP activities that could be undertaken, especially for those with paedophile OCD and others concerned about their potential for inappropriate social interactions.

The pandemic and lockdowns also had potential to skew responses on some questionnaires used in this study. The measures were reviewed and three questions (5. 11 and 17) in the OCI-R (Foa et al., 2002) did have the potential to be misconstrued. This issue was raised with all participants when they completed the measure to ascertain to what degree (if any) their response was related to the pandemic and their score amended accordingly. Further information regarding the impact of the pandemic on the outcome measures used is provided in section 3.12.

Table 3.1. *Key dates in Covid-19 lockdown easing (Gov.UK., 2021) in relation to study dates*

Lockdown Easing/Clinical Trial	**Date**
National lockdown Three	4 January to 7 March 2021
Step 1: Allowed to leave home for recreation and exercise outdoors with household members or support bubble (if eligible) or with one person from outside their household.	8-28 March 2021
Clinical Trial One dates	20 March 2021 to 15 June 2021
Step 2: outdoor gatherings of either 6 people or 2 households allowed.	29 March-17 May
Step 3: People allowed to meet indoors in groups of up to six or as two households, or outdoors in groups of up to 30 people. Pubs, bars and restaurants allowed to re-open indoors. Travel restrictions eased.	From 17 May
Step 4: Most legal limits of social contact removed in England	19July
Clinical Trial Two dates	16 June 2021 to 8 September 2021

For all the reasons detailed above, it seems likely that the pandemic and lockdowns did impact on our work together, as well as on participants' subjective daily ratings and their overall experience of being involved in this trial.

3.9 Sampling Considerations and Recruitment

Eight participants were recruited using snowball recruitment methods in two cohorts (five participants in the first study and three in the latter one). Ray et al (2010) suggest starting with three to five participants when using a SCED. I was, however, confident in my ability to recruit more participants as I regularly have enquiries from individuals with OCD in my private practice. I also have several former clients who are OCD advocates and I am a member of two EMDR therapist forums where I was able to post my request for candidates. In keeping with British Psychological Society (BPS, 2015) inclusivity guidelines, no exclusions were made based on sexuality, gender, economic status or ethnicity.

Potential candidates initially contacted me by email and I endeavoured to email back on the same day. I sent them the link to my temporary website (Appendix B), which most of them had already received from their referrer. I requested they read the information carefully to see if this study was suitable for them and, if so, they were welcome to get back in contact. All individuals who initially enquired emailed back expressing their continued interest in the study and confirmed that they met the participant criteria. They were then emailed a participant information pack including a permission to record sheet and an informed consent form for signature (Appendix C). We also arranged a day/time for an initial Zoom call that I explained would take around an hour. I ensured that participants had at least 48 hours to consider the content of the participant information pack prior to the Zoom session.

I personally undertook the initial Zoom screening session with all potential candidates. I started by asking whether they had read the information in the participant information pack I had sent them and whether they had any questions. We then ran through the key criteria for inclusion that were detailed in the participant information pack. I reiterated the fact that they would be required to complete questionnaires and be available to attend all twelve sessions of treatment and a follow-up interview one month and three months after the trial. I also checked that they were happy to pay the fee of £40 per session (this payment is discussed further in the Ethics section later in this chapter). I then confirmed their right to withdraw from the study at any time (BPS, 2014) and it was also reiterated that they were participating in a treatment programme that currently has only limited empirical support. I asked again if they had any further questions and these were discussed and clarified as necessary.

I then moved on to ask about their history of OCD and we completed the Y-BOCS questionnaire (Goodman et al, 1989) with me reading the questions out to them. A minimum score of 16 was used as the cut-off point for participation in the study. We also completed a brief risk screening where I asked the candidates whether they had any suicidal thoughts, any plans regarding how they would act on these thoughts and what would stop them. These questions were consistent with the questions I would ask at an initial assessment with any client in the NHS. I once again asked if they had any questions or whether there was anything else that they felt it was important that I should know at this time. Each interview lasted between 45-60 minutes. At the end of the interview I asked whether they were still keen to proceed and, if so, that I would email them later that day to inform them of the outcome of the assessment.

3.9.1. Inclusion and Exclusion criteria

As can be seen in the Informed Consent sheet (Appendix C), potential candidates were sent the following information regarding the requirements for participation. These criteria were clarified in the initial screening call.

- Aged between 18 and 65
- Meet the diagnostic criteria for OCD as assessed by the Y-BOCS measures
- Have had symptoms of OCD for at least one year.
- Have had CBT with ERP treatment for their OCD within the past three years, but still have OCD symptoms.
- No previous experience of EMDR therapy.
- Not undertaking any other therapies at the start of, or during, this trial.
- Not taking illicit drugs within six months of the start of, or during, this trial
- Not having been diagnosed with other non-related mental health conditions.
- Not currently pregnant and not having had a recent stillbirth or miscarriage

In the event that any potential candidates who met the criteria were excluded (e.g., due to risk or interpersonal issues) I planned to reflect and log the reason for such exclusions. I also planned to explain to the participant why they were excluded if this seemed appropriate and give signposting and emergency contact information (Appendix D). However, all of the initial eight potential participants who applied did meet the criteria for the study and were included. Prior to commencing the study all participants signed the Informed Consent form and the permission to record sheet.

3.10 Participant information

As can be seen in Table 3.2, participants are heterogeneous in terms of gender and age, but are not representative of UK ethnicity. Abramowitz et al. (2010) proposed four theme-based

dimensions of OCD, which include: contamination, responsibility for harm, unacceptable thoughts and symmetry. Table 3.2 shows there is a lack of heterogeneity in participants' OCD dimensions, with the majority of participants primarily contained within two of these categories. Kazdin (2011) highlights the importance of making the sample as heterogeneous as possible to be more representative of the general population and it is acknowledged that this is a limitation of this trial.

Whilst all clients had undertaken some form of previous therapy, two participants (who were both clinicians) had used self-help books for CBT/ERP treatment of their OCD. The decision to include these participants was partially influenced by the fact that I had some clients waiting to start the trial who were really struggling with their OCD (e.g., John and Dan). Including these two, self-taught participants had the potential to facilitate me in starting the trials earlier. I did reflect on whether it was appropriate to include them and discussed this in supervision. My supervisor and I agreed that it would be acceptable to include them as they were both clinicians, subject to ascertaining that they had sufficient CBT knowledge and had actually undertaken ERP tasks in a structured manner. On this basis, we devised a list of questions to ask.

During the screening call, I questioned both potential candidates about this issue in detail. I asked about the books and types of literature they had read with regards to CBT treatment for OCD. I also asked them to outline their understanding of the CBT protocol for OCD. Finally, I asked what interventions they had actually undertaken to address their OCD and asked questions around this. During these discussions I was primarily interested to gain insight into their knowledge of the CBT paradigm for the treatment of OCD. I also wanted to know whether they understood the rationale for ERP, especially in relation to creating a hierarchy of exposure work with SUDS ratings, and the role of habituation in the ERP process. By the end of these discussions, I was satisfied that both parties had a sufficient understanding of the CBT/ERP

protocol and that they had undertaken the interventions independently in a competent, albeit not especially successful, manner.

Table 3.2. *Demographics and idiosyncratic details of participants' OCD and previous treatment*

Trial One 24/03/21 - 15/06/21	**Gender**	**Ethnicity**	**Age**	**Primary OCD Issues and theme-based dimension**	**Previous Treatment**
'John'	M	White British	36	Fear of being homosexual; Paedophile OCD **Unacceptable Thoughts dimension**	Integrative for anxiety CBT/ERP (intensive)
'Jane'	F	White European	27	Harm OCD (previously violent, now social harm); Responsibility; Checking (on Google and reassurance seeking) **Responsibility for Harm dimension**	Self-help CBT/ERP SSRI
'Susie'	F	White British	30	Harm OCD (Negative social harm) Responsibility **Responsibility for Harm dimension**	Psychodynamic + CBT Informed therapy (CBT/ERP) SSRI
'Kate'	F	White British	52	Responsibility Checking **Responsibility for Harm dimension**	Counselling CBT/ERP SSRI
'Hannah'	F	White British	42	Checking Fear of losing things (esp. relating to technology). **Responsibility for Harm dimension**	CAT Self-help CBT/ERP
Trial Two 16/06/21-08/09/21					
'Sam'	M	White British	30	Paedophile OCD Harm OCD Contamination OCD **Unacceptable Thoughts dimension**	CBT for Anxiety Integrative for OCD (inc. CBT/ERP) Psychodynamic
'Peter'	M	White British	34	Fear of being homosexual Checking OCD **Unacceptable Thoughts dimension**	Counselling CBT/ERP
'Dan'	M	White American	47	Contamination OCD **Contamination dimension**	Psychiatrist sessions CBT/ERP SSRI

3.11 The quantitative design

The SCED implemented in this study is described as a complex AB design due to both the baseline and intervention incorporating two phases. This $A^1A^2B^1B^2$ design has a randomisation at the start of the B^2 phase. The rationale for the two baseline phases (A^1A^2) was a clinically-led decision, with my supervisor and I both in agreement that the assessment period was a different phase therapeutically to the data collection-only phase. We also considered whether it would have been preferable to describe this design as an $A^1A^2B^1C^1$, with the B^2 phase described as C^1. However, due to the fact that the ERP exercises sit within both the CBT and AI-EMDR phases, describing the design as $A^1A^2B^1B^2$ design seemed most appropriate.

In this study, the dependent variable (DV) was the participants' subjective self-rating of the severity of their OCD, their mood and their ability to undertake ERP tasks. Participants completed subjective daily ratings of the severity of their OCD and their mood for 10-19 days prior to assessment (A^1), and continued to do so during the two-week assessment phase (A^2). Having established these two baseline phases, each participant acted as their own control. There is no definitive timeframe for establishing a baseline, but longer and more stable baselines are preferable (Morley, 2018).

From week 3 until the end of the trial, participants continued with the two daily ratings along with a third rating of their subjective ability to undertake ERP tasks. The independent variable (IV) was the introduction of AI-EMDR interventions, with the CBT component (B^1) used for the evaluation of the AI-EMDR phase (B^2). Morley (2018) describes a potential issue with this type of design is the possibility that the impact of the CBT intervention could have been time dependent and that any changes observed in the AI-EMDR phase were a delayed effect of the CBT. Morley's suggested solution, as implemented in this study, was to vary the length of the

CBT phase, which should have highlighted any potential time-dependant implications from the CBT effect.

The results from the daily ratings were triangulated with participants' ratings on the Y-BOCS (Goodman et al., 1989) and the OCI-R (Foa et al., 2002). These measures were completed during the assessment phase, at the end of treatment and at the week 16 and 24 follow-up sessions after treatment was completed. A complete measurement schedule can be seen in Table 3.3. A follow-up interview with all clients was conducted one-month after the trial was completed to gain more insight into participants' experience of the study.

Kratochwill et al. (2010) produced guidelines for designing a high-quality SCED in the field of education and, where feasible, these recommendations have been incorporated in this research study. Morley (2018) explains how the two main concerns in SCED research are firstly to ensure that the treatment has been implemented and delivered as intended. The second concern relates to the duration of treatment during the experimental phase. Section 3.13. contains a detailed description of how these issues were addressed in the planning and delivery of the interventions in this study.

3.12. Quantitative data collection

The data collected throughout the quantitative component of this study, along with the timeframe, can be seen in Table 3.3, with full questionnaires and scoring procedures in Appendix E.

Table 3.3. *Questionnaires used in the quantitative component of the study*

Timing for implementation	Measures	Rationale for use
10-19 days prior to assessment (daily) and during the assessment period	Self-rating: 1. Severity of OCD symptoms (1-100 scale: with lower scores suggesting improvement) 2. Mood (1-10 scale: with higher scores suggesting improvement)	*These daily ratings provided the baseline measure for the SCED and were used to test the hypotheses. Hayes (1981) describes how the repeated measurement of participant variables across different phases of time is the fundamental basis of SCED. The mood measure was also helpful for quickly assessing any potential risk concerns if the participant's score had dropped.*
At first assessment (completed once only)	Experiences in Close Relationships-Revised (ECR-R) (Fraley et al. 2000) Self-Ambivalence Measure (Bhar and Kyrios, 2007) Adverse Childhood Experiences Questionnaire (Centers for Disease Control and Prevention, 2014).	*To assess individual differences in attachment style and determine whether participant' responses to AI-EMDR differ based on their attachment style.* *Research suggests that individuals with OCD have an ambivalent attachment style (Parnell, 2013). Bhar and Kyrios (2007) developed the Self-Ambivalence measure specifically to gain insight into this phenomenon in their research.* *This questionnaire was devised by the World Health Organisation to be culturally sensitive. The rationale for including this questionnaire was to facilitate the creation of a trauma line prior to undertaking EMDR interventions.*
At first assessment and at end of treatment (week 12). Then at the week 16 and week 24 follow-up sessions.	Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) (Goodman et al., 1989) Obsessive Compulsive Inventory- Revised (OCI-R) (Foa et al., 2002).	*The Y-BOCS is regarded as the 'gold-standard' for the measurement of OCD symptom severity (Moritz et al., 2002).* *The OCI-R is commonly used in the NHS to monitor the severity and type of symptoms of clients with OCD.*
From week 3: Each client was given a short form to complete daily until the end of treatment (week 12)	**Self-rating** 1. Severity of OCD symptoms (1-100 scale) 2. Mood (1-10 scale) 3. Ability to carry out ERP activities. (1-10).	*The first two ratings are the same as detailed at the start of this table, with the third questionnaire added once ERP tasks commenced.*

3.12.1. Questionnaire validity and reliability

Experience in Close Relationships (ECR-R) (Fraley et al., 2000). This 36-item self-report measure was designed to assess individual differences in adult attachment. The questionnaire

incorporates measures on two scales of attachment: anxiety and avoidance. Attachment-related anxiety highlights the extent to which individuals are secure or insecure about the responsiveness of others in intimate relationships. Attachment-related avoidance relates to the extent individuals are comfortable being close to and/or depending on others (Fraley et al., 2013).

Research by Sibley et al. (2005) concluded that the anxiety and avoidance sub-scales comprise distinct dimensions with high internal reliabilities (α=0.95; α=0.93 respectively). Their analysis revealed a remarkably high degree of temporal stability in both factors. In a study by Eder et al. (2021), the temporal stability of the ECR-R scale was assessed in the context of lockdowns and other COVID restrictions. Results suggested there was minimal difference in attachment security between the beginning and end phase of the lockdown (mean decrease by 0.05%; N = 140).

The percentile ranking for participants' adult attachment style in this study was calculated using the norms from http://labs.psychology.illinois.edu/~rcfraley/measures/ecrr.htm which are based on a sample of over 17,000 people. This provides a mean of 3.56 (SD 1.12) for the attachment anxiety subscale and for the attachment avoidance subscale a mean of 2.92 (SD 1.19).

Self-Ambivalence Measure (Bhar and Kyrios, 2007). The Self-Ambivalence Measure (SAM) has 21 questions and comprises two subscales: self-worth ambivalence and moral ambivalence. This measure was developed from research by Guidano & Liotti (1983) who hypothesised that individuals with OCD have greater levels of ambivalence regarding their self-worth, morality and lovability. The SAM has shown good internal consistency in non-clinical and clinical samples (Self-Ambivalence factor α = .88, .88; Moral Ambivalence factor α = .85, .86), and achieved a satisfactory level of criterion and convergent validity. Test re-test reliability

has also been demonstrated over an average 10.8–week interval (r ≥ .77) (Bhar & Kyrios, 2007). Unfortunately, due to an administrative problem, the scores for this measure were not appropriate for a robust analysis.

Adverse Childhood Experiences Questionnaire (Centers for Disease Control and Prevention, 2014). This 10-item measure is used to assess the individual's experiences of childhood trauma. Fergusson et al. (2000) questioned the reliability of self-reports of adverse experiences with the suggestion that the individual's psychopathology at the time of evaluation may impact on their response. However, a study by Karatekin & Hill (2018) found that internal consistency, test-retest reliability, concurrent and convergent validity were acceptable, and findings were replicated across samples. Dobson et al. (2021) examined the convergent validity of four of the most commonly employed ACE measures in a single sample of 283 adult outpatients in primary care settings. The study endorsed the high internal reliability for each scale and high correlations among the scales. There did not appear to be any research undertaken to suggest that the COVID lockdown impacted on ACE outcome scores.

Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) (Goodman et al., 1989)
This 10-item scale is used to measure the severity of obsessions and compulsions, with obsessions and compulsions rated separately. The Y-BOCS shows a high degree of internal consistency r = .89, and interrater reliability r= .97. (McKay et al., 1998). The Y-BOCS outcome measures for this study were assessed using McKay et al. (1998) two factor model, with Obsessions (questions 1-5) and Compulsions (questions 6-10). The standard deviation was 3.77 for obsessions and 4.28 for compulsions. For internal consistency the measure was alpha = .88 for obsessions and alpha = .85 for the compulsions. In order to calculate the Reliable Change Criterion (Evans, 1998) the standard deviations and internal consistency from the subscale scores of a clinical sample were taken from McKay's et al. (1998) paper. These were

3.62 for obsessions and 4.59 for compulsions. Ji et al. (2020) investigated how COVID might influence scores on the Y-BOCS and concluded that fear of COVID-19 was associated with a greater Y-BOCS score. These findings were not, however, endorsed by the participants in this study.

Obsessive-Compulsive Inventory-Revised (OCI-R) (Foa et al., 2002). The OCI-R is a short version of the OCI and comprises 18 items. Abramowitz & Deacon (2006) describe the OCI-R as a psychometrically sound and valid measure of OCD and its various symptom presentations, with confirmatory factor analysis confirming a six-factor solution. The instrument also evidenced good convergent validity, and performed well in discriminating OCD from other anxiety disorders. These findings are endorsed in further research (e.g., Huppert et al., 2007; Wootton et. al., 2015). Meda et al. (2021) examined the changes in OCI-R scores during and after lockdowns in relation to scores before lockdowns in Italy. They concluded that OCD symptoms, as measured by the OCI-R, were not affected by lockdown. Changes in the scores on the OCI-R were analysed using Huppert et al. (2007) calculations of 12.8 for the standard deviation and 0.84 for internal consistency. This gave a Reliable Change Criterion of 14.19.

Idiographic Measures In keeping with a SCED paradigm, I wanted to have frequent measurements that would ideally be completed daily. I considered it impractical (and unethical) to ask participants to complete long standardised measurements on a frequent basis. For this reason, I developed my own three brief measures. These comprised a 1-100 subjective rating of severity of their OCD and a 1-10 subjective rating of mood. The final daily rating was implemented from Week 3 where participants rated their ability to undertake exposure tasks (with 1 being impossible and 10 being easy). Participants worked through a graded hierarchy of ERP tasks and, for this reason, it was anticipated that there would be some fluctuations in their ratings of ability to undertake these tasks, rather than a steady improvement.

Whilst these independently devised scales do not have the validity of measures that have been through robust psychometric development, similar measures have been used in peer-reviewed research (e.g., Wilkinson-Tough, 2018, Masuda et al., 2004). In order to increase the validity of these self-ratings, the measurements were triangulated with the standardised outcome measures (the Y-BOCS and OCI-R) also used in the trial.

3.13 Quantitative procedure

As soon as a participant was accepted onto the trial they were asked to log their subjective rating of the severity of their OCD symptoms and their mood at the end of each day (Appendix E). These ratings were used to form baseline A^1. This process continued throughout the assessment period with this data used to form baseline A^2.

Morley (2018) describes the desirability for all participants to achieve a stable baseline in this first phase in order to assess treatment outcomes more fully. A stable baseline helps to endorse the existence of a relationship between the independent and dependent variables (Engel & Schutt, 2014). There is, however, debate about what constitutes an acceptable variation around the mean. Morley (2018) proposes that a variation of 5-10% around the mean is very acceptable, 20-30% borderline and any values beyond that being questionable. Similarly, there is no clear guidance regarding the length of the baseline. There is, however, general agreement that it is not always practicable to withhold or delay treatment in clinical trials where this is likely to prove unethical and/or impractical (Kratochwill et al., 2010, Morley, 2018). For this reason the baseline period within this trial was kept fairly brief.

One week prior to starting treatment, participants were emailed information about how to download Zoom and information about working online (Appendix F). In the first week of assessment they completed the Y-BOCS (Goodman et al. 1989) and OCI-R (Foa et al. 2002)

online with me. They subsequently completed the ECR-R (Fraley et al. 2000), SAM (Bhar and Kyrios, 2007) and ACE (Centers for Disease Control and Prevention, 2014) questionnaires during this two-week assessment stage.

Table 3.4. *Participant intervention sequence*

Weeks	Baseline 9-15 days	1	2	3	4	5	6	7	8	9	10	11	12	16	24
Cohort 1 **Client**															
1. 'John'															
2. 'Jane'															
3. 'Susie'															
4. 'Kate'															
5. 'Hannah'															
Cohort 2															
6. 'Sam'															
7. 'Peter'															
8. 'Dan'															

Colour Key	
	Baseline phase (A^1)
	Assessment (A^2)
	CBT /ERP protocol with 10min relaxation recording daily (B^1)
	AI-EMDR protocol with 10 min AF-EMDR recording daily (B^2)
	Post-treatment interviews and questionnaires

Following the two-week assessment period, the study progressed to the CBT phase (B^1). I randomly allocated participants to their week for commencing AI-EMDR interventions by pulling their names out of a hat. As can be seen in Tables 3.4 and 3.5, all clients experienced at least

one week of CBT/ERP interventions with a daily 10-minute relaxation tape (Appendix G), prior to moving on to the AI-EMDR interventions (B^2) with a daily 10-minute AI-EMDR recording (Appendix H). In this way, the repeated measures showed the effect of moving from baseline to intervention across a number of participants in order to highlight whether it was the intervention that had facilitated change, rather than some other factor (Wilkinson-Tough, 2018).

3.13.1. Treatment and interventions

Session one and two: Within these two assessment sessions participants completed the outcome measures detailed in Table 3.3. We then collaboratively created an idiosyncratic formulation of their OCD (Steketee, 1993). We also started to compile an OCD hierarchy with subjective units of distress (SUD) ratings and commenced work on a longitudinal formulation along with a trauma timeline.

Session three. All participants had at least one session of CBT that included psychoeducation about OCD and ERP. We collaboratively agreed an idiosyncratic, low SUD, ERP exercise to be undertaken each day that week. In the final part of the session we recorded (on Zoom) a muscle relaxation exercise and a breathing exercise (Appendix G) that they were requested to listen to for 10 minutes each day. These recordings were incorporated in order to provide an activity that would be comparable to the use of the AI-EMDR recordings in the subsequent phase.

Session four to nine (**the CBT component**). Each week one participant moved on to the AI-EMDR component, with the final participant having the maximum of 6 CBT sessions. CBT interventions are detailed in table 3.5. Each week we reviewed their ability to undertake the exposure task and devised another one to be undertaken the following week. Each session concluded with 10 minutes of relaxation exercises.

Session four to twelve (**the AI-EMDR component**). In their first AI-EMDR session, participants were given psychoeducation about AI-EMDR, with OCD conceptualised as a protective behaviour to avoid sitting with difficult feelings. Participants downloaded an EMDR app onto their phone (BSDR Player) for use in subsequent sessions. Participants also completed a safe place exercise which we recorded on Zoom and they were asked to listen to this for 10 minutes each day. AI-EMDR activities are detailed in table 3.5. We continued to review the ERP tasks undertaken each week and to devise another one for the upcoming week. After the first AI-EMDR session participants were asked to create a resource team (see Appendix H) that was recorded and could be used in conjunction with their safe place as a grounding resource.

In subsequent AI-EMDR sessions, we collaboratively agreed whether to start by processing more overt childhood traumas or taking an OCD behaviour and dropping that back in time (see the protocol in Appendix H). This usually led the participant back to a time when they were younger and had experienced some form of discomfort (often being shamed or very scared). Other AI-EMDR scripts used for processing included an adaptation of 'Creating an Ideal Mother'. (Parnell, 2013), an adaptation of Knipe's (2019) 'Loving Eyes' protocol and Brayne's (2019) 'Resourcing with Qualities' (see Appendix I).

After a few sessions, it was apparent that 'Dan' was not in a stable enough environment to participate in EMDR processing and I also had some risk-to-self concerns. I discussed his situation with my supervisors and we agreed that it would be unethical to exclude him from the trial at that time. We decided, however, that I should stop the ERP activities from that point. In the AI-EMDR component we completed some grounding exercises, but did not use AI-EMDR to process his traumas.

Table 3.5. *Interventions used in this study*

Week	Participants	Assessment
1 and 2	All	Questionnaires/ Clarify self-rating sheet, Assessment, Formulation. OCD Hierarchy, Trauma timeline
3	All	CBT interventions. Agree ERP task for week (low SUD) and explain relaxation tape homework
4	All participants <u>except</u> John John	**45 min** CBT (Steketee, 1993 protocol) Review ERP task and agree next one **10 min** Relaxation exercise Introduce AI-EMDR Create safe place, resource figures and values Review EMDR trauma line and make a plan Explain AI-EMDR tape homework
5	All participants <u>except</u> John, Jane and Sam Jane, Sam and John	**45 min** CBT (Steketee, 1993 protocol) Review ERP task and agree next one **10 min** Relaxation/breathing exercise Introduce AI-EMDR Create safe place, resource figures and values Review EMDR trauma line and make a plan Explain AI-EMDR recording homework **45 min** AI-EMDR plus resourcing **10 min** Review ERP task and agree next one
6	Kate, Hannah and Dan Susie, Peter, Jane, Sam and John	**45 min** CBT (Steketee, 1993 protocol) Review ERP task and agree next one **10 min** Relaxation/breathing exercise Introduce AI-EMDR Create safe place, resource figures and values Review EMDR trauma line and make a plan Explain AI-EMDR tape homework **45 min** AI-EMDR plus resourcing **10 min** Review ERP task and agree next one
7	Hannah Kate, Dan, Susie, Peter, Jane, Sam and John	**45 min** CBT (Steketee, 1993 protocol) Review ERP task and agree next one **10 min** Relaxation exercise Introduce AI-EMDR Create safe place, resource figures and values Review EMDR trauma line and make a plan **45 min** AI-EMDR plus resourcing **10 min** Review ERP task and agree next one
8	All Participants	Introduce AI-EMDR Create safe place, resource figures and values Review EMDR trauma line and make a plan Explain AI-EMDR tape homework **45 min** AI-EMDR plus resourcing **10 min** Review ERP task and agree next one
9 onwards	All Participants	**45 min** AI-EMDR plus resourcing **10 min** Review ERP task and agree next one

Ideally it would have been preferable for all participants to follow exactly the same AI-EMDR protocol for research purposes. However, it was apparent that the participants had disparate needs and levels of resilience, especially in the context of the COVID lockdown and, ethically, it was a priority to respond to each client's individual needs. For this reason, some clients (e.g., John, Susie, Hannah and Dan) initially required more sessions of grounding and resourcing AI-EMDR (see example resources in appendix I) in order to bring them back into the window of tolerance. Other clients (e.g., Jane, Kate, Sam and Peter) appeared more ready to undertake trauma processing earlier in the treatment process. Adapting the protocol in this way is in keeping with Parnell's (2013) description of the AF-EMDR approach which she describes as a client-centred therapy. Parnell (2013) explains how therapists should implement the protocol in the way that best meet the needs of the individual. However, as discussed in the results section, all participants, except Dan, did experience all the intended components of the AI-EMDR protocol.

Post treatment: All eight participants attended the twelve weekly therapy sessions. In week 16, they participated in semi-structured interviews conducted by me. The rationale for me undertaking the interviews is discussed later in this chapter. All participants completed the Y-BOCS (Goodman et al. 1989) and OCI-R (Foa et al. 2002) outcome measures in week 16 and 25. However, these follow-up results had potential to be skewed due to the fact that all participants (aside from Hannah) continued to see me on alternate weeks after the trial finished. This is also explored further in the ethics section of this chapter.

3.14 Quantitative data analysis

3.14.1. The individual-level analytic process

Each participant's daily self-ratings of OCD severity, mood and ability to undertake ERP activities were logged on an Excel spreadsheet. This data was then plotted on separate graphs

(Appendix J). In each case the IV (the AI-EMDR intervention) was represented on the horizontal axis and the response measures (the DV) represented on the vertical axis. Analysis was conducted in R (v4.0.2; R Core Team 2020) using the *tidyverse* package for data manipulation (Wickham, 2019) and the ggplot2 package for plotting the SCED graphs (Wickham, 2016).

Kratochwill et al. (2010) proposed the use of four steps and six features to guide analysis. The four steps include documenting and establishing a stable baseline, examination of data within each phase to assess the within-phase patterns, a comparison of the data between phases and a visual analysis to integrate information from all phases of the study to determine whether there are at least three demonstrations of an effect at different points in time. Visual analysis was used to analyse the six features of the data as follows:

1. Level – the mean of each phase. A difference between the levels in the baseline and intervention phases may suggest a treatment effect (Kazdin, 2011).
2. Trend – the slope of the data within each phase.
3. Variability – the difference between the trend and the individual data points within a phase.
4. Immediacy of effect – the speed of data pattern change after the onset of the intervention.
5. Overlap – a comparison of the proportion of data in one phase that overlaps with data in the previous phase. Low rates of overlap are indicative of a larger treatment effect (Kratcochwill et al. 2010).
6. Consistency of data patterns at similar phases where results of participants are compared to examine the similarity of data patterns (Kratcochwill et al. 2010).

The vast majority of published single-case intervention research incorporates visual analysis (inspection of data and graphs) as the primary method of outcome evaluation (Fahmie & Hanley, 2008). Kratochwill et al. (2010) explain the three key reasons for the near-exclusive reliance on visual analysis in single-case intervention research. These include: a) the longstanding traditions associated with this theoretical paradigm; b) the multiple and complex factors to be considered by visual analysts when deciding whether interventions are causally related to outcomes; and c) the application of SCED in clinical practice where the focus is on the change of behaviour (and emotions in the current study) of the individual. Kratochwill et al. (2010) acknowledge that visual inspection of the data depends heavily on the experience and intellectual honesty of the researcher.

The raw data was very variable in this study. As suggested by Morley (2018), prior to final plotting and analysis, the data was smoothed by taking running medians of 4 averaged by pairs (RM42) to minimise the variability and obtain a better visualisation of the trend. RM42 was chosen to avoid the step-like appearance provided by the RM3 and RM5 methods. The trend line was calculated using the split middle method (Morley, 2018). The mean and trend line were plotted within phase.

Data was initially reviewed separately for each participant. A brief pen portrait was written, giving information on the participant's demographics and their idiosyncratic experience of OCD. Two measures undertaken at assessment were incorporated into their profile in order to enrich understanding of each participants' difficulties. These included the ECR-R (Fraley et. al., 2000) and the ACE questionnaire (Centers for Disease Control and Prevention, 2014) which was also used to help formulate a brief description of each participant's trauma timeline.

The next stage was a review of each participant's three graphs which showed their subjective rating of the severity of their OCD, their mood and their ability to undertake ERP task over the course of the study.

Morley (2018) proposes four key questions in the analysis of SCED data:

1. *Is there evidence of a change between phases?*
2. *Is this change important?* Within SCED, change may not represent clinical change, but may still have clinical significance, which will be determined in consultation with the client. This may necessitate a complex social and clinical judgment, rather than an inherent level of the parameter (Morley, 2018).
3. *Can any observable changes be attributed to the treatment alone?*
4. *Do others come to the same conclusion about the data?*

Data was analysed and interpreted independently for each participant and this process is shown in Appendix K and presented in Chapter 4. As can be seen from these workings, Morley's first three questions were implemented as a framework for this stage of analysis.

Once each participant's data had been reviewed, the group data was analysed. An hypothesis outcome table was drawn up and subsequently discussed as described below. Kratochwill et al. (2010) suggest that each outcome variable should be measured systematically by more than one assessor and the study should collect inter-assessor agreement in each phase and on at least 20% of data points in each condition (e.g., baseline, intervention etc.) with the inter-assessor agreement meeting minimum thresholds. In this study all hypothesis outcomes were initially determined independently by myself (the researcher), my supervisor and a colleague. Where there was a difference of opinion the rationale for the decision was discussed until we reached a consensus. Morley (2018) highlights that one of the strong features of single-case

data is that the data remains available for inspection and re-analysis, as is the case within this thesis. These results were then triangulated with the results from the Y-BOCS (Goodman et al., 1989) and OCI-R (Foa et al., 2002) measures implemented at set intervals throughout the study.

There is much debate regarding the issue of using further statistical analysis within SCED research. Horner and Spaulding (2010) describe how analysing individual observations by standard ANOVA methods can produce statistically misleading data regarding the presence/absence of an intervention effect and may fail to address the specific intervention questions of interest in the research. Kennedy (2005) argues that the use of inferential statistics in single-case designs is largely an academic debate. He suggests that, until inferential statistics are developed that fit the design requirements of single-case research, visual analysis should continue to be the primary means of data examination. My supervisor and I concluded that a visual inspection of the graphs, calculation of reliable change on standardized measures, along with the interview data explored through a template analysis, was sufficient for the purposes of this study.

3.15 Qualitative data collection

The qualitative component of this research was undertaken using a template analysis (TA). The data was derived from participant's responses to semi-structured interviews that were undertaken with all eight participants, four weeks after their treatment was completed. Willig (2019) states that semi-structured interviews are the most widely used method for data collection in qualitative psychological research.

In this study I developed the semi-structured interview questions (Appendix L) with the help

of my supervisor and conducted all of the interviews. The potential for experimenter and/or participant bias in this process was carefully considered and this is discussed further in section 3.18. In essence, after discussion with the ethics committee and with my supervisors, we concluded that it was more appropriate for me to conduct the interviews, rather than bring in another researcher, for two key reasons. The first is that shame and guilt can play a significant role in OCD (Fergus et. al., 2010; Wetterneck et al., 2014) and I believe that it would have been less ethical to expect the participants to be interviewed by someone they had never encountered before and be asked to share their (often very personal) experiences of therapy and the difficult content of their obsessive thoughts. The secondary reason was that, as their therapist, I would have a more nuanced insight into some of their responses (e.g., their experience of AI-EMDR processing), with better potential to ask more in-depth questions to facilitate further exploration.

Whilst the interviews were optional, all eight participants agreed to participate. The interviews were undertaken via Zoom and recorded on an encrypted university tape recorder.

3.16 Qualitative analysis

The template analysis was undertaken using the six procedural steps outline by King (2012) and the development of themes for this analysis is shown in Appendix M.

Step 1. Interviews were undertaken with all eight participants and subsequently transcribed. This process was helpful for familiarising myself with all aspects of the data. I then re-read the transcripts whilst listening to the audio recordings and made corrections as necessary.

Step 2. In this stage, preliminary coding of the data commenced, where I had already identified 4 over-arching *a priori* themes. These were: 'life before the trial'; 'experience of the trial', 'the

impact of Covid-19' and 'looking forward after the trial'. My rationale for proposing these provisional themes was twofold. Firstly, I wanted to provide a temporal framework in order to give a more nuanced insight into any changes that may have occurred for participants during and after the research trial. I also wanted to explore potential themes regarding participants' experience of the therapeutic interventions and provide practical insight for future research. This was in keeping with Greene and Halls' (2010) description regarding the way that mixed methods research can create 'actionable knowledge'.

Step 3. These emerging themes were then organized into meaningful clusters, where I started to explore how they related to each other in a range of groupings. This included hierarchical themes and integrative themes which permeated across different clusters.

Step 4. An initial coding template was then developed, which was drawn from a subset of three of the participants' data. I deliberately selected three participants who had given the most disparate feedback in relation to the trial (Sam, Dan and Susie) to see how their data fitted with the initial emerging themes.

Step 5. This initial template was then applied to the data of a further two participants (Jane and Hannah) and modified as necessary. The iterative process of adapting the template continued when new data arose that did not fit the existing themes.

Step 6. In this final phase the template was applied to the full data set (including John, Kate and Peter) and reviewed to ensure that the pertinent themes were still relevant for each participant. This final template provided the basis for data reporting and interpretation.

3.17 Reflexivity

In keeping with my pragmatic, limited realist approach I accept that my worldview is influenced by my socio-political position, my personal history and my belief system. I am a middle-aged, middle-class white British woman with no lived-experience of OCD. I have many years' experience of providing psychotherapy and EMDR to clients with OCD, trauma and complex trauma, both in the NHS and in my private practice. My interest in this research developed as a consequence of using AI-EMDR in my private practice with clients who had previously experienced CBT, psychotropic medication (prescribed and non-prescribed) and/or other therapies for their OCD with limited success. I worked collaboratively with these clients and there has been a general consensus that they have benefited from AI-EMDR interventions. Some clients reported that, for the first time ever, they felt they had overcome their OCD as they now have the capacity to self-soothe. As a consequence of the feedback from my practice-based therapeutic work, I was keen to research the efficacy of this process using AI-EMDR alongside CBT for treatment. I could not find any academic research where this approach had been implemented.

Fischer (2009) describes how undertaking clinical research necessitates significant bracketing of the researcher's hopes and expectations. I reflected on this issue in my journal:

> *I need to be very mindful of my vested interest in this study. I am investing a great deal of my time and money, especially as I will be offering 96 hours of substantially reduced-cost therapy to the participants. I think journalling about this issue regularly will be helpful. I also need to discuss this regularly with George [my supervisor] and ask him to remain mindful of this too. That said, as a clinician I am genuinely committed to achieving the best results for all my clients whether conducting the CBT or EMDR*

components of this trial. I do not believe that any of my research aims will compromise my desire for my clients to do well. This is also relevant for my role as researcher, where my primary aim is to contribute authentic research knowledge to this relatively new area of OCD research.

That said, I remained aware of my potential for disappointment, both as a therapist and as an academic, if the AI-EMDR interventions did prove ineffective. I do not believe it is possible for researchers to completely bracket their hopes and expectations if they do care about their study, but I believe that being mindful of this issue, journalling and discussing my hopes and aspirations overtly with my research supervisor are useful ways to retain awareness and insight into one's process.

Morgan (2014) describes the way that all researcher choices influence the research. I recognise that I have already influenced this research in many ways (e.g., in my selection of a mixed-method design, the questionnaires used etc.). I acknowledge that these choices reflect my personal values and assumptions and that these decisions have been made within the wider context of meeting City's research criteria for my dissertation. These choices were, however, thoroughly considered and discussed with both my internal and external supervisor prior to submitting my proposal for ethics approval.

I appreciate that my assumptions will have influenced the questions I asked in my TA interviews and my subsequent interpretation of the data. My initial studies in psychology were a BSc in Psychology followed by a post-graduate diploma in CBT. Whilst I subsequently studied more integrative therapeutic approaches, I recognise that my foundational trainings placed emphasis on the medical model and this may be reflected in my questions and interpretation of the data in this study. For this reason, I have included substantial extracts from both the quantitative and

qualitative components of my analytic workings in the appendices in order to provide greater transparency regarding my research process.

The ethical issues regarding my dual role as both therapist and researcher are discussed in the next sections. I do, however, believe that I have undertaken this dual role within a pragmatic framework by placing the research inquiry, rather than the methods, at the heart of the process (Feilzer, 2010). This view is endorsed by Morley (2018) who describes how the focus of SCED research is to provide idiographic knowledge where the researcher is actively engaged in the application and production of knowledge, rather than producing generalizable, objective knowledge. Kazdin (2011) also describes this dual role as a central tenet of SCED research. Holloway and Wheeler (1995) concur with this view and propose that dual roles are not necessarily problematic when research is conducted within the caring professions, but they highlight the need to create space for participants to talk openly about their experience.

I do feel that my choice of methods (a SCED and a TA) was coherent with my pragmatic framework. Teddlie & Tashakkori (2009) describe how pragmatist axiology asserts that research is only worthwhile when action and reflection are combined throughout the research process. Greene and Hall (2010) describe how mixed methods research can create 'actionable knowledge', while Teddlie and Tashakkori (2003) describe how mixed methods research has the potential to both generate and verify theory within one study. Morley (2018) describes how SCEDs are performed by curious clinicians working with clients to discover what will work for the individual, which is not possible to do using an RCT. My hope was that the template analysis would further expand on the participant's lived experience of participating in this study. In keeping with my pragmatic approach, my research inquiry did remain central to the design.

I acknowledge that the participants and I will have impacted on each other, especially as I was their therapist as well as the researcher for twelve weeks and all (bar one) participant was keen to continue our work together at the end of the trial. This had potential to lead to a power imbalance between us as they may have a vested interest in pleasing me in the follow-up interviews and their outcome measure reports. These issues will be explored further in the following sections.

3.18 Ethical considerations

The City ethics application for this study (Appendix N) was subject to a rigorous review prior to approval and consent (ETH2021-2157). My aim was to undertake this study with due consideration of BPS Ethical Guidelines (2014) and Medical Research Council Guidelines on Intervention Development (Craig et al., 2008). This research was undertaken in accordance with the ethical principles of respect for autonomy, beneficence (do good), non-maleficence (do no harm) and justice in clinical practice (Varkey, 2021). The ethical principal of beneficence was the foundation for this research study. The primary aim was to enhance existing knowledge of OCD in order to help ameliorate OCD symptoms, which can be debilitating for many individuals (Kessler et al. 2005). The implementation of these guidelines will now be explored in relation to the current study.

3.18.1. Autonomy and informed consent

This study was only open to adult participants aged 18 or over. As described earlier (section 3.9) interested candidates were given full and unconditional opportunities to make their own decision with regards to taking part in this research. This was facilitated by providing them with clear, jargon-free information about the research in the form of a participant information pack (Appendix C). Beauchamp & Childress (2013) described the importance of providing this information to participants in a format that is easy to understand and free of research jargon,

which I took into consideration when creating this literature. The information pack highlighted the fact that the participants had the right to withdraw at any point throughout the study. It also explained that there was currently only limited empirical evidence to endorse this approach for the treatment of OCD. Participants were given a minimum of 48 hours to read the information. The key points in the information pack were then verbally reiterated in the follow-up screening call, prior to the participants signing the agreement.

3.18.2. Confidentiality

In keeping with my training in the NHS regarding confidentiality, all participants were informed at assessment that no identifiable information about them would be revealed, either during my research and/or in my discussions with supervisors. The only caveat to this would be if I had serious concerns regarding their potential harm to self or harm to others, which would necessitate me breaking confidentiality. I explained that I would try to inform them, prior to breaking their confidence and taking any action. For the clients in this study in particular (especially those with paedophile OCD) I made it very clear that I had a good understanding of the thoughts and behaviours that were common in OCD and these would not be considered as a risk concern in our sessions. The management and use of personal information was undertaken in accordance with the Data Protection Act (Gov.UK, 2018). Full details of data processing and storage is detailed below in section 3.19.

3.18.3. Participant protection

I did consider the fact that it may cause the clients distress to undertake CBT/ERP therapeutic interventions and/or address their past traumas through EMDR. However, individuals with OCD and/or PTSD would experience similar difficulties if they were to receive treatment through the NHS. As described in my ethics application, I have good experience of working with trauma and of implementing EMDR and ERP in sessions. I was aware that it was important to manage

participants' expectations from the outset. In the event of any serious risk concerns for the client (self-harm, suicidal plans, safeguarding issues etc.) my plan was for all treatment interventions to stop and the client would be given emergency contact information (Appendix O). I planned to discuss the issue with my university and external supervisor at the earliest opportunity. I was, however, relatively confident in my ability to assess risk as I was a weekly point of contact in my last NHS role, where any members of the team could contact me for advice if they had any risk/safeguarding concerns or queries.

3.18.4. My dual role as researcher and therapist

I was aware from the outset of this study that I was embarking on an ambitious task with this research. I reflected in my journal that it was obviously going to be a major undertaking to provide therapy to eight individuals with OCD for twelve weeks which had good potential to add many variables to my research. I was implementing a SCED and a thematic analysis in an explanatory sequential design and I did not have a good working knowledge of any of these paradigms at the start of my study. However, as discussed in Chapter Six, I do think this approach was congruent with my aims and my pragmatic approach. Case series designs are the primary research intervention available to practitioner researchers or 'curious clinicians' (Morley, 2017). Kazdin (2011) describes the way that single-subject research is particularly good for testing the effectiveness of an intervention on individuals, with the aim being to test and refine hypotheses and theories in clinical settings (Crowe et al., 2011). As detailed earlier in this chapter, each time a similar study is undertaken with compatible results researchers can become increasingly confident of their findings (Morley, 2017). I was also aware that my integration of modalities had potential to be controversial due to the schisms between some EMDR, AF-EMDR and AI-EMDR practitioners. That said, I did feel that my observations from treating OCD in my private practice had potential that I was very keen to research more

formally. I had seen first-hand the exhaustion and overwhelm of some of my clients with OCD and I felt this was an important and relevant area to study.

I did keep a detailed reflexive journal throughout this research which was very helpful for gaining insight into my process and for the writing-up of this study. Many of my early journal entries described my strong desire to produce practice-based evidence and, as described in Chapter Two, my strong identification with the pragmatic approach to research. I related to Feilzer's (2010) description of the way a Pragmatist perspective sidesteps ontological and epistemological dichotomies by positioning the research inquiry, rather than the methods, at the heart of the process and this did help inform my choice of methods.

I journalled extensively on the issue of my dual role as both therapist and researcher in this study. The ethics panel asked me to provide details of how I could differentiate my two roles as both researcher and clinician (Appendix N). I brainstormed ideas in my journal that I subsequently discussed with my internal and external supervisor. Here is an extract from my journal from that time:

> *Ok, I think that it is going to be complex to disentangle my role as therapist and researcher as it is imperative that I have a good therapeutic alliance with the participants for the clinical component of the work. I will need to be far more reflective and keep a detailed journal with regards to each participant and record any issues or ethical dilemmas that have arisen within my dual roles. Perhaps I can take a short break and have a cup of tea or go for a walk prior to moving from a clinical role to research or vice versa. Perhaps I should undertake my clinical work in the office and write up my research notes in the sitting room.*

I put these ideas to the ethics committee and they were considered acceptable. I do believe these considerations were actually really helpful in facilitating a different mindset for each role, especially moving to different rooms for my clinical work and my written research.

The fact that I was undertaking the interviews for the template analysis was also considered in my ethics application (Appendix N) and in my discussions with both my internal and external supervisors. They all concurred that it would be a breach of ethics for someone who the participants had not met before to ask personal questions about their OCD. For example, two of the participants in this study had paedophile OCD and being asked to talk about their condition with an (albeit clinical) stranger had potential to evoke a great deal of anxiety and shame. The committee did request further clarification on the ways I could dissociate my dual role as both therapist and researcher and I have detailed some of the processes that I implemented below.

My decision to charge clients £40 per session was made partially to mitigate the potential for pleaser effects in this study. Research suggests that participants are more likely to respond favourably to questions about treatment they received for free, which may be due to the fact that they feel more indebted to the therapist/researcher (McLeod, 2013).

Where possible I also tried to differentiate my internal and external supervisors' role, by focussing on research issues with my internal supervisor and the client's issues with my external supervisor. That said, there were many times where these processes did overlap, with key decision points been guided by the potential best outcome for the client, as described in more detail later in this chapter.

In the initial stages of treatment all of the participants were receiving CBT interventions. I did reflect on the interventions I used in session to ensure that I was applying them rigorously and not straying from the protocol in any way. As I wrote in my journal:

> *Supervision was very helpful today. George and I discussed whether I might have an unconscious bias in this study which might skew the results in favour of the AI-EMDR interventions. He questioned me carefully and we concluded that it was unlikely, but I do need to review my notes for each client to check that I am giving them exactly the same psychoeducation and information.*

I believe that my journalling was beneficial for exploring many of the nuances of conducting practice-based research with eight participants and my dual role as clinician and researcher. It has also proved a useful reminder of just how taxing Covid and the lockdowns were for people at that time. Perhaps I am in denial now, but I do find it hard to recall just what a strange time that was. My journal was helpful for reflecting on the potential implications of the Covid phenomena and how it might affect my research. These reflections facilitated me in screening the questionnaires I had used to see if any of the responses may have been skewed (e.g., concerns about hygiene being more related to the pandemic than their OCD) and, as detailed earlier in this chapter, these issues were addressed accordingly.

Despite considering ways to differentiate these processes, there were still some conflicts of interest and I reflected on these in my journal and addressed them in supervision. For example, towards the end of the study, seven of the eight participants initiated a conversation asking whether we could continue our work together after the research trial was completed. This was clearly important for them and my supervisor and I discussed this, taking into account that these individuals had struggled with previous treatment. My supervisor asked whether I had the

capacity to see them and I said that I could potentially see them on alternate weeks at a reduced fee (£80 per session) for the following three months. The dilemma for me was that, in doing so, I would skew the results in my post-treatment outcome measures. The point of these post-treatment measures was to assess whether the treatment effect had endured over a period of time after therapy (in this case over the one month and three-month follow-up) and continuing to see these clients would impact on these results. My supervisor and I finally concluded that, if the participants felt they were benefitting from therapy and I had the capacity to see them, I should act in accordance with the ethical principle of beneficence and continue our work together.

Kratochwill et al. (2010) acknowledge that the SCED analytic process does depend heavily on the experience and intellectual honesty of the researcher. This potential for bias was addressed to some extent by my external supervisor and a colleague interpreting the participants' outcomes independently from me, with this process detailed in Chapter Four. As I reflected in my journal:

> *I do think it is very difficult as the clinician, holding the knowledge I do about the participants' improvements, to remain impartial and not 'see' those improvements in their graphs. It was really helpful having Ciara* [supervisor] *and Josh* [colleague] *reviewing them too.*

My supervisor and my colleague were completely detached from the participants and were exclusively reviewing the patterns in the data. Having analysed the graphs individually we then reviewed our results together and debated any discrepancies, arriving at the most cautious/conservative interpretation for presenting the results.

It was more difficult to remove the potential for bias/pleaser effects with me conducting the interviews for the template analysis. As discussed earlier, it is common in some SCED designs for a second clinician to conduct the interviews. I was very clear that it would have been unethical for a second clinician to be involved in this process. As described earlier in this chapter, several of these clients had paedophile OCD and/or fear of causing verbal offence to others. Whilst I accept that my dual role will almost certainly have added bias to the process, my concerns about the inappropriateness of engaging an independent interviewer were accepted by the ethics board and my supervisors. Some of the processes I implemented to address the potential for bias are detailed below. I did, however, also reflect on the positive aspect of being both clinician and researcher for the post-treatment interviews:

> *Whilst I recognise the issues with me being both clinician and researcher, I do think that, on balance, there are actually some positive aspects to me conducting the interviews aside from this being an ethical necessity. During treatment many of these clients have told me more about their obsessive thoughts than they have ever revealed to anyone before. In this way, I do feel they will be far more receptive to going into nuanced detail about how they felt about their therapeutic treatment and the research.*

Whilst there were some positive aspects, I was aware of the need to mitigate the potential confounding variables that I was aware of. The aim of the template analysis was to provide practical knowledge that could facilitate further practice-based research. With this in mind, both my internal and external supervisors were helpful in giving input regarding the questions that could be asked, thus reducing the potential for bias compared with me exclusively generating all the questions. Prior to conducting the interviews, I read out a standard script before asking the questions (see Appendix L). I informed participants that they would not hurt my feelings if they gave honest answers as my primary concern at this stage was to generate information that

would be helpful for future OCD research. I explained to each participant that I was now working with my researcher hat on and that I was keen to generate authentic research. I emphasised that it would not hurt my feelings if they said anything negative about the study and/or the interventions as I was keen to learn in order to improve treatment outcomes for individuals with OCD. After conducting the interviews, I did reflect on whether the fact that I was a journalist in my past career may have had any effect on my interview process in this study:

> *I think that the fact I am so used to interviewing people may have actually had a positive impact in lessening the potential for bias in this study. When I conducted the interviews, I felt far more connected to my former role as a journalist asking questions than I did to my role as the participants' clinician.*

In my journal I did also reflect on whether I was giving cues in the post-treatment interviews (e.g., receptivity to feedback, tone of voice) when the comments were more favourable regarding treatment. In order to address this, I picked two of these recorded interviews at random and played the audio to my external supervisor. He reported that he did not pick up on me cueing certain responses from the clients. I did make good use of supervision each week and I asked my supervisor to be especially mindful to highlight any blind spots when I attempted to describe my ongoing research process.

The development of my template analysis, from the transcribed interviews to the coded data, was reviewed by both my internal and external supervisors and we collaboratively discussed the process. I have also included exemplars of all the stages of the analytic development in the appendices in order to add further transparency to this process.

3.18.5. Further ethical issues that arose from this study

This research was undertaken in a clinical setting, with participants struggling with OCD and in the context of a COVID lockdown. As a consequence, several ethical issues did arise during the research process and I made good use of supervision with my university, external and EMDR supervisors. This section discusses some of the events that required ethical consideration during the trial.

As will be seen in the quantitative analysis chapter, from a research perspective it would have proved beneficial to defer commencing the trial start date in order for more participants to achieve a stable baseline. However, some participants in each cohort were really struggling with their OCD (John and Dan in particular) and it was agreed in supervision that it would be unethical to delay treatment for either individual solely for minor research design gains. Morley (2018, p.81) endorses the view that 'shorter baselines may be more appropriate for obvious ethical reasons.'.

Early in the trial, I did have some concerns about Dan who had become very distressed and isolated as a consequence of his fear of contamination during the pandemic. When I undertook further risk assessments he described having suicidal thoughts, had access to means of harming himself and he could not cite any protective factors. He was also in the process of writing up his will. When questioned further he explained that he did not plan to take any action in the short-term and we contracted that we would discuss this issue each week. I also gave him the details of the Samaritans and we completed a safety plan. I brought Dan's case to supervision on many occasions. I felt that his mood would have deteriorated further if he had not been allowed to proceed with the trial, but that his mental health was too fragile to undertake ERP or EMDR processing. My supervisor and I discussed the possibility of finding an alternative therapist for him, but concluded this may not be helpful for him at this time as we had

built up a good rapport. We were also concerned that telling him that I could not continue with our work together may endorse his underlying negative belief 'I always fuck everything up'. I was happy to continue seeing him without undertaking any further ERP or EMDR processing. On this basis, my supervisor and I concluded that I should continue to see him, but focus on psychoeducation, counselling and grounding techniques. At the end of the study, we discussed in supervision whether Dan's research data should be included in the final report. We both agreed that it should be included as it highlights the types of events that can occur in practice-based research and he was part of the study.

Whilst my supervisor and I agreed that these events were not ideal for my research, we concurred that the well-being of the participants was paramount. We both agreed that this was one of the challenges of undertaking practice-based research, with these findings being more likely to reflect clinical practice.

3.19 Data Storage

Table 3.6 shows how the different data accrued in this study has been/will be stored and disposed of. In keeping with General Data Protection Regulation (GDPR) (Gov.UK, 2018) guidelines, identifiable data will be held for no longer than is necessary for the purposes for which the data is being processed. I am aware of City's Destruction of Data guidance and requirement to leave a detailed audit trail with a validation of destruction notice.

Table 3.6. *Data storage and disposal*

Data type	Storage	Disposal
Emergency contact details for each participant	Stored in a locked drawer in my desk in my home office, not anonymised as I may require speedy access	Shredded after final session of treatment
Personal identifiable data (e.g., Consent forms)	Stored independently from all anonymised participant data in a locked cabinet or on my password-protected computer.	Retained until I have completed my *viva* and destroyed (shredded) immediately after, unless the participant gives permission for me to retain their contact details until the point where I send them a summary of my research.
Audio recording of sessions	Recorded on a City encrypted digital recorder, then uploaded to a City Encrypted platform (e.g., OneDrive) or to an encrypted memory stick kept in a locked drawer in office.	These tapes are likely to be highly personal and will be destroyed after my *viva* in keeping with City's Destruction of Data guidelines.
Notes or other data from session	Anonymised as soon as possible and retained in a locked cabinet or on password-protected computer until graduation.	This anonymised research material can be retained by City for up to ten years.
Audio recording of interviews	Recorded and stored in the same way as session recordings. Then transcribed, removing any identifiable information as soon as possible.	Destroyed in the same way as session recordings.
Anonymised transcripts of sessions	Stored in a locked cabinet or on password-protected computer until graduation	Can be retained by City for up to ten years

3.20 Internal and External Validity

3.20.1. Quantitative validity considerations

There is debate amongst researchers about the ability to generalise the results of single-case designs beyond the participants in that specific situation. Single-subject researchers do, however, place a strong emphasis on replicating their research results. As described earlier in this chapter, the 'Horner Criteria' describes how each time a similar experiment is undertaken with compatible results researchers can become increasingly confident of their findings. Indeed, single-subject researchers counter-argue the validity of group research,

which may produce results that are far less valid at an individual level (Jhangiani et al. 2019).

3.20.2. Qualitative validity considerations

Yardley (2007) highlights the difficulties of demonstrating validity for many qualitative researchers whose aim is to maximise their engagement with the participants. I used her evaluative criteria (Yardley, 2000) to reflect on these processes and the relationship between the participants and myself from which this study emerged. Yardley (2000) cites key characteristics that are essential qualities of good qualitative research. These include 'sensitivity to context', 'commitment, rigour, transparency and coherence' and 'impact and importance'. These characteristics will now be explored in relation to the research undertaken in this study.

3.20.2.1. Sensitivity to context

Yardley (2000) describes how the nature of participant involvement requires careful consideration at every stage of the design, analysis and reporting of the study. She acknowledges the importance of being open to the perspectives of all participants, but highlights the difficulty in overcoming the inevitable imbalance of power between the participant and the 'expert'. The fact that I was the therapist, interviewer and researcher will almost certainly have influenced participants' responsiveness to some extent. My aim was to create a positive therapeutic alliance with the participants, many of whom were desperate for a respite from their OCD. I am aware that, despite my efforts to work collaboratively, this will have led to a power imbalance in our relationship. As described earlier in this chapter, I have attempted to mitigate this power imbalance by overtly acknowledging this issue throughout this report. I kept a reflective journal and made good use of supervision. Whilst the power imbalance and my dual role is an issue, I do believe that there was a positive aspect to this context, where I had

developed a level of trust with my participants that facilitated them in opening up about issues that were highly sensitive for them, especially those with paedophile OCD. I do not feel I would have engendered this level of trust if I had relied solely on interviewing them.

3.20.2.2. Commitment, rigour, transparency and coherence

Yardley (2000) refers to rigour as the resulting completeness of the data collection and analysis which may be undertaken to transcend 'commonsense' understanding. Triangulation of data collection may be employed in order to achieve a multilayered understanding of the topic. Yardley (2000) suggests that transparency can be achieved by detailing every aspect of the data collection process along with the rules used for coding the data and by presenting excerpts of the textual data. In keeping with Yardley's (2000) criteria, the data collection process and the rules used to code data are explicit within this report, with a large body of data included in the appendices to show the workings for the development of this analysis. In this study, the qualitative data was triangulated with the SCED data in order to provide a more nuanced and robust analysis. I acknowledge that I may have injected bias during the interview process, either through the direction of my probing or through unintentional, non-verbal cues (Mehra, 2002). I recognise that I will almost certainly have influenced the coding process, which is why I included a reflection on my personal and academic background earlier in this chapter to mitigate this to some extent. I have also described how I made extensive use of supervision to help elucidate any 'blind spots' and check for bias in my work.

3.20.2.3. Impact and importance

Yardley (2000) argues that a decisive criterion by which research should be judged is whether the research is important and whether it has practical and theoretical utility. She describes how some analysis can be important, not because they present a comprehensive and accurate

explanation of a specific body of empirical data, but because they draw on empirical data to present a challenging perspective that facilitates new ways of understanding a topic. I do believe this is the case with the research in this study, which highlights some of the issues regarding current therapeutic treatment for OCD and suggests ways that these difficulties can potentially be overcome. As discussed earlier in the literature review, the WHO lists anxiety disorders, including OCD, as the sixth largest contributor to health loss globally (WHO, 2017) and it is estimated that 2-3% of the general population will experience OCD during their lifetime (Kessler et al. 2005). I very much hope this study does have potential to provide both practical and theoretical benefits for individuals with OCD.

Yardley (2000) raises the issue of whether the size and nature of the sample is adequate to address the research question. I interviewed eight participants who presented with a heterogeneous range of OCD behaviours. On this basis, the answer would have to be that it is not sufficient to fully address the research question. However, as with the SCED design, it is hoped that this study will provide some insights that will facilitate subsequent researchers if they undertake similar work. I do believe there is coherence across my pragmatist, mixed-methods approach and subsequent analysis where my aim was to provide practice-based evidence and I hope that I have provided sufficient detail to reflect this.

3.20.3. Overall validity of this study

The aim of this study was to provide insights into a relatively new area of research regarding the potential for using AI-EMDR interventions to treat individuals with OCD. This study could be considered within the wider context of the evidence-based-practice vs. empirically-supported-treatment debate (Cook et al., 2017). As a pragmatic researcher, I consider both of these approaches to be relevant and necessary. Whilst I have considered the validity and potential to replicate this research throughout each stage of the research process, I acknowledge that this

study may have more applicability for the individual, rather than the group, at this stage. The validity and potential for generalizability will only be known, if and when, my study is replicated.

3.21 Summary

This chapter reviewed the methods and procedures that were implemented in this study. A mixed-methods design that incorporated a complex SCED formed the quantitative intervention with a TA as the qualitative component. The results will now be discussed in the following chapters.

Chapter 4. Quantitative Results

4.1 Introduction

This chapter reports the quantitative analysis for the eight participants in this study. The overarching research question was whether and in what ways the AI-EMDR interventions, when used in conjunction with a CBT protocol, may improve treatment outcomes for individuals with OCD. A full outline of the hypotheses and research questions can be seen at the end of Chapter 2. As discussed previously, this mixed methods approach was undertaken using an explanatory sequential design, whereby a qualitative TA was subsequently undertaken to explain and add nuance to the results of the quantitative SCED design (Cresswell & Plano Clark, 2015).

4.2 The Quantitative Analysis

In the first component of this quantitative analysis, the case series data is presented and analysed separately for each participant. The individual pen portraits detail the participant's demographics and their idiosyncratic experience of OCD. Participants' scores on two assessment measures, the ECR-R (Fraley et. al., 2000) and the ACE questionnaire (Centers for Disease Control and Prevention, 2014) were also incorporated to gain further insight into each participant's difficulties. The calculation process for the ECR-R is shown in Appendix E.

As detailed in the previous chapter, the raw data for the daily ratings in this study was very variable. For this reason, the graphs presented here used data that was smoothed by taking running medians of 4 averaged by pairs (RM42) to minimise the variability and obtain a better visualisation of the trend (Morley, 2018). Analysis of the data was in line with the quantitative hypotheses and the raw data and analytic workings can be seen in Appendices J and K.

This chapter continues with an analysis of the quantitative data at a group level. The hypotheses' outcomes are reviewed and interpreted across all participants. These are subsequently triangulated with participants' Y-BOCS (Goodman et al., 1989) and OCI-R (Foa et al., 2002) outcome scores.

4.2.1. Participant 1: John (Cohort one)

John is a 36-year-old white British male who works in the financial sector. He was signposted to this study by a former client of mine. John quit his job three months prior to participating in this research as his OCD was proving too debilitating for him to work. His primary obsession was that he was a paedophile, which evolved from a fear in his teenage years that he may be homosexual. Being gay would have been completely taboo in John's family who he described as '*racist, homophobic and aggressive'*.

John's scores for two assessment questionnaires (Appendix E) are detailed below and discussed further in Chapter 6.

In the ECR-R (Fraley et al. 2000) John scored 52 (2.9) for attachment-related anxiety and 91 (5) for attachment-related avoidance. He rated in the 27th percentile for anxiety (insecurity about the responsiveness of others) and he was in the 95th percentile for avoidance (his discomfort at being close to others). This suggests a Dismissing attachment style.

The ACE questionnaire (Centres for Disease Control, 2014) was used to develop a trauma timeline. John scored 5 on this measure with affirmative responses to questions 1, 2, 4, 9 and 10 (Appendix E). John described how his father would publicly humiliate him when he was a child. His father would also push, grab and physically intimidate him. John's father went to prison briefly after an altercation in a restaurant that ended in a physical fight. Whilst his father was never formally diagnosed, John's two previous therapists had both suggested that his father may have had borderline personality disorder. John's mother would ignore these confrontations, which John now believes was an attempt to contain his father's aggression. However, she never made reference to John's father's behaviour when they were alone together. John described a childhood where he felt very unloved by both parents.

Engagement with the study

John was randomly allocated to have one week of CBT and he commenced AI-EMDR in week four of the trial. His engagement with the study was extremely high. He attended all twelve sessions, undertook all ERP and recordings activities between sessions and completed all ratings and questionnaires as requested.

Whilst John was receptive to all the interventions in the AI-EMDR phase, it was my perception that he found the grounding exercises (safe place, resource team and ideal mother) at least as beneficial as the EMDR trauma processing.

External factors during the trial

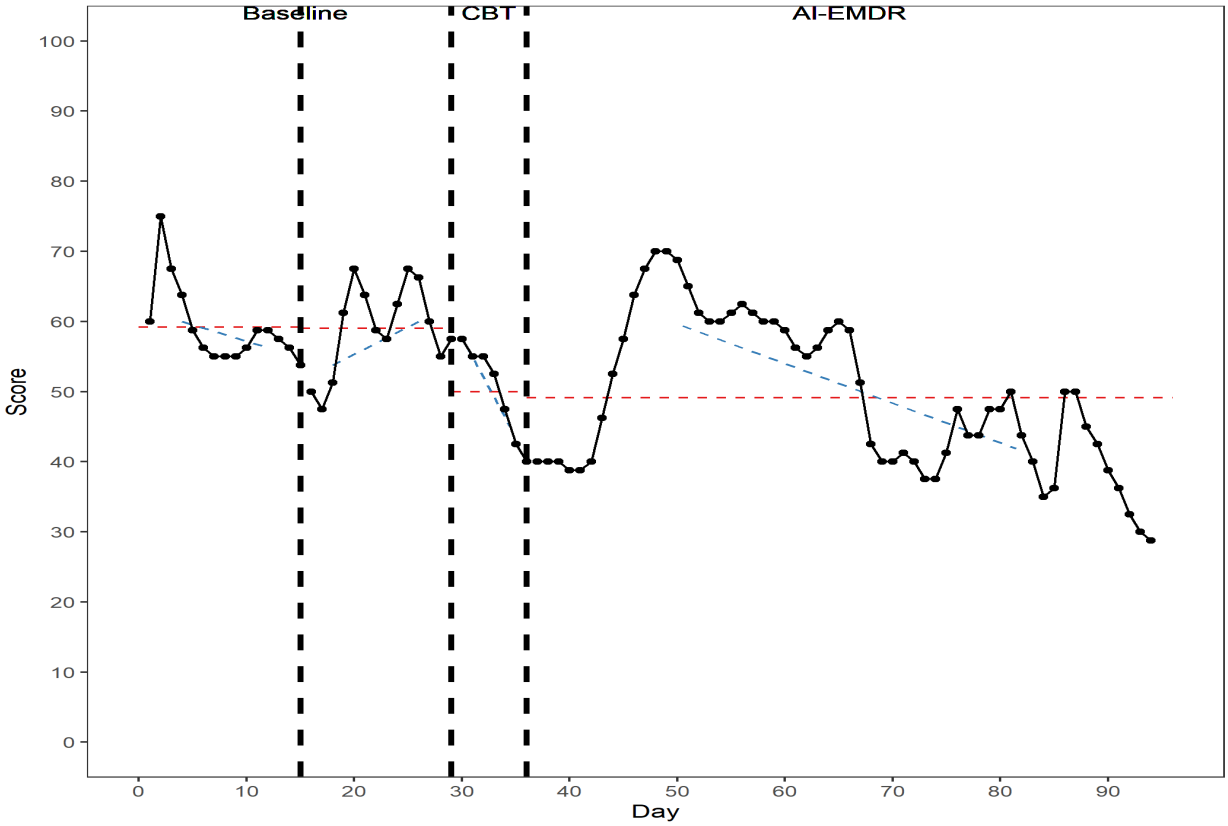
Table 4.1. *Relevant dates for John during the trial*

Relevant dates:
09/3/21: Baseline A1 commenced
15/3/21: *John spoke to his parents for the first time in many years*
24/3/21: Baseline A2 commenced
29/3/21: Outdoor gatherings of 6 people or two households (stage two lockdown easing)
7/4/21: CBT commenced
12/4/21: Less restrictions on going out (stage three lockdown easing)
14/4/21: AI-EMDR trial started
21/4/21 onwards: *Started dating again*

As can be seen in the timeline, there were some external events that may have impacted on John's subjective ratings during the study. Stage Two of the easing of lockdown restrictions occurred during the assessment phase and he spoke to his parents for the first time in many years around the same time. John started dating again shortly after the start of the AI-EMDR phase and found this quite triggering. These external factors may have contributed to the fluctuations in his subjective daily scores.

Subjective daily rating of severity of John's OCD

Figure 4.1. *John's subjective daily rating of severity of his OCD*



Interpretation

The trend shows a minimal improvement (decrease) in the severity of John's OCD in the first baseline phase (A1) with some fluctuations in scores. The variation in scores and the decreasing trend in this initial baseline phase led to hypothesis 1a being refuted.

During the assessment phase (A2), the trend shows a deterioration (increase), with the mean being consistent across both phases of the baseline. This phase coincides with the second stage of the easing of lockdown which may account for some of the fluctuations in scores. The increase in trend led to hypothesis 1b being refuted.

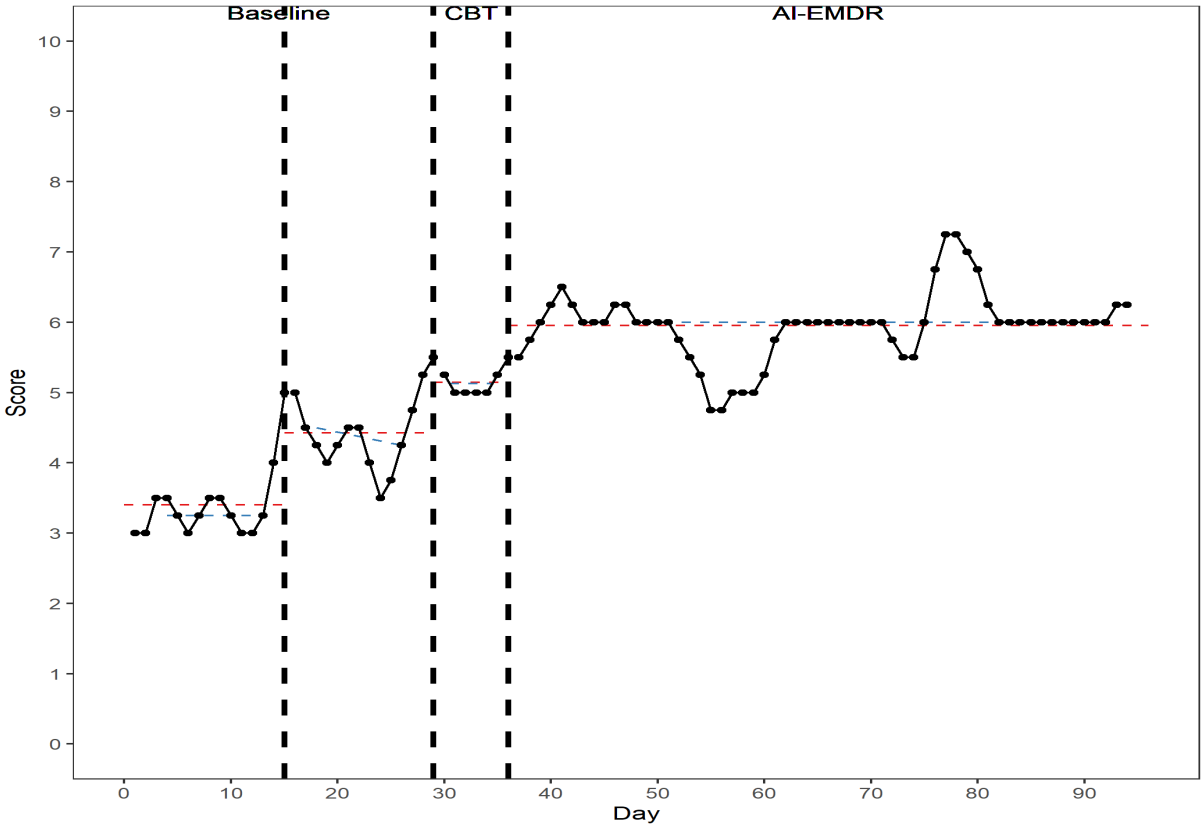
In the CBT phase, the trend and the mean both show an improvement. This suggests the CBT intervention was beneficial in reducing the severity of John's OCD and endorses hypothesis 1c

There is a deterioration at the start of the AI-EMDR phase followed by an improvement (decrease) in the severity of John's OCD. The mean is marginally lower than in the CBT phase. Despite the improvement in both mean and trend during this AI-EMDR phase, the strong improvement in trend in the previous (CBT) phase means this improvement cannot necessarily be attributed to the AI-EMDR intervention. On this basis, the hypothesis (1d) was refuted.

John's measures show a regression at the start of the AI-EMDR phase that may be partly attributable to the further relaxation of lockdown restrictions, with John coming into contact with more adults and children. He had also started dating again and found the process quite triggering.

Subjective daily rating of John's mood

Figure 4.2. *John's subjective daily rating of mood*



Interpretation

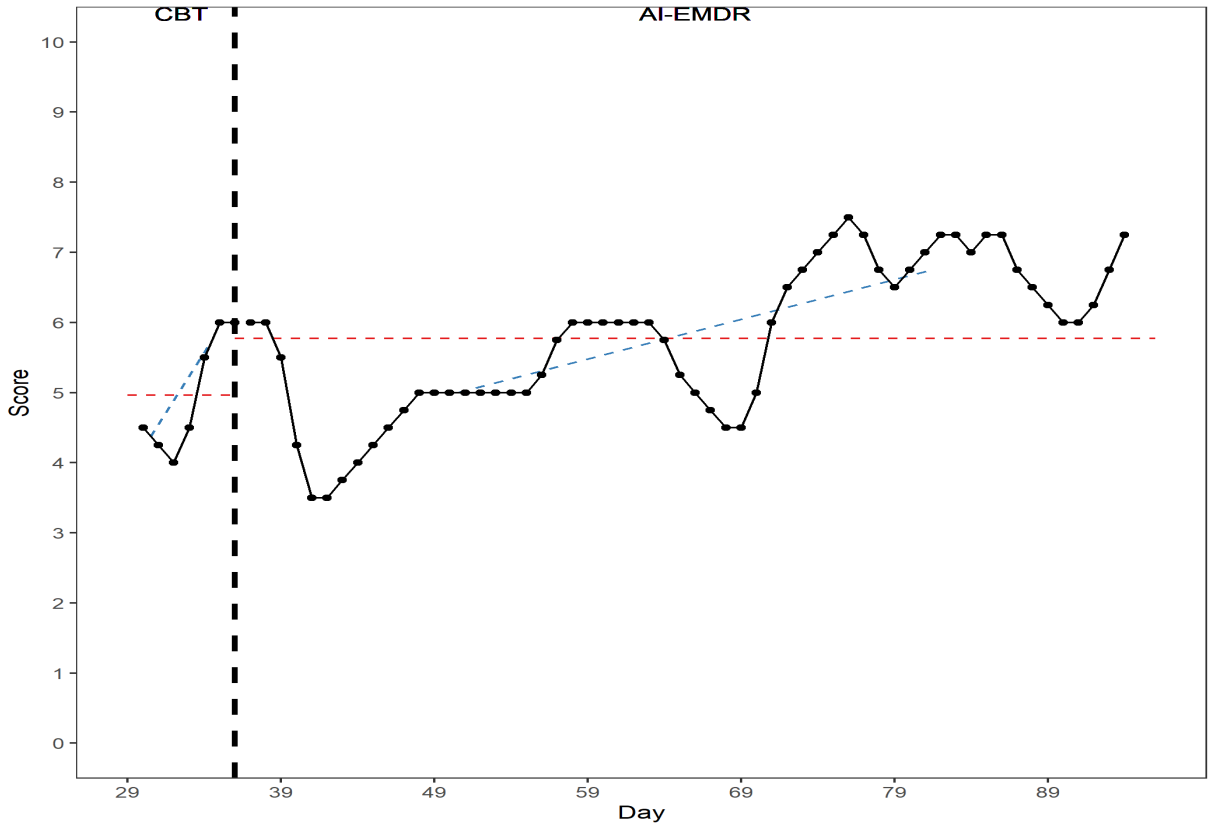
The trend is stable during the initial baseline phase for John's mood rating. During the assessment phase, the trend shows a minimal decline and the mean is higher than in the previous phase. The relatively stable trend across both baseline phases, with a higher mean in the assessment phase led to hypotheses 2a and 2b being confirmed.

In the CBT intervention phase, the trend is stable and the mean is higher than in the previous phases. It was a borderline decision to confirm the hypothesis (2c) due to the improvement in the mean.

In the AI-EMDR phase the trendline is stable and the mean is higher than in the previous phases. However, the improvement in the previous (CBT) phase led to the hypothesis (2d) being refuted as there was no 'enhanced' improvement in John's mood.

Subjective daily rating of ability to undertake ERP tasks

Figure 4.3. *John's ability to undertake ERP activities*



Interpretation

The trend shows that John felt better able to participate in ERP tasks over the CBT phase, with further improvements after the AI-EMDR intervention. This is compatible with the change in mean across phases. There was a dip in John's ratings at the start of the AI-EMDR phase which correlates with the third stage of the easing of lockdown restrictions. Overall, the positive

trend in the CBT phase means that improvements may not be attributed to the AI-EMDR intervention. On this basis hypothesis 3 was refuted.

Overall summary for John

Whilst there are some distinct fluctuations in John's daily ratings, the overall trend suggests that John found treatment beneficial. There is an improvement in the severity of his OCD, his mood and his ability to undertake ERP tasks in both the CBT and EMDR phases of the study. This is compatible with his very positive feedback regarding the overall improvement in his wellbeing in the subsequent template analysis. However, his improvement in the CBT phase means that his progress cannot be directly attributed to the addition of the AI-EMDR intervention.

4.2.2. Participant 2: Jane (Cohort one)

Jane is a 27-year-old white European female who is completing her full-time post-graduate studies. She was signposted to this study by a former colleague of mine. Jane described her OCD as '*not too bad'* at the start of the trial, but said it was '*constant*'.

Jane described the onset of her OCD when she was around 12-years old and she became very worried that she would harm her mother mentally and/or physically, which caused her extreme distress. Jane subsequently developed a strong fear of being judged by others and/or offending them. She described how, when her OCD was bad, she could spend 4-5 hours each day Googling to find out how other people would behave in a situation.

Jane's scores for two assessment questionnaires are detailed below:
In the Experience in Close Relationships Revised (ECR-R) (Fraley et al. 2000) Jane scored 110 (6.1) for attachment-related anxiety and 88 (4.9) for attachment-related avoidance. She rated in the 98th percentile for anxiety (insecurity about the responsiveness of others) and she was in the 95th percentile for avoidance (her discomfort at being close to others). This suggests a Fearful attachment style.

We explored Jane's childhood using the ACE (Centers for Disease Control and Prevention, 2014) responses to create a trauma timeline. Jane scored 3 on this measure, with affirmative responses to 1, 4 and 6 (see Appendix E). Jane described her father as inconsistent in his affection when she was young. He would fluctuate between excessive praise '*you are so special'* and could suddenly switch to being extremely dismissive and mean. He could be especially derogatory about her appearance. Her mother focused on keeping her father happy and Jane and her younger brothers would have to be in bed before their father came home from work. Jane described how her father left the family for another woman when she was 10 years

old and broke off all contact. Everyone in the family seemed to have known that her father had been having an affair except her. Her mother became extremely depressed for about a year. Jane described how there was no room for her to express her emotions when she was younger as her life revolved around keeping her mother and two younger brothers safe. She would do things like clean the whole house whenever her mother was upset or angry. Jane said that her OCD commenced around this time.

Engagement with the study

Jane was randomly allocated to have two weeks of CBT and commenced AI-EMDR in week five of the trial. Her engagement with the study was high. She attended all twelve sessions, undertook all ERP activities and listened to most of the recordings between sessions. She completed all ratings and questionnaires as requested.

Jane had only undertaken self-help ERP interventions prior to the study and she appeared to appreciate the rigidity of the rules for completing ERP tasks in the CBT component. She did, however, also engage well with the AI-EMDR component of the study.

External factors during the trial

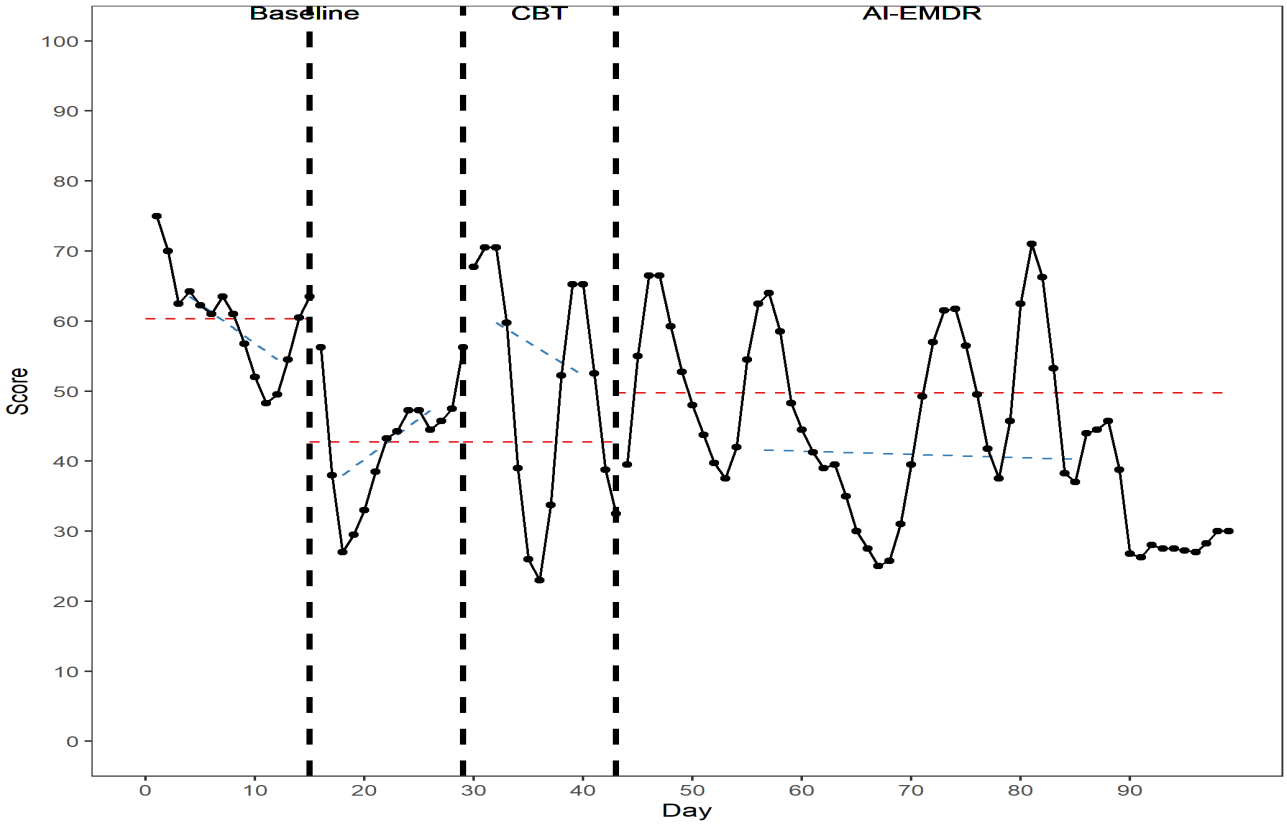
Table 4.2. *Relevant dates for Jane during the trial*

Relevant dates:
09/3/21: Baseline A1 commenced
24/3/21: Baseline A2 commenced
29/3/21: Outdoor gatherings of 6 people or two households (stage two lockdown easing)
7/4/21: CBT commenced
12/4/21: Less restrictions on going out (stage three lockdown easing)
21/4/21: AI-EMDR trial started
23/4/21: *Started new part-time job and had exams*

As can be seen in the above table, some external events that may have impacted on Jane's subjective ratings during the trial. Stage Two of the lockdown restrictions easing occurred around the same time as the assessment phase. She dated one or two men shortly after this which triggered her fear of rejection. Around the start of the AI-EMDR phase, she started a new part-time job that she quit after two weeks and had some exams at university.

Subjective daily rating of severity of Jane's OCD

Figure 4.4. *Jane's subjective daily rating of severity of her OCD*



Interpretation

In the initial baseline phase (A1), there is an improving (decreasing) trend for Jane's severity of her OCD and the mean is highest in this phase. The absence of a stable baseline led to hypothesis 1a being refuted.

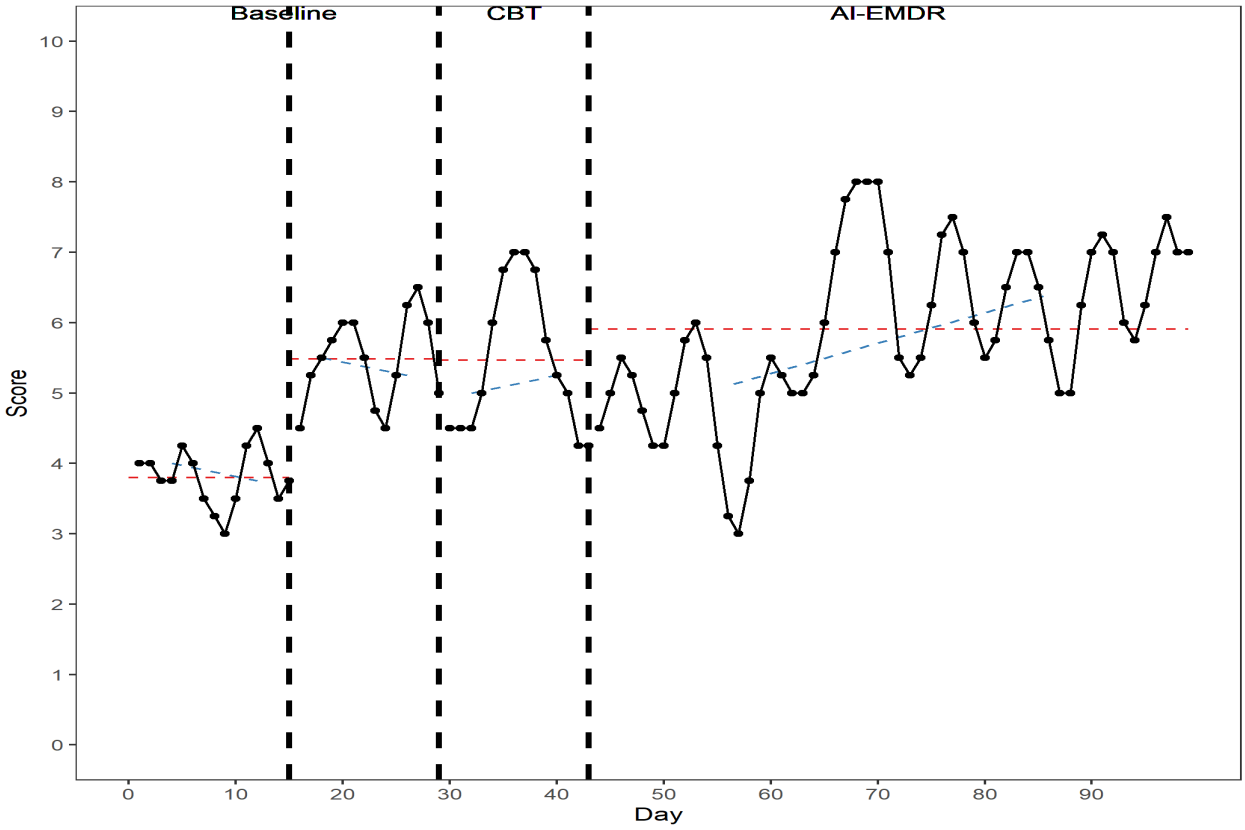
The trend shows a deterioration (increase) in the assessment phase, which appears to be caused by some very high ratings at the start of this phase. These outliers may be attributable to the second stage of lockdown easing. The mean is considerably lower in this phase. It was a borderline decision to confirm the hypothesis (1b) due to the improvement in mean.

In the CBT intervention phase, the trend suggests an improvement but the final outcome is similar to that at the end of Phase A1. The mean is comparable to the previous (assessment) phase and there are large fluctuations in ratings in this phase. The third stage of lockdown easing occurs early in this phase. These mixed results make it difficult to ascertain the impact of the CBT interventions on the severity of Jane's OCD and, on this basis, hypothesis 1c was refuted.

In the AI-EMDR phase, there is a minimal improvement in trend. The mean is higher during this phase compared with Phases A2 and B1, but lower than in A1. Again, there are fluctuations in scores. Whilst the trend shows a marginal improvement during the AI-EMDR component of the trial, it is not possible to attribute this directly to the AI-EMDR intervention. The mean is actually higher in this phase, suggesting that Jane found some worsening in the severity of her OCD. This led to hypothesis 1d being refuted.

Subjective daily rating of severity of Jane's mood

Figure 4.5. *Jane's subjective daily rating of mood*



Interpretation

The trend shows a minimal decline in mood in Phase A1, but it is relatively stable. The mean is lower in this phase compared with all other phases. This led to the hypothesis (2a) being confirmed.

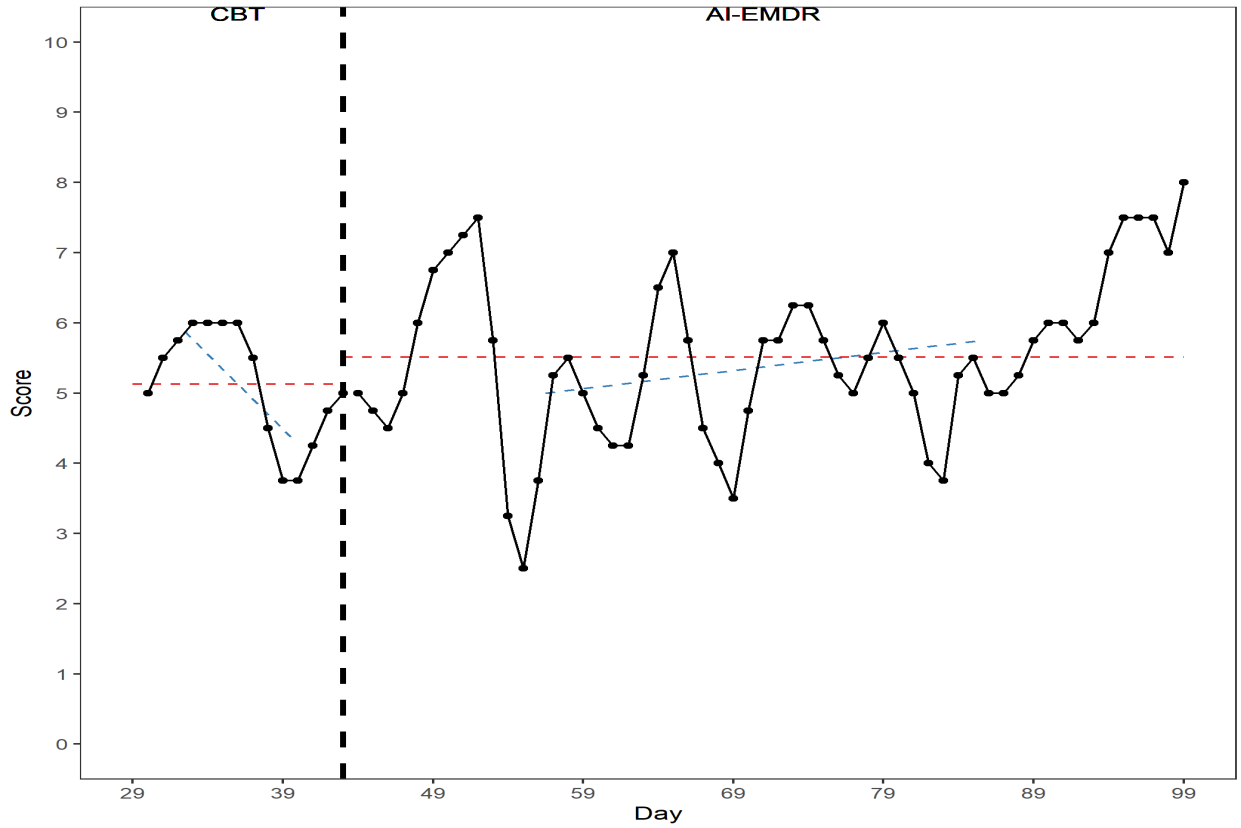
In the assessment phase, the trend suggests a minor decline, but is still relatively stable. The mean shows a clear improvement in this phase compared to A1. This led to the hypothesis (2b) being confirmed.

In the CBT phase, the trend suggests a marginal improvement in mood. The mean is consistent with that in the previous phase. The marginal improvement in trend led to a confirmation of the hypothesis (2c), but the consistency of the mean compared with the previous phase made this a borderline decision.

In the AI-EMDR phase the trend shows an improvement in mood and the mean is higher. However, there does not appear to be an enhanced effect compared with the CBT phase and, on this basis, the hypothesis (2d) was refuted.

Subjective daily rating of ability to undertake ERP tasks

Figure 4.6. *Jane's ability to undertake ERP activities*



Interpretation

Both the mean and the trend show that Jane was better able to participate in ERP tasks after the AI-EMDR intervention. The graph suggests that Jane's ability to undertake ERP tasks deteriorated during the CBT component of the trial. Whilst these results are positive and confirm the hypothesis (3), it should be noted that the improvement in trend is minimal during the AI-EMDR phase, making this a borderline decision.

Overall summary for Jane

There are some extreme fluctuations in Jane's daily ratings, with some outliers potentially skewing the results. As discussed earlier, the impact of the easings of lockdowns and the exposure to a hierarchy of ERP tasks during the course of this study may both have impacted upon her results.

Jane's ratings for the severity of her OCD were at their lowest at the start of the trial, which made it hard to determine the subsequent impact of the CBT and AI-EMDR interventions. Whilst her mood shows an improvement overall, there is no enhanced improvement during the AI-EMDR phase. Jane did appear better able to undertake ERP activities during the AI-EMDR component of the trial. Whilst the overall trend suggests that Jane found treatment beneficial, these mixed results mean that this positive outcome cannot be directly attributed to the AI-EMDR interventions.

4.2.3. Participant 3: Susie (Cohort one)

Susie is a 30-year-old white British female who works in the healthcare industry. She had been off work for the past four months as she was finding her OCD overwhelming. Susie was signposted to this study by one of my former clients who also had OCD.

Susie's OCD emerged in her late teens when she had paedophile obsessive thoughts and other '*inappropriate*' sexually intrusive thoughts. She described the constant push and pull of doubting herself and getting overwhelmed with thoughts that she had behaved inappropriately, was making things up or had got things wrong. '*I am a malicious person and I cannot be trusted to behave responsibly*.'

Susie's scores for two assessment questionnaires are detailed below.

In the ECR-R (Fraley et al. 2000) Susie scored 60 (3.3) for attachment-related anxiety and 73(4) for attachment-related avoidance. She rated in the 40th percentile for anxiety (insecurity about the responsiveness of others) and she was in the 81st percentile for avoidance (her discomfort at being close to others). This suggests a Dismissing attachment style.

The ACE questionnaire (Centers for Disease Control and Prevention, 2014) was used to develop a trauma timeline. Susie scored 6 on this measure, with affirmative responses to 1, 5, 6, 7, 8 and 9 (see Appendix E). Susie's parents separated for a while when she was 2 years old. Her mother was depressed and her father was an alcoholic and they were both made redundant when Susie was very young. When her father was drunk he would be verbally abusive to Susie and her mother. Her mother was often pushed, grabbed and sometimes hit. Susie described how her parents were often too drunk or too high to take care of Susie or her siblings. She described her childhood as '*erratic*'. Her parents were both full of love for their

children, but '*they did not have the capacity to be parents'*. Her father had been sexually abused when he was younger and, when Susie was around 10, her parents were arguing and her father was shouting about his sexual abuse. Susie said his description was so graphic she could almost see it happening.

Between the ages of 9 and 11, Susie's father was arrested on several occasions and told to stay away from the family home. Her mother would tell Susie about the physical abuse she experienced at the hands of her father. Susie felt it was her job to '*hold it together'* and protect her younger brothers. She described becoming hypervigilant when her parents were fighting in order to try to understand what the problem was. Susie described how she replicated the family dynamics and went into a psychologically abusive relationship for three years when she was eighteen.

Engagement with the study

Susie was randomly allocated to have three weeks of CBT and she commenced AI-EMDR in week six of the trial. Her engagement with the study was moderately high. She attended all twelve sessions and undertook some of the ERP and recording activities between sessions. She completed all daily ratings and questionnaires, but some were completed retrospectively at the end of the week.

Susie responded well to the AI-EMDR component of the study. Relatively early in this phase she had an emotive, visceral response to a touchstone memory where she was at nursery surrounded by a group of children. Her father came to collect her and described her loudly to the teacher as having '*the face of an angel, but being such a bossy boots'*, which had made her feel embarrassed, hurt and confused.

External factors during the trial

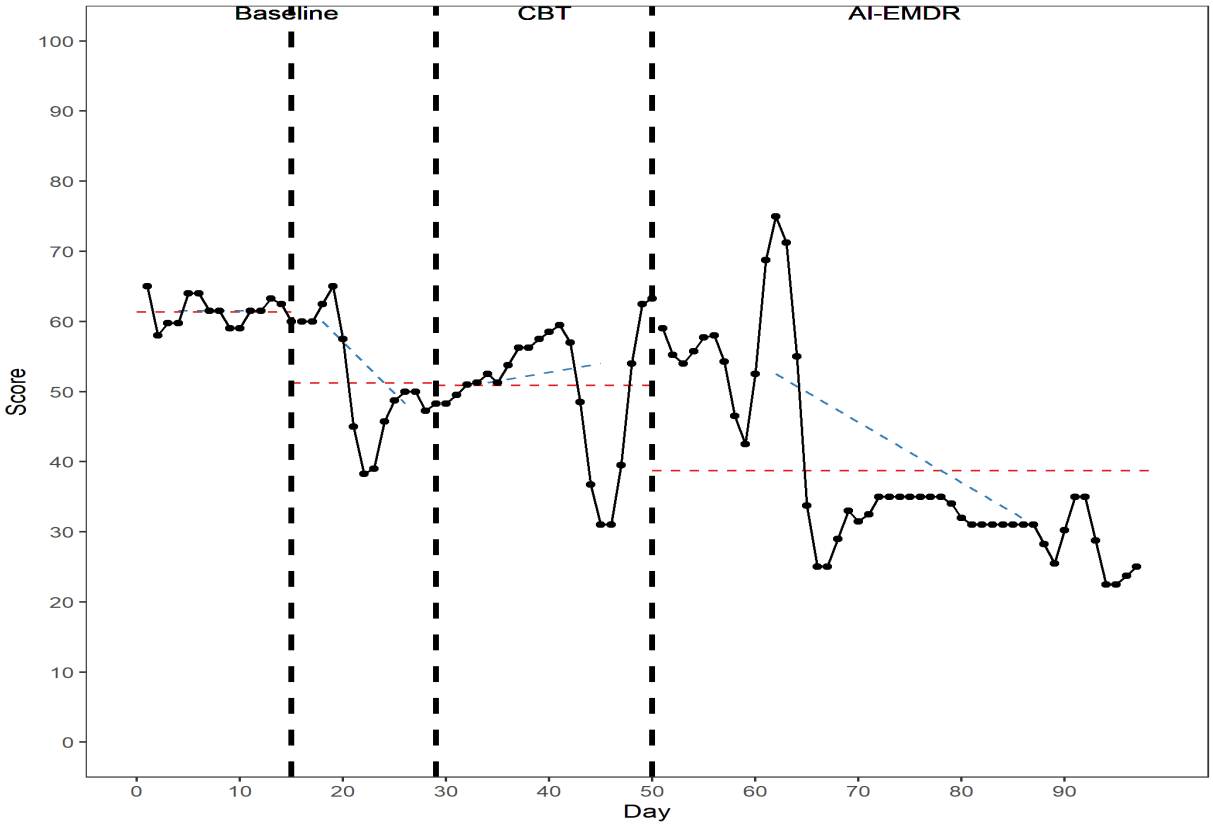
Table 4.3. *Relevant dates for Susie during the trial*

Relevant dates:
09/3/21: Baseline A1 commenced
15/3/21: *Started back at work part-time*
24/3/21: Baseline A2 commenced
29/3/21: Outdoor gatherings of 6 people or two households (stage two lockdown easing)
7/4/21: CBT commenced
12/4/21: Less restrictions on going out (stage three lockdown easing)
28/4/21: AI-EMDR trial started

As can be seen in the table above, there were some external events that may have impacted on Susie's subjective ratings during the trial. Shortly after starting the first baseline phase (A1) Susie went back to her very demanding work environment on a part-time basis. At the start of the assessment phase, stage two of the easing of lockdown restrictions occurred and stage three of lockdown easing started during the CBT phase

Subjective daily rating of severity of Susie's OCD

Figure 4.7. *Susie's subjective daily rating of severity of her OCD*



Interpretation

In the first baseline phase, the mean is higher than in all other phases and the trendline of Susie's severity of her OCD is stable. The led to hypothesis (1a) being confirmed.

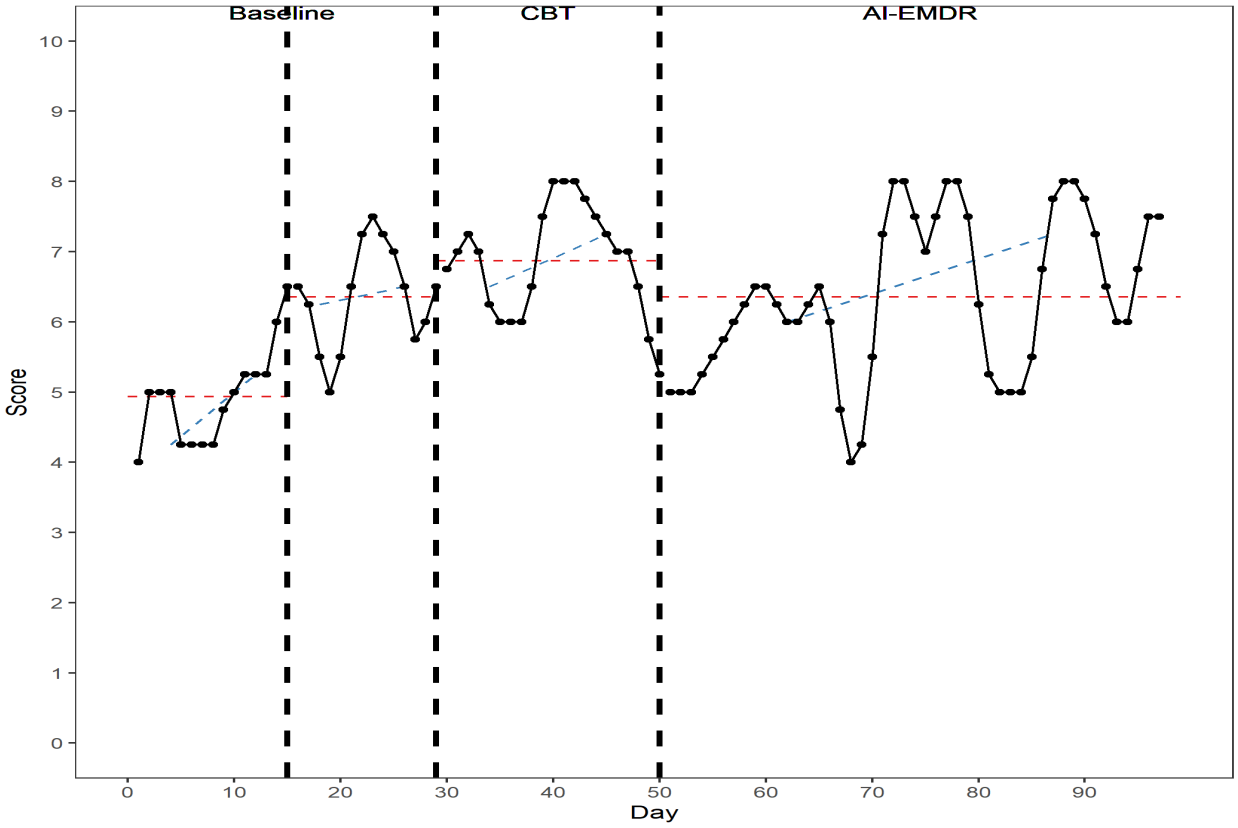
The trend shows a marked improvement (decrease) in phase A2. The mean is lower during this phase compared to A1. This improvement led to the hypothesis (1b) being confirmed.

In the CBT intervention phase, the trend suggests a minimal deterioration (increase), while the mean is comparable to that in A2. The deterioration in the trend and the lack of change in the mean led to the hypothesis (1c) being refuted.

In the AI-EMDR phase the trend suggests an enhanced improvement, which is further endorsed by the lower mean. Ratings become increasingly consistent towards the end of this phase. The clear improvement in both mean and trend endorsed the hypothesis (1d).

Subjective daily rating of severity of Susie's mood

Figure 4.8. *Susie's subjective daily rating of mood*



Interpretation

In the first baseline phase (A1) the mean is lower than in all other phases. The trend shows a marked improvement in mood, which refutes the hypothesis (2a).

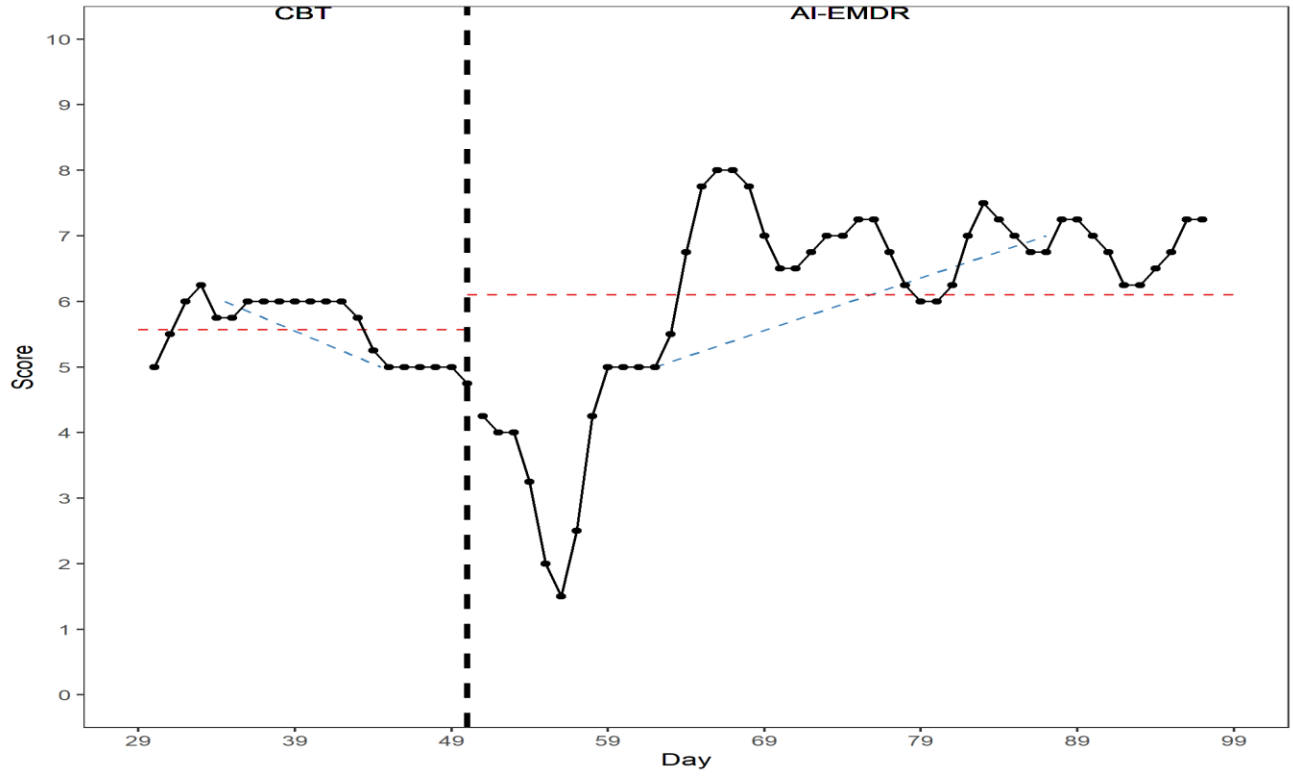
In the assessment phase (A2) the trend shows a further improvement in mood with the mean showing an enhanced improvement compared to the previous phase (A1). This led to the hypothesis (2b) being confirmed.

In the CBT phase the trend shows further improvement and this is endorsed by the improved mean. However, this is not convincing when compared to the trend in baseline A1. On this basis, the hypothesis (2c) was refuted.

The trend shows some improvement in mood in the AI-EMDR phase, but the mean is lower than in the previous (CBT) phase. There are major fluctuations in mood ratings throughout this phase. Whilst the trend is encouraging, the mean is lower than in the CBT phase. For this reason, hypothesis (2d) was refuted.

Subjective daily rating of ability to undertake ERP tasks

Figure 4.9. *Susie's ability to undertake ERP activities*



Interpretation

Both the mean and the trend show that Susie was better able to participate in ERP tasks after the AI-EMDR interventions. There was some deterioration in the CBT phase and, after an initial dip, a relatively consistent improvement during the AI-EMDR component. There were no obvious triggers for her struggles with ERP in the first part of the AI-EMDR component. Susie did acknowledge that our discussions regarding childhood trauma at that time may have exacerbated her anxiety. The clear improvement in Susie's ability to undertake the ERP tasks during the AI-EMDR component of the trial endorsed hypothesis 3.

Overall summary for Susie

The overall trend suggests that Susie benefitted from treatment. There is a reduction in the severity of her OCD shortly after the onset of the AI-EMDR treatment. The fluctuations and mixed results in her ratings of mood make it difficult to determine the impact of either the CBT or the AI-EMDR. Susie's ability to undertake ERP activities deteriorated during the CBT phase and was enhanced during the AI-EMDR phase of the trial. From a clinical perspective, there does appear to be a correlation between the timing of the processing of one of her touchstone memories and the improvement in the severity of her OCD and ability to undertake ERP tasks.

4.2.4. Participant 4: Kate (Cohort one)

Kate is a 48-year-old white British female who works in the Healthcare sector. She was signposted to this study by a colleague of mine. Kate recalled being very worried about saying the wrong thing from around the age of 7. Nowadays she is terrified of fire and has to check and unplug all electrical equipment. She has difficulties leaving the house if her dogs are there as she worries about their safety. Kate described how she always has to think three steps ahead and always wonders where she will trip up next. '*Something might catch fire and I would be responsible'*.

Kate's scores for two assessment questionnaires (Appendix E) are detailed below and discussed further in Chapter 6.

In the ECR-R (Fraley et al. 2000) Kate scored 55 (3.06) for attachment-related anxiety and 76 (4.22) for attachment-related avoidance. She rated in the 32nd percentile for anxiety (insecurity about the responsiveness of others) and she was in the 86th percentile for avoidance (her discomfort at being close to others). This suggests a Dismissing attachment style.

The ACE questionnaire (Centers for Disease Control and Prevention, 2014) was used to develop a trauma timeline. Kate scored 6 on this measure, with affirmative responses to questions 1, 3, 4, 5, 6 and 7 (see Appendix E). Kate's mother was a high-functioning alcoholic who was not able to address the needs of Kate or her two younger siblings. Kate described looking after her younger brother and sister from around the age of 8. Growing up, she also lived in the same house as her '*slovenly*' step-brother who was five-years older than her and her maternal grandma who was bipolar and '*a horror'*. Kate reported that her mother never told her she loved her. She believes a lot of her OCD stems from her dad's threats to set her hair on fire if she did not stop being naughty when she was younger. When she was 9 her kitchen did

actually catch fire and Kate had to get her younger siblings out of the house. '*I knew that would happen'*.

Engagement with the study

Kate was randomly allocated to have four weeks of CBT and she commenced AI-EMDR in week seven of the trial. Her engagement with the study was high. She attended all twelve sessions, undertook most ERP and recording activities between sessions and completed all ratings and questionnaires as requested.

She participated well in the AI-EMDR component of the trial and did appear to process some early memories. One event was in relation to her parents having her two dogs put down when she was young. She recognised that this probably tied in with her current anxieties about leaving her pets at home unprotected.

External factors during the trial

Table 4.4. *Relevant dates for Kate during the trial*

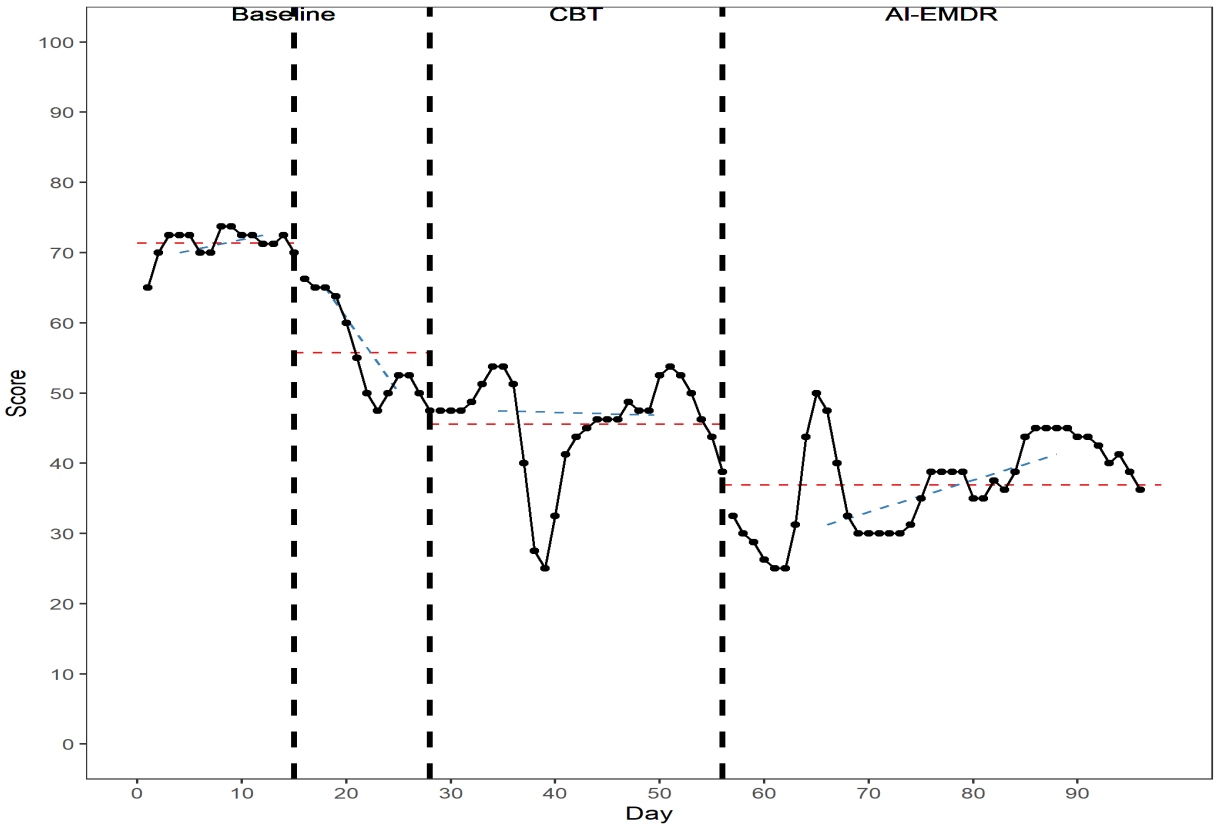
Relevant dates:
09/3/21: Baseline A1 commenced
24/3/21: Baseline A2 commenced
29/3/21: Outdoor gatherings of 6 people or two households (stage two lockdown easing)
7/4/21: CBT commenced
12/4/21: Less restrictions on going out (stage three lockdown easing)
05/05/21: AI-EMDR trial started

During the first baseline phase (A1) there was tension between Kate and her partner being confined together during lockdown. Shortly after the start of the assessment phase, the second stage of the easing of lockdown restrictions occurred. Shortly after starting the CBT component, the third phase of lockdown easing occurred and Kate felt under pressure (from work and her

partner) to go out and leave the dogs by themselves more often. This appeared to really trigger Kate's OCD as she worried about their safety.

Subjective daily rating of severity of Kate's OCD

Figure 4.10. *Kate's subjective daily rating of severity of her OCD*



Interpretation

The trend shows a minimal deterioration (increase) in the severity of Kate's OCD during the first baseline phase. The mean is higher than in all other phases. The relatively stable baseline led to hypothesis 1a being confirmed.

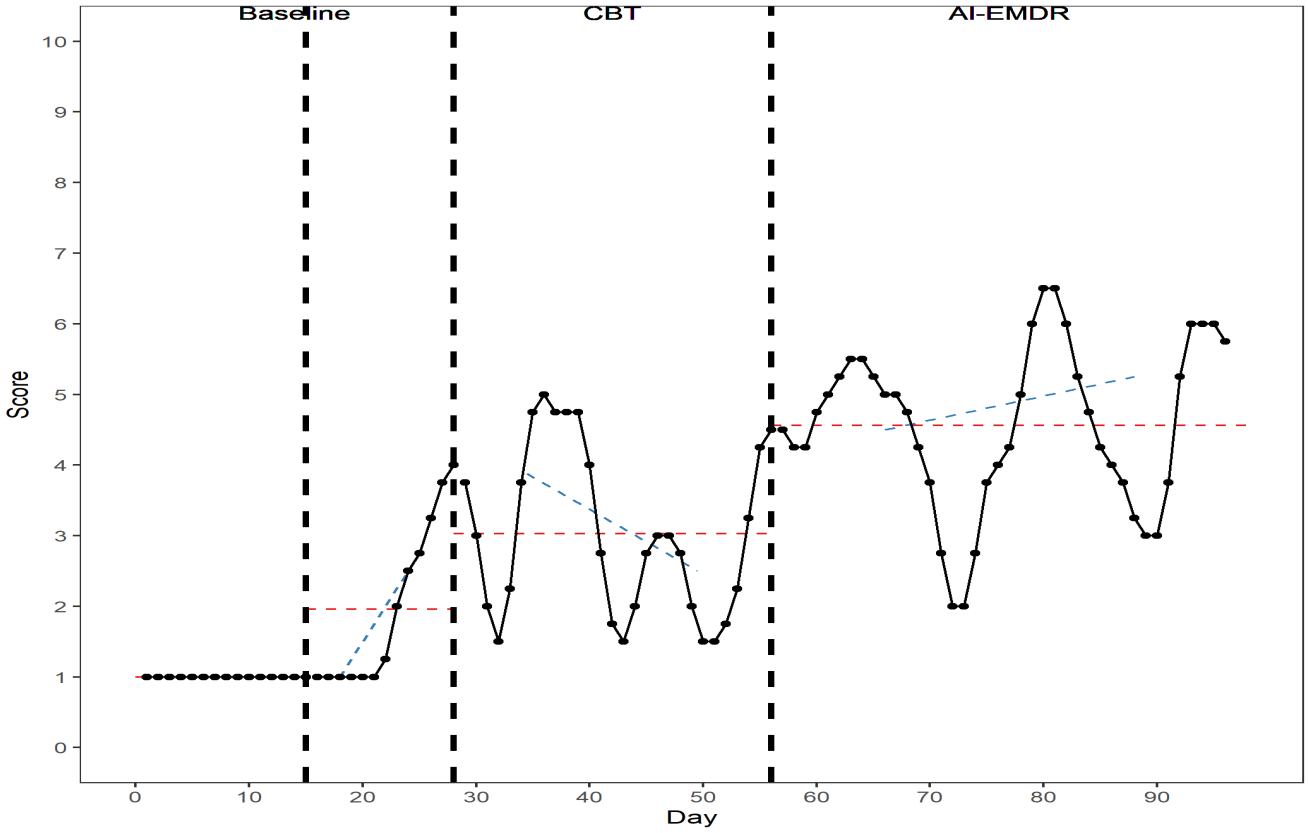
The trend shows a marked improvement early in the assessment phase (A2), which coincided with the second easing of lockdown. The mean is markedly lower during this phase than in A1. The distinct improvement in both trend and mean, led to the hypothesis (1b) being confirmed

In the CBT intervention phase, there is a minimal improvement in trend. The mean is lower in this phase compared with both baseline phases. This led to a confirmation of the hypothesis (1c).

In the AI-EMDR phase, the trend suggests a deterioration, while the mean is lower than in all other phases. These mixed results led to hypothesis (1d) being refuted.

Subjective daily rating of severity of Kate's mood

Figure 4.11. *Kate's subjective daily rating of mood*



Interpretation

In the first baseline phase (A1) the trend in mood is stable and lower than in the subsequent phases. This led to the confirmation of hypothesis 2a.

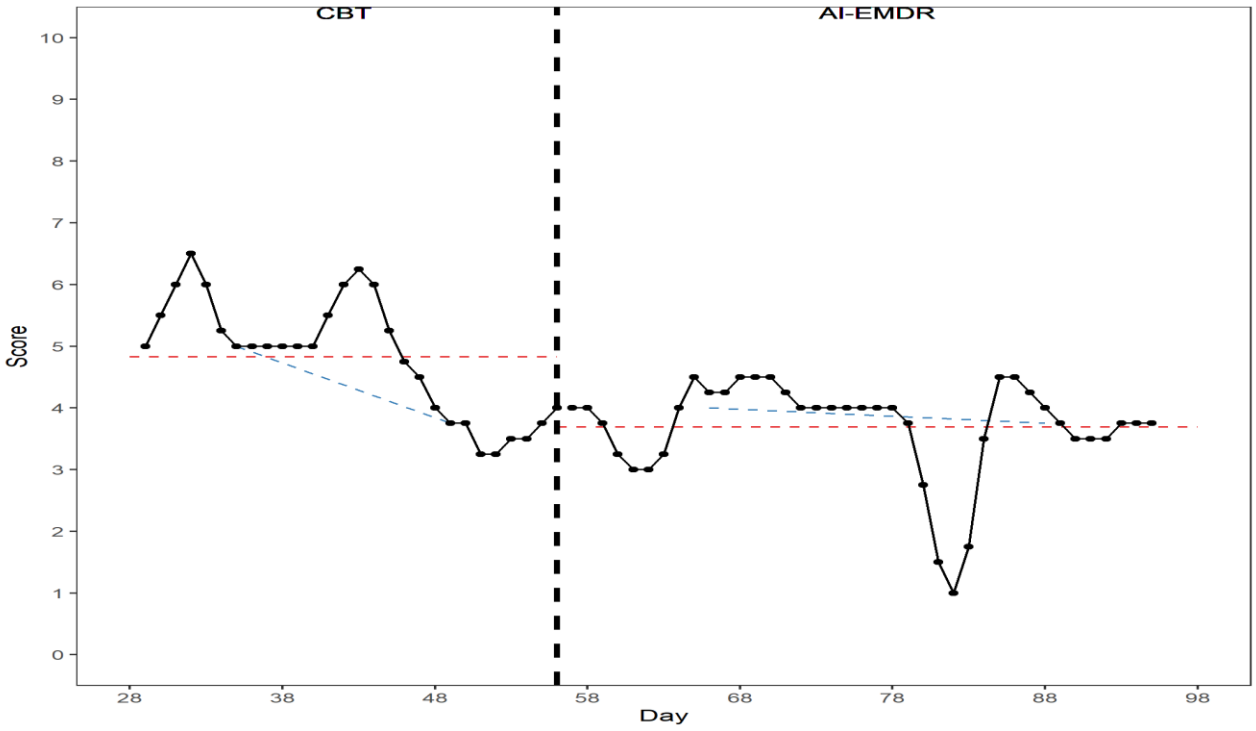
In the assessment phase, the trend remains stable at the start. There is a sharp improvement in mood a few days into this phase, which coincides with the second easing of lockdown. The mean is higher than in the previous phase which led to the hypothesis (2b) being confirmed.

In the CBT intervention phase the trend shows a decline in mood. There is, however, a good deal of fluctuation in Kate's ratings. The mean is higher than in the earlier phases, suggesting an improvement. These mixed results led to the hypothesis (2c) being refuted.

In the AI-EMDR phase there is an improvement in mood. The mean is higher than in the previous phases and this led to the hypothesis (2d) being confirmed. There are, however, major fluctuations in ratings in this phase.

Subjective daily rating of Kate's ability to undertake ERP tasks

Figure 4.12. *Kate's ability to undertake ERP activities*



Interpretation

The trend shows a reduced ability to undertake ERP tasks across both phases. The mean is higher in the CBT phase. There appear to be some outliers during the AI-EMDR phase (from around day 79 to 84 of the trial) which contribute to the decrease in trend. This correlates with the time that Kate had to leave her dogs alone in the house and go into the office for a few days. These results suggest that Kate's ability to undertake ERP tasks decreased over the course of the trial and hypothesis 3 is refuted.

Overall summary for Kate

The graphs suggest that Kate benefited from treatment overall. However, the mixed outcomes for severity of OCD, mood and ability to undertake ERP in the CBT and AI-EMDR phases mean it is not clear that either intervention was responsible for this improvement. It seems likely that Kate was more impacted than most other participants by the two stages of lockdown easing. While Kate was home she was more able to ensure that her home and her dogs were safe. The fluctuations in ratings do appear to correlate with stressors related to leaving the house more often.

4.2.5. Participant 5: Hannah (Cohort one)

Hannah is a 39-year-old white British female clinician. She was signposted to this study via a therapy forum where I had put out a request for participants. At assessment, Hannah described how she was aware of her OCD as a child. She would organise her room and count and pray to make sure that everyone stayed safe. Nowadays Hannah describes being fearful about a lot of things. '*breaking things, losing things, sending an email and it getting lost in space*.' If for example, an email did not arrive, her urge is to phone Microsoft to see what happened. She also has a fear of contamination. If she misses an appointment or makes a mistake '*the bottom falls out of my world, so I need to keep checking*.' She described her underlying beliefs '*I am going to get told off.*' and '*I am such a bad person*.'

Hannah's scores for two assessment questionnaires are detailed below:

In the ECR-R (Fraley et al. 2000) Hannah scored 105 (5.8) for attachment-related anxiety and 51 (2.8) for attachment-related avoidance. She rated in the 97th percentile for anxiety (insecurity about the responsiveness of others) and she was in the 45th percentile for avoidance (the extent to which she is uncomfortable being close to others). This suggests a Preoccupied attachment style.

The ACE questionnaire (Centers for Disease Control and Prevention, 2014) was used to develop Hannah's trauma timeline. Hannah scored 2 on this measure, with affirmative responses to questions 1 and 4. When Hannah was young her father had seizures and, as he got weaker, he withdrew from the family. When she was around 6 years old her father had a seizure in the kitchen. Her mother came into the room and said '*What have you done to him?*' (or that's what it felt like to Hannah). Her father was taken away in an ambulance and Hannah

was left alone thinking that she had killed her father. Hannah described a lot of '*emotional dumping'* from her mother who would never say how she felt. When Hannah was in her early teens her father had a brain scan and they discovered a large tumour. He had major surgery '*and we closed down and limped on until I was 21*.'. Hannah described her mother as fragile, avoidant and unable to address anything. Hannah has a sister who is three years younger and said that she used to feel very protective towards her.

Engagement with the study

Hannah was randomly allocated to have five weeks of CBT and she commenced AI-EMDR in week eight of the trial. Her engagement with the study was moderately high, but it was somewhat hampered by her fear of technology when working online. She attended all twelve sessions, undertook some ERP and recording activities between sessions and completed all ratings and questionnaires as requested.

She showed reasonable engagement with both the CBT and AI-EMDR components of the trial.

External factors during the trial

Table 4.5. *Relevant dates for Hannah during the trial*

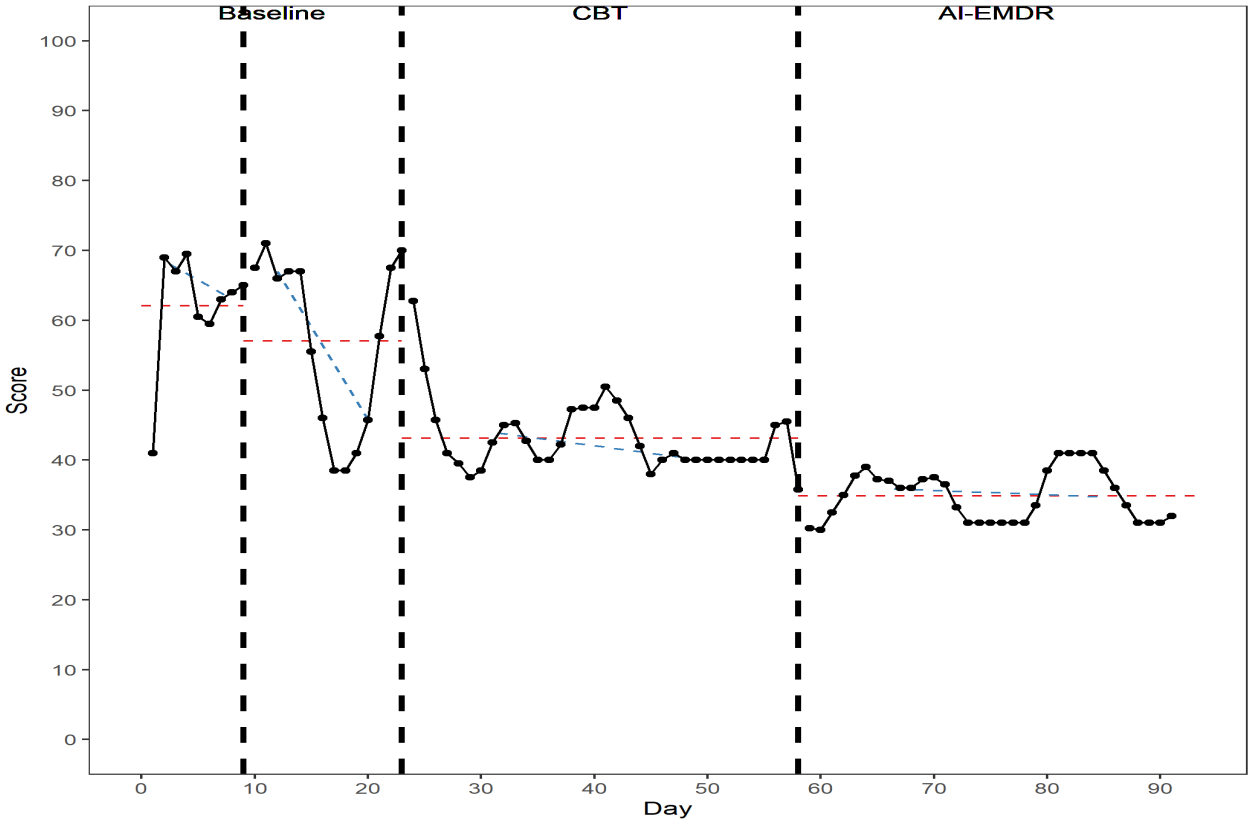
Relevant dates:
09/3/21: Baseline A1 commenced
24/3/21: Baseline A2 commenced
29/3/21: Outdoor gatherings of 6 people or two households (stage two lockdown easing)
7/4/21: CBT commenced
12/4/21: Less restrictions on going out (stage three lockdown easing)
End of April: New relationship started
12/05/21: AI-EMDR trial started

For the duration of the trial Hannah was dealing with her acrimonious divorce. As can be seen in the table above, the second phase of lockdown easing occurred early in her assessment

phase. Late in her CBT phase, there was a further easing of lockdown restrictions. Shortly before the start of the AI-EMDR component of the trial she entered into a new relationship which triggered a lot of her insecurities about her physical appearance.

Subjective daily rating of severity of Hannah's OCD

Figure 4.13. *Hannah's subjective daily rating of severity of her OCD*



Interpretation

The trend shows some improvement in the severity of Hannah's OCD during the initial baseline phase and the mean is highest in this phase. The improvement in trend led to the hypothesis (1a) being refuted.

In the assessment phase (A2) the trend shows a greater improvement compared to all other phases. There is a sharp decrease in ratings a few days into this phase, which correlates with

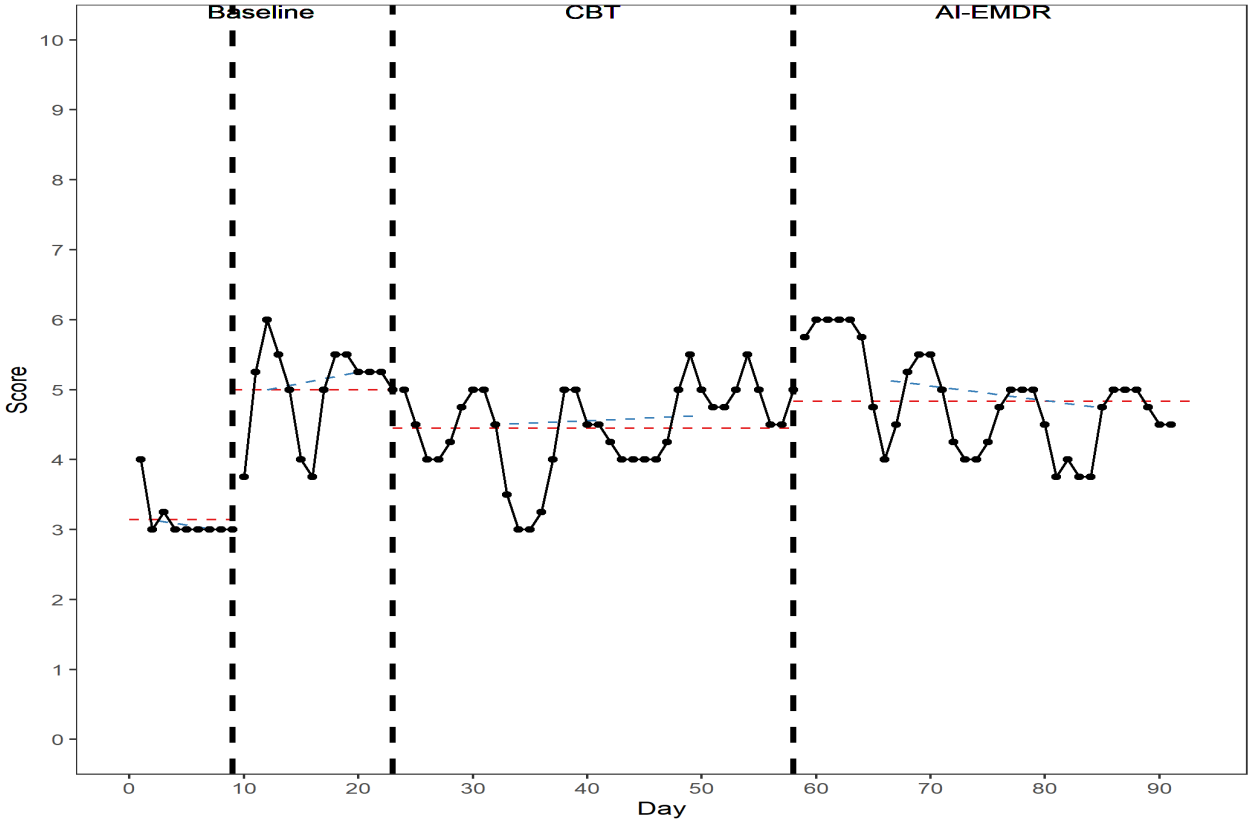
the second stage of the easing of lockdown measures. The mean shows a marginal improvement (decrease) compared with the A1 baseline. The improvement in trend led to the hypothesis (1b) being confirmed.

In the CBT intervention phase, the trend suggests a small improvement and the mean is lower than in the previous phases. This led to the hypothesis (1c) being confirmed.

The AI-EMDR phase shows a marginal improvement in trend, which is compatible with the lower mean. However, the lack of 'enhanced' improvement led to the hypothesis (1d) being refuted.

Subjective daily rating of severity of Hannah's mood

Figure 4.14. *Hannah's subjective daily rating of mood*



Interpretation

In the first baseline phase (A1) the trend shows a minimal deterioration in mood. The mean is lower than in all other phases. This led to the hypothesis (2a) being confirmed.

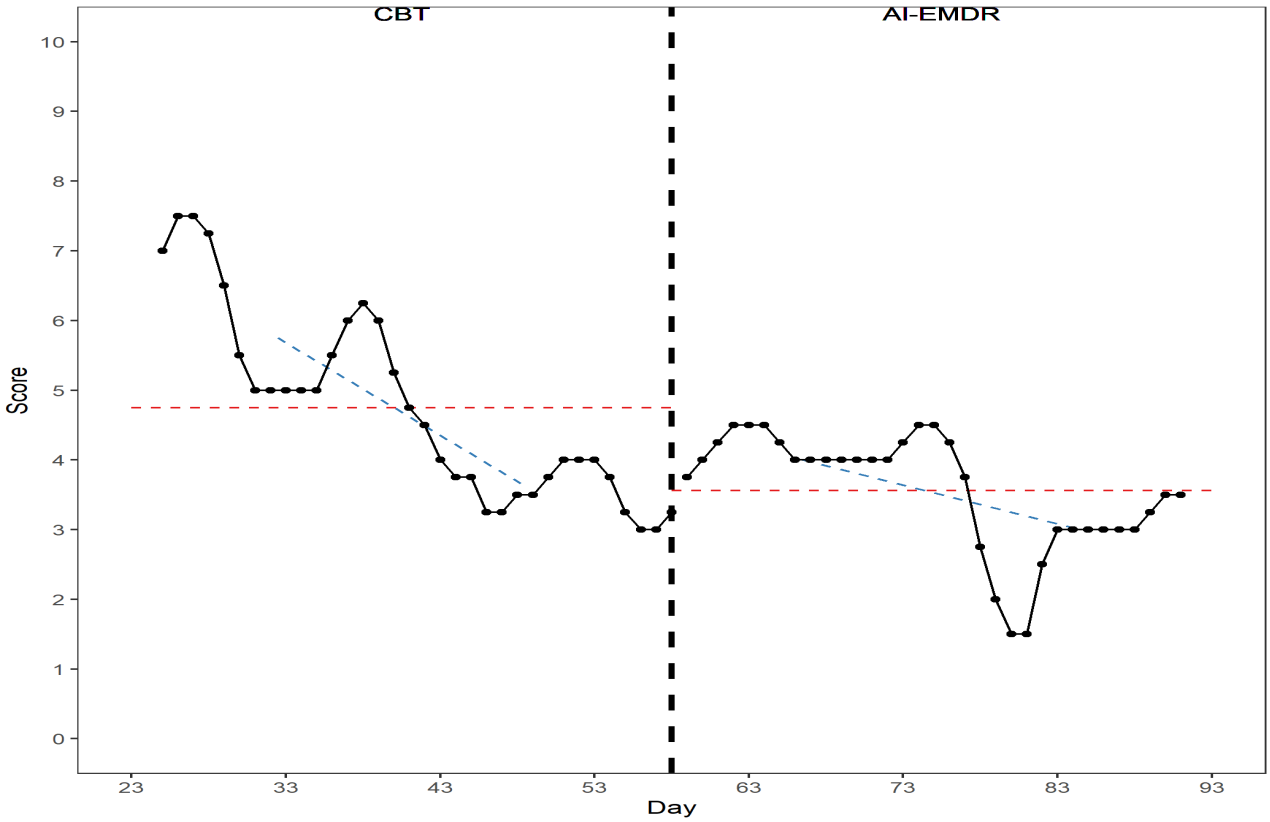
In the assessment baseline phase (A2) the trend shows a marginal improvement in mood. The mean shows an enhanced improvement compared with A1. This led to the hypothesis (2b) being confirmed.

In the CBT intervention phase, the trend suggests a slight improvement in mood, but the final outcome is lower than in A2. The mean is also lower than in the previous phase. This led to the hypothesis (2c) being refuted.

In the AI-EMDR phase the trend shows a decline in mood. The mean is higher than in the CBT phase, but still lower than in the A2 baseline phase. This mixed outcome to the hypothesis (2d) being refuted.

Subjective daily rating of Hannah's ability to undertake ERP tasks

Figure 4.15. *Hannah's ability to undertake ERP activities*



Interpretation

The mean and trend showed that Hannah's ability to undertake ERP activities decreased over both phases of the trial. The decline in both mean and trend led to hypothesis 3 being refuted.

Overall summary for Hannah

Hannah's most marked improvement in the severity of her OCD symptoms and her mood was during the assessment phase (A2), which correlates with the second stage of the easing of lockdown. Her ability to undertake ERP tasks deteriorated throughout the trial. Similar to Kate, she was expected to go into work in the latter part of the AI-EMDR phase, which may have exacerbated her OCD symptoms and partially clouded the outcome in this study.

4.2.6. Participant 6: Sam (Cohort two)

Sam is a 32-year-old white British male who works in the healthcare sector. He was signposted to this study by one of my former colleagues. Sam described how he was bulimic and had a sex addiction in his teenage years. When he was around 25-years-old he developed paedophile OCD and for the following four years he also had Harm OCD (suicidal images of jumping off a building and a fear of knives). Sam also felt the need to confess, so he would tell his girlfriend when he was having sexual thoughts about her mother. For the past year Sam has had OCD around cleanliness and cannot get into bed if it/he is dirty. At the start of the study, having already benefitted from extensive therapy, Sam was coping reasonably well with his OCD. Sam's scores for two assessment questionnaires are detailed below.

In the ECR-R (Fraley et al. 2000) Sam scored 71 (3.9) for attachment-related anxiety and 41 (2.3) for attachment-related avoidance. He rated in the 61st percentile for anxiety (insecurity about the responsiveness of others) and he was in the 30th percentile for avoidance (the extent to which he is uncomfortable being close to others). This suggests a Preoccupied attachment style.

Sam's ACE questionnaire (Centers for Disease Control and Prevention, 2014) was used to develop a trauma timeline. Sam scored 8 on this measure, with affirmative responses to questions 1, 2, 4, 5, 6, 7, 8 and 9 (see Appendix E). Sam described how his mother was an alcoholic from the time of his birth and was very abusive with 'push-pull' emotions. '*Just go and live with your fucking father'* and then she would cuddle him. When he was 6 years old his father was beaten up very badly in front of Sam, his mother and his younger sister. There was a pool of blood and Sam thought his father was dead. When he was 7-years old Sam was sent to boarding school where he was bullied and he would cry himself to sleep at night. His parents

divorced when he was 8 and when Sam was 12 his step-father moved in. Sam described this man as physically and emotionally abusive and reported that his mother would always side with him rather than protecting Sam or his sister.

Engagement with the study

Sam was randomly allocated to have two weeks of CBT and he commenced AI-EMDR in week five of the trial. His engagement with the study was moderately good. He attended all twelve sessions enthusiastically and undertook the ERP activities. He listened to a few of the recordings between sessions. Sam completed most ratings and questionnaires as requested, with some completed retrospectively. He opted out of doing any ERP when he went on holiday at the start of the AI-EMDR phase of the trial.

Sam was highly receptive to the AI-EMDR component of the trial and showed a strong emotional and somatic affect when we processed his experience of isolation and confusion at boarding school and his anger about his stepfather's aggression. Sam gives further insight into this experience in the subsequent TA.

External factors during the trial

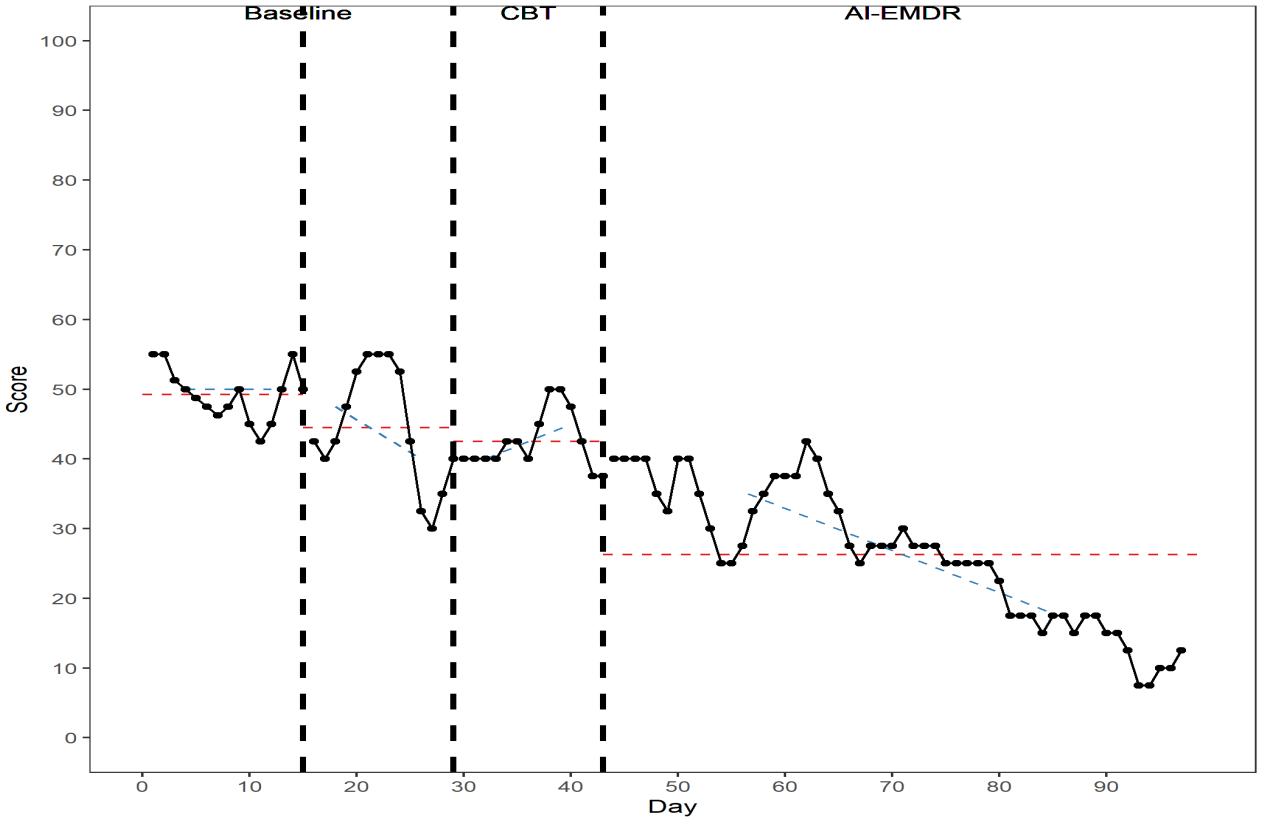
Table 4.6. *Relevant dates for Sam during the trial*

Relevant dates:
07/6/21: Baseline A1 commenced
16/06/21: Baseline A2 commenced
21/6/21: All legal limits on social contact removed (stage four easing of lockdown)
30/6/21: CBT commenced
14/07/21: AI-EMDR trial started
15/07/21: On holiday for two weeks (therapy session online, but no ERP undertaken)

As can be seen in the above table there were no external factors, aside from his holiday, that were especially relevant in our work together.

Subjective daily rating of severity of Sam's OCD

Figure 4.16. *Sam's subjective daily rating of severity of his OCD*



Interpretation

The trend is stable in the initial baseline phase, which led to a confirmation of the hypothesis (1a).

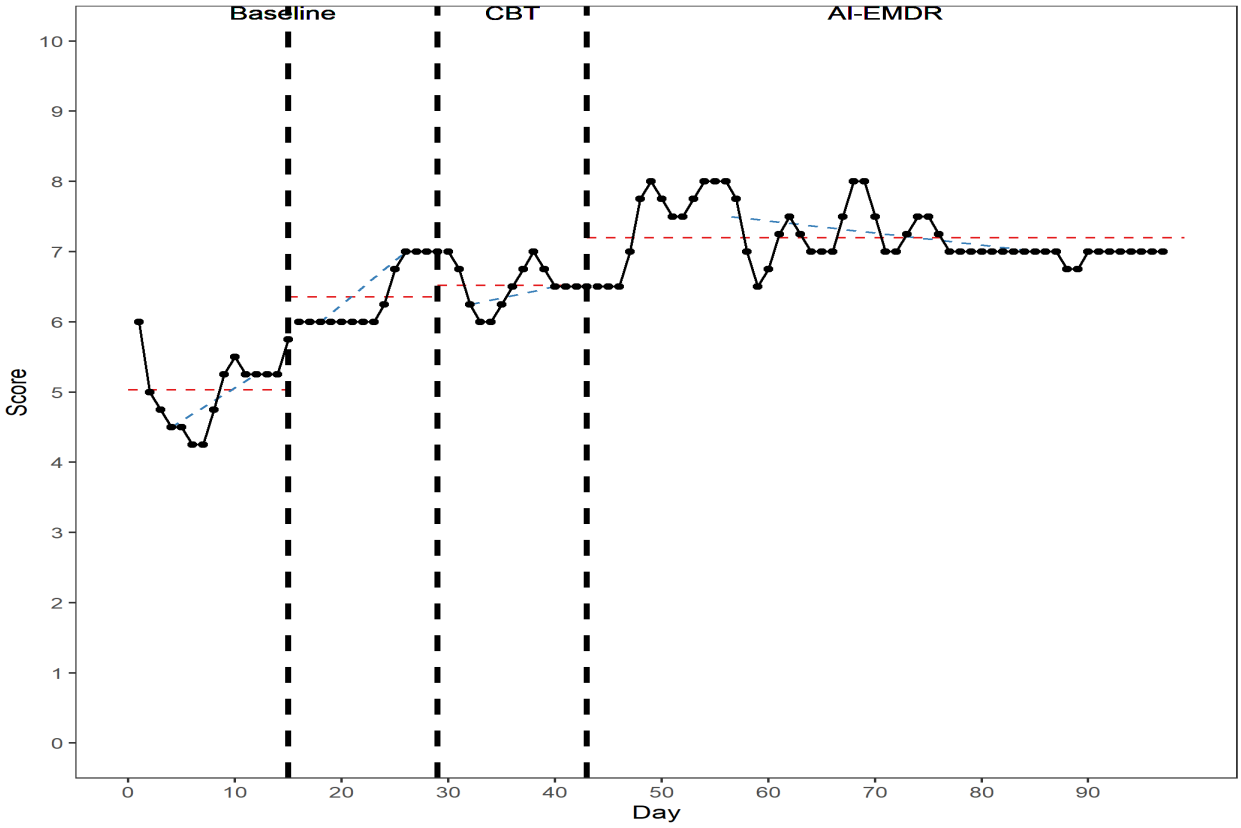
There is a marginal improvement in trend (decrease) in the severity of Sam's OCD during the assessment phase. The mean is lower than in the previous phase, which led to the hypothesis (1b) being confirmed.

In the CBT intervention phase, the trendline shows a deterioration (increase). The mean is marginally lower than in the previous phase. Whilst the results are mixed, the deteriorating trend led to the hypothesis (1c) being refuted.

In the AI-EMDR phase, the trendline shows a marked improvement that is compatible with the lower mean. This led to the hypothesis (1d) being confirmed.

Subjective daily rating of severity of Sam's mood

Figure 4.17. *Sam's subjective daily rating of mood*



Interpretation

The trend shows a clear improvement in Sam's mood during the initial baseline phase, which led to the hypothesis (2a) being refuted.

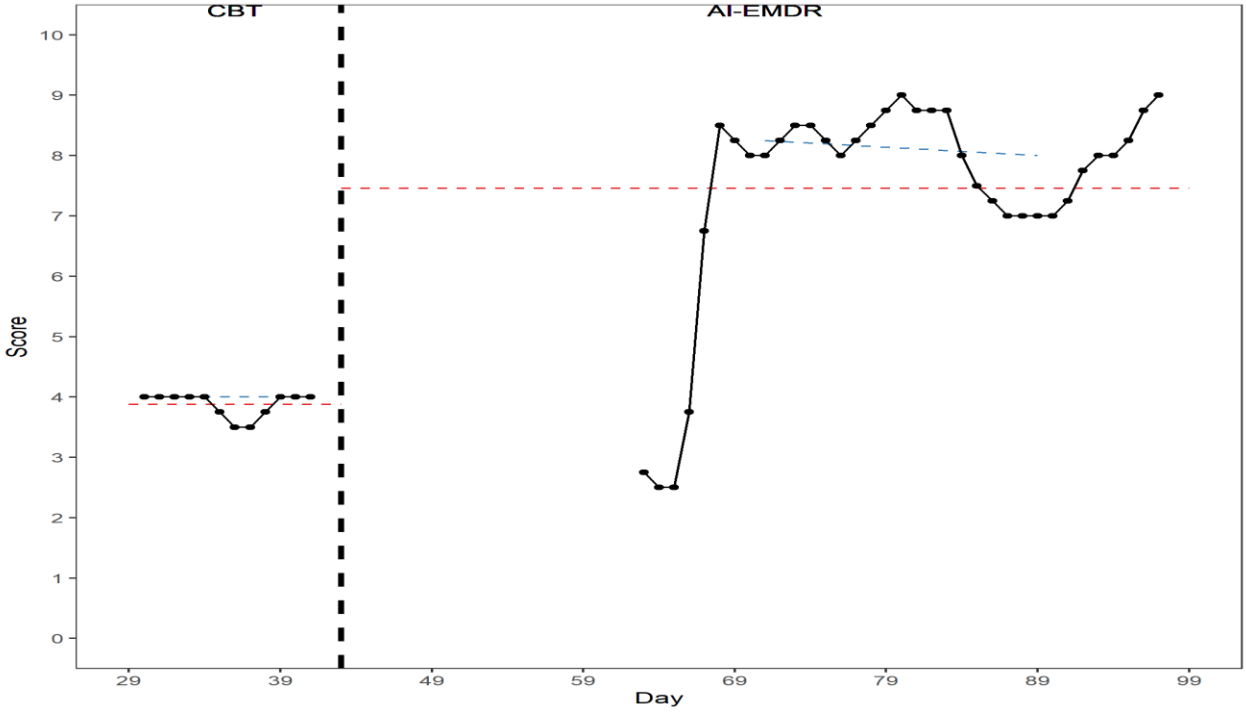
In the assessment phase the trendline shows further improvement and the mean is higher than in the previous phase, which led to hypothesis (2b) being confirmed.

In the CBT intervention phase, the trend shows a within-phase improvement in mood and the mean is marginally higher than in the previous phase. However, the trend suggested Sam's mood was better improved in the previous phase. On this basis the hypothesis (2c) was refuted.

In the AI-EMDR phase the trendline is higher, but shows a within-phase deterioration. The mean is higher compared to previous phases. These mixed results led to the hypothesis (2d) being refuted.

Subjective daily rating of ability to undertake ERP tasks

Figure 4.18. *Sam's ability to undertake ERP activities*



Interpretation

The missing data is due to Sam going on holiday and deciding not to undertake ERP activities during this time (we still conducted the session online). The mean shows a marked

improvement in Sam's ability to undertake ERP activities in the AI-EMDR phase compared with the CBT phase. There is a major positive shift around day sixty, which correlates with the time we were processing his isolation and humiliation at boarding school. The results in this phase confirm hypothesis 3.

Overall summary for Sam

Sam showed a marked improvement in his mood, the severity of his OCD and his ability to undertake ERP during the course of the trial. The CBT intervention did not appear to make much difference to his ratings. There is, however, a distinct improvement in his ratings in the severity of his OCD and his ability to undertake ERP activities during the AI-EMDR component of the trial which is compatible with his feedback in the subsequent qualitative analysis.

4.2.7. Participant 7: Peter (Cohort 2)

Peter is a 33-year-old white British male who is a mature student. He was signposted to this study via a therapy forum where I had put out a request for participants. Peter had broken up with his partner a few weeks before participating in this trial. He described how he was obsessing about his ex all the time and about the possibility that she was sleeping with any of his friends.

Peter was aware of his OCD from around the age of 10 when he would obsess about his parents dying if they went away. He was not clear how his OCD presented during his teenage years as he reported smoking a lot of weed at that time. From his early thirties Peter's primary OCD concerns have been around checking doors and locks and he is concerned that he might be gay or a paedophile.

Peter's scores for two assessment questionnaires are detailed below.

In the Experience in Close Relationships Revised (ECR-R) (Fraley et al. 2000) Peter scored 79 (4.4) for Anxiety: and 35 (1.9) for Avoidance. He rated in the 77th percentile for attachment-related anxiety (insecurity about the responsiveness of others) and he was in the 19th percentile for attachment-related avoidance (the extent to which he is uncomfortable being close to others). This suggests a Preoccupied attachment style.

The ACE questionnaire (Centers for Disease Control and Prevention, 2014) was used to develop Peter's trauma timeline. Peter scored 3 on this measure, with affirmative responses to questions 1, 5 and 9 (see Appendix E). Peter described his family life as comfortable. '*There was a lot of love, but they were quite formal and we didn't have much in common*.' There was pressure to do well at school and Peter described himself as an anxious 10-year-old. Peter

thinks his mother may have OCD as she gets quite stressed. His parents separated when Peter was 17 and his father is currently living with a man and describes himself as pansexual. Peter believes that his father may have Asperger's syndrome as he has inappropriate boundaries, for example, describing his sex life to Peter and his younger sister. Peter is not sure about his own sexuality.

Engagement with the study

Peter was randomly allocated to have three weeks of CBT and he commenced AI-EMDR in week six of the trial. His engagement with the study was moderate. He attended all twelve sessions, undertook some of the ERP and recordings activities between sessions and completed all ratings and questionnaires as requested (although some may have been completed retrospectively at the end of the week).

In the last week of the trial Peter revealed that he had been drinking excessively and smoking marijuana throughout the time we had worked together. This all made sense as I had sometimes been confused by his manner and the erratic nature of his processing during the AI-EMDR phase of treatment.

External factors during the trial

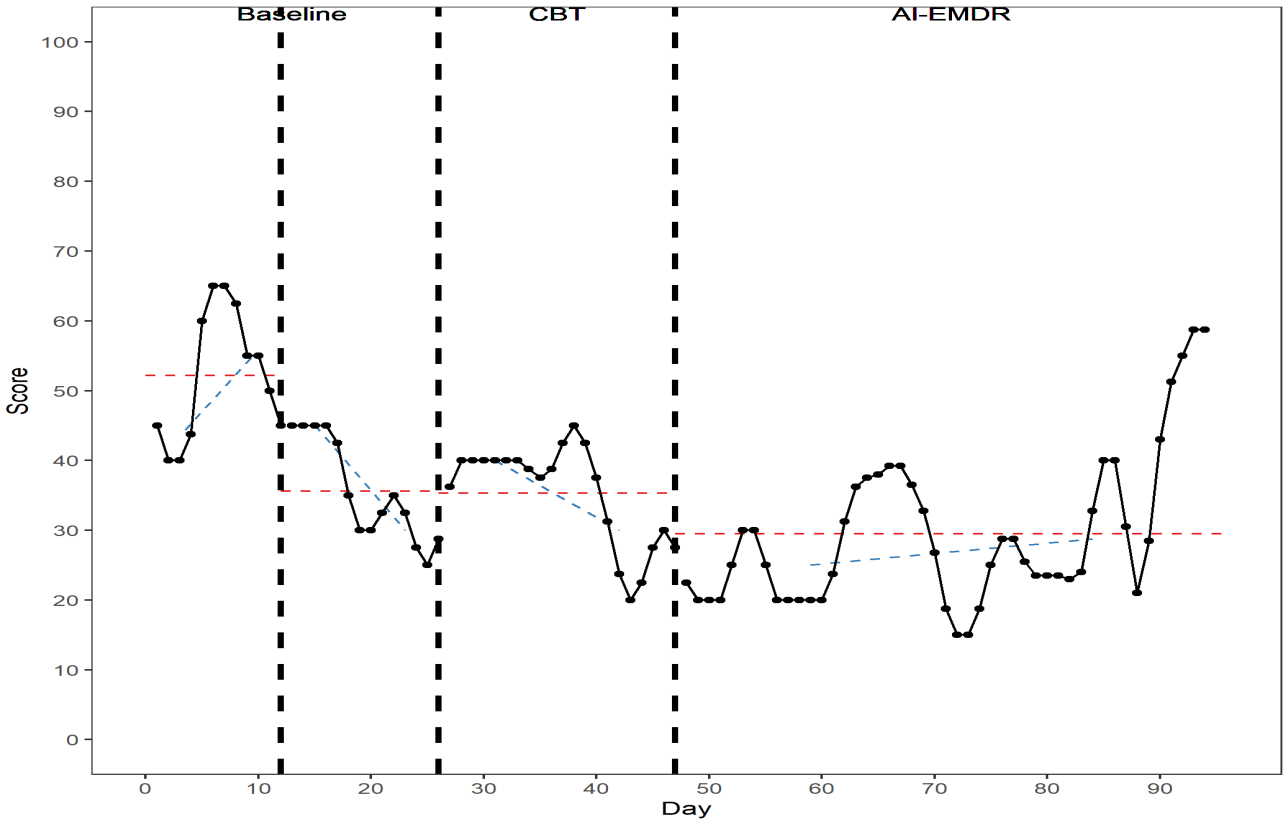
Table 4.7. *Relevant dates for Peter during the trial*

Relevant dates:
07/6/21: Baseline A1 commenced
16/06/21: Baseline A2 commenced
21/6/21: All legal limits on social contact removed (stage four)
30/6/21: CBT commenced
21/07/21: AI-EMDR trial started

As can be seen in the above table, there were no external factors that were especially relevant in our work together.

Subjective daily rating of severity of Peter's OCD

Figure 4.19. *Peter's subjective daily rating of severity of his OCD*



Interpretation

The trend shows a deterioration (increase) in the severity of Peter's OCD during the initial baseline phase, which led to the hypothesis (1a) being refuted.

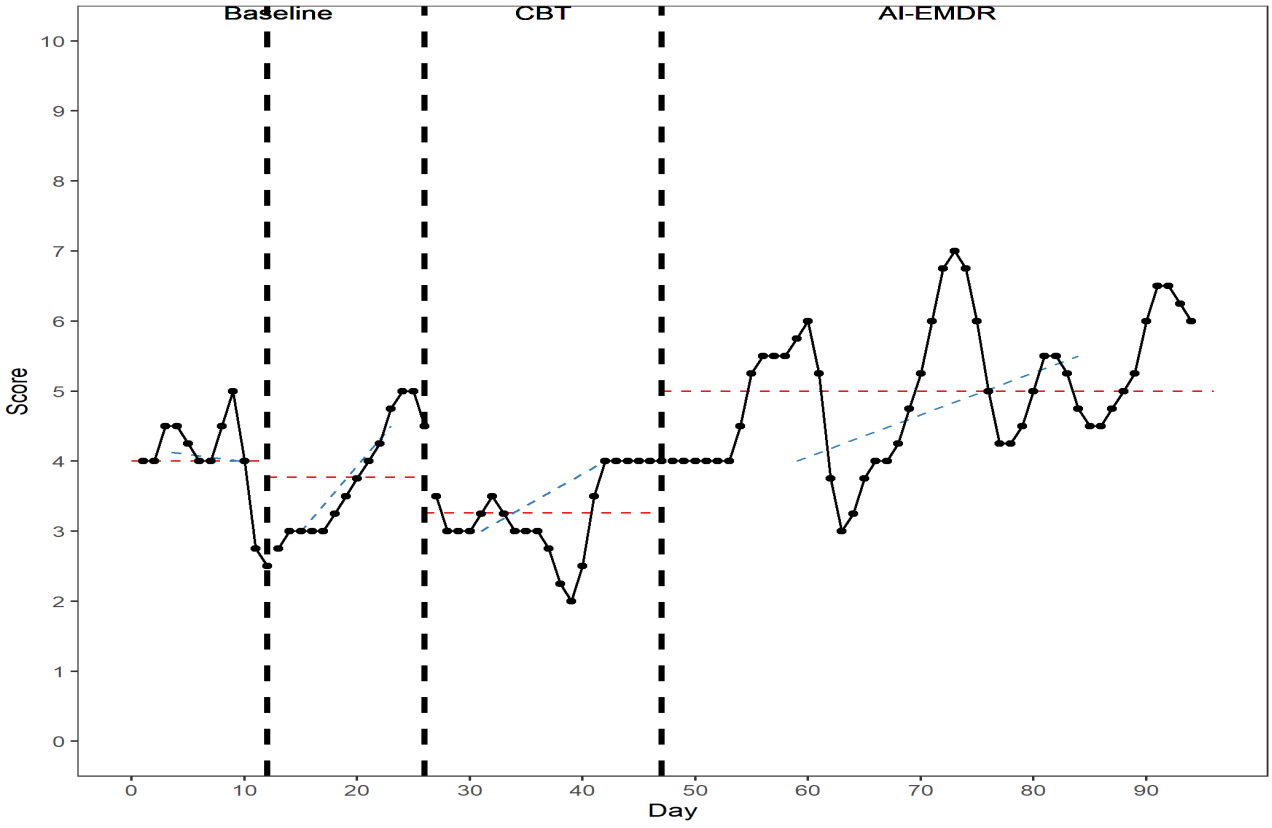
The trend shows a distinct improvement during the assessment phase and the mean is lower than in the previous phase. This led to the hypothesis (1b) being confirmed.

In the CBT intervention phase the trendline shows an improvement in Sam's OCD, but this is not as great as the improvement in the previous phase. The mean is comparable with that in the previous phase (A2). This led to the hypothesis (1c) being refuted.

In the AI-EMDR intervention phase the trendline is lower than in the other phases. However, the high ratings in the final week led to an upward trendline. The mean is lower than in all the other phases. These mixed results regarding the severity of Peter's OCD led to the hypothesis (1d) being refuted.

Subjective daily rating of severity of Peter's mood

Figure 4.20. *Peter's subjective daily rating of mood*



Interpretation

The trend shows a marginal decrease in mood during the initial baseline phase, which is influenced by a significant drop in the final two data points. Whilst there is a drop in the final two data points in the initial phase, there is a relatively stable trendline. This led to a borderline decision to confirm the hypothesis (2a).

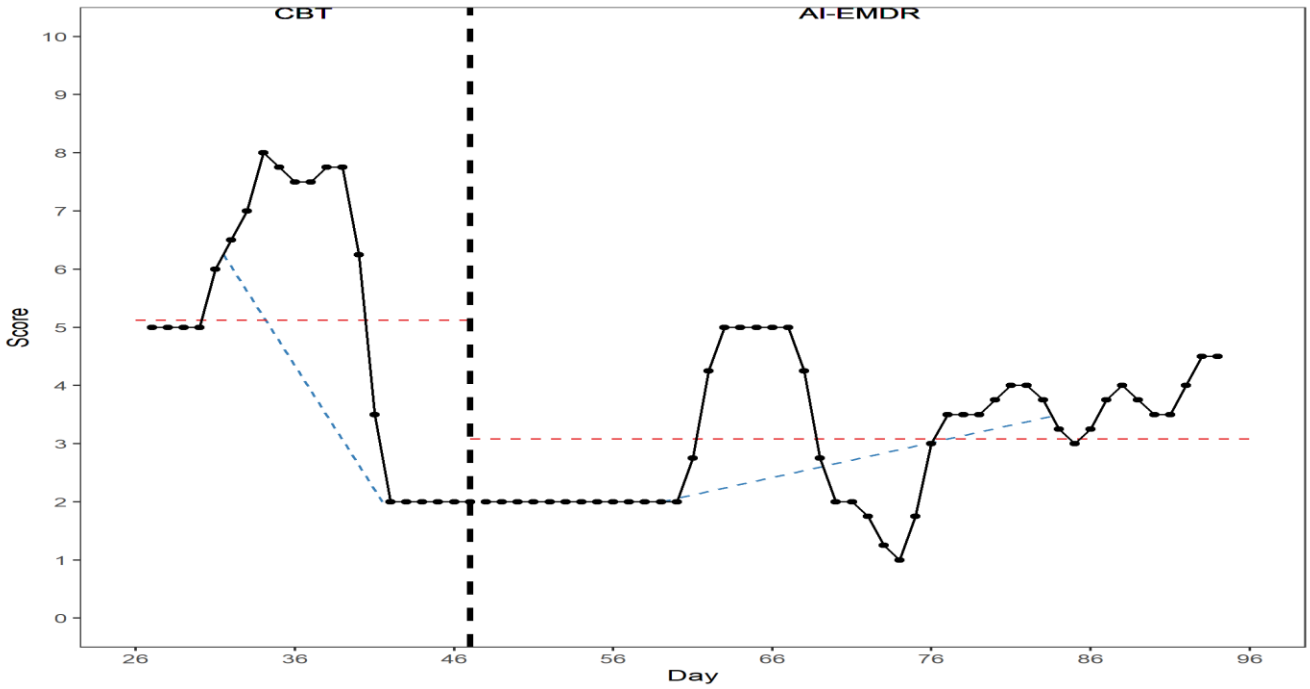
In the assessment phase the trend shows a distinct improvement. The mean is marginally lower than in A1. The mixed results led to the hypothesis (2b) being refuted.

In the CBT intervention phase, the trendline suggests an improvement in mood, but it is not as high as it was in the previous phase (A2). The mean is lower than in the previous phase. This led to the hypothesis (2c) being refuted.

In the AI-EMDR phase both the trend and mean are higher compared with the previous phases. This led to a confirmation of the hypothesis (2d).

Subjective daily rating of ability to undertake ERP tasks

Figure 4.21. *Peter's ability to undertake ERP activities*



Interpretation

The trendline shows that Peter's ability to undertake ERP tasks had diminished by the end of the CBT phase. He starts to improve again during the AI-EMDR phase, but he does not return to his initial confidence. The mean is higher in the CBT phase than in the EMDR phase. These mixed results led to hypothesis 3 being refuted.

There is no apparent reason why Peter struggled more with the ERP tasks from around days 40-60. He was struggling to come to terms with the breakup of his relationship and it is quite possible that he was self-medicating more with drugs and alcohol at this time.

Overall summary for Peter

Overall, Peter showed a minimal improvement in the severity of his OCD symptoms and his mood over the course of the trial. He did not respond especially well to either the CBT or AI-EMDR component of the trial. However, this may partially be attributable to Peter self-medicating with alcohol and recreational drugs at this time.

4.2.8. Participant 8: Dan (no ERP or AI-EMDR trauma processing undertaken)

Dan is a 46-year-old white, North-American male. He is self-employed and lives in the UK. Dan was signposted to this study by a clinician who saw my request for participants on the AI-EMDR forum. Dan has contamination OCD and had become increasingly isolated and distressed during the pandemic. As detailed later, his early years were traumatic and he reported that, whilst he can recall his emotions from three years ago, he cannot access any feelings from when he was younger.

Dan's scores for two assessment questionnaires are detailed below. Dan did, however, challenge the validity of most of the measures used in this study.

In the ECR-R (Fraley et al. 2000) Dan scored 29 (1.6) for attachment-related anxiety and 63 (3.5) for attachment-related avoidance. He rated in the 4th percentile for anxiety (insecurity about the responsiveness of others) and he was in the 68th percentile for avoidance (the extent to which he is uncomfortable being close to others). This suggests a Dismissing attachment style.

Dan scored 3 on the ACE questionnaire (Centers for Disease Control and Prevention, 2014), but emailed separately to say that he '*had an unusual childhood that didn't fit this questionnaire so well'*. Dan's affirmative responses included questions 1, 2 and 6 (Appendix E). Dan described his childhood as '*confused and confusing'*. His mother would slap him round the face for doing something as small as spilling some orange juice. Dan said that he was often hit and yelled at, but it never made sense. Dan had to be in bed before his father came home. When he was 4 his parents divorced, but they remarried when he was 6.

When Dan was 14 he was sent (willingly) to a 'tough love' camp in the States for 100 days to address his 'parental disobedience'. On arrival, his hair was forcibly cut off. He was not allowed to drink water without permission and had to march each day without enough water or food. The children were screamed at for destroying their families and were badly beaten. Dan said the thing that saved him was that someone who was a few weeks ahead of him on the course died and there was a lot of negative publicity. On his return, his parents duped him into attending a second, similar camp for 120 days. '*You could not get out until they had broken you. On my return I had no emotions. I could not love my dog and I couldn't get angry with my father.*' Dan cannot recall how or when his OCD started.

Engagement with the study

After a few sessions, it was apparent that Dan was not in a stable enough environment to participate in EMDR processing and I also had some 'risk to self' concerns. I discussed his situation with my supervisors and we agreed that it would be unethical to exclude him from the trial at this time, but that full engagement may be unsafe. For this reason, we undertook some CBT and minimally challenging ERP exercises at the start. In the AI-EMDR component we completed some grounding exercises, but did not undertake any AI-EMDR to process his traumas or any further ERP. Dan attended all twelve sessions, listened to some of the recordings and completed the ratings and questionnaires.

External factors during the trial

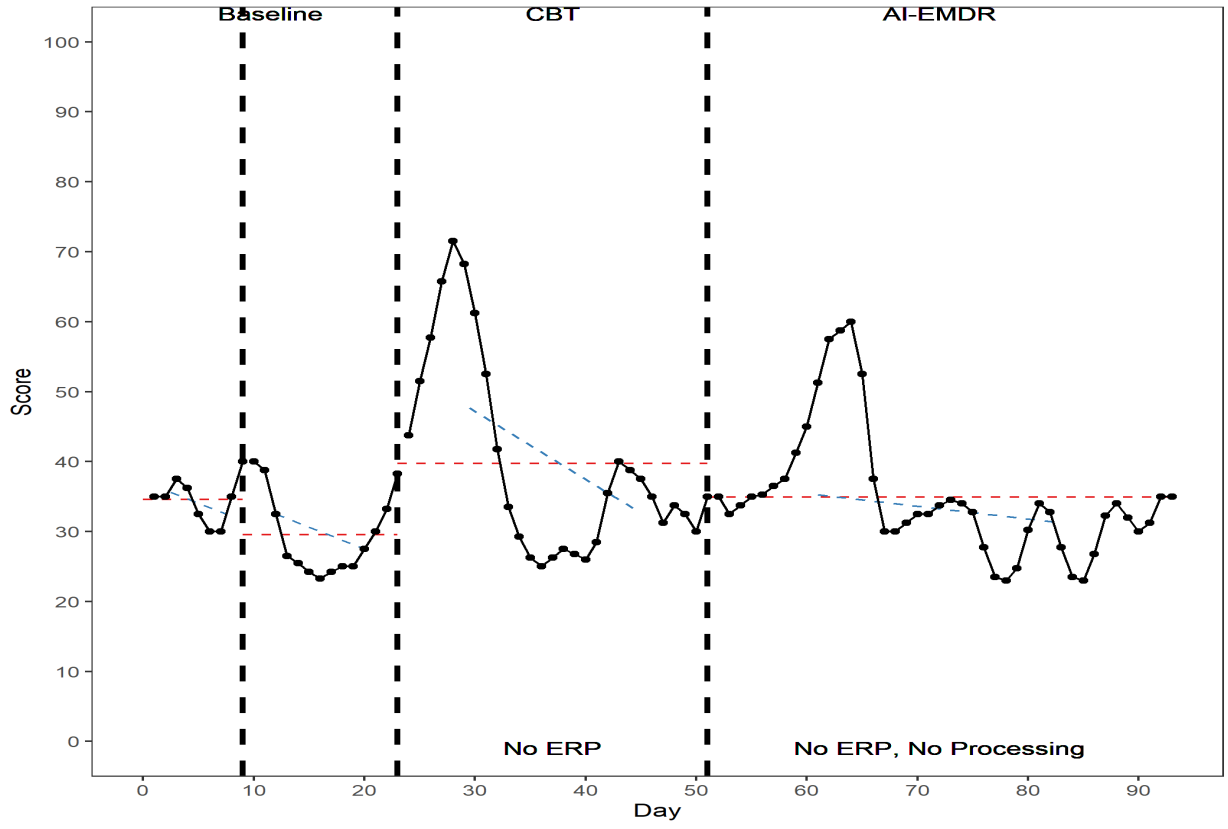
As described above, Dan was living alone during the trial and his anxieties had been further triggered by the pandemic and his isolation.

Table 4.8. *Relevant dates for Dan during the trial*

Relevant dates:
07/6/21: Baseline A1 commenced
16/06/21: Baseline A2 commenced
21/6/21: All legal limits on social contact removed (stage four)
30/6/21: CBT commenced
28/07/21: AI-EMDR trial started (grounding exercises only)

Subjective daily rating of severity of Dan's OCD

Figure 4.22. *Dan's subjective daily ratings of severity of his OCD*



Interpretation

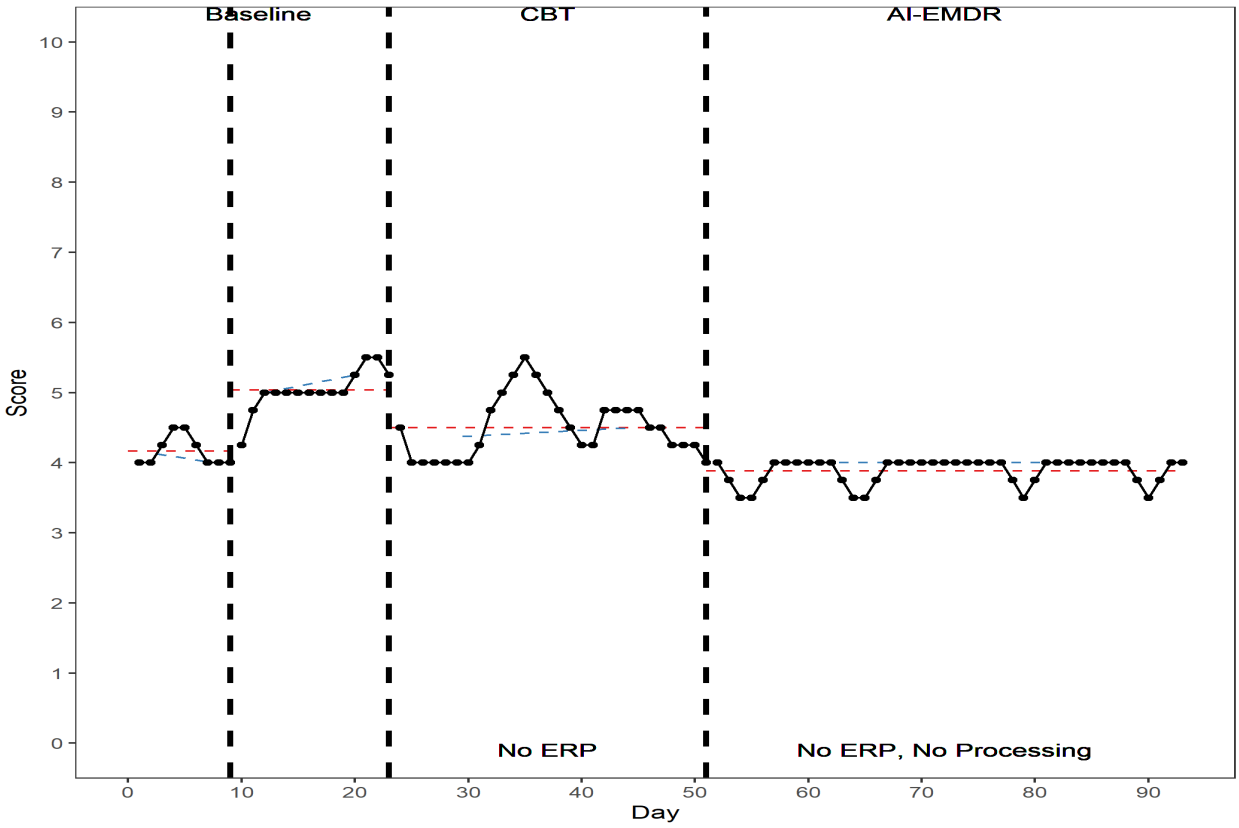
In the initial baseline phase there is a minimal improvement (decrease) in trend in the severity of Dan's OCD. The trend shows a further improvement during the assessment baseline phase

(A2) and the mean is lower than in A1. The two baseline phases are relatively stable and confirm the hypotheses (1a and 1b).

The ERP exercises were compromised in the subsequent phases. Further, no trauma processing was undertaken in the AI-EMDR phase, which negates the research hypotheses for both phases (1c and 1d).

Subjective daily rating of Dan's mood

Figure 4.23. *Dan's subjective daily rating of mood*



Interpretation

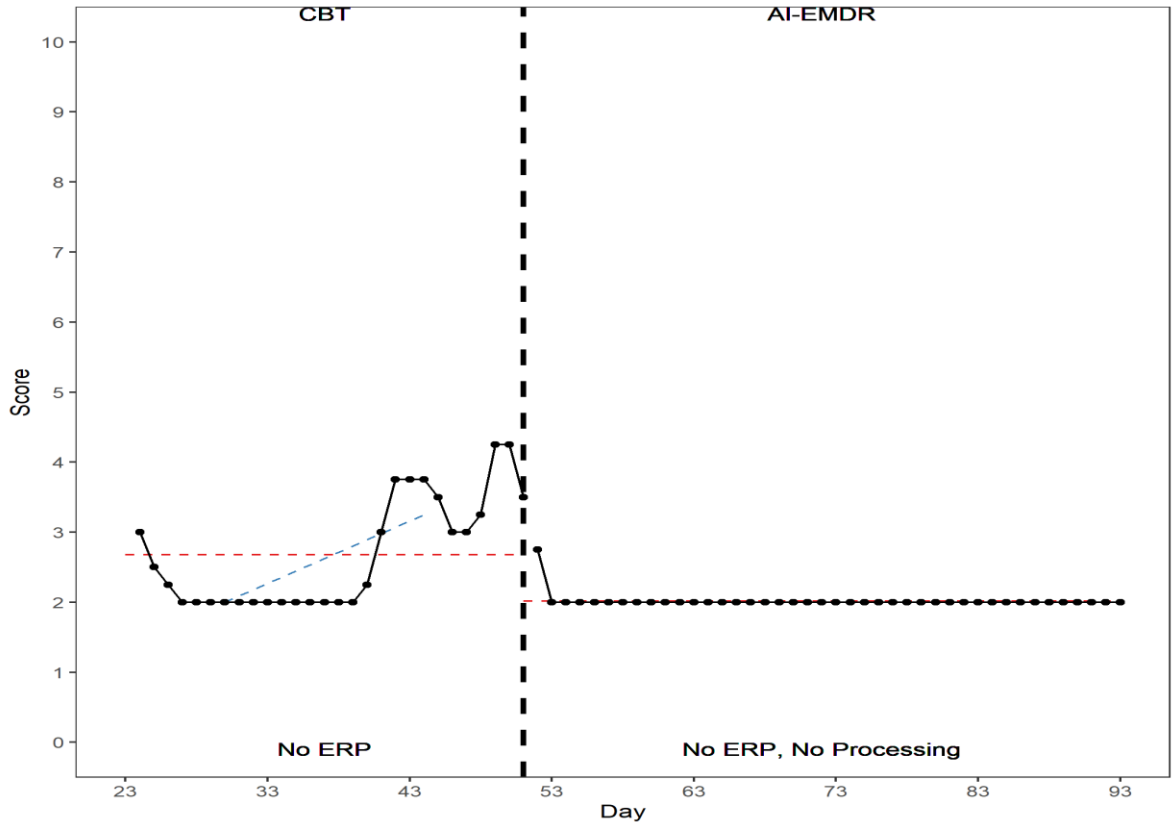
In the initial baseline phase the trendline shows a marginal decrease in mood. However, it is relatively stable and confirms the hypothesis (2a). In the assessment phase there is a minimal

improvement in trend and the mean is higher than in A2. These reasonably stable baselines confirm hypotheses 2a and 2b.

As detailed above, the ERP exercises and EMDR processing were compromised in the subsequent CBT and AI-EMDR phases, which negated the outcome for both hypotheses (2c and 2d).

Subjective daily rating of ability to undertake ERP tasks

Figure 4.24. *Dan's ability to undertake ERP activities*



Interpretation

As described previously, the ERP exercises and EMDR processing were compromised in the subsequent CBT and AI-EMDR phases, which negated the outcome for hypothesis 3.

Summary

My supervisor and I debated whether Dan's results should be included in the write-up due to the fact that he was not fully able to engage with the trial. However, in the spirit of providing practice-based evidence, it seemed appropriate to include him.

4.3 Group level quantitative analysis

As described in the previous chapter, a table showing the hypotheses outcomes for all participants was initially generated independently by myself, my supervisor and a colleague. Where there was a difference of opinion the rationale was discussed until we reached agreement. The qualitative hypotheses are detailed below to facilitate the reading of the final hypothesis outcomes in Table 4.9.

4.3.1. Hypothesis outcomes across the group

Hypothesis 1: The subjective severity of OCD symptoms will:

a) Remain stable during the baseline phase (A^1),

b) Remain stable or improve during the assessment phase (A^2).

c) Improve (decrease) during the CBT intervention phase (B^1).

d) Show an enhanced improvement during the AI-EMDR intervention phase (B^2).

Hypothesis 2: Subjective ratings of mood will:

e) Remain stable during the baseline phase (A^1),

f) Remain stable or improve during the assessment phase (A^2).

g) Improve (increase) during the CBT intervention phase (B^1).

h) Show an enhanced improvement (increase)during the AI-EMDR intervention (B^2).

Hypothesis 3:

The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities (ERP)

Table 4.9. *Outcome hypotheses for all participants*

	1a	1b	1c	1d	2a	2b	2c	2d	3
John (1)	Refute	Refute	Confirm	Refute	Confirm	Confirm	Confirm	Refute	Refute
Jane (1)	Refute	Confirm	Refute	Refute	Confirm	Confirm	Confirm	Refute	Confirm
Susie (1)	Confirm	Confirm	Refute	Confirm	Refute	Confirm	Refute	Refute	Confirm
Kate (1)	Confirm	Confirm	Confirm	Refute	Confirm	Confirm	Refute	Confirm	Refute
Hannah (1)	Refute	Confirm	Confirm	Refute	Confirm	Confirm	Refute	Refute	Refute
Sam (2)	Confirm	Confirm	Refute	Confirm	Refute	Confirm	Refute	Refute	Confirm
Peter (2)	Refute	Confirm	Refute	Refute	Confirm	Refute	Refute	Confirm	Refute
Dan:no ERP (2)	Confirm	Confirm	Not valid	Not valid	Confirm	Confirm	Not valid	Not valid	Not valid

Of the eight participants, Dan's results were excluded from the following summary due to the minimal ERP/AI-EMDR processing undertaken during the trial.

As can be seen in Table 4.9., in the initial baseline phase (A^1) three of the seven participants achieved a stable baseline in relation to their rating of the severity of their OCD (hypothesis 1a). Five of the seven participants achieved a stable baseline in their subjective ratings of mood in this phase (hypothesis 2a).

The data from all participants, with the exception of John, supported hypothesis (1b) that the severity of their OCD would improve during the assessment phase (A^2). Similarly, all participants, aside from Peter, reported an improvement in mood during the assessment phase (2b). However, for the first cohort, this phase coincided with the second easing of lockdown restrictions, making assessment of the impact of treatment (on severity of OCD and mood) more complex.

The results during the CBT phase (B^1) are mixed, with 3 of the 7 participants (John, Kate and Hannah) showing a reduction in their OCD severity (1c). Whilst they continued to progress during the AI-EMDR phase (B^2), the data for these participants cannot be described as 'enhanced' compared to the CBT phase. Susie and Sam, who did not show an improvement in OCD severity during the CBT phase, both showed an enhanced improvement during the AI-EMDR phase (1d).

Only 2 of the 7 participants confirmed the hypotheses (2c and 2d) with an improved mood in the CBT and AI-EMDR phases. This may be partially attributable to their improved mood in the assessment phase that coincided with the second stage of lockdown easing.

Five of the participants (Jane, Susie, Kate, Hanna and Peter) showed a trend suggesting worsening of their ratings in their ability to undertake ERP during the CBT component of the trial. This may have been a consequence of working through more anxiety-provoking ERP tasks as well as dealing with their anxieties at the further easing of lockdown restrictions at that time. Jane, Susie, and Peter showed some recovery during the AI-EMDR component

Overall, these mixed results do not support the hypothesis that the addition of AI-EMDR will enhance individuals with OCD ability to undertake ERP activities. However, aside from Peter, all participants showed an improvement in their OCD severity and mood over the course of the trial.

4.3.2. Y-BOCS and OCI-R outcome measures across the course of treatment

The Y-BOCS (Goodman et al., 1989) outcome measures were assessed using McKay et al. (1998) two factor model. The reliable change criterion for Obsessions was 3.62 and for

Compulsions 4.59. The OCI-R (Foa et al., 2002) outcome calculations utilised Hajcak and Yadin's (2007) research giving a Reliable Change Criterion of 14.19.

Table 4.10. *Y-BOCS outcome measures across the course of treatment*

	John	Jane	Susie	Kate	Hannah	Sam	Peter	Dan
YBOCS (assessment)	18 O=10 C=8	21 O=11 C=10	19 O=11 C=8	30 O=16 C=14	24 O=12 C=12	12 O=8 C=4	23 O=12 C=11	23 O=9 C=14
YBOCS (end of treatment)	12 ***O=6**** C=6	14 ***O=7**** C=7	11 ***O=6**** C=5	20 ***O=10**** C=10	21 O=9 C=12	6 ***O=3**** C=3	18 O=10 C=8	19 O=7 C=12
YBOCS (week 25)	8 ***O=5*** *C=3*	10 ***O=4*** C=6	12 ***O=6*** C=6	23 O=13 C=10	21 O=10 C=11	8 ***O=4*** C=4	15 ***O=8*** C=7	19 O=7 C=12

Table 4.11. *OCI-R outcome measures across the course of treatment*

	John	Jane	Susie	Kate	Hannah	Sam	Peter	Dan
OCI-R (assessment)	13	21	13	46	21	26	27	15
OCI-R (end of treatment)	10	14	5	*31**	15	11*	21	14
OCI-R (week 25)	5	13	5	**33**	19	**4**	23	16

Key for Table 4.10 and 4.11

** reliable change as compared to assessment.*

Items in bold show reliable change has been maintained.

4.3.3. Summary of outcome measures

Dan's measures are not incorporated in this review as treatment was not undertaken as intended. On this basis:

All participants showed an improvement on the Y-BOCS and OCI-R outcome measures by the end of treatment, with the majority maintaining these improvements on the Y-BOCS in the week

25 follow-up review. It should, however, be noted that all participants (aside from Hannah) had continued to see me for therapy on alternative weeks until that time.

Five of the seven participants showed reliable improvement on the Y-BOCS obsessions criteria by the end of treatment. Only John showed reliable change on the Compulsions component of the Y-BOCS by the end of the trial. This phenomenon is explored further in the discussion chapter.

Foa et al. (2002) recommend a cut-off score of 21 for the OCI-R to distinguish individuals with OCD from those with other anxiety disorders. Despite the severity of their OCD, John, Susie and Dan were all below the diagnostic cut-off score for OCD, which is also considered further in Chapter 5.

Overall, the improvement in six of the participants outcome measures over the course of treatment is compatible with the outcome from participants' subjective daily ratings.

Chapter 5. Qualitative Analysis

5.1 Introduction

The qualitative analysis for this study was undertaken using thematic template analysis, which is a well-established method for analysing data in the social sciences (King & Brooks, 2017). The data comprised of all eight participants' responses to semi-structured interviews (lasting 30-60 minutes) that were undertaken four weeks after the end of the study. The interview questions (Appendix L) were compiled by me in collaboration with both my internal and external supervisors. An exemplar interview, along with all stages of the analytic development, can be seen in Appendix M. Whilst Dan was excluded from the final quantitative analysis, it seemed appropriate to include his insights in the qualitative component.

The interviews were transcribed and a hierarchy of codes was generated with the highest levels showing broad themes in the data and the lower levels offering a narrower focus on these themes (Matthews et al., 2018). As described in Chapter Three, I had already identified four provisional over-arching *a priori* themes. These were: 'life before the trial'; 'experience of the trial', 'the impact of Covid-19' and 'looking forward after the trial'. My rationale for proposing these provisional themes was twofold. Firstly, I wanted to provide a temporal framework that created a delineation of participants' experience of living with OCD before and after the trial. The rationale for this was to see what, if anything, had changed for participants as a consequence of being involved in this study. I also wanted to explore potential themes regarding participants' experience of specific therapeutic interventions that were implemented during the AI-EMDR phase in an endeavour to provide insight for future research. This was in keeping with my pragmatic framework, where the primary aim was to retain a structure that focussed on the research questions. Brooks et al (2015) describe how the flexibility of template analysis facilitates the analyst to develop themes more extensively where the richest data (in

relation to the research question) is found. Template Analysis does not insist of an explicit distinction between interpretive or descriptive themes nor on a particular position for each type of theme in the coding structure.

The qualitative research questions for this study were:

> ***Overarching research question***: Do AI-EMDR interventions, when used alongside a CBT protocol, improve treatment outcomes for individuals with OCD?
>
> ***Qualitative research question***: What were the experiences of individuals with OCD of participating in this research study?

As can be seen in the data workings in Appendix M, the four a priori themes were retained in the final template, with the development of sub-themes that facilitated more nuance. The participants' responses did generate an iterative process between some components of the qualitative and quantitative research. For example, once the analysis was completed, I did undertake further research to see whether there was any evidence to suggest a correlation between the perceived strength of client's visceral response to EMDR and treatment outcome in the SCED.

I did ask some fairly specific questions with regard to certain AI-EMDR interventions and whether participants felt they had proved beneficial or not. The rationale for this was that I wanted to pass on practical knowledge that may prove useful in clinical practice and in subsequent research. Brooks et al (2015) describe how it is entirely appropriate for analysts to selectively draw on such sources if it suits the needs of the study.

Brooks et al (2015) describe how the development of a template cannot be seen as sufficient if substantial sections of data relevant to the research questions cannot be coded to it. I was mindful of this advice and, by the end of the analysis, almost all relevant data had been coded. This may have proved easier due to the fact that both the initial semi-structured interview questions and the subsequent analysis focussed on the research questions under scrutiny in this study. Table 5.1 shows the final TA coding which comprised of 5 first-level, 10 second-level and 9 third level themes.

Table 5.1 *First, second and third-level theme codes*

1.0 Life before the trial

- 1.1 Living with OCD
  - 1.1.1 Suffering, overwhelm and exhaustion
  - 1.1.2 Previous treatment
- 1.2 Participants' perception of their OCD
  - 1.2.1 A consequence of previous trauma?
  - 1.2.2 Underlying negative self-belief
  - 1.2.3 OCD as magical thinking

2.0 Experience of the trial

- 2.1. The CBT component
- 2.2. The AI-EMDR component
  - 2.2.1 Initial reservations regarding EMDR
  - 2.2.2 AI-EMDR as a visceral response
  - 2.2.3 AI-EMDR conceptualisation and resources

3.0 External events affecting the trial

- 3.1. The impact of COVID-19
  - 3.1.1 Undertaking therapy online
- 3.2 Other external factors

4.0 Overall experience of the trial

- 4.1. Enhanced ability to self-soothe
- 4.2 Alleviation of OCD symptoms

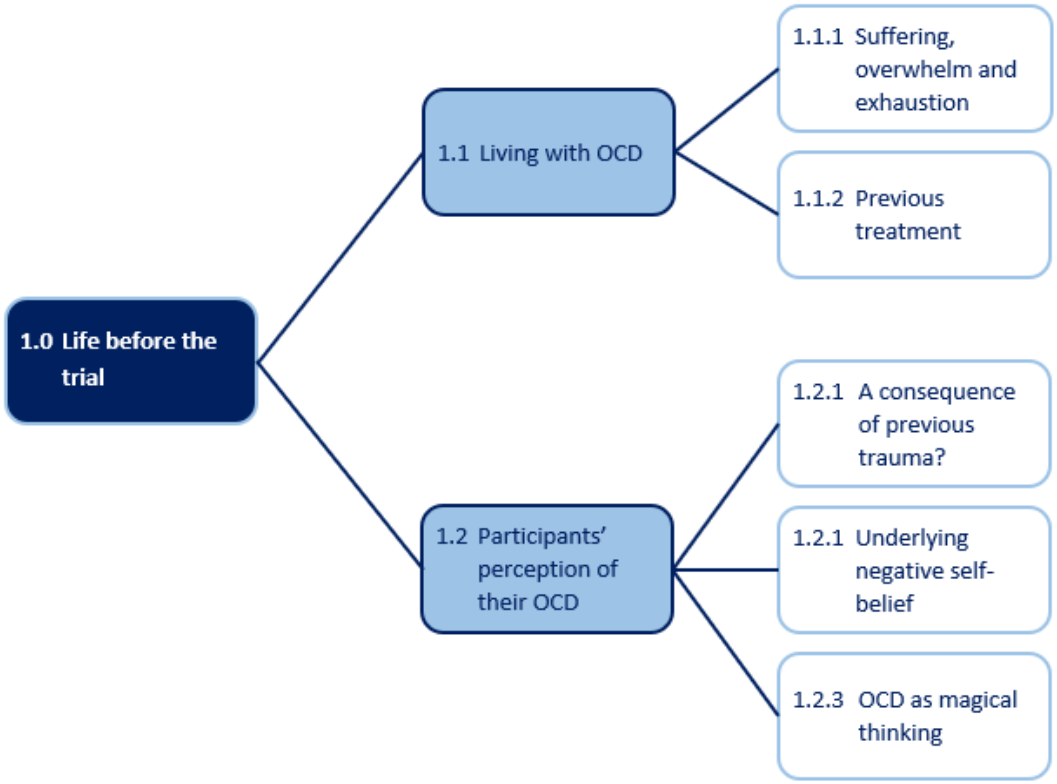
5.0 Looking forward – post treatment

- 5.1 A cure for OCD?
- 5.2 Future treatment

5.2. Theme One: Life before the trial

As can be seen in Figure 5.1, this theme incorporates two second-level themes and five third-level themes regarding participants' experience of living with OCD and their perceptions of the origins of their condition.

Figure 5.1 *Theme 1: Life before the trial*



Theme 1.1: Living with OCD

All participants, aside from Peter, described times when their OCD had been completely debilitating and impacted upon all areas of their life. It subsequently became apparent that Peter had spent many years self-medicating with drugs and alcohol to alleviate the distress caused by his OCD symptoms. All participants were ambivalent about their previous treatment, which had primarily comprised of CBT with ERP exercises and medication.

Theme 1.1.1: Suffering, overwhelm and exhaustion.

The majority of participants described their anxiety, exhaustion and times when they had experienced total overwhelm with their OCD. John, Susie and Dan were all unable to work at the start of the trial due to a severe deterioration in their mental health which had been exacerbated by their OCD symptoms:

> Maybe ten years ago it was the worst it's ever been in my life, and, I don't know ... I'm really isolated, and it affects all areas of my life. (Dan)

Five participants described their underlying beliefs that they were 'bad, mad or dangerous'. They all had a strong desire for certainty that they would not cause harm to themselves and/or others and described their obsessive ruminating as exhausting:

> I was watching a film called Shutter Island and the woman at the end says something like before she kills her own children. She said, "*It feels like there's something crawling across my brain*." And I just freaked out. I became so worried that was me and that I could do those things. (John)

Theme 1.1.2: Previous treatment

It is relevant to note that a requirement for participation in this study was that applicants had previously undertaken therapeutic interventions that had not alleviated their OCD. On this basis, this analysis may not be representative of most individuals' experience of treatment.

Prior to diagnosis John and Sam had both believed that they were flawed individuals who may commit terrible acts if they did not remain vigilant regarding their behaviours. They both expressed their huge sense of relief when they finally received a formal diagnosis of paedophile OCD. This did little, however, to alleviate their obsessive symptoms. Several participants described the failure of health professionals to identify their symptoms as OCD, with many GPs and therapists appearing to only have awareness of the common OCD subtypes (e.g., washing or checking). All eight participants described a level of ambivalence about their previous treatment (primarily CBT/ERP and medication), with four of the eight reporting that CBT/ERP had proved beneficial to some extent, at the time.

> I think literally my OCD was about as severe as it could get for anyone on this planet, and it [CBT] got me to a point where I was functioning again and I had a life. I definitely got a lot of mileage out of it. (Dan)

However, whilst CBT interventions proved beneficial in the short term, four participants described their struggles with undertaking and/or maintaining CBT/ERP activities when treatment finished:

> I found [CBT/ERP] really helped me get out of a crisis, but it was so incredibly difficult and unsustainable that I … I really had a hard time keeping it going. (Dan)

Several participants described the rigid nature of ERP treatment as problematic as they were not given any insights into the reasons that they had these obsessive thoughts:

> I am a researcher by trade, that's my job, and there was so much of the ERP that was just done on blind faith and '*no, don't...don't try and understand it, whatever, just absorb it, accept it, let it be and carry on*'. (John)

In contrast, however, Jane responded well to the inflexibility of the CBT/ERP paradigm as this left no room for uncertainty:

> I think CBT was probably the most helpful… because there were rules I could follow so it was easier for me to stick to them. (Jane)

Susie described actually feeling worse after the CBT interventions, with her assumption that her inability to undertake the ERP tasks was her fault:

> A lot of the time, I kind of felt like I was doing it wrong, you know. And I think that impacted my ability to fully engage with it because I was constantly criticizing my…myself… and I found, actually that it just…I got…I...I felt worse in the end actually. (Susie)

For Kate the potential risks of undertaking ERP tasks (e.g., not checking whether the cooker was turned off several times throughout the day) felt too great. Even though she recognised the ego-dystonic nature of her thoughts ('I know it's unnecessary really and I don't know anyone else who does that') she still felt she was putting her family and pets at risk if she did not check the electric items in her home on a frequent basis:

> And I was just told you have to do them as an anti-OCD, kind of, therapy. And I just couldn't bring myself to do it… I thought, my God, what if something does happen? (Kate)

Most participants expressed the view that pharmacological treatments (primarily SSRIs) were helpful in reducing their OCD symptoms. However, Jane and Kate both described their experience of taking medication for their OCD as problematic for different reasons:

> [Antidepressants] helped a bit too much in a sense that I just didn't care about anything anymore which is not good. (Jane)

While Kate appeared to encounter the opposite effect with the medication she was prescribed:

> I've had various different types of anti-anxiety medication. But they either make me very jittery or they just didn't work for me. (Kate)

Theme 1.2: Participants' perception of their OCD

None of the participants had a fixed idea about the cause of their OCD. Most felt there was a biological component, but they also acknowledged that their childhood experiences may have contributed to their difficulties. The majority of participants described having a critical inner voice, with six participants (excluding Sam and Dan) recognising that they had low self-esteem. Several participants conceptualised their OCD as an emotional coping strategy which they believed they developed in childhood.

Theme 1.2.1: A consequence of childhood trauma?

All participants had experienced a higher-than-average level of adverse childhood experiences, which is discussed further in the following chapter. Prior to undertaking this study, five of the

eight participants had made tentative links between events in their childhood as relevant and meaning-making in the development of their OCD:

> I believe [my OCD] started when I was about seven when my sister was born…my mum was a high functioning alcoholic…and the house that we lived in was pretty chaotic… I wanted to make sure everybody was safe. (Kate)

Theme 1.2.2: Underlying negative self-belief

Sam, Jane and Susie all felt there was a parallel between events in their past and their internal critic:

> There was like a kind of very sort of direct parallel with the kind of the ideas I've sort of embodied about myself from being really, really small to the present day. [including ideas of] I am just too bossy, too dominant, just too much and my OCD kind of was trying to sort of constantly watch out for the possibility of me becoming an intrusion, you know. (Susie)

It was apparent that nearly all participants struggled with their self-esteem, with a low sense of self-worth.

> It was also very revealing to me [in therapy], what a low opinion I had of myself. (John)

Theme 1.2.3: OCD as magical thinking

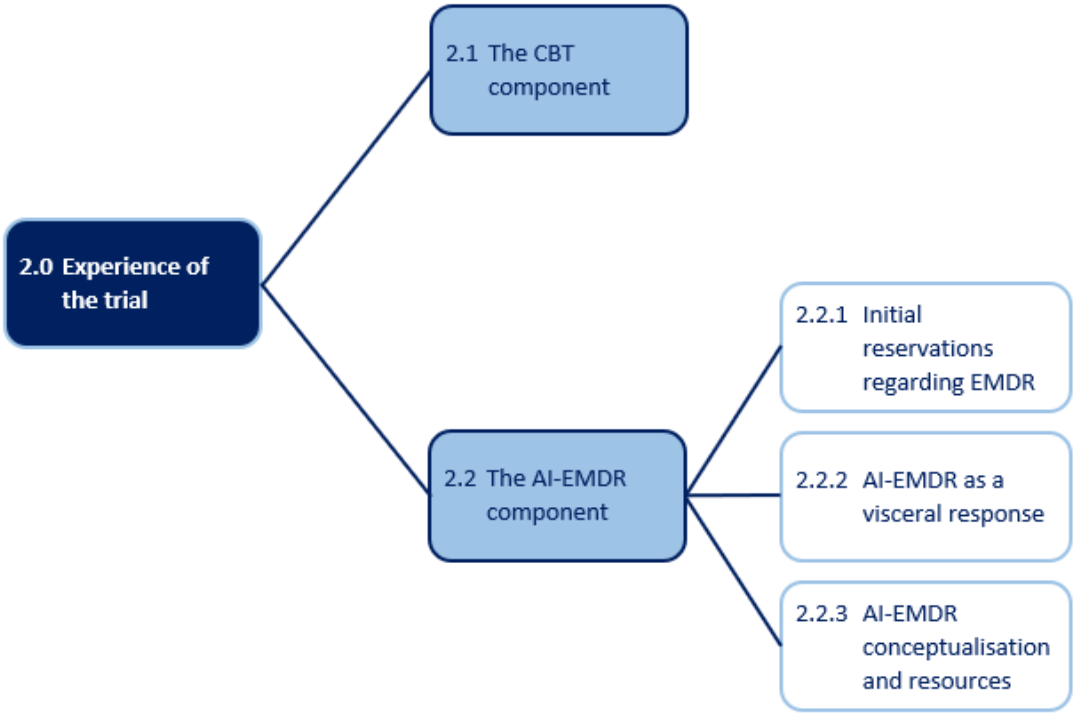
Hannah, Sam and John all described their OCD potentially developing as a coping strategy of 'magical thinking' in their childhood that was implemented to avoid sitting with distressing emotions:

> I'd try and control my own thoughts and feelings and then try and do this magical thing, you know like, where if I, you know, if I make this shot then I'm not gay. If I can throw this up in the air and catch it in my mouth, I'm not gay, loads of things like that. (John)

5.3 Theme 2: Experience of the trial

This second theme explored how participants perceived both the CBT and the AI-EMDR interventions during the course of the research study.

Figure 5.2 *Theme 2: Experience of the trial*



Theme 2.1: The CBT component

As with their previous experiences of CBT/ERP, five of the eight participants expressed ambivalence about this phase of the study. Whilst they acknowledged it was beneficial, they all struggled with this process to a lesser or greater extent:

> Some of the CBT stuff, I did find really helpful actually… but I wouldn't really be bothered about having more [ERP]. (Hannah)

Theme 2.2: The AI-EMDR component

I had anticipated that participants would have a sense of excitement about trying a new EMDR intervention to address their OCD, having achieved limited benefits from previous treatment. In fact, the majority of participants appeared to know very little about EMDR at the start of the trial, other than the information I had sent them. For those who had heard of this approach, the more prevalent feelings appeared to be anxiety about the process and/or low expectations about whether it would work. In practice, most participants were surprised at the visceral experience of undertaking AI-EMDR processing. As a pragmatic researcher, my aim was to gain practical insights into the components participants has found more or less beneficial in this trial. On this basis, I did ask fairly specific questions regarding their experience of the interventions used in the AI-EMDR process.

Theme 2.2.1: Initial reservations regarding EMDR

Whilst most participants did not have any particular opinions regarding undertaking EMDR interventions, Sam did have some initial concerns:

> I knew [from people] who'd had it, like it's so intense, it throws you all over the place. (Sam)

Possibly as a consequence of their previous therapeutic experiences, others appeared to have low expectations:

> I wasn't really too sure the whole emotional approach would make a big difference really. (Jane)

Theme 2.2.2: AI-EMDR as a visceral response

The majority of participants reported their surprise at the somatic experience of AI-EMDR with some participants, including Sam and Susie, appearing more receptive to the processing phase than others:

> Because what it elicited was, like, real emotional reaction that I…didn't see coming… the kind of like…the kind of snotty crying I was doing during the first exercise felt like it came out of nowhere, you know. (Susie)

Sam had a strong visceral response to the AI-EMDR processing in several sessions. He described his experience of heart palpitations and sweating when we processed his pent-up rage against his stepfather. Sam also described making contact with his deep sense of sadness, in a later session:

> It blew my mind actually how quickly you were able to get in touch with the raw feeling for me, like what was there that had maybe been unprocessed or untouched… rather than trying to articulate something that was a visualisation or a thought or a memory… it was genuinely a deep source of loneliness and I feel like I couldn't have contacted that without the physical part. (Sam)

From a clinical perspective, I was aware that we had processed some powerful touchstone memories for Sam and Susie and this was confirmed by their report of diminished physical sensations in the aftermath of the AI-EMDR:

> Whenever I'd think about that imagery it was a full body reaction and I felt physically like I wanted to rip my skin off and now when I think about it it's like a butterfly flutter in my stomach and I think "ooh that was quite bad". (Sam)

Susie also appeared better able to self-soothe in the aftermath of AI-EMDR processing:

> I've definitely felt much more able to kind of sit with it, not attempt to redirect from it. I don't feel necessarily as kind of controlled by it now, I think. (Susie)

Theme 2.2.3: AI-EMDR conceptualisation and resources

In some CBT literature OCD is described as 'the bully' that has to be 'defeated'. Within the AI-EMDR protocol, OCD is explained as an adaptive process that helped the individual to cope with adversity in their childhood. All of the participants were receptive to this idea and were able to make sense of their OCD offering them some form of protection when they were younger:

> You were the first person in which it really clicked for me – thinking about the OCD in terms of a very powerful friend rather than a very powerful enemy… It's actually quite sweet, in a way, to understand that this is that little child's mechanism of protection. (Sam)

For all of the participants (other than Sam) the grounding exercises (Appendix I) appeared to be at least as helpful as the AI-EMDR processing. It was apparent that some of these exercises were more useful than others. Despite some having reservations at the outset, all participants reported finding it beneficial to generate their resource team.

> When you said, you know, you need to build your group of nine people…they are there to protect you or to nurture you, or whatever it is, I did think oh my God, what is that all about? But actually, I totally get it now. (Kate)

For others, spending time reflecting on the people who were there to support them appeared to be a source of comfort.

> Thinking about my resource team and deciding on those individual people and whatever, actually was also just a really comforting exercise that I think set me up to kind of engage in the work quite well. (Susie)

The adaptation of Knipe's (2019) Loving Eyes script, where participants met their younger self (Appendix I) was also well received and referred to positively by five of the eight participants:

> The little girl thing was like probably one of the most helpful things really… And I still think about that little girl. (Hannah)

In keeping with the therapeutic aim, several participants appeared to connect with their inner child in a supportive way:

> When I talked to my younger self, that really, really helped me because, yeah I really want to, kind of, make her feel good and protect her. (Jane)

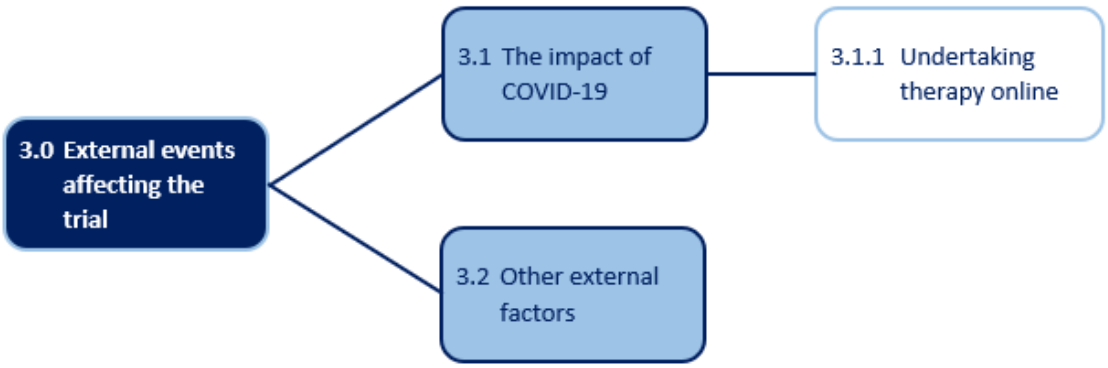
The ideal mother (Parnell, 2013), where participants are encouraged to visualise an ideal parent to nurture them, was only mentioned by Dan and Hannah, but they were positive about this intervention:

> The Ideal Mother was awesome. (Hannah)

5.4. Theme 3: External events affecting the trial

This third theme included participants' experience of COVID-19 and the lockdowns that coincided with the treatment period. The next second-level theme describes other external events that may have impacted on participants' experience of the trial.

Figure 5.3 *Theme 3: External events affecting the trial*



Theme 3.1: Impact of COVID-19

As detailed earlier in this chapter, this study was undertaken in the midst of the COVID-19 epidemic. This was especially relevant to the first cohort who started treatment just as the phased easing of lockdown commenced. This theme explores how the pandemic and the easing of lockdown may have impacted on our work together:

Theme 3.1.1. Undertaking therapy online

One consequence of lockdown restrictions was that all our therapeutic work was conducted online. Participants reported mixed views on this issue. Four of the eight had a negative reaction and described the lack of connection and/or issues with privacy:

> It definitely becomes a lot harder when it's online, as opposed to maybe if you were in person, you could relax into it a bit more. (Peter)

Finding space to talk in private was also problematic for some clients:

> I have to get to my parents' house because I don't want to do it in my flat share because I feel like it's just too much personal things. And they can – our walls are so thin, and stuff like that. So I think in person would've been easier for me. (Jane)

However, four participants also described more positive aspects of having therapy online These included the advantage of not having to travel home after each session:

> There were so many times where I was actually really grateful to just close the computer and be in my living room. (Susie)

Similarly, there were mixed responses regarding working online in relation to participants' subset of OCD:

> Some of it [working online] was difficult for me because my OCD involved tech… so I struggled downloading recordings and sending emails. (Hannah)

For others, working online almost certainly resulted in better attendance and was less triggering for their OCD.

> It made it less intimidating for me. I didn't have to manage anything contamination wise, with your office or something. (Dan)

Theme 3.2: Other external factors

Nearly all participants described a disproportionate number of stressors affecting them during the trial. It seems likely that some of these issues may have been exacerbated by the easing of lockdown with people going out and socialising more:

> I've been locked down previously for the past three years and I hadn't been with anybody.... So I met somebody and fell in love, basically, which has been wonderful and massively triggering. (Hannah)

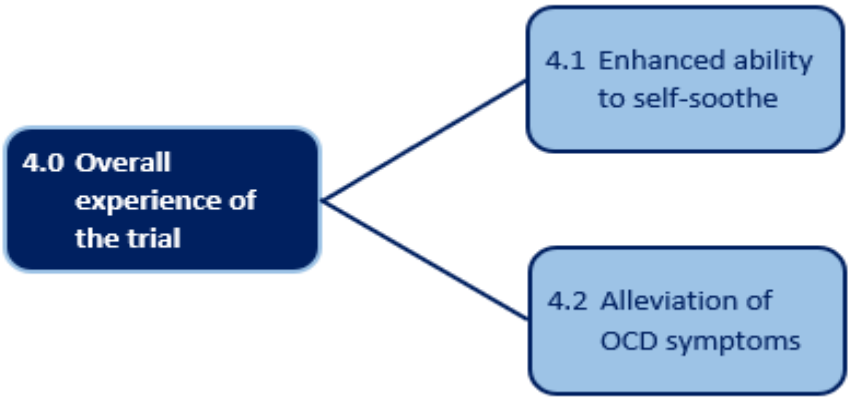
Others described how the positive effects of therapy had led to them challenging themselves more, which did generate some anxiety:

> I added layer upon layer of more anxiety-provoking things I wanted to do. Talking to my parents, going into relationships, spending a lot more time, you know, with...with children, families and just generally doing things that were difficult for me. (John)

5.5. Theme 4: Overall experience of the trial

All participants reported a positive experience of being involved in the trial. This was endorsed by their full attendance and all participants (aside from Hannah) expressing a desire to continue our work together after the study concluded. This theme incorporated two sub-themes that most participants commented upon. These include their enhanced ability to self-soothe and some alleviation of their OCD symptoms.

Figure 5.4 *Theme 4: Overall experience of the trial*



Theme 4.1. Enhanced ability to self-soothe

It was apparent that the majority of participants felt better able to self-soothe by the end of the study, with most attributing this to their experience of AI-EMDR:

> I went from my rigid previous therapy to actually your OCD is complicated, and it's linked in and knotted up with other stuff, and that other stuff is valid, and it's okay to kind of get that out as well and think about it and feel it…that was a really, really valuable thing for me that, you know, that I took away from it. (Susie)

Several participants reported that they had more self-compassion after completing the AI-EMDR interventions. This, in turn, appeared to quieten their critical inner voice:

> So I think it [AI-EMDR] has loosened up this grip that I'm a bad person and I have to be perfect to compensate. (Hannah)

Whilst Jane continued to endorse the CBT component of the trial, she did still acknowledge her need to improve her self-esteem:

> I think the CBT was probably the most helpful… I feel like because there were rules I could follow, it was easy for me to stick to them… but I think what's gonna be really, really helpful…is trying to improve underlying issues like maybe self-esteem or my perception of myself (Jane)

Theme 4.2.: Alleviation of OCD symptoms

Six participants (excluding Peter and Dan) reported an improvement in their OCD symptoms by the end of the study. John, Susie and Sam all reported a dramatic shift in their perception of their OCD:

> Then I started seeing you and… things are better than they've...than they've ever been. I just have a different relationship with my OCD now… I don't want to get carried away because it's quite early on and things like that, but I mean, I genuinely haven't felt this good in...in 20 years. (John)

Susie had received extensive treatment in specialist OCD clinics in the past, but still described this treatment as highly beneficial:

> To be able to say that it's not the biggest pre…preoccupier in my life is quite an interesting thing. Actually, I hadn't really said that before. (Susie)

Sam had also undertaken numerous therapeutic interventions over the past few years and described his surprise at the impact of this study:

> From start to finish, this has been nothing but eye-opening for me…My management of my OCD was pretty good when we started working together and it's kind of, almost gone, which is a very, very strange feeling for someone that's lived with crazy thoughts and horrible feelings attached to them for all these years… I thought this would be helpful, I didn't expect this to be life changing. (Sam)

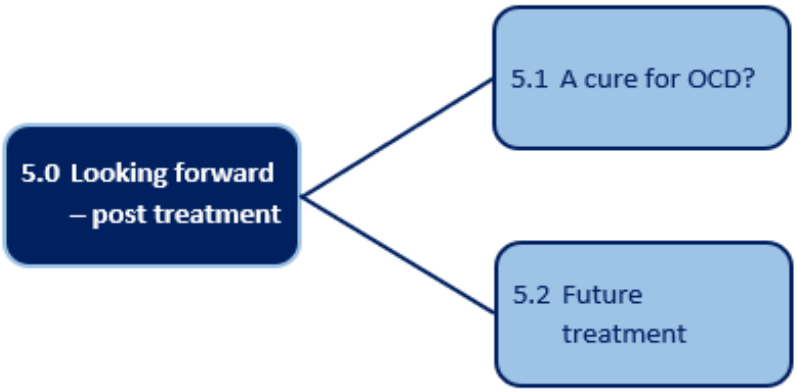
Sam gave his perspective on the relevance of both interventions in the trial:

> If I was to do it like a pie-chart I'd say that 20% of changes I've experienced are due to the ERP, the CBT, and the outside EMDR parts. I'd say 80% was the EMDR, in particular the somatic stuff. (Sam)

5.6 Theme 5: Looking forward – post treatment

The final theme explored participants' feelings about their OCD after completing the study. The two sub-themes include whether they felt they would ever be cured of their OCD and whether they planned to undertake further therapeutic interventions.

Figure 5.5 *Theme 5: Looking forward – post treatment*



Theme 5.1. A cure for OCD?

Despite some very positive feedback, none of the participants felt that therapeutic interventions could completely eradicate their OCD. It was interesting to note how Susie and Kate both described their OCD as creeping up on them, which was a similar metaphor to the one John described at the start of this analysis when he described his reaction to watching Shutter Island.

> I think it's got the…you know, the little kind of creeping possibility of getting bigger in my brain every now and then. (Susie)

> I don't think I will ever be in a position where I haven't got some form of OCD ...it feels like some, sort of, ivy that's creeping up me and taking over. You know, I need to keep trimming it down and making sure that it's not just overpowering me. Because that's what happens. It just kinds of...it just completely almost suffocates me. (Kate)

Theme 5.2. Future treatment

All eight participants endorsed the use of AI-EMDR alongside CBT in any future work and, aside from Hannah, they all expressed their strong desire to continue our work together:

> I don't think I ever realized I could have a bit of a higgledy-piggledy mashed together, bit of everything, you know. And I think if I'd known that, it would have made me feel so much more comforted. (Susie)

Overall, their feedback did suggest that AI-EMDR, when used alongside a CBT/ERP protocol could prove to be a useful intervention for some individuals with OCD:

> [If I couldn't see you] I would ask you, who do you know that can work on trauma in the same way as you have incorporating EMDR, ERP and sort of the psychodynamic work that we've done because I can't just go down the route of just ERP. It doesn't work for me. (John)

Chapter 6. Discussion

6.1 Introduction

This study explored the potential therapeutic benefits of using AI-EMDR interventions alongside a CBT/ERP protocol to improve treatment outcomes for individuals with OCD.

The philosophical lens of pragmatism was used to inform this research, where the primary aim was to empirically test the hypotheses in order to provide actionable knowledge that has clear relevance for the treatment of individuals in clinical practice (Teddlie & Tashakkori, 2009). Feilzer (2010) describes how a Pragmatist approach sidesteps ontological and epistemological dichotomies by positioning the research inquiry, rather than the methods, at the heart of the process. The mixed methods used in this study were pragmatically selected on this basis.

This mixed methods approach was undertaken using an explanatory sequential design, whereby a qualitative TA was undertaken to explain and add nuance to the results of the quantitative SCED (Cresswell, 2015). The focus in this research was on participants' idiosyncratic experience of having OCD and their individual responses to treatment.

This study was open to participants who had limited success with previous treatments, which had primarily comprised of CBT/ERP interventions and/or medication. In this research OCD was conceptualised as a complex trauma response, with AI-EMDR interventions undertaken to help process childhood and other trauma. It was theorised that this would help calm the participants' threat system and facilitate them in undertaking ERP activities.

The following section (6.2) gives an overview of the findings and these are considered within the context of the COVID-19 pandemic which was ongoing at the time of this study (6.3). These

findings are then discussed in relation to the wider literature (6.4). The chapter then moves on to discuss whether AI-EMDR interventions did reduce OCD symptoms and, if so, the potential mechanisms of change (6.5). The strengths and limitations of this study are then discussed, with avenues for further research and the implications for clinical practice considered (6.6- 6.8). My personal reflections on the research journey that culminated in this research study are discussed in section 6.9. The chapter concludes with a brief summary.

The hypotheses and research questions for this study can be seen at the end of Chapter 2 (p.74). A brief review of the findings is detailed below that will be discussed in more detail later in this chapter.

6.2 Overview of the findings

Eight treatment-resistant individuals with OCD were recruited and they all contributed to the SCED and the TA analysis. However, as detailed in Chapter 4, Dan's data was excluded from the final quantitative analysis as he did not complete treatment as intended.

In keeping with the rationale for this study, where OCD is conceptualised as a complex trauma response, all participants did report higher rates of ACE than the norm. The most common ACE (reported by all participants) was frequent parental verbal abuse. These ACE reports were compatible with participants' attachment style profiles where they all presented with anxious and/or avoidant attachment styles (Fraley et al., 2013). There did not, however, appear to be a clear association between attachment style and treatment outcome.

All seven participants who contributed to the final quantitative analysis presented in two of Abramowitz et al. (2010) four theme-based dimensions of OCD, which were 'unacceptable thoughts' and 'responsibility for harm'. Research suggests that unacceptable thoughts and fear

of unfavourable judgement are more difficult to ameliorate with CBT/ERP (Mpavaenda et. al., 2016, Williams et. al., 2014). This may explain the disproportionate ratio of applicants in these two categories as they met with the treatment-resistant criteria for this study. There was, however, no clear relationship between the participants' OCD dimension and outcome in this study.

Overall, six of the seven participants showed an improvement in their subjective rating of the severity of their OCD over the course of the trial. This could not, however, be directly attributed to the AI-EMDR interventions as some participants showed greater improvement during the assessment and/or CBT phases. A similar overall improvement was found in all participants' subjective rating of mood. However, once again, there was no clear pattern for the improvement in mood in each phase. The data for three of the seven participants endorsed the final hypothesis that AI-EMDR interventions would enhance their subjective ability to engage in ERP tasks.

Results from the two standardised outcome measures (the Y-BOCS and OCI-R) showed that all participants' OCD symptoms reduced over the course of the trial, with five of the seven participants showing reliable improvement on the Y-BOCS score for obsessions. Interestingly no participants showed a reliable improvement on the compulsions component and this is explored later in this chapter. Despite the severity of their OCD, John and Susie were below the diagnostic cut-off score for OCD on the OCI-R at the start of the trial which is also discussed later in the chapter.

The qualitative analysis suggested that all participants found the AI-EMDR interventions beneficial. Three participants reported that their OCD was more manageable than it had ever been which they attributed to the AI-EMDR treatment. The majority of participants described

how the AI-EMDR protocol was beneficial in offering them help with self-soothing (grounding) and a more compassionate perspective on their difficulties with OCD alongside the processing of their childhood traumas. This is discussed further later in this chapter.

Whilst these mixed results do not directly endorse the hypothesis that AI-EMDR interventions enhance treatment outcome when used alongside a CBT protocol, all participants appeared to benefit from treatment overall. There was a high rate of engagement, they all reported finding the AI-EMDR treatment beneficial and 7 of the 8 participants were keen to continue with treatment. This is especially relevant given that all these participants were treatment resistant when they used CBT/ERP and/or pharmacological interventions in the past. These findings will also be explored in greater detail later in this chapter. One potential confounding variable in this study was that it was undertaken within the context of the Covid-19 pandemic and in the midst of the easing of lockdown restrictions, which will now be considered.

6.3 The impact of the COVID-19 pandemic on this study

This study was undertaken within the context of the COVID-19 pandemic, which almost certainly impacted on some of the outcomes in this trial. For cohort one, the second easing of lockdown rules (allowing outdoor gatherings of 6 people or 2 households) started midway through the second baseline assessment phase, with four of the five participants reporting a decrease in the severity of their OCD and an improvement in mood during that time. It is not possible to ascertain the extent to which this was influenced by the easing of lockdown restrictions. An alternative explanation for improvement during the assessment phase could be found in Wampold's (2015) common factors model. This conceptualises the way that the initial therapeutic relationship, the clients' expectations and their determination as to whether treatment will ameliorate their difficulties may all influence the course of treatment. These common factors may have contributed to improvements during the assessment phase.

Whilst much research focused on the impact of the pandemic and lockdowns on people's mental health (e.g., Chandola et al., 2020; Burn & Mudholkar, 2020, Niedzwiedz et al., 2021), it was the third easing of lockdown restrictions (pubs, bars and restaurants re-opening and larger gatherings permitted) that appeared to be a more pronounced source of anxiety for most of the participants in this trial. In the qualitative analysis participants described their concerns regarding the increased pressure to socialise. For example, John, Jane and Hannah all met up with people they had been speaking to on dating sites, whilst others had more contact with family members which appeared to be a further source of anxiety. This third stage of restriction easing meant that some participants were under pressure to go back into their workplace. This caused additional worries for some, including Kate, who was distressed at the prospect of leaving her dogs after being at home with them constantly for so long. The easing of lockdown restrictions also caused some of the participants to have increased exposure to their fears (e.g., more potential for interactions with children) and this did impact on the flow of the ERP activities. Prior to this, the lockdown had restricted the range and degree of challenge regarding the exposure tasks that could be undertaken, especially for those with concerns about their potential for inappropriate social interactions.

Whilst factors arising from the COVID-19 pandemic were considered and addressed where possible, these events almost certainly impacted on our therapeutic work, as well as on participants' subjective daily ratings and their overall experience of involvement in this trial.

The following section will explore the findings that were briefly introduced in section 6.2 in greater depth and in relation to the wider literature.

6.4 Interpretation of findings in relation to the wider literature

6.4.1. The characteristics of participants

This sub-section explores the idiosyncratic characteristics of participants in this study in the context of existing literature. These characteristics are reviewed in relation to information gathered at assessment which included the theme-based dimension of their OCD (Abramowitz et al., 2010), their standardised OCD measures (Foa et al., 2002; Goodman et al., 1989), their ACE ratings (Centers for Disease Control and Prevention, 2014) and their attachment style (Fraley et. al., 2000). These characteristics were all relevant to gain insight and provide a rationale for the use of AI-EMDR interventions in the treatment of OCD.

6.4.1.1. The theme-based dimensions of participants' OCD

As reported in Chapter 3, all participants who applied to join this trial met the criteria, with no potential candidates being turned away. However, Dan's data was excluded from the final quantitative analysis as he did not complete treatment as intended. All participants had undertaken previous CBT/ERP treatment, but were still having OCD symptoms. Using Abramowitz et al. (2010) four theme-based dimensions, the breakdown of OCD dimensions in this study was:

- four participants obsessions were around responsibility for harm and mistakes (Jane, Susie, Kate and Hannah).
- three had unacceptable thoughts (John, Sam and Peter)

Whilst this sample is too small to draw conclusions, it is interesting to note the higher proportion of applicants in two of the four dimensions (responsibility for harm and unacceptable thoughts) who applied, having had limited success with previous treatment. This is compatible with research by Williams et. al, (2014) suggesting that the unacceptable thoughts dimension was

less responsive to treatment than all other dimensions. Further research suggests that shame and unfavourable judgement are also especially difficult to ameliorate with CBT/ERP interventions (Keeley et al. 2008; Mpavaenda, 2016; Steketee et al. 2011). In the current study participants described their ambivalence towards past CBT treatments which may bear some relation to their OCD theme-dimension. There was, however, no clear relationship between the participants' OCD dimension and outcome in this small study.

6.4.1.2. Participants' assessment measures

One interesting phenomenon in the current study was that, despite meeting the DSM-5 criteria for a diagnosis of OCD (APA. 2013), three of the eight participants did not meet the cut-off criteria for a diagnosis of OCD on the OCI-R measure, with two others being borderline. Foa et al. (2002) recommend a cut-off score of 21 for the OCI-R to distinguish individuals with OCD from those with other anxiety disorders. This non-clinical outcome was unexpected as all participants had met the criteria for a diagnosis of OCD on the Y-BOCS measure (Goodman et. al. 1998). This may be explained by Abramovitch et al. (2020) who reviewed the contemporary clinical norms for the OCI-R. They concluded that, as severity increases, scales like the OCI-R have potential to confound the assessment of severity with the range of presenting symptoms. Abramovitch suggests that the Y-BOCS would be more likely to systematically categorise certain individuals who may have a single, but very severe obsession, in a more severe category than the OCI-R.

6.4.1.3. Adverse childhood experiences of participants in this study

Participants in this study reported far higher rates of ACE than the norm. All participants reported at least two ACE, with Jane and Peter reporting 3 and John, Susie, Kate and Sam reporting 4 or more. For comparative purposes, the prevalence of ACE in the general population

is shown in Appendix A (Bellis et al., 2014). Interestingly, the most common ACE (reported by all participants) was parental verbal abuse. These findings are compatible with research by Miller & Brock (2017) who propose that emotional abuse, neglect, violence and sexual abuse are all linked to OC symptom severity. It also concurs with research by Mancini & Gangemi (2004) who found that individuals with OCD recalled being the target of hostile facial expressions more frequently than controls.

In the qualitative analysis for this study, the majority of participants described a parent leaving or threatening to leave. This may be compatible with research by Mariaskin (2009) who observed that the type of discipline used by parents, especially threats regarding discontinuing the relationship, may be a precursor for OCD. Participants' descriptions of the type of parental verbal abuse they experienced also concurred with Tenore et al. (2018) findings, that obsessive individuals are more likely to have experienced a parental rearing style involving criticism, excessively high standards and/or social moralization. All of the participants described limitations in their parents' ability to nurture them when they were younger, which may have impacted on their ability to regulate their emotions (Gerhardt, 2011, Parnell, 2013).

These findings were all compatible with the rationale for incorporating AI-EMDR in this study, where the aim was to process these negative childhood experiences in order to soothe the participants' threat system and facilitate them in developing a more positive sense of self-worth. Participants' characteristics will now be explored in relation to their attachment style.

6.4.1.4. Attachment styles of participants in this study

Fraley et al. (2013) suggests that the ECR-R questionnaire should be used as an indicator, rather than a classification of attachment style. With this caveat, it was apparent that none of the participants appeared to have a secure attachment.

Three of the participants' (John, Susie and Kate) responses suggested a Dismissive Avoidant attachment style, with a discomfort at being close to others. From an attachment informed perspective, avoidant attachment commonly occurs when a parental figure habitually rejects an infants' connection-seeking behaviours during times of distress. Bowlby (1989) proposed that these individuals have an internal working model of a self who is not worthy of care.

Three participants' (Hannah, Sam and Peter) responses suggested a Preoccupied Ambivalent attachment style with a desire to be close to others, but a fear of rejection. Preoccupied adults commonly have a negative view of themselves and a positive view of others, which may result in them relying on others for reassurance and validation. Bowlby suggests these individuals may have received inconsistent and/or mis-attuned care from their primary caregiver when they were younger. As a consequence, they develop a working model of a relationship where they have to be vigilant and attentive in order to get their needs met (Bowlby, 1989).

Only Jane had a Fearful (disorganised) attachment style with a strong desire for intimacy, but commonly withdrawing from relationships due to a fear of rejection. This is perceived to be a consequence of erratic parental care, where the parent may react unpredictably. For example, the caregiver may laugh and reward a behaviour one time, whilst reacting with anger at the same behaviour on another occasion. The working model of attachment for these individuals is that other people are dangerous and may cause harm, but they have a strong desire for
All participants described limitations in their parents' ability to nurture them when they were young, with most describing ongoing issues with their negative 'inner-critic' and issues with low self-worth. These limitations in parenting are potentially compatible with Winnicott's (1960) conceptualisation of the 'false self', with the parent's needs overriding the child's and the infant left struggling to regulate their own emotions. This may, in turn, relate to Aardema & Wong's (2020) conceptualisation of the 'feared self' and the suggestion that self-ambivalence (Tibi et.

al., 2020), shame (Weingarden & Renshaw, 2015) and guilt (Cosetino et. al., 2020) all play a role in OCD. This presentation is also compatible with Rachman's (1998) cognitive theory of OCD, proposing that individuals with OCD pay more attention to intrusive thoughts because they perceive them as personally relevant (i.e., representing an aspect of self that is negative or feared).

These above findings, in relation to participants' OCD dimensions, ACE scores, self-reports and attachment measures, all endorse the rationale for this study. If individuals develop OCD as a consequence of adverse life events in childhood and an insecure attachment style, AI-EMDR has good potential to facilitate treatment and can be especially helpful to address clients' feelings of low self-worth, guilt and shame. This chapter will now explore participants' idiosyncratic experience of participation in this study.

6.4.2. Participants' experience of the trial in relation to the literature

As detailed earlier, it was apparent in both the quantitative and qualitative analysis that all participants benefitted from treatment overall. However, the quantitative analysis suggested that other factors in the AI-EMDR paradigm, rather than AI-EMDR processing alone, may have contributed to the participants' positive response to treatment. This will now be discussed with particular reference to the impact on participants' mood and their experience of AI-EMDR treatment.

6.4.2.1. The impact of AI-EMDR on participants' mood

The majority of participants showed an improvement in mood over the course of the trial. However, only one participant confirmed the hypothesis (2d) that there would be an enhanced improvement in mood during the AI-EMDR phase of the study. In the qualitative analysis, the majority of participants described how they were better able to self-soothe after AI-EMDR

treatment. This study did not measure self-soothing directly and the TA suggests this was an important aspect of treatment. It may prove useful, therefore, to incorporate a subjective rating of ability to self-soothe in future research, as this may provide more insight than the mood criteria.

For all of the participants (except Sam) the qualitative analysis suggested that the grounding exercises were at least as helpful as the AI-EMDR processing in enhancing participants' sense of self-worth. It was apparent that the AI-EMDR conceptualisation of OCD, with the emphasis on childhood experiences and relationships, was not something that most participants had previously encountered during CBT treatment and they all seemed receptive to this idea. The qualitative analysis suggested that it was the AI-EMDR process overall, including the grounding exercises and more compassionate perspective of their OCD difficulties, that participants found beneficial.

The findings regarding the benefits of grounding exercises in AI-EMDR are compatible with the compassion-focused therapy paradigm. Petrocchi et al. (2021) purport that it is important for individuals with OCD to develop self-compassion to address their feelings of isolation, 'abnormality' and unworthiness. Gilbert (2014) describes how compassion can activate the emotion-regulation system, thus creating a felt sense of inner safeness. This is in keeping with research by Di Bello et al. (2020) who describe how compassion promotes the ability to downregulate physiological arousal when facing stress. This is highly relevant for individuals with OCD when they are endeavouring to undertake ERP tasks.

6.4.2.2. Participants' experience of AI-EMDR as treatment for OCD

Brayne (2023) describes how the central aim in AI-EMDR is to identify and repair early attachment ruptures. The therapist's role is to identify where a client was wounded in their

childhood and, in the absence of appropriate attachment, where these ruptures (big or small) were not repaired. In this way, AI-EMDR can be used to facilitate the repair of perceptions that are presenting in the present, but are actually more informed by the past (Shapiro, 2001).

It was hypothesised that the AI-EMDR interventions undertaken in this study would facilitate participants' ability to down-regulate their physiological arousal when facing stress and reduce their perception of the severity of their OCD symptoms. The results showed that two participants (Susie and Sam) confirmed hypothesis 1d with an enhanced improvement regarding the severity of their OCD symptoms during the AI-EMDR intervention phase. Whilst three further participants (John, Kate and Hannah) also showed an improvement, it was not enhanced compared to the progress they made in the CBT phase.

In a similar way, it was hypothesised that AI-EMDR interventions would facilitate participants in undertaking ERP tasks (hypothesis 3). This only proved to be the case for three of the seven participants. There were, however, some issues with the self-rating criteria in relation to the hierarchy of ERP tasks, which are discussed later in the chapter.

The qualitative analysis showed that the majority of participants were surprised by the somatic experience of AI-EMDR. Sam and Susie, appeared to be especially receptive to the processing phase with a strong visceral response. This is in keeping with work by Van der Kolk (2015) who purports that the only way we can consciously access the disturbed survival brain is via our interoceptive pathways. He highlights the need to befriend our bodily sensations in order to access the parts of the brain that inform us what is going on deep inside ourselves. This process is integral to AI-EMDR processing.

As described in Chapter 2, a potential benefit of using AI-EMDR with dysregulated clients is the capacity to address preverbal misattunement with primary caregivers, by using interventions that focus on emotions and bodily sensations, rather than cognitions and language (Parnell, 2013). Schwartz (2018) describes the way that healing preverbal trauma involves working with current symptoms of anxiety, panic, dissociation or somatic distress, which can be undertaken effectively using EMDR. It is plausible that AI-EMDR processing may have been more effective for some participants in this study as a consequence of them successfully processing preverbal trauma. This may explain why these individuals had such a visceral and less verbal reaction to AI-EMDR treatment. It may also explain their lack of receptivity to previous CBT treatment, where the focus is on the client's cognitions and language.

From my observations of the sessions, I believe that, for Sam and Susie in particular, important touchstone memories were successfully processed, with these interventions correlating with the improvement in their subjective ratings in the SCED analysis. This is further endorsed in their qualitative description of their diminished physical sensations to the stimuli in the aftermath of the AI-EMDR processing. This is a common phenomenon in EMDR once a traumatic event has been processed. It was also interesting to note that some of the memories that caused high affect for both Sam and Susie had a high level of guilt and shame in the content. This is compatible with research by Hezel et al. (2012) suggesting that shame can have a profound effect in OCD and further research by Cosentino et al. (2020) suggesting that guilt induction may be relevant in the aetiology of some forms of OCD.

6.5. Did AI-EMDR interventions reduce OCD symptoms?

As described earlier, the results of this study were mixed. Six of the seven participants did show an improvement in their subjective rating of the severity of their OCD and they all showed an improvement in mood over the course of the trial. These findings were endorsed by participants

standardised outcome measures where they all showed a reduction in OCD symptoms after treatment. However, these results could not be directly attributed to the AI-EMDR interventions as the improvement occurred over different phases of treatment.

Only one participant showed an enhanced improvement in mood during the AI-EMDR phase and, as discussed earlier, it may have proved more insightful to have had a rating on the participants' subjective ability to self-soothe, rather than their mood. This was especially relevant given the context for this study, where the mood rating had more potential to be influenced by events linked to the Covid-19 pandemic as well as by treatment.

There is some evidence to suggest that AI-EMDR treatment did ameliorate the severity of participants' OCD symptoms. Only two confirmed the hypothesis (2d) with an enhanced improvement, but five of the seven participants did show an improvement in their subjective ratings during this phase.

Three of the participants (Jane, Susie and Sam) endorsed hypothesis 3, with an improved ability to engage in ERP activities. These results suggest that AI-EMDR interventions may prove beneficial as a stand-alone intervention for some individuals with treatment-resistant OCD. The qualitative analysis suggested that it was the participants who had a stronger, more visceral response to processing who were subsequently better able to undertake ERP. There does not appear to be any research linking increased somatic affect with more positive outcomes using EMDR. However, Van der Kolk (2015) describes how certain parts of the brain shut down when people really go into their trauma and, at this point, words become less useful. It is for this reason he advocates somatic work, including EMDR for treatment.

The qualitative analysis suggested that the grounding exercises and the more compassionate conceptualisation of the aetiology of participants' OCD were an important component of AI-EMDR treatment that helped improve participants' sense of self-worth. On this basis, the AI-EMDR grounding exercises may prove a useful augmentation to standard CBT treatment. This would be compatible with Rachman's (1998) cognitive theory of OCD, where he proposes that individuals with OCD may pay more attention to intrusive thoughts because they perceive them as representing an aspect of self that is negative or feared. Rachman suggests that obsessions will diminish if the negative misinterpretations are weakened or altered. These AI-EMDR interventions also align with a compassion-focused approach to therapy, with some research suggesting that this approach is also beneficial in the treatment of OCD (Petrocchi et al., 2021)

One anomaly in the findings from the outcome measures was that five participants (John, Jane, Susie, Kate and Sam) showed reliable improvement on the Y-BOCS scores for obsessions, whilst no-one showed a reliable improvement in the compulsion component. The reason for the greater improvement in obsessions compared with compulsions is not clear. However, participants did report becoming more aware of their compulsive behaviours during the course of this study. It would be interesting to see if this phenomenon occurs in future research.

In summary, the results of this study suggest that AI-EMDR may be a helpful augmentation to CBT treatment with its potential to help clients self-soothe, process their childhood and other traumas and view their difficulties with OCD with more compassion. It may also prove helpful as a stand-alone intervention for some clients who currently have treatment-resistant OCD. This chapter will now move on to explore the strengths and limitations of this study.

6.6 Strengths of this study

One strength of this study was the mixed methods design (incorporating a SCED and a TA) to gain insight into participants' childhood, their idiosyncratic OC symptoms and their response to and experience of treatment. This choice of methods was coherent with my pragmatic framework and my intent to provide practice-based evidence. The SCED facilitated an in-depth focus on each participant in a rigorous scientific manner, with the TA generating further nuance and insight into the results. The SCED in this study incorporated Kratochwill et. al. (2010) guidelines for design and addressed Morley's four key questions for analysis (2018). The SCED also had good inter-assessor reliability with results initially determined independently by myself, my supervisor and a colleague. Yardley's (2000) evaluative criteria were also considered throughout the research to reflect on these processes and to consider the relationship between the participants and myself from which this study emerged.

6.7 Limitations of this study

This study was undertaken within the context of the COVID-19 pandemic and the easing of lockdown restrictions. Whilst I endeavoured to control for any identifiable confounding variables, some were less expected, such as the increase in participants' anxiety when the lockdown eased. The lockdown restrictions also disrupted the ERP hierarchy for some participants, for example when they were suddenly exposed to the triggers of going back into the office. Participants reported mixed responses with regards to undertaking therapy online. From a clinical perspective, I do think I may have been more aware of Peter's alcohol use if we had been in the room together.

In the first phase of the trial (A1) only half the participants achieved a stable baseline in their OCD severity which weakened the validity of the analysis. However, several of these candidates were having severe issues with anxiety and their OCD at that time. There is general

agreement that it is not always practicable to withhold or delay treatment in clinical trials where this is likely to prove unethical and/or impractical. (Kratochwill et al., 2010; Morley, 2018).

With the benefit of insight from the qualitative analysis I would have modified the daily self-rating questions. As described earlier, the qualitative analysis suggested that 'ability to self-soothe' may have provided more insight than 'mood'. In a similar way, there were some difficulties with the 'ability to undertake ERP activities' rating scale as participants worked through a hierarchy of ERP tasks that became increasingly challenging and this may have negatively skewed some of the outcomes in this study.

It would have been beneficial to capture the standardised OCD measures at the point of change. Whilst there is an overall improvement in OCD symptoms, it is not clear which phase of the treatment led to the biggest change and this should be addressed if anyone undertakes a similar study.

The lack of fidelity checks in this study is acknowledged. It would have been preferable to have a checklist for the CBT/EMDR and AI-EMDR components to be covered in each session. It was, however, apparent that the participants had disparate needs and levels of resilience, especially in the context of the COVID lockdown. Ethically it was a priority to respond to each client's individual needs. Morley (2018, p87) describes how 'it is impossible, both practically and ethically, to impose this degree of control on an individual.' He goes on to state that, even if it were possible, the changes imposed would severely threaten the validity of any findings.

It is common in SCED research for a Client Change Interview to be conducted by a second researcher in the follow-up to treatment (Elliott & Rodgers, 2008). However, having discussed the issue with my supervisors, we concluded that it was more appropriate for me to conduct the

interviews, rather than bring in another researcher, for two key reasons. The first is that shame and guilt can play a significant role in OCD (Fergus et. al., 2010; Wetterneck et al., 2014). We agreed that it would have been less ethical to expect the participants to be interviewed by someone they had never encountered before and be asked to share their (often very personal) experiences of therapy and the difficult content of their obsessive thoughts, particularly for those participants with paedophile OCD. Further, if participants were reticent to discuss their condition and details of their treatment with someone they had just encountered, this also had potential to impact on the findings, with the potential for participants to withhold information that may be useful for future research.

As discussed in Chapter Three, Holloway and Wheeler (1995) propose that dual roles are not necessarily problematic when research is conducted within the caring professions. However, they highlight the need to create space for participants to talk openly about their experience, which was the case in this study.

The second reason for me to conduct the interviews was that, as the therapist, I would have a more nuanced insight and understanding of some of their responses (e.g., their experience of AI-EMDR processing). Morley (2018) describes how the focus of SCED research is to provide idiographic knowledge where the researcher is actively engaged in the application and production of knowledge, rather than producing generalizable, objective knowledge. Whilst it is acknowledged that a set questionnaire delivered by a third-party would have had greater external validity, there are some factors that do endorse the participants' positive feedback in the qualitative analysis in this study These include the fact that there was a zero-attrition rate throughout the study, with seven of the eight participants being keen to continue with treatment. This is especially relevant given the high attrition rate in conventional CBT/ERP treatment for OCD.

A further limitation in this study is the lack of cultural diversity as the sample was predominately white British. This does limit the potential to generalise findings across cultures, where individuals may have experienced different childhood traumas with potential to express their OCD symptoms differently.

A further limitation is the fact that the follow-up results from the Y-BOCS (Goodman et. al., 1989), and OCI-R (Foa et al., 2002) were not valid due to the fact that I continued seeing six of the seven participants on alternate weeks after the trial was completed. I discussed this issue at length with my supervisor and we both agreed that it would be unethical to withhold treatment that participants perceived as beneficial solely for the sake of generating further outcome measures.

SCED methodology has been criticised for its inability to generalise beyond the individuals being studied (Perdices & Tate, 2009). This is especially relevant in this study where I was both the therapist and the quantitative and qualitative researcher. However, as discussed earlier, Horner et. al. (2005) established criteria whereby an intervention could be considered evidence-based if a sufficient number of single cases (the 5-3-20 threshold) met design standards and provided positive evidence of a treatment effect. If this study were to be replicated by others it is hoped that there is potential to enhance the generalisability.

6.8 Avenues for further research and implications for clinical practice

This is a small study, using a novel approach, undertaken with eight clients in the context of the COVID-19 pandemic. For this reason, suggestions regarding further research and the implications for clinical practice are only made tentatively.

Participants in this study provided some evidence to suggest that AI-EMDR interventions may prove more beneficial to address the obsessive, rather than the compulsive components of OCD. It would, therefore, be interesting to conduct research into the impact of AI-EMDR with individuals grouped into the four themed-based dimensions of OCD proposed by Abramowitz et. al. (2010). As discussed earlier, many individuals with unacceptable thoughts or responsibility for harm are currently perceived as being harder to treat using CBT/ERP (Williams et. al. 2015; Mpavaenda, 2016).

From my experience, I feel it would still prove beneficial to conduct further studies using a SCED design along with a template analysis in order to gain nuanced insight into participants' ACE as well as the idiosyncratic nature of their OCD. As discussed previously, the validity of SCED research is achieved by repetition of the study, thus incorporating different settings and therapists which may also lead to increased diversity in terms of ethnic and cultural backgrounds.

It may prove interesting to conduct a similar study incorporating trauma outcome measures to gain further insight into the components of AI-EMDR that were most helpful. This may, however, prove complex. Pinciotti & Fisher (2022) discuss the subjective nature of trauma and highlight the difficulties of providing a clear definition. They describe how many individuals with OCD may anecdotally describe a discrete stressful life event that they believe precipitated the onset of their OCD, which may not meet the DSM-5 criteria for a diagnosis of trauma. Whilst this is a small study, it does provide tentative evidence to suggest that the DSM-5 should adjust their criteria for a diagnosis of OCD and that OCD should be considered as a complex trauma response.

In summary, any research that contributes to an alleviation of OCD symptoms has important implications for clinical practice. OCD is a relatively common disorder (Kessler et. al., 2005) and it is clear that it has potential to greatly hamper the individual's quality of life (Torres, 2017).

6.9 Personal Reflection

As outlined in the introduction, it was a synchronicity of events that led to me undertaking this research project. Over the course of one week in July 2019 I was inspired by attending Mark Brayne's training in AI-EMDR (EMDR Focus, 2019) and I started a fascinating journey working with Rose, where we collaboratively used this approach to treat her OCD. Prior to setting up my private practice I had worked in the NHS as a CBT practitioner where it was apparent to me and my colleagues that some individuals were having severe difficulties with their OCD and were failing to engage with the CBT/ERP interventions used for treatment.

I have reflected on the reasons that I have found it particularly fascinating to undertake research into this condition. Whilst I do not think I would meet the diagnostic criteria for OCD I do relate to some of my clients' behaviours. In particular, I have one client who likes symmetry, makes copious amounts of lists and she will rewrite them in their entirety if she makes a mistake on one. I do think I may have a slight propensity to do this and hope that this facilitated me in having more empathy for my clients. That said, undertaking this research trial really did enhance my awareness of just how exhausting and debilitating it was for these participants to live with their OCD.

In my training as a CBT practitioner, I remember undertaking a controversial exercise in an OCD workshop conducted by Professor Radomsky. He asked all the attendees to write on a piece of paper '*(blank) will die of a horrible illness in the next month'* (or words to that effect). He then asked his audience to fill in the blank by writing the name of someone they loved.

Despite all being clinicians, many participants refused to do so and I felt extremely uneasy about undertaking this process. I thought this was a brilliant exercise that has stayed with me regarding the way it must feel to have OCD and the fear and foreboding that can be associated with random acts. It also made me very aware of the importance of stepping out of my comfort zone if that is what I am asking my clients with OCD to do.

I commenced my Doctoral research in September 2019 and I have kept a journal from that time where I reflected on my learning process at university and also on my ongoing learning with clients in my private practice and in clinical placements. I described my feelings about working online with distressed clients during the pandemic and my own fears around contracting COVID-19 at the time. Maybe I am now in denial, but I find it difficult to relate to the intensity of some of those pandemic-related fears now. In my journal I also noted my feelings towards the participants in the study and, whilst it can be challenging to treat individuals with OCD, the upside is that I did feel a genuine connection with all of them, which did make this therapeutic journey and research far easier.

Whilst I was initially quite frustrated by the ethics application procedure and the many questions they asked, I look back now and realise just how important these considerations were for my study. Morgan (2014) describes the way that all researcher choices influence the research. I recognise that I have influenced this research in many ways (e.g., in my selection of a mixed-method design, the questionnaires used etc.). I acknowledge that these choices reflect my personal values and assumptions and that these decisions have been made within the wider context of meeting City's research criteria for my dissertation.

It has been a huge commitment undertaking this research and writing this dissertation. I do have an underlying fear that I may come over as a 'Jack of all trades' with my exploration of

OCD from a range of modalities with a lack of in-depth knowledge of some of these paradigms. That said, I do have a sense of pride and achievement that I have got this far and that I have learned so much along the way.

6.10 Summary of findings

This study examined the therapeutic utility of AI-EMDR, used alongside a CBT protocol, with the hope of improving treatment outcomes for individuals with treatment-resistant OCD. Treatment was undertaken within the context of the COVID-19 pandemic and the easing of lockdown restrictions, which may have impacted on some of the outcomes in this study.

The mixed results in the quantitative component of this research do not directly endorse the hypothesis that AI-EMDR interventions enhance treatment outcome when used alongside a CBT protocol. All participants did, however, benefit from treatment overall which was apparent in their subjective daily ratings of severity of their OCD and their mood and this was further endorsed by their outcome scores on the Y-BOCS and OCI-R. These findings could not, however, be directly attributed to the AI-EMDR interventions as some participants showed greater improvement during the assessment and/or CBT phases. Three of the seven participants confirmed the hypothesis that AI-EMDR would enhance their ability to undertake ERP tasks.

The qualitative analysis suggested that all participants found the AI-EMDR interventions beneficial. Three participants reported that their OCD was more manageable than it had ever been by the end of the trial which they attributed to the AI-EMDR treatment. The majority of participants described how the AI-EMDR protocol was beneficial in offering them help with self-soothing (grounding) and a more compassionate perspective on their difficulties with OCD

The high level of adherence, with six of the seven participants expressing a strong desire to continue with treatment once the study was over, suggests that AI-EMDR is an acceptable adjunct intervention. This is especially relevant when considered in light of the attrition rate of around 25% for individuals with OCD undertaking CBT/ERP treatment (Abramowitz, 2006). The outcome of this study suggests that further research into the potential use of AI-EMDR for the treatment of OCD would be of value.

6.11 The implications for counselling psychology practice

This study was undertaken primarily as a consequence of my clinical experience (in the NHS and in my private practice) of encountering many clients with OCD who did not appear to respond to CBT/ERP and/or pharmacological treatments. It was apparent that many of these individuals struggled with affect regulation and had a limited ability to self-soothe which hampered their ability to undertake ERP tasks. I concluded that a more integrative approach, implementing AI-EMDR alongside CBT for treatment, may facilitate these individuals in undertaking ERP tasks. This integrative approach is clearly compatible with a counselling psychology approach to practice, especially with the emphasis on childhood attachment being central to the formulation.

Calamari et al. (2006) highlight the fact that the heterogeneity of OCD symptoms can present a significant challenge for OCD treatment and for researchers attempting to formulate theories about this condition. The view that OCD is not an homogenous condition, is endorsed by researchers across different domains including neurobiological research (e.g., Abramowitz & Cooperman, 2015; Hellberg et al., 2019). This study potentially endorses Calamari et al. (2006) suggestion that rigorous qualitative research is needed to provide further insights and understanding regarding this heterogeneity of OCD symptoms. It seems feasible that these different manifestations of OCD may require different therapeutic interventions. The ratio of

applicants in two dimensions in this study (unacceptable thoughts and responsibility for harm) tentatively suggests that AI-EMDR may be a preferable treatment for individuals with certain types of OCD symptoms. However, further research would be needed to confirm this.

There was evidence to suggest that AI-EMDR may be effective as a stand-alone treatment for some individuals with treatment-resistant OCD. AI-EMDR may also prove a useful augmentation to CBT treatment in general, offering clients a more compassionate perspective on their OCD and incorporating grounding techniques to enhance their ability to self-soothe. This is all compatible with a counselling psychology approach to treating this condition.

Overall, this integrative approach to OCD research and treatment has clear relevance for counselling psychology. The outcome of this study suggests that AI-EMDR may be of benefit to some individuals who have struggled with current evidence-based practice recommendations and that a more integrative approach to treatment is needed.

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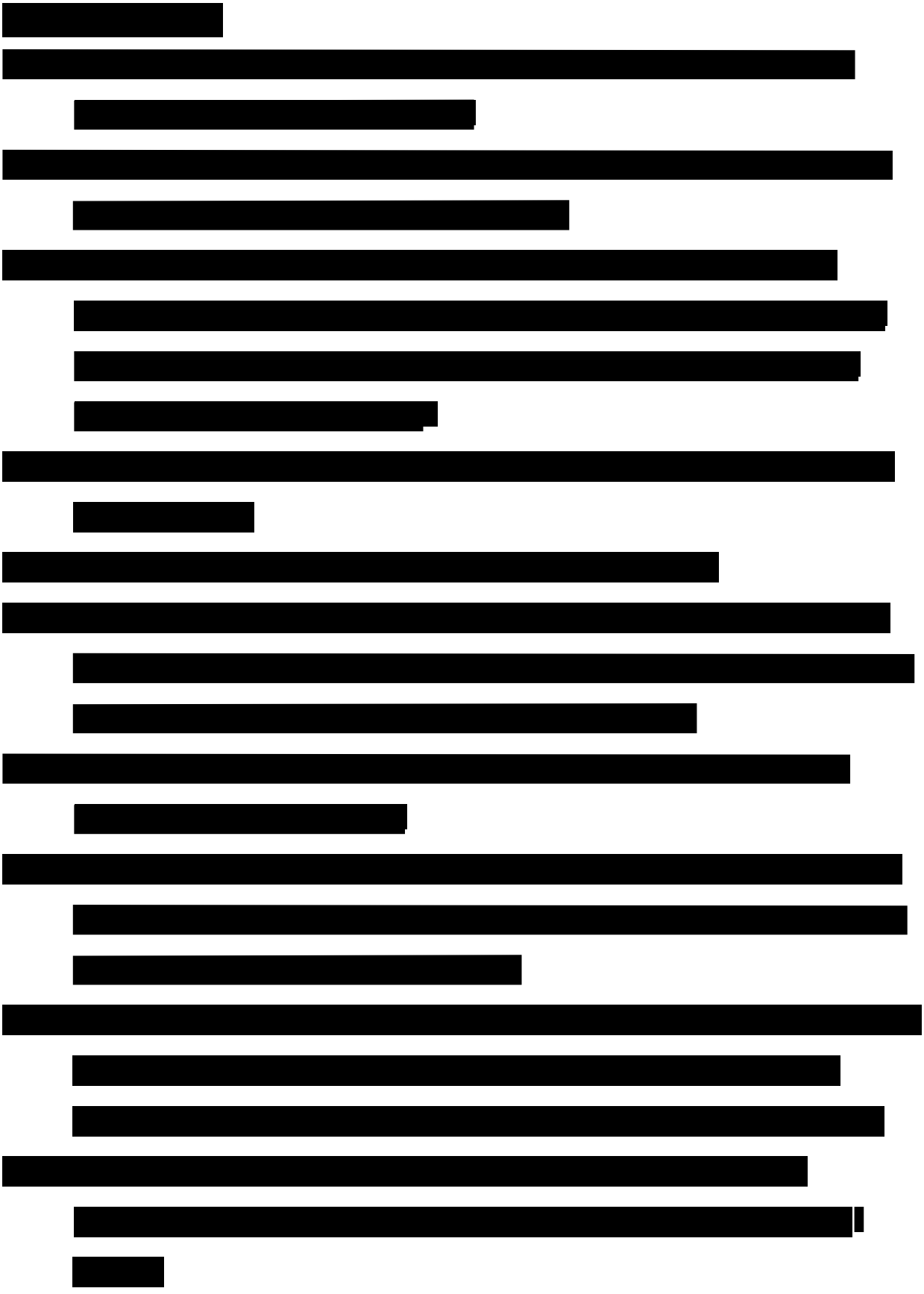

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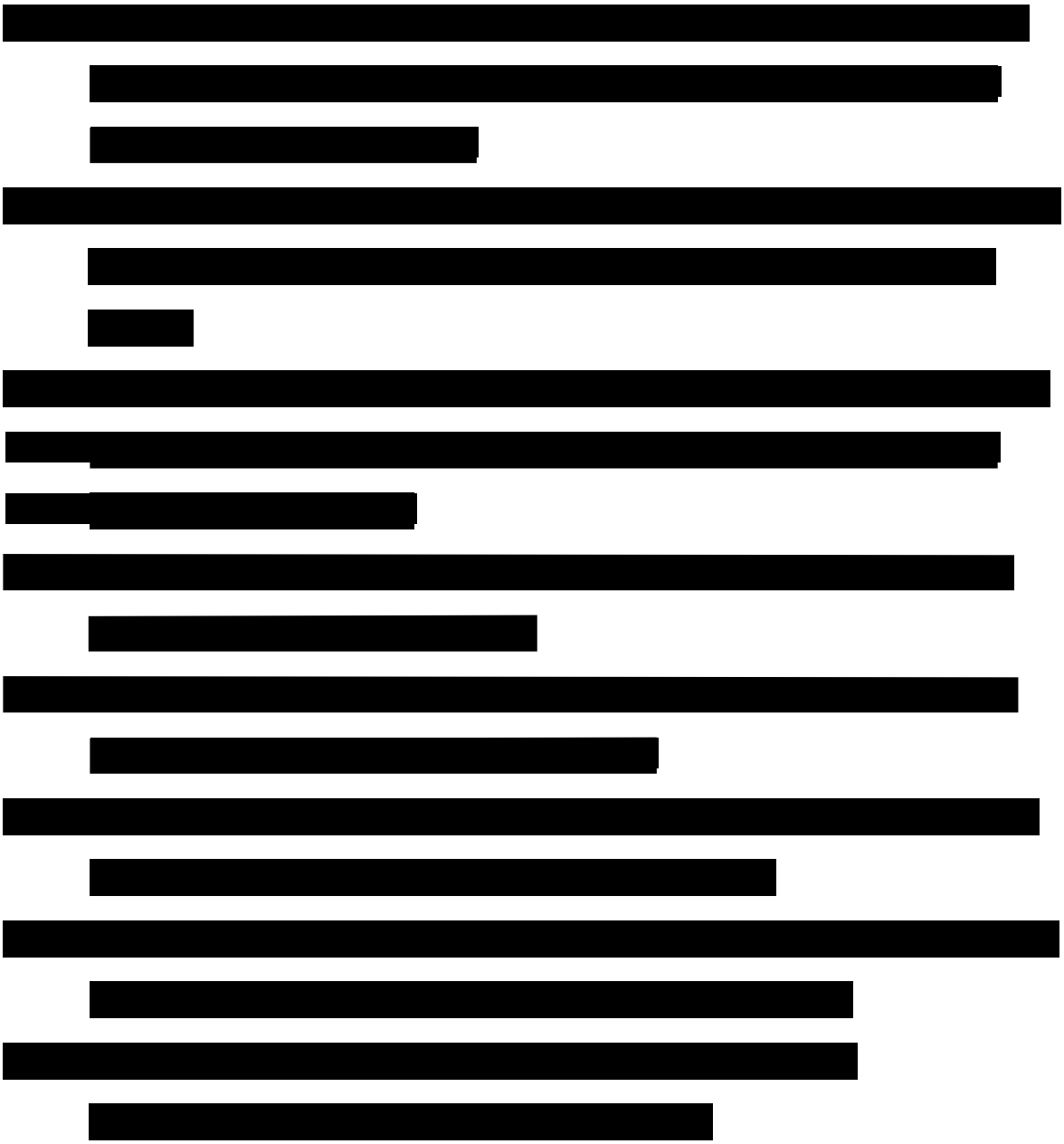

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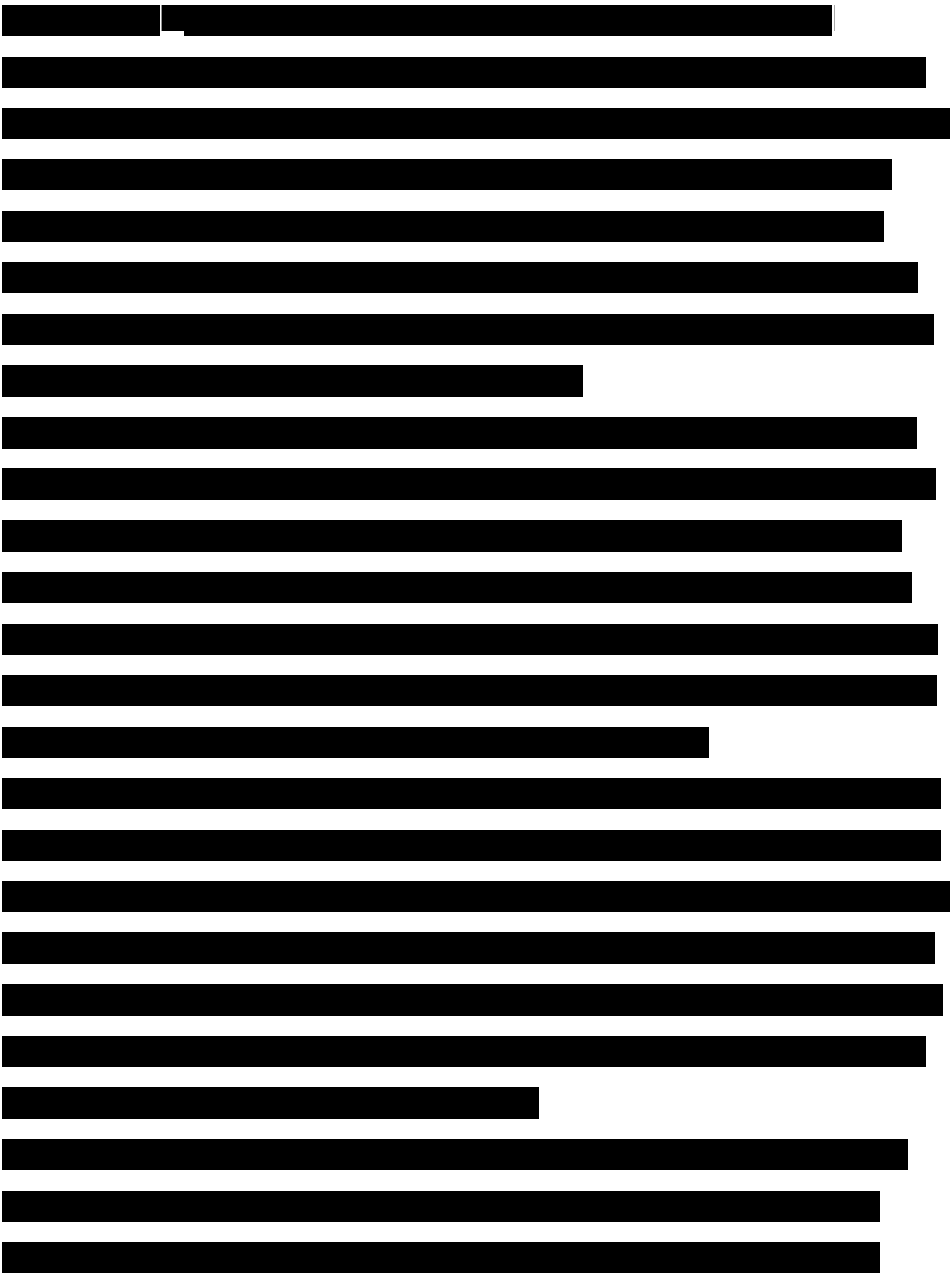

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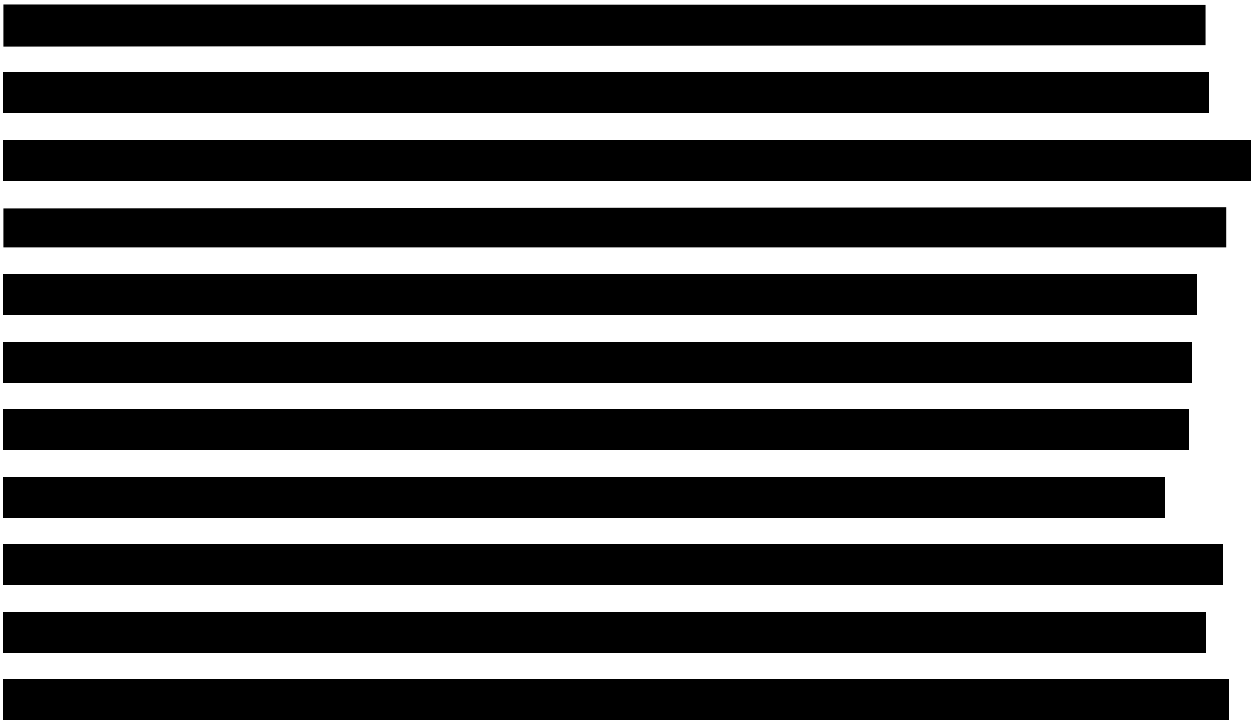

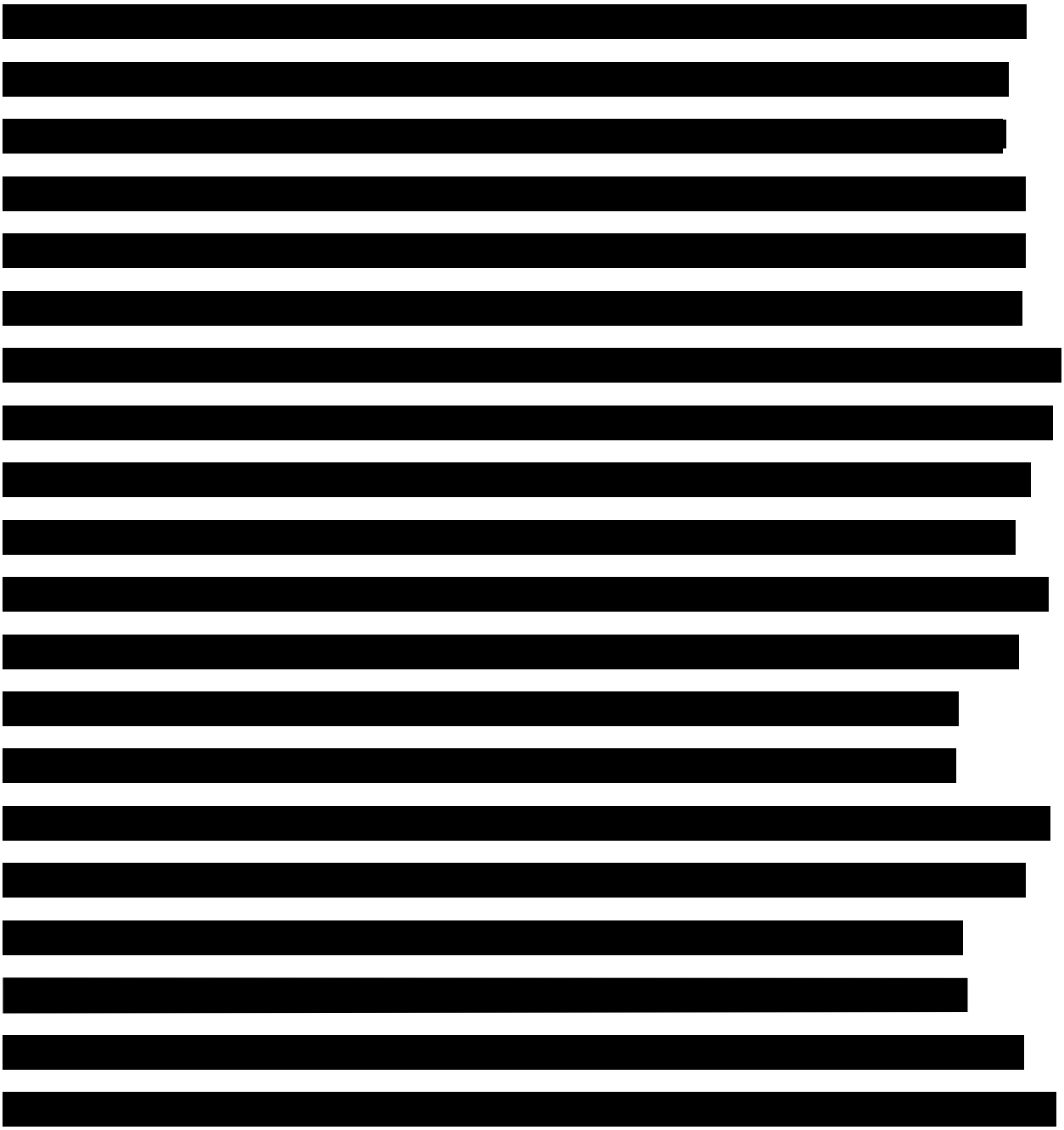

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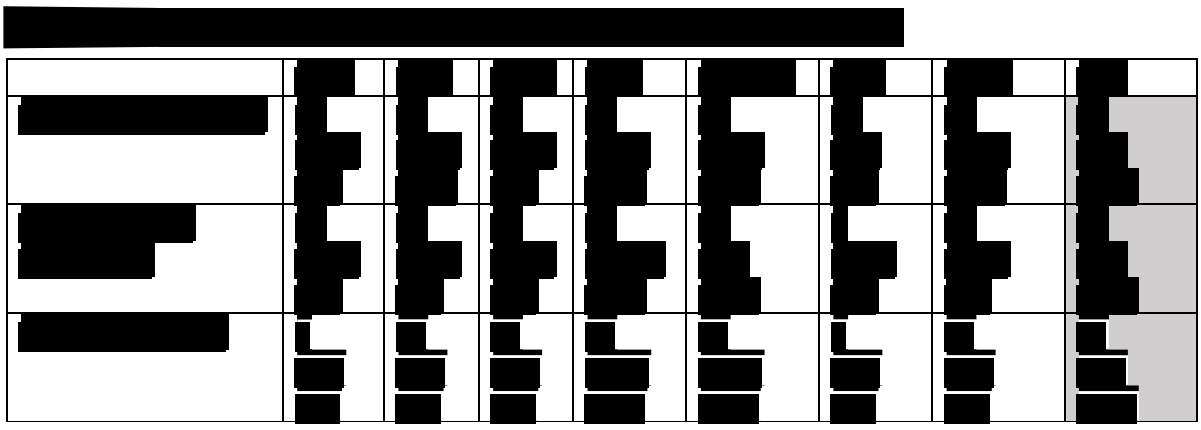

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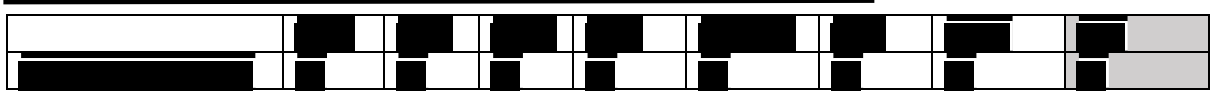

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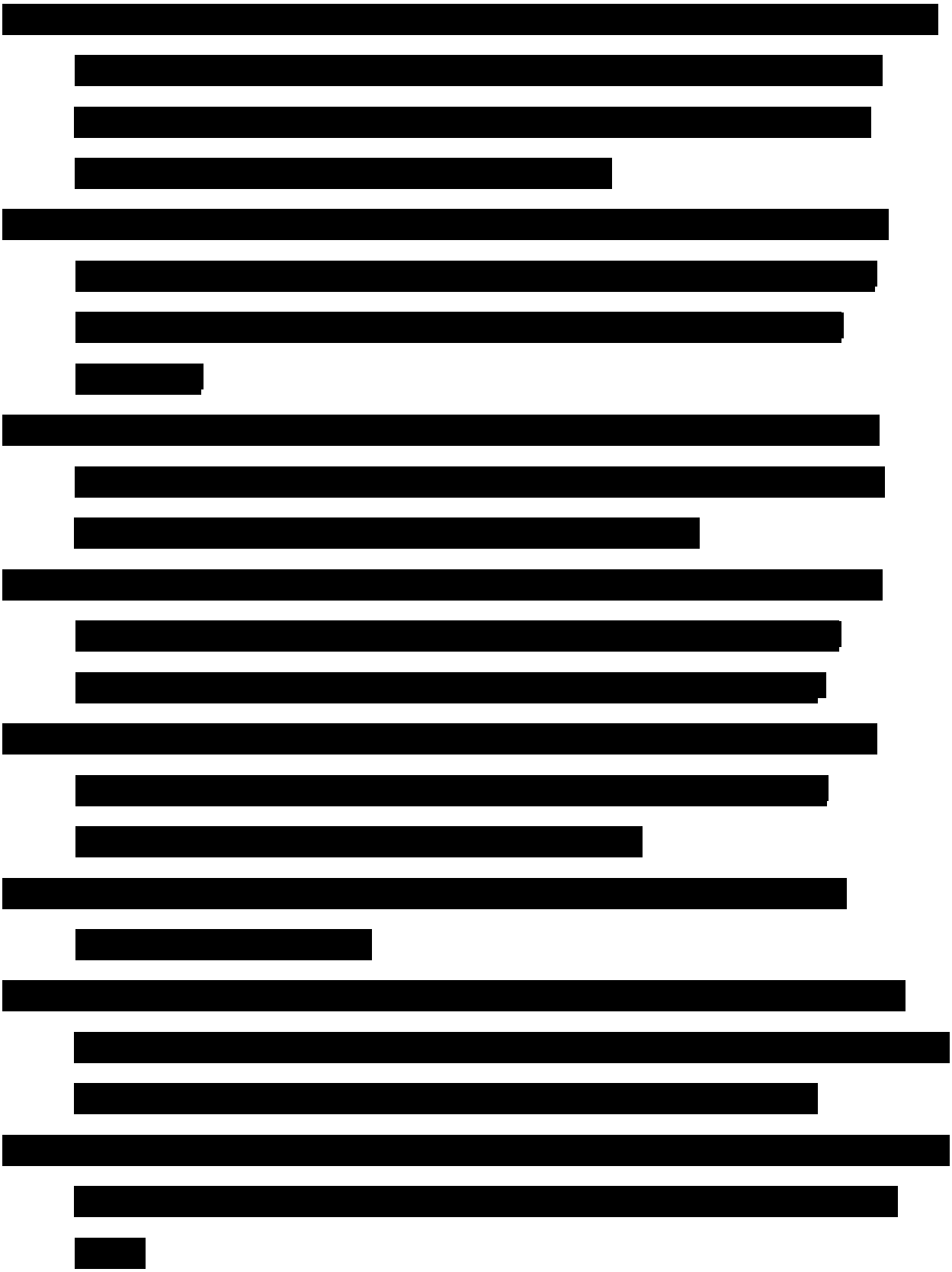

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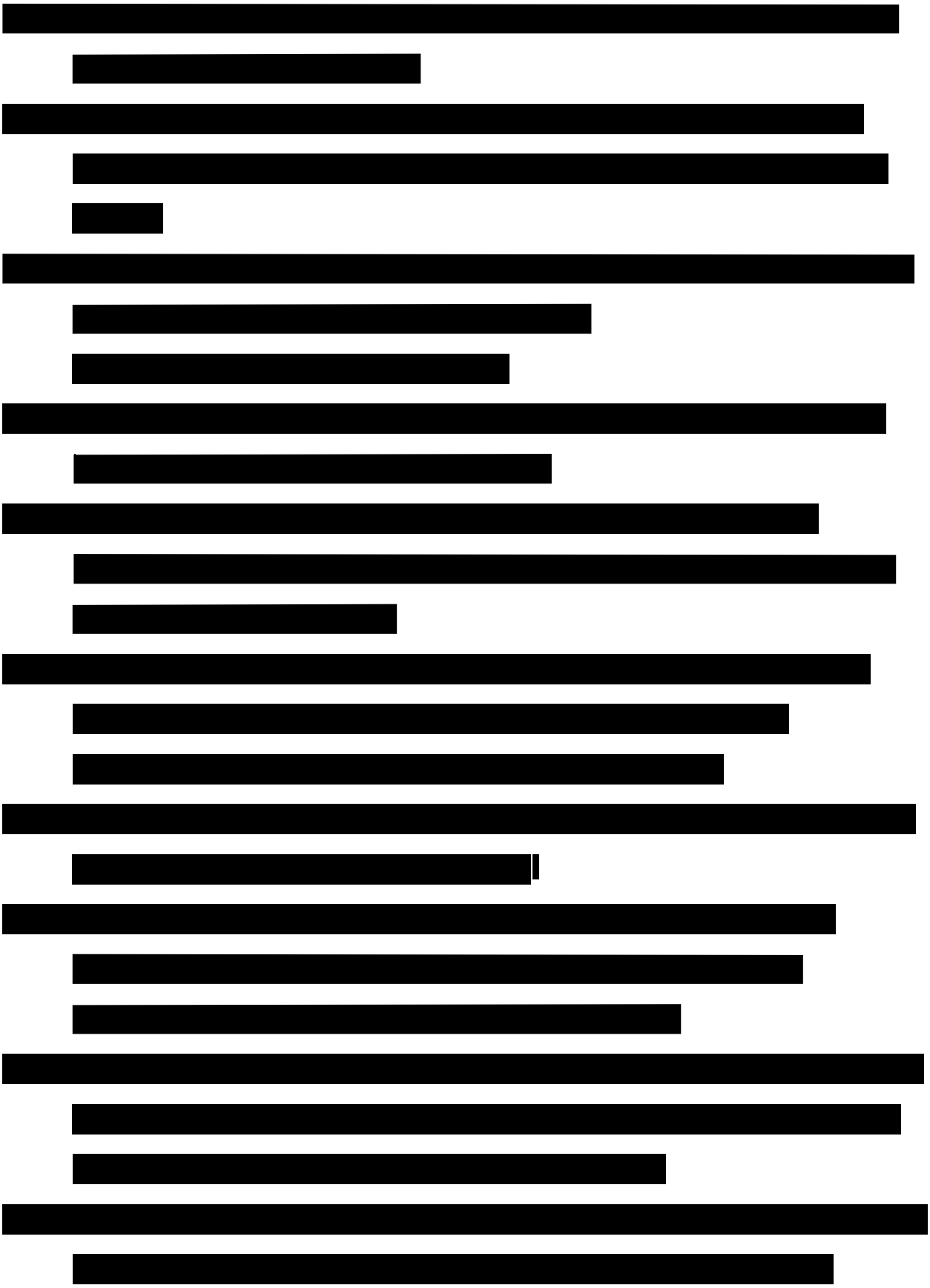

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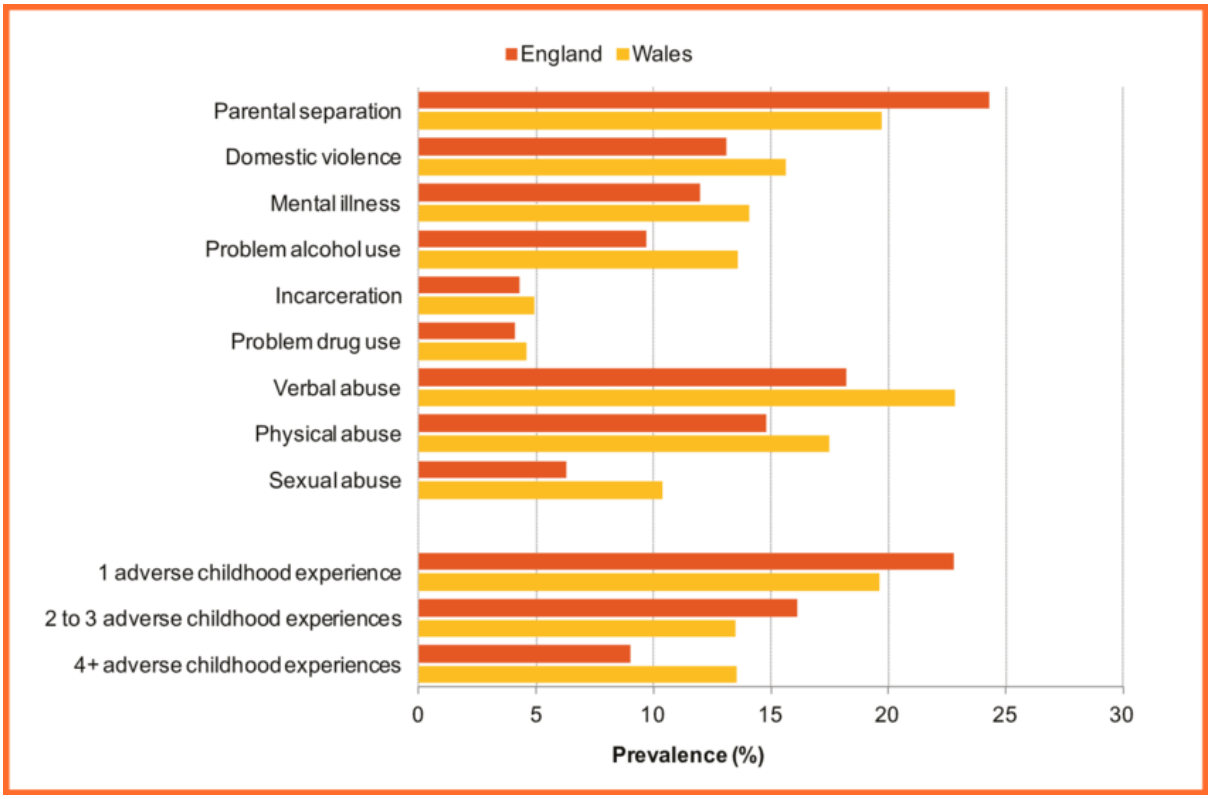
APPENDICES FOR PORTFOLIO

PART A: DOCTORAL RESEARCH

Appendix A: Prevalence of adverse childhood experiences from two studies based in the UK (Bellis et al., 2014)



Appendix B: Website content - Initial Information online

Welcome to my OCD Research study

Principal Researcher: Joyce Blake Email: joyce.blake@city.ac.uk

Thank you for your interest in my doctoral research study that is being undertaken as part of my DPsych in Counselling Psychology with City University. Please find below some information about the study and the criteria for being involved. If you are still interested in participating once you have read this do get in contact and I will be very happy to discuss the project further and answer any questions you may have.

Title of study: *Do attachment-informed Eye-Movement Desensitization-Reprocessing (AI-EMDR) interventions, used in conjunction with a Cognitive Behavioural Therapy (CBT) / Exposure-Response Prevention (ERP) protocol, improve treatment outcomes for individuals with Obsessive-Compulsive Disorder (OCD)?*

Before reading further, it may be helpful to read a description of some of the terms used in the title. These four processes will all be used during the therapy provided in this study:

Cognitive Behavioural Therapy (CBT): This type of therapy proposes that the way we think about a situation can affect the way we feel and behave. If, for example, you view a situation negatively then you are more likely to experience negative emotions as a result. These bad feelings may, in turn, lead you to behave in a certain way. Within CBT we will examine your beliefs and see how they may be maintaining your difficulties. CBT is one of the most-used treatment approaches for OCD in the UK.

Exposure Response Prevention (ERP): For individuals with OCD, the Exposure in ERP is about exposing yourself to thoughts, images, objects and situations that make you anxious and trigger your obsessions. The Response Prevention part is about making a choice not to do a compulsive behaviour once your obsessions have been triggered. If you have OCD, you have probably tried to confront your anxieties many times and felt worse. Within ERP the difference is that when you make a choice to confront your obsession you also commit to not engage in the compulsive behaviour. All exposure exercises will be mutually agreed by you and the therapist. Over time, you should feel a drop in your anxiety level, which is known as habituation.

Extensive research has shown that CBT therapy used with ERP is currently the most effective approach for treating OCD (National Institute for Health and Care Excellence, 2005).

Eye Movement Desensitisation and Reprocessing (EMDR): This therapeutic approach helps individuals process and recover from traumatic past experiences that may be affecting their current mental wellbeing. EMDR can be undertaken using side-to-side eye movements or a sound (usually a bleep) that plays alternately in each ear. One of the first stages of EMDR is to gain an understanding of how the person has got to be the way they are and what has happened to them. Therapy then involves the use of eye-movement or sounds to stimulate their brain in an alternate left-right fashion in order to process past events and traumatic memories and alleviate trauma symptoms.

EMDR is best known as a therapy for treating PTSD and it is recognised by the National Institute for Health and Care Excellence (2018). There is, however, much research to suggest that being bullied, criticised or abused in some way are also traumatic experiences that can lead to mental health difficulties.

Attachment-informed EMDR (AI-EMDR): This uses the same alternate stimulus as EMDR, but the focus is on the attachments that people form with a parental figure during childhood and how this may have contributed to their subsequent mental health difficulties. Both EMDR and AI-EMDR aim to help the individual process traumatic experiences in order to help alleviate their anxiety and feel better able to manage their emotions.

What is the Purpose of this Study?
This study is being undertaken to see whether the use of AI-EMDR in therapy helps people with OCD increase their capacity to self-soothe. If so, this should make it easier for them to undertake ERP exercises, which have been shown to be helpful in the treatment of OCD. The primary aim is to try and make it easier for you to manage your OCD.

This study has been developed by me, Joyce Blake. I am an experienced therapist accredited by the British Association of Behavioural and Cognitive Psychotherapy (BABCP), the British Association of Counselling Psychologists (BACP) and registered with the UK EMDR Association. I have used this approach with clients who have OCD in my private practice with good outcomes to date.

This study has received ethical approval (ETH1920-1872).

When will therapy sessions begin?
I plan to undertake this study with two groups and will clarify the start dates depending on participants' availability. Ideally, the first research group will commence on:
Wednesday, 3rd March 2020 for twelve weeks with the second group commencing on **Thursday, 5th May 2020** for twelve weeks.

If you were to take part in this study you would be asked to:
* attend 12 one-hour sessions of CBT and AI-EMDR therapy online (most likely via Zoom) on a weekly basis with me, Joyce Blake
* Pay for 12 sessions of therapy at a cost of £40 per session
* Allow up to 30 minutes each week in the first two session and 10 minutes each week in subsequent sessions to complete questionnaires
* Score your mood and difficulties with OCD each day on a sheet provided.
* listen to a 10 minute recording of either a relaxation tape or AI-EMDR exercises each day
* undertake mutually agreed Exposure-Response Prevention exercises and other activities between sessions
* consent to audio recording of our sessions (as detailed below)
* agree to a one-month and three-month follow-up interview after treatment is completed (each taking around one hour) to assess the current severity of your OCD.
* participate in an interview regarding your experience of being involved in this study at the one month follow-up interview (it would be best to allow two hours for this). This will be undertaken by me, Joyce Blake.

Once all treatment sessions and interviews have been completed, research will be conducted to assess whether AI-EMDR has proved beneficial for alleviating OCD symptoms. This will be measured by reviewing particpants' responses to questionnaires and their self-rating and an analysis of the themes that arise from the follow-up interview.

Who will take part?
If you decide to participate you will be one of 8-10 participants involved in this study.
You have been invited to take part on the basis that you meet the following criteria:

- You are aged between 18 and 65
- You have had symptoms of OCD for at least one year.
- You have had Cognitive Behavioural Therapy with Exposure and Response-Prevention treatment for your OCD within the past three years, but still have OCD symptoms.
- You have no previous experience of EMDR therapy.
- You will not be undertaking any other therapies at the start of, or during, this trial.
- You are not taking psychiatric medication or illicit drugs within six months of the start of, or during, this trial
- You have not been diagnosed with any other non-related mental health conditions.
- You are not currently pregnant and have not had a recent stillbirth or miscarriage

What are the possible disadvantages and risks of taking part?
It is relatively common to feel some initial distress at undertaking ERP and discussing any traumatic events you have experienced in your lifetime. However, any anxieties are usually transitory and improve relatively quickly and you are always in control of your therapy and whether/how we proceed.

What are the possible benefits of taking part?
There is good potential for participants to feel more positive, with better potential to self-soothe, as a consequence of undertaking AI-EMDR. This, in turn, should help participants' ability to resist undertaking compulsions to calm their obsessive thoughts. This research will also contribute to future research into OCD which may be of benefit to a far greater number of individuals.

Do I have to take part?
Participation in the project is voluntary, and you can withdraw at any stage of the project without being penalised or disadvantaged in any way. It is up to you to decide whether or not to take part. If you do decide to take part you will be asked to sign a consent form. However, if you do agree to take part you are still free to withdraw at any time and without giving a reason. However once data has been anonymised and published it will no longer be possible to withdraw from this study.

What should I do if I want to take part?
If you are interested in taking part in this study and would like to discuss it further please do email me, Joyce Blake at joyce.blake@city.ac.uk and I will definitely get back to you.

Thank you for your interest.

Appendix C: Participant Information Pack

Dear…..

We would like to invite you to take part in a research study. Before you decide whether you would like to take part it is important that you understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish. Please do ask if there is anything that is not clear or if you would like more information. You will be given a copy of this information sheet for your records.

Principal Researcher: Joyce Blake Email: Joyce.blake@city.ac.uk

The REC reference number

The application for ethical approval number is: ETH1920-1872

Title of study: *Do attachment-informed Eye-Movement Desensitization-Reprocessing (AI-EMDR) interventions, used in conjunction with a Cognitive Behavioural Therapy (CBT) / Exposure-Response Prevention (ERP) protocol, improve treatment outcomes for individuals with Obsessive-Compulsive Disorder (OCD)?*

Before reading further, it may be helpful to read a description of some of the terms used in the title. These four processes will all be used during the therapy provided in this study:

Cognitive Behavioural Therapy (CBT): This type of therapy proposes that the way we think about a situation can affect the way we feel and behave. If, for example, you view a situation negatively then you are more likely to experience negative emotions as a result. These bad feelings may, in turn, lead you to behave in a certain way. Within CBT we will examine your beliefs and see how they may be maintaining your difficulties. CBT is one of the most-used treatment approaches for OCD in the UK.

Exposure Response Prevention (ERP): For individuals with OCD, the Exposure in ERP is about exposing yourself to thoughts, images, objects and situations that make you anxious and trigger your obsessions. The Response Prevention part is about making a choice not to do a compulsive behaviour once your obsessions have been triggered. If you have OCD, you have probably tried to confront your anxieties many times and felt worse. Within ERP the difference is that when you make a choice to confront your obsession you also commit to not engage in the compulsive behaviour. All exposure exercises will be mutually agreed by you and the therapist. Over time, you should feel a drop in your anxiety level, which is known as habituation.

Extensive research has shown that CBT therapy used with ERP is currently the most effective approach for treating OCD (National Institute for Health and Care Excellence, 2005).

Eye Movement Desensitisation and Reprocessing (EMDR): This therapeutic approach helps individuals process and recover from traumatic past experiences that may be affecting their current mental wellbeing. EMDR can be undertaken using side-to-side eye movements or a sound (usually a bleep) that plays alternately in each ear. One of the first stages of EMDR is to gain an understanding of how the person has got to be the way they are and what has happened to them. Therapy then involves the use of eye-movement or sounds to stimulate their brain in an alternate left-right fashion in order to process past events and traumatic memories and alleviate trauma symptoms.

EMDR is best known as a therapy for treating PTSD and it is recognised by the National Institute for Health and Care Excellence (2018). There is, however, much research to suggest that being bullied, criticised or abused in some way are also traumatic experiences that can lead to mental health difficulties.

Attachment-informed EMDR (AI-EMDR): This uses the same alternate stimulus as EMDR, but the focus is on the attachments that people form with a parental figure during childhood and how this may have contributed to their subsequent mental health difficulties. Both EMDR and AI-EMDR aim to help the individual process traumatic experiences in order to help alleviate their anxiety and feel better able to manage their emotions.

What is the Purpose of this Study?
This study is being undertaken to see whether the use of AI-EMDR in therapy helps the individual with OCD increase their capacity to self-soothe. If so, this should make it easier for them to undertake ERP exercises, which have been shown to be helpful in the treatment of OCD. The primary aim is to try and make it easier for you to manage your OCD.
This study has been developed by the researcher, Joyce Blake, who is an experienced therapist accredited by the British Association of Behavioural and Cognitive Psychotherapy (BABCP), the British Association of Counselling Psychologists (BACP) and registered with the UK EMDR Association. She has used this approach with clients who have OCD in her private practice with good outcomes to date.

If you were to take part in this study you would be asked to:
* attend 12 one-hour sessions of CBT and AI-EMDR therapy online (most likely via Zoom) on a weekly basis with the researcher, Joyce Blake
* Therapy will be charged at a cost of £40 per session
* Allow up to 30 minutes each week in the first two session and 10 minutes each week in subsequent sessions to complete questionnaires
* Score your mood and difficulties with OCD each day on a sheet provided.
* listen to a 10 minute recording of either a relaxation tape or AI-EMDR exercises each day
* undertake mutually agreed ERP exercises and other activities between sessions
* consent to audio recording of our sessions (as detailed below)
* agree to a one-month and three-month follow-up interview after treatment is completed (each taking around one hour) to assess the current severity of your OCD.
* participate in an interview regarding your experience of being involved in this study at the one month follow-up interview (it would be best to allow two hours for this). This will be undertaken by Joyce Blake.

Once all treatment sessions and interviews have been completed, research will be conducted to assess whether AI-EMDR has proved beneficial for alleviating OCD symptoms. This will be measured by reviewing particpants' responses to questionnaires and their self-rating and an analysis of the themes that arise from the follow-up interview.

Why have I been invited to take part?
If you decide to participate you will be one of 8-10 participants involved in this study.
You have been invited to take part on the basis that you meet the following criteria:

- You are aged between 18 and 65
- You have had symptoms of OCD for at least one year.
- You have had Cognitive Behavioural Therapy with ERP treatment within the past three years, but still have OCD symptoms.
- You have no previous experience of EMDR therapy.
- You will not be undertaking any other therapies at the start of this trial.
- You are not taking psychiatric medication or illicit drugs within six months of the start of this trial

- You have not been diagnosed with any other non-related mental health conditions.
- You are not currently pregnant and have not had a recent stillbirth or miscarriage
- You are willing to attend 12, one-hour, weekly recorded sessions that will be undertaken online (via Zoom) and are prepared to listen to a 10-minute recording each day, along with undertaking ERP tasks.
- You are prepared to pay £40 for each of these12 weekly therapy sessions.

Do I have to take part?
Participation in the project is voluntary, and you can withdraw at any stage of the project without being penalised or disadvantaged in any way. It is up to you to decide whether or not to take part. If you do decide to take part you will be asked to sign a consent form. However, if you do agree to take part you are still free to withdraw at any time and without giving a reason. However once data has been anonymised and published it will no longer be possible to withdraw from this study.

What will happen if I do take part?

What are the possible disadvantages and risks of taking part?
It is relatively common to feel some initial distress at undertaking ERP and discussing any traumatic events you have experienced in your lifetime. However, any anxieties are usually transitory and improve relatively quickly and you are always in control of your therapy and whether/how we proceed.

What are the possible benefits of taking part?
There is good potential for participants to feel more positive and more able to self-soothe, as a consequence of undertaking AI-EMDR. This, in turn, should help participants' ability to resist undertaking compulsions to calm their obsessive thoughts. This research will also contribute to future research into OCD which may be of benefit to a far greater number of individuals.

What will happen when the research study stops?
At the end of this research study anonymized research data will be stored securely for ten years and subsequently destroyed in accordance with City University police and the guidelines of the Data Protection Act (2018).

Will my taking part in the study be kept confidential?
Retaining your confidentiality is of highest importance in the design and implementation of this study under the guidelines for GDPR and the Data Protection Act (2018). The researcher, Joyce Blake, and her supervisor, Dr Tanya Lecchi, are the only people who will have access to the audio session recordings and any other identifiable information prior to the data being anonymized. Your data will be protected as follows:

- Completed questionnaires will not be identifiable as we will use an identifying code, rather than your name.

- Session recordings will be downloaded immediately after the session onto an encrypted memory stick and the original recording deleted. The memory stick will be stored in a locked cabinet and subsequently destroyed in accordance with City University guidelines.

- In the event that quotes or content from our sessions are used in this research study, any identifiable information will be changed and all quotes will be anonymised.

- All data will be stored in a locked filing cabinet in a private office or on an encrypted laptop.

- It is possible that data from this study will be used in presentations and future clinical trials in order to inform further research. Any data from this study will be anonymised and presented in aggregate form

- The only time that confidentiality would be breached is if the therapist had concerns about your safety, potential harm to others or criminal activity.

What should I do if I want to take part?
If you would like to take part in this study please email Joyce Blake (joyce.blake@city.ac.uk) in the first instance and she will arrange a time for a Zoom session where we can discuss the project further and she will answer any questions that you may have about the study and giving informed consent.

What will happen to the results?

This study will contribute to a small, but growing body of research into the efficacy of EMDR for the treatment of OCD. It may form the basis of research articles for inclusion in academic journals such as the *Journal of Counselling Psychology* and/or the EMDR Association's journal. Participants' anonymity will be maintained in any and all such editorials.

City will use your name and contact details to contact you about the research study as necessary. If you wish to receive the results of the study your contact details will also be kept for this purpose. You can find out more about how City handles data by visiting: https://www.city.ac.uk/about/governance/legal. If you are concerned about how we have processed your personal data, you can contact the Information Commissioner's Office (IOC) https://ico.org.uk/.

How is the project being funded?
This project is funded by Joyce Blake, the researcher, who is offering her therapeutic services in private practice at a substantially reduced fee.

Data privacy statement: What are my rights regarding Data Protection?
City, University of London is the sponsor and the data controller of this study based in the United Kingdom. This means that we are responsible for looking after your information and using it properly. The legal basis under which your data will be processed is City's public task.

Your right to access, change or move your information are limited, as we need to manage your information in a specific way in order for the research to be reliable and accurate. To safeguard your rights, we will use the minimum personal-identifiable information possible (for further information please see https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/lawful-basis-for-processing/public-task/).

City will use your name and contact details to contact you about the research study as necessary. The only people at City who will have access to your identifiable information will be Joyce Blake and her supervisor, Dr Tanya Lecchi. City will keep identifiable information about you from this study for ten years after the study has finished.

Who has reviewed the study?
This study has been approved by City, University of London, Research Ethics Committee.

What if there is a problem?
If you have any problems, concerns or questions about this study, you should ask to speak to a member of the research team. If you remain unhappy and wish to complain formally, you can do this through City's complaints procedure. To complain about the study, you need to phone 020 7040 3040. You can then ask to speak to the Secretary to Senate Research Ethics Committee and inform them that the name of the project is:

Do attachment-informed EMDR interventions, used in conjunction with a CBT/ERP protocol, improve treatment outcomes for individuals with Obsessive Compulsive Disorder?

You can also write to the Secretary at:

Anna Ramberg
Research Integrity Manager
City, University of London, Northampton Square
London, EC1V 0HB
Email: Anna.Ramberg.1@city.ac.uk

Insurance
City holds insurance policies which apply to this study. If you feel you have been harmed or injured by taking part in this study you may be eligible to claim compensation. This does not affect your legal rights to seek compensation. If you are harmed due to someone's negligence, then you may have grounds for legal action.

Further information and contact details:
For further information about this research please contact:
Joyce Blake: Email: joyce.blake@city.ac.uk

Thank you for taking the time to read this information sheet.

Consent to Record

Consent to Record for Research Purposes

It is my normal practice to audio record therapeutic sessions with clients who are participating in my research study. Audio recordings and any related transcriptions are kept confidential and secure and used solely for the purpose of assuring coherence in my research. These recordings may be reviewed by my supervisor who is an accredited psychologist and, as such, will treat all materials as confidential.

I would be grateful if you would allow me to audio record our sessions and write an academic assignment using our sessions for the above purpose. Please note that you can ask me to stop recording at any time.

I agree that these sessions can be audio recorded and realise that they may be used for research purposes. All material will be stored securely and anonymised before submission.

Client's Name: _____

Client's Signature: _____ Date: _____

Researcher's Name: _____

Researcher's Signature: _____ Date: _____

Privacy Notice for Audio Recording

Please read this notice so that you are aware of how and why we are using your information. This privacy notice describes how we collect and use personal information about you during and after your relationship with us, in accordance with data protection law. You can find additional information at www.city.ac.uk/about/governance/legal including City's Data Protection Policy. City is the 'data controller' of this information. This means that City decides what your personal information is used for, and the ways in which it is processed.

What data we collect and how we will use your data: We will record and process the audio information that you provide to us about yourself during therapeutic sessions. The information that you provide will be processed securely

and confidentially for research purposes

Lawful basis for processing your data: The legal basis on which City processes personal data is Public task - City is an educational and research establishment and in particular its educational and research activity is conducted in a public interest (Article 6(1)(e)). City is collecting special category data in this instance relying on Article 9(2)(g): substantial public interest, because we are doing so in order to ensure equity of experience and outcomes in the work the institution does as a public sector organisation.

How long we store your data: We will retain pseudonymised copies of your information, along with that of all respondents on an ongoing basis for training and to support continual improvements in this area of work. Recordings that are no longer needed are securely destroyed. Consent forms may be retained by the service and securely disposed of when no longer needed.

Who we share your data with: Information may be shared in supervision sessions at the university, or submitted to an assessor in the fulfilment of an academic assignment. This is done in an anonymised format, making it impossible to identify any individual from the information shared. Information may also be submitted to a placement supervisor for work evaluation purposes.

Further information: If you are dissatisfied with the way your information has been managed, you may raise a concern with City in the first instance. If you remain dissatisfied following this, you are entitled to lodge a complaint with a supervisory authority. In the UK, the supervisory authority is the Information Commissioner's Office (ICO), reachable on 0303 123 1113.

Participant Informed Consent

The REC reference number The application for ethical approval number is: ETH1920-1872

Title of study**:** ***Do attachment-informed EMDR interventions, used in conjunction with a CBT/ERP protocol, improve treatment outcomes for individuals with Obsessive Compulsive Disorder?***

Name of principal investigator/researcher: Joyce Blake *Please tick or initial box*

1	I confirm that I have read and understood the participant information dated 25/01/21 version 3 and have had the research explained to me. I have read and understand the participant information sheet, which I will keep for my records. I have had the opportunity to consider the information and ask questions which have been answered to my satisfaction.	
2.	I understand that my participation will involve: **Attending twelve, weekly one-hour therapy sessions online using Zoom at a cost of £40 per session for therapy. These sessions will be audio recorded.** Completing weekly questionnaires and daily rating scales Listening to a recording for 10 minutes each day between sessions. Undertaking mutually agreed ERP or other tasks during the week between sessions. Attending a follow-up telephone interview one month and three months after therapy is completed to rate the current severity of your OCD symptoms. Participation in an interview regarding your experience of being involved in this study one-month after treatment is completed.	
3.	I understand that my participation is voluntary and that I am free to withdraw without giving a reason or being penalised or disadvantaged up to the time of publication.	
4.	This research is being undertaken to assess whether EMDR is helpful for alleviating OCD symptoms. This will be measured by reviewing particpants' responses to questionnaires. This data will be anonymised and may be used in further studies, subject to ethical approval.	

	I agree to City recording and processing this information about me. I understand that this information will be used only for the purpose(s) explained in the participant information and my consent is conditional on City complying with its duties and obligations under the General Data Protection Regulation.	
5.	I would like to be informed of the results of this study once it has been completed and understand that my contact details will be retained for this purpose.	
6.	I agree to take part in the above study.	

Name of Participant Signature Date

Name of Researcher Signature Date

Appendix D: Signposting for unsuccessful candidates

Dear

I am sorry that it was not possible for you to take part in my research study. If you would like to pursue other treatment options for help with your OCD, please find some details of organisations below who should be able to help:

OCD Resources

1. In the first instance, you could make an appointment to discuss your OCD symptoms with **your doctor** who should be able to refer you for treatment.
2. **OCD Action** provides support for people with OCD which includes information on treatment and online resources. Phone: 0845 390 6232 (Monday to Friday, 9.30am to 5pm). Calls cost 5p per minute plus your phone provider's Access Charge. Website: www.ocdaction.org.uk
3. **OCD UK** is a charity run by people with OCD, for people with OCD and their website includes facts, news and treatment information. Phone: 0333 212 7890 (Monday to Friday, 9am to 5pm). Website: www.ocduk.org

Emergency Contacts

If you need help during a mental health crisis the following services are available:

1. You can contact the NHS Mental Health Helpline online: https://www.nhs.uk/service-search/mental-health/find-an-urgent-mental-health-helpline

2. Contact your GP Surgery (they will have a 24-hour number). If you need advice and help when your GP Practice is closed you can call NHS Direct on 111

Other Helpful Contacts:

Samaritans: 116 123 (Freephone 24 hrs) www.samaritans.org.
Also have a drop in service 9am-9pm every day at 46 Marshall St, W1F 9BF

Saneline: 0300 304 7000 (open 6pm – 11pm daily). Offer practical information, crisis care and emotional support to anybody affected by mental health problems.

Appendix E: Quantitative Measures

Instructions for self-rating for the first two weeks of this study

1. Please rate the severity of your OCD thoughts and/or behaviours at the end of each day this week:

	1 -10 (low distress)	**11-20**	**21-30**	**31-40**	**41-50**	**51-60**	**61-70**	**71-80**	**81-90**	**91-100** (high distress)
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										
Saturday										
Sunday										

2. Please rate your mood at the end of each day this week:
   I have felt cheerful and in good spirits

	1 (not at all)	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10** (all the time)
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										
Saturday										
Sunday										

The Experiences in Close Relationships-Revised (ECR-R) Questionnaire
(Fraley, Waller, and Brennan, 2000)

The statements below concern how you feel in emotionally intimate relationships. We are interested in how you *generally* experience relationships, not just in what is happening in a current relationship. Respond to each statement by to indicate how much you agree or disagree with the statement

You may wish to randomize the order of the items when presenting them to research participants. The ordering below is simply a convenient one for illustrating which items belong to which scale. Also, some people have modified the items to refer to "others" rather than "romantic partners." This seems sensible to us, and in our own research we commonly alter the wording to refer to different individuals. For example, sometimes we reword the items to refer to "others" or "this person" and alter the instructions to say something like "The statements below concern how you generally feel in your relationship with your mother" or "The statements below concern how you generally feel in your relationship with your romantic partner (i.e., a girlfriend, boyfriend, or spouse)."

1. I'm afraid that I will lose my partner's love.
2. I often worry that my partner will not want to stay with me.
3. I often worry that my partner doesn't really love me.
4. I worry that romantic partners won't care about me as much as I care about them.
5. I often wish that my partner's feelings for me were as strong as my feelings for him or her.
6. I worry a lot about my relationships.
7. When my partner is out of sight, I worry that he or she might become interested in someone else.
8. When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
9. I rarely worry about my partner leaving me.
10. My romantic partner makes me doubt myself.
11. I do not often worry about being abandoned.
12. I find that my partner(s) don't want to get as close as I would like.
13. Sometimes romantic partners change their feelings about me for no apparent reason.
14. My desire to be very close sometimes scares people away.
15. I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.
16. It makes me mad that I don't get the affection and support I need from my partner.
17. I worry that I won't measure up to other people.
18. My partner only seems to notice me when I'm angry.
19. I prefer not to show a partner how I feel deep down.
20. I feel comfortable sharing my private thoughts and feelings with my partner.
21. I find it difficult to allow myself to depend on romantic partners.
22. I am very comfortable being close to romantic partners.
23. I don't feel comfortable opening up to romantic partners.
24. I prefer not to be too close to romantic partners.
25. I get uncomfortable when a romantic partner wants to be very close.
26. I find it relatively easy to get close to my partner.
27. It's not difficult for me to get close to my partner.
28. I usually discuss my problems and concerns with my partner.
29. It helps to turn to my romantic partner in times of need.
30. I tell my partner just about everything.
31. I talk things over with my partner.
32. I am nervous when partners get too close to me.
33. I feel comfortable depending on romantic partners.
34. I find it easy to depend on romantic partners.
35. It's easy for me to be affectionate with my partner.
36. My partner really understands me and my needs

Scoring Information: The first 18 items listed below comprise the attachment-related anxiety scale. Items 19 – 36 comprise the attachment-related avoidance scale. In real research, the order in which these items are presented should be randomized. Each item is rated on a 7-point scale where 1 = strongly disagree and 7 = strongly agree. To obtain a score for attachment-related *anxiety*, please average a person's responses to items 1 – 18. However, because items 9 and 11 are "reverse keyed" (i.e., high numbers represent low anxiety rather than high anxiety), you'll need to reverse the answers to those questions before averaging the responses. (If someone answers with a "6" to item 9, you'll need to re-key it as a 2 before averaging.) To obtain a score for attachment-related *avoidance*, please average a person's responses to items 19 – 36. Items 20, 22, 26, 27, 28, 29, 30, 31, 33, 34, 35, and 36 will need to be reverse keyed before you compute this average.

For further information on scoring follow this link:
http://labs.psychology.illinois.edu/~rcfraley/measures/ecrr.htm

The Self-Ambivalence Measure Bhar and Kyrios, 2007)

Participants rate level of belief on a 0-4 point scale
(correct scoring parameters)

1. I feel torn between different parts of my personality
2. I tend to move from one extreme to the other in how I think about myself
3. I question the extent to which others want to be close to me
4. I have mixed feelings about my self-worth
5. I feel that I am full of contradictions
6. I think about my worth as a person
7. I am constantly aware of how others perceive me
8. I doubt whether others really like me
9. I fear I am capable of doing something terrible
10. I constantly worry about whether I will make anything of my life
11. I am secure in my sense of self-worth (reversed)
12. I think about how I can improve myself
13. When I am with others, I think about whether I look my best
14. I am mindful about how I come across to others
15. I am constantly worried about whether I am a good or bad person
16. I question whether I am a moral person
17. I tend to think of myself in terms of categories such as “good” or “bad”
18. I question whether I am morally a good or bad person
19. I am constantly concerned about whether I am a “decent” human being
20. If I inadvertently allow harm to come to others, this proves I am untrustworthy

The Self-Ambivalence Measure Bhar and Kyrios, 2007)

Please rate each question using the scale below

1…… 2…….. 3……..…… 4……..…… 5……..…… 6……..……7

Not at all like me **Somewhat like me** **Very much like me**

Incorrect rating parameters used in this study (taken from internet)

1. I feel torn between different parts of my personality
2. I tend to move from one extreme to the other in how I think about myself
3. I question the extent to which others want to be close to me
4. I have mixed feelings about my self-worth
5. I feel that I am full of contradictions
6. I think about my worth as a person
7. I am constantly aware of how others perceive me
8. I doubt whether others really like me
9. I fear I am capable of doing something terrible
10. I constantly worry about whether I will make anything of my life
11. I am secure in my sense of self-worth (reversed)
12. I think about how I can improve myself
13. When I am with others, I think about whether I look my best
14. I am mindful about how I come across to others
15. I am constantly worried about whether I am a good or bad person
16. I question whether I am a moral person
17. I tend to think of myself in terms of categories such as “good” or “bad”
18. I question whether I am morally a good or bad person
19. I am constantly concerned about whether I am a “decent” human being
20. If I inadvertently allow harm to come to others, this proves I am untrustworthy
21. Essentially people like you or they don’t; there is no middle ground

Adverse Childhood Experience (ACE) Questionnaire

Finding your ACE Score ra hbr 10 24 06

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household **often** …
   Swear at you, insult you, put you down, or humiliate you?
   or
   Act in a way that made you afraid that you might be physically hurt?
   Yes No If yes enter 1 _____

2. Did a parent or other adult in the household **often** …
   Push, grab, slap, or throw something at you?
   or
   Ever hit you so hard that you had marks or were injured?
   Yes No If yes enter 1 _____

3. Did an adult or person at least 5 years older than you **ever**…
   Touch or fondle you or have you touch their body in a sexual way?
   or
   Try to or actually have oral, anal, or vaginal sex with you?
   Yes No If yes enter 1 _____

4. Did you **often** feel that …
   No one in your family loved you or thought you were important or special?
   or
   Your family didn't look out for each other, feel close to each other, or support each other?
   Yes No If yes enter 1 _____

5. Did you **often** feel that …
   You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
   or
   Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?
   Yes No If yes enter 1 _____

6. Were your parents **ever** separated or divorced?
   Yes No If yes enter 1 _____

7. Was your mother or stepmother:
   Often pushed, grabbed, slapped, or had something thrown at her?
   or
   Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?
   or
   Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
   Yes No If yes enter 1 _____

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
   Yes No If yes enter 1 _____

9. Was a household member depressed or mentally ill or did a household member attempt suicide?
   Yes No If yes enter 1 _____

10. Did a household member go to prison?
    Yes No If yes enter 1 _____

Now add up your "Yes" answers: _____ This is your ACE Score

PATIENT
NAME **DATE**

YALE-BROWN OBSESSIVE COMPULSIVE SCALE (Y-BOCS)*

Questions 1 to 5 are about your obsessive thoughts

Obsessions are unwanted ideas, images or impulses that intrude on thinking against your wishes and efforts to resist them. They usually involve themes of harm, risk and danger. Common obsessions are excessive fears of contamination; recurring doubts about danger, extreme concern with order, symmetry, or exactness; fear of losing important things.

Please answer each question by circling the appropriate number.

1. TIME OCCUPIED BY OBSESSIVE THOUGHTS SCORE _____

How much of your time is occupied by obsessive thoughts?

0	=	None
1	=	Less than 1 hr/day or occasional occurrence
2	=	1 to 3 hrs/day or frequent
3	=	Greater than 3 and up to 8 hrs/day or very frequent occurrence
4	=	Greater than 8 hrs/day or nearly constant occurrence

2. INTERFERENCE DUE TO OBSESSIVE THOUGHTS SCORE _____

How much do your obsessive thoughts interfere with your work, school, social, or other important role functioning? Is there anything that you don't do because of them?

0	=	None
1	=	Slight interference with social or other activities, but overall performance not impaired
2	=	Definite interference with social or occupational performance, but still manageable
3	=	Causes substantial impairment in social or occupational performance
4	=	Incapacitating

3. DISTRESS ASSOCIATED WITH OBSESSIVE THOUGHTS SCORE _____

How much distress do your obsessive thoughts cause you?

0	=	None
1	=	Not too disturbing
2	=	Disturbing, but still manageable
3	=	Very disturbing
4	=	Near constant and disabling distress

4. RESISTANCE AGAINST OBSESSIONS SCORE _____

How much of an effort do you make to resist the obsessive thoughts? How often do you try to disregard or turn your attention away from these thoughts as they enter your mind?

0	=	Try to resist all the time
1	=	Try to resist most of the time
2	=	Make some effort to resist
3	=	Yield to all obsessions without attempting to control them, but with some reluctance
4	=	Completely and willingly yield to all obsessions

5. DEGREE OF CONTROL OVER OBSESSIVE THOUGHTS SCORE _____

How much control do you have over your obsessive thoughts? How successful are you in stopping or diverting your obsessive thinking? Can you dismiss them?

0	=	Complete control
1	=	Usually able to stop or divert obsessions with some effort and concentration
2	=	Sometimes able to stop or divert obsessions
3	=	Rarely successful in stopping or dismissing obsessions, can only divert attention with difficulty
4	=	Obsessions are completely involuntary, rarely able to even momentarily alter obsessive thinking.

The next several questions are about your compulsive behaviors.
Compulsions are urges that people have to do something to lessen feelings of anxiety or other discomfort. Often they do repetitive, purposeful, intentional behaviors called rituals. The behavior itself may seem appropriate but it becomes a ritual when done to excess. Washing, checking, repeating, straightening, hoarding and many other behaviors can be rituals. Some rituals are mental. For example, thinking or saying things over and over under your breath.

6. TIME SPENT PERFORMING COMPULSIVE BEHAVIORS SCORE _____

How much time do you spend performing compulsive behaviors? How much longer than most people does it take to complete routine activities because of your rituals? How frequently do you do rituals?

0	=	None
1	=	Less than 1 hr/day or occasional performance of compulsive behaviors
2	=	From 1 to 3 hrs/day, or frequent performance of compulsive behaviors
3	=	More than 3 and up to 8 hrs/day, or very frequent performance of compulsive behaviors
4	=	More than 8 hrs/day, or near constant performance of compulsive behaviors (too numerous to count)

7. INTERFERENCE DUE TO COMPULSIVE BEHAVIORS SCORE _____

How much do your compulsive behaviors interfere with your work, school, social, or other important role functioning? Is there anything that you don't do because of the compulsions?

0	=	None
1	=	Slight interference with social or other activities, but overall performance not impaired
2	=	Definite interference with social or occupational performance, but still manageable
3	=	Causes substantial impairment in social or occupational performance
4	=	Incapacitating

8. DISTRESS ASSOCIATED WITH COMPULSIVE BEHAVIOR SCORE _____
How would you feel if prevented from performing your compulsion(s)? How anxious would you become?

0	=	None
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	=	Incapacitating anxiety from any intervention aimed at modifying activity

9. RESISTANCE AGAINST COMPULSIONS SCORE _____
How much of an effort do you make to resist the compulsions?

0	=	Always try to resist
1	=	Try to resist most of the time
2	=	Make some effort to resist
3	=	Yield to almost all compulsions without attempting to control them, but with some reluctance
4	=	Completely and willingly yield to all compulsions

10. DEGREE OF CONTROL OVER COMPULSIVE BEHAVIOR SCORE _____
How strong is the drive to perform the compulsive behavior? How much control do you have over the compulsions?

0	=	Complete control
1	=	Pressure to perform the behavior but usually able to exercise voluntary control over it
2	=	Strong pressure to perform behavior, can control it only with difficulty
3	=	Very strong drive to perform behavior, must be carried to completion, can only delay with difficulty
4	=	Drive to perform behavior experienced as completely involuntary and over-powering, rarely able to even momentarily delay activity.

TOTAL SCORE _____

The total scores on the measure range from 0 to 40:

0–7 indicating subclinical symptoms

8–15 mild symptoms

16–23 moderate symptoms

24–31 severe symptoms

32–40 extreme symptoms.

A subscale score for obsessions and compulsions (range 0–20) can be calculated separately.

Y-BOCS Symptom Checklist

Instructions: Generate *a Target Symptoms List from* the attached Y-BOCS Symptom Checklist by asking the patient about specific obsessions and compulsions. Chock all that apply. Distinguish between current and past symptoms. Mark principal symptoms with a "p". These will form the basis of the Target Symptoms *List*. Items marked may "*" or may not be an OCD phenomena.

Current Past

AGGRESSIVE OBSESSIONS

___ ___ Fear might harm self
___ ___ Fear might harm others
___ ___ Violent or horrific images
___ ___ Fear of blurting out obscenities or insults
___ ___ Fear of doing something else embarrassing*
___ ___ Fear will act on unwanted impulses (e.g., to stab friend)
___ ___ Fear will steal things
___ ___ Fear will harm others because not careful enough (e.g. hit/run motor vehicle accident)
___ ___ Fear will be responsible for something else terrible happening (e.g., fire, burglary

Other:

CONTAMINATION OBSESSIONS

___ ___ Concerns or disgust w\ with bodily waste or secretions (e.g., urine, feces, saliva Concern with dirt or germs
___ ___ Excessive concern with environmental contaminants (e.g. asbestos, radiation toxic waste)
___ ___ Excessive concern with household items (e.g., cleansers solvents)
___ ___ Excessive concern with animals (e.g., insects)
___ ___ Bothered by sticky substances or residues
___ ___ Concerned will get ill because of contaminant
___ ___ Concerned will get others ill by spreading contaminant (Aggressive)
___ ___ No concern with consequences of contamination other than how it might feel

SEXUAL OBSESSIONS

___ ___ Forbidden or perverse sexual thoughts. images. or impulses
___ ___ Content involves children or incest
___ ___ Content involves homosexuality*
___ ___ Sexual behavior towards others (Aggressive)*
___ ___ Other:

HOARDING/SAVING OBSESSIONS

(distinguish from hobbies and concern with objects of monetary or sentimental value)

___ ___ _____

RELIGIOUS OBSESSIONS (Scrupulosity)

___ ___ Concerned with sacrilege and blasphemy
___ ___ Excess concern with right/wrong, morality
___ ___ Other:

OBSESSION WITH NEED FOR SYMMETRY OR EXACTNESS

___ ___ Accompanied by magical thinking (e.g., concerned that another will have accident dent unless less things are in the right place)
___ ___ Not accompanied by magical thinking

MISCELLANEOUS OBSESSIONS

___ ___ Need to know or remember
___ ___ Fear of saying certain things
___ ___ Fear of not saying just the right thing
___ ___ Fear of losing things
___ ___ Intrusive (nonviolent) images
___ ___ Intrusive nonsense sounds, words, or music
___ ___ Bothered by certain sounds/noises*
___ ___ Lucky/unlucky numbers
___ ___ Colors with special significance
___ ___ 3 superstitious fears
___ ___ Other:

Current Past

SOMATIC OBSESSIONS

___ ___ Concern with illness or disease*
___ ___ Excessive concern with body part or aspect of Appearance (eg., dysmorphophobia)*
___ ___ Other

CLEANING/WASHING COMPULSIONS

___ ___ Excessive or ritualized handwashing
___ ___ Excessive or ritualized showering, bathing, toothbrushing grooming, or toilet routine Involves cleaning of household items or other inanimate objects
___ ___ Other measures to prevent or remove contact with contaminants
___ ___ Other

CHECKING COMPULSIONS

___ ___ Checking locks, stove, appliances etc.
___ ___ Checking that did rot/will not harm others
___ ___ Checking that did not/will not harm self
___ ___ Checking that nothing terrible did/will happen
___ ___ Checking that did not make mistake
___ ___ Checking tied to somatic obsessions
___ ___ Other:

REPEATING RITUALS

___ ___ Rereading or rewriting
___ ___ Need to repeat routine activities jog, in/out door, up/down from chair)
___ ___ Other _____

COUNTING COMPULSIONS

___ ___ _____

ORDERING/ARRANGING COMPULSIONS

___ ___ _____

HOARDING/COLLECTING COMPULSIONS

(distinguish from hobbies and concern with objects of monetary or sentimental value (e.g., carefully reads junk mail, piles up old newspapers, sorts through garbage, collects useless objects.)

___ _____

MISCELLANEOUS COMPULSIONS

___ ___ Mental rituals (other than checking/counting)
___ ___ Excessive listmaking
___ ___ Need to tell, ask, or confess
___ ___ Need to touch, tap, or rub*
___ ___ Rituals involving blinking or staring*
___ ___ Measures (not checking) to prevent: harm to self-harm to others terrible consequences
___ ___ Ritualized eating behaviors*
___ ___ Superstitious behaviors
___ ___ Trichotillomania *
___ ___ Other self-damaging or self-mutilating behaviors*
___ ___ Other

Adapted from Goodman, W.K., Price, L.H., Rasmussen, S.A. et al.: "The Yale-Brown Obsessive Compulsive Scale." Arch Gen Psychiatry 46:1006-1011,1989

Obsessive Compulsive Inventory - Revised (Foa et al, 2007)

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

0 = Not at all 1 = A little 2 = Moderately 3 = A lot
4 = 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 if 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 order.	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

The total and subscale scores are obtained by adding the scores of the respective itemsTotal scores ranging from 0 to 72 and a cut-off score of 21 has been found to represent clinically significant symptoms. (Foa *et al*., 2002).

Instructions for self-rating from weeks 3-12 of this study

1. Please rate the severity of your OCD thoughts and/or behaviours at the end of each day this week:

	1 -10 (low distress)	**11-20**	**21-30**	**31-40**	**41-50**	**51-60**	**61-70**	**71-80**	**81-90**	**91-100** (high distress)
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										
Saturday										
Sunday										

2. Please rate your mood at the end of each day this week:

I have felt cheerful and in good spirits

	1 (not at all)	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10** (all the time)
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										
Saturday										
Sunday										

3. Please rate your ability to undertake the agreed exposure task(s) each day this week:

	1 (impossible)	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10** (easy)
Monday										
Tuesday										
Wednesday										
Thursday										
Friday										
Saturday										
Sunday										

Appendix F: Information about working online

ONLINE THERAPY SESSIONS

Please find below some practical information about starting therapy sessions online together. These sessions can be just as effective as meeting face to face and my aim is to create a safe and contained space to work with you. If there are some materials/documents that are relevant to our sessions, I will make sure that I email them to you before or after the session.

My current preferred online service is Zoom. This is an encrypted service and it is free for you to access and download www.zoom.us

Here is a link to a (very short) video on how to use Zoom :
https://support.zoom.us/hc/en-us/articles/201362193-Joining-a-Meeting

I will send you an email before the session which contains a meeting number. Please make sure I have the correct email before the session.

Please make sure that:

1. You have your computer or mobile set up with Zoom before the session commences.
2. Your computer or mobile is positioned at a sensible height so that I can clearly see your face and that the camera is at eye level.
3. You are in a quiet location as it is very easy to hear background noises e.g. animals and washing machines and kettles etc. online
4. You will not be disturbed for the duration of the session and that the door to the room you are sitting in is closed.
5. If you are using your computer, you have your mobile out of reach and with the sound muted so that it is not a distraction.
6. You do not have your back to a window or light – this can make it very hard for me to see you clearly.
7. That there is adequate lighting in the room you are in.
8. You have a box of tissues nearby.
9. You have not been drinking alcohol or taking drugs before any sessions where they may still be in your body.
10. Any recording of sessions is by mutual agreement and requires a consent form to be signed by both parties.

I look forward to seeing you online soon.

Appendix G: Relaxation recording information

Progressive Muscle Relaxation: Progressive muscle relaxation is a form of relaxation training that can teach you how to achieve deep physical relaxation. You will tense groups of muscles, then release the tension and pay close attention to feelings of relaxation. Relaxation should be enjoyable, so if any part of the exercise is too difficult skip over it and move on to the next part. If you have any injuries be careful not to stress that part of your body.

Preparation

Choose a quiet place where you will not be disturbed. You can relax while lying down on a firm bed or couch, or sitting comfortably in a chair with your head well-supported. Loosen any tight clothing and make sure that you will be comfortably warm.

Instructions: For each group of muscles you should:

1. Focus your attention on that muscle group.
2. Tense those muscles as instructed.
3. Maintain the tension for about 5 to 7 seconds.
4. Stay focused on that muscle group for about 20 to 30 seconds before moving on, noticing feelings of relaxation.

Go through the sequence three times:

1. **Tense & relax:** tense the muscles, maintain the tension for few moments, then relax.
2. **Lightly tense & relax:** tense the muscles only very slightly, then relax.
3. **Relax only:** just pay attention to each muscle group and decide to relax it.

Recommended sequence

1. **Right hand and lower arm** (clench your fist and tense the lower arm)
2. Left hand and lower arm
3. **Right upper arm** (bring your hand to your shoulder and tense your biceps)
4. Left upper arm
5. **Right lower leg and foot** (point your toe and gently tense the calf muscle)
6. Left lower leg and foot
7. **Both thighs** (press your knees and thighs tightly together)
8. **Abdomen** (pull your abdominal muscles in tightly)
9. **Chest** (take a deep breath and hold it in)
10. **Shoulders and back** (hunch your shoulders or pull them towards your ears)
11. **Neck and throat** (push your head backwards against the surface on which you are resting)
12. **Lips** (press them tightly together without clenching your teeth)
13. **Eyes** (closing them tightly)
14. **Lower forehead** (frown and pull your eyebrows together)
15. **Upper forehead** (wrinkle your forehead)

Relaxed Breathing

When we are anxious or threatened our breathing speeds up in order to get our body ready for danger. Relaxed breathing (sometimes called abdominal or diaphragmatic breathing) signals the body that it is safe to relax. Relaxed breathing is *slower* and *deeper* than normal breathing, and it happens lower in the body (the belly rather than the chest.

How to do relaxed breathing

- To practice make sure you are sitting or lying comfortably.
- Close your eyes if you are comfortable doing so.
- Try to breathe through your nose rather than your mouth.
- Deliberately slow your breathing down. Breathe in to a count of 4, pause for a moment, then breathe out to a count of four.
- Make sure that your breaths are smooth, steady, and continuous – not jerky.
- Pay particular attention to your out-breath – make sure it is smooth and steady.

Am I doing it right? What should I be paying attention to?

- Relaxed breathing should be low down in the abdomen (belly), and not high in the chest. You can check this by putting one hand on your stomach and one on your chest.
  Try to keep the top hand still, your breathing should only move the bottom hand.
- Focus your attention on your breath - some people find it helpful to count in their head to begin with ("In ... two ... three ... four ... pause ... Out ... two ... three ... four ... pause ...").

How long and how often?

- Try breathing in a relaxed way for at least a few minutes at a time – it might take a few minutes for you to notice an effect. If you are comfortable, aim for 5-10 minutes.
- Try to practice regularly – perhaps three times a day.

Variations and troubleshooting

- Find a slow breathing rhythm that is comfortable for you. Counting to 4 isn't an absolute rule. Try 3 or 5. The important thing is that the breathing is slow and steady.

Some people find the sensation of relaxing to be unusual or uncomfortable at first but this normally passes with practice. Do persist and keep practicing

Appendix H: AI-EMDR recording information (safe place and resource team) (Parnell, 2013, adapted by Brayne (2019)

AF-EMDR MODIFIED PROTOCOL

Phase 1: History/Case Conceptualisation:

- *How did this person get to be the way they are?*
- *How did they learn to self-soothe?*
- *What happened?*

Phase 2: Preparation

Special (Calm, Peaceful, Safe) Place (SP).

SP:

- *Location, real or imaginary, where you can imagine feeling relaxed, at peace, calm, supported.*
- *Notice what you can see (colours, quality of the light, sky, clouds, time of day, landscape…)*
- *Notice what you can hear…. touch … sense (the air on your skin, the ground beneath you) …. smell… taste….*

Slow-ish knee taps/ EMs/ buzzers/headphones (>>>).

- *Let me know when you have a good sense of that ("nod", "say when").*

Resource team (real or imaginary, human or animal, historical or contemporary, alive or dead, from your own experience, from history, literature, mythology, religion, Hollywood, fairy tales, comics…)

3 x Nurturing (e.g. qualities of kindness, tenderness, care, compassion, love, playfulness). **Identify all in one go, tap in one by one.**

NF 1, 2, 3:

3 x Protector (e.g. Strength, Determination, Courage, Steadfastness, and yes, Ferocity).

PF 1, 2, 3:

1+ Wise.

WF 1, (2):

Tap in as a team.

Presenting Issue:

Phase 3 Assessment/ Targeting:

1. *Picture/image/moment for worst/most intense part of that experience?*
2. *Connecting with that moment, what is the emotion?*
3. *Where is that happening in your body?*
4. *What's the belief about yourself that goes with that?*

If **bridging** (can also bridge from a shape – size, colour, temp hot or cold, sound high/low, texture hard soft...)

1. ***Trace it/Drop back in time.***
2. ***As far as you can.***
3. ***Without censoring it.***

Target (positioned in space and time):

Phase 4: Desensitisation

AS BEFORE: **Image, Emotion, Body, Belief.**

- *Connecting with that, just notice. >>>*

Sets not too short, not too long. As wave ends, settle, then Return to Target.

- *What are you getting/what do you notice?*

If things are moving, ***Go With That***. Or…

- ***Notice That / Follow That*** *(when a narrative is unfolding) /* ***Think About That*** *(in response to an insight) /* ***Stay with That*** *(esp. an emotion).*

Interweaves e.g.:

- *Inquiry, Truth, Sorting, Education.*
- *Video camera/context. Press Play.*
- *Rewrite the script, inc Rescue.*
  1. ***What does the child need?***
  2. ***Who can do that?***
  3. ***Would you like to imagine that?***

Phase 5: Installation

Once SUDs 0, check emerging PC. *What's the belief about yourself that goes with that now? (PC).* **Tap in.** If a 0 or more, or 6 or less, *What's keeping it there?*

Phase 6: Body Scan

Scan body (from top to toe). Any disturbance? If sensation, tap until resolves/subsides.

Phase 7: Closure. ALWAYS check original bridging point before closing, tapping in any positives and checking the body.

Phase 8: Re-evaluation. (Next session)

Check last session's target. How is that now? New target?

Some Resource Suggestions

Nurturing	Protector	Wisdom
Note that all categories can include friends, teachers, coaches, grandparents, special relatives...		
Earth Mother	Superman	Dalai Lama
Labrador, collie (or other dog)	Iron Man	Goddess
Wolf	Partner	Monk
Kind aunt	Lion/panther	Gandalf
Kind sibling	Aslan	Gandhi
Partner (when a good relationship)	Big oak tree	Elephant
Elephant	Adult self	Owl
Figures from movies	Wolf	Greek god
Bear	Movie figures	Grandparent
Irvin Yalom	Gladiator	Irvin Yalom
AA sponsor	Greek god	Buddha
Mother Mary	Mother bear	God
Virgin	Dragon	Jesus
Mary/Madonna	JFK	A beloved teacher
Ernest	Bruce Willis	A whale
Hemmingway	Batman	Therapist
Cat	Columbus	Priest
Cousin	Gorilla	Yoda (from Star Wars)
Florence	Hercules	Rabbi
Nightingale/a nurse	BFG	Dumbledore
An Angel	Wolverine	Pope
Ideal mother	Cousin	Eagle
Beloved therapist	Joan of Arc	Socrates
Horse	Archangel	Nelson Mandela
Sherpa	Knight	Galadriel (Elf Queen in Lord of the Rings)
Mummy Otter/ Mother Theresa	Winston Churchill	A Crow
Etc etc	A horse	The Sea
	A dolphin	
	Tiger	Etc, etc....
	Martin Luther King	
	Samurai Warrior...	

APPENDIX I: AI-EMDR SCRIPTS USED FOR GROUNDING AND PROCESSING

An adaptated script of Parnell's (2013) 'Ideal Mother'

Would you like to create an ideal mother/OCD nurturer? Can you imagine her? You can create the nurturer that you needed when you were a baby. She can be any way you would like her to be. You can construct her from someone you know, from aspects of people you know, from friends, your actual mother, from characters in books, movies and from aspects of yourself.

What qualities would she have? Bring in the senses. What would it feel like to be in her arms when you were little? What would she feel like? What would she smell like? Her breath, her skin? Feel her softness, the relaxation and calmness she exudes.

If struggling: ask client if they had a pet they loved and cared for – and use those feelings to help construct their nurturer.
Once the client has a strong sense of her ideal nurturer, add BLS to tap her in – for as long as they can elaborate in a positive way. If it becomes negative, stop and return to the positive. If client is happy to go forward with this:

Imagine being in the arms of such a mother. Imagine being the baby receiving this love, nurturing and adoration. As you are in your mother's arms, see how happy she is to gaze at you. She adores you. Feel the softness of her arms, and the security. She smells good and her voice is soothing to you. Feel her stroke your soft head and rock you in her arms. You feel loved and at peace. **Do BLS – and 'go with that'**

You could also try imagining this from the point of view of the mother. What might she be feeling as she holds and gazes at the baby?
Imagine you are this loving mother/nurturer holding your sweet baby in your arms and looking at her with love. Can you imagine this? Good
Do BLS – and 'how did that feel for you?

If there is a problem, ask the client what is needed to make it better – it is their imagination. Can go through visualisation with good mother from womb and birth onwards..

<u>Roadblocks</u>
But this isn't what happened to me
What we are trying to do is to change how that truth is held in your nervous system. You are no longer a child living with parents are you? But you still feel like you are sometimes, don't you? This is because you have developed memory networks that light up in a particular pattern, making it feel as if you are still a child. This isn't reality, is it? Well, we can change the way in which you feel by using your imagination and BLS and adding new neural pathways. You won't forget what happened to you, you just won't feel like it is important to you now. You will have new ways of responding to situations that used to upset you.

***Disloyalty** – What you are creating is only in your imagination – you aren't really replacing your mother. You don't need to give up any good things you got from your mother. Or perhaps, if you prefer, she could be your 'OCD Nurturer'*

EMDR – meeting child – or older self script (adapted from Knipe (2019) Loving Eyes protocol.

Use moderate tappers

Ok, so we are going to do an exercise where you visit your younger self. What do you think would be a good age to start with?

Try and get an image of yourself at this age. What did you look like? Take a look at photos if necessary.

Get the client to check in with this younger part throughout the week. Try to translate what the younger part says to their adult self and negotiate (eg. I don't want to do this, I want to go and play. In adult talk, this could translate to 'ok, but if you do this work you can go for a run later'.

Script

So you are standing on a road and right in front of you is a really safe house. A house you love that is really welcoming. So you go in through the gate and up the garden path and you see a front door and it's open.

So you go in, and you are in the hallway and in the hallway there are two doors that both lead to one room. Both doors are shut, but you are going to go into the first door. So go in there and have a good look around.

It is a lovely room. You really like it. It feels safe and calm and there are lots of things in there that you like, so just take a moment to look around and take in a few of the objects and the way that the light falls in the room. You see different things that interest you. Notice how you feel in the room. You feel safe and it is a nice place, a place that you really like. So take a seat anywhere and once you're comfortable you look at the other door, the door that you didn't come through.

Through that door is going to be coming your younger self, your seven-year old self. So it's all going to be in slow motion, she doesn't know that she is looking at you. It's all going to be in slow motion. So watch her come through the door really slowly, pay attention to her expressions, how she's walking, how she's holding herself. Really pay attention. Now let her just walk in the room and you're just going to notice what she does in the room. Just let her be and you just observe. How is she looking at you? And as she looks at you I just want you to

notice any feelings that you have towards her. Just let those be.
Notice any feelings she has towards you… and as that's happening just let it play out like it would. Just let it play out however she wants it to be and all the while you are just noticing what she's like.

Now, she is going to come nearer to you and let her sit down if she wants or stand if she wants, but you are going to have a chat. So I just want you to look in her face and you might talk first or she might talk first, but just allow that space for you and her to have a chat. I'll let you do that. **PAUSE**

And just be really curious about what she's saying and the effect she is having on you as she is talking. Then there might be something you really need to say to her, so just take your time and say that now. Notice her response and notice your feelings towards her and just let that happen.

And then just before you end the conversation say what you need to say to her now. Really look into her face, notice her expression. Then I want you to say to her 'I know, I understand'. So do that now. Follow any instincts that you have towards her.

OK, it's now time to go and it's up to you. You can either take her with you through the door you came through or she can safely go out the door she came in through and you can meet her again. But she is safe in this house, so either door is ok for her. It's what you'd like to do with her now. So you can either take her with you and if you'd like to do that I want you to take hold of her hand and open the door you came through. Shut that door behind you, walk down the hallway holding her hand and come out of the front door, look down at her. She is on the path with you and then you are on the road. The house is behind you and you are looking straight ahead and when you are looking straight ahead you can open your eyes.

Resourcing with Qualities (Brayne, 2019)

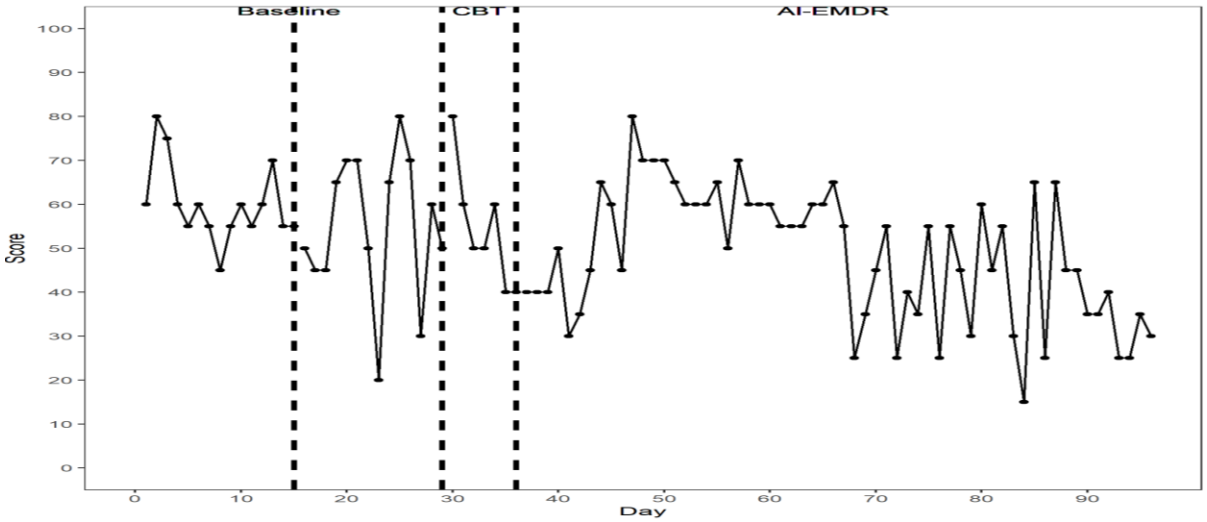
Unleash Handout - Resourcing with Qualities

This can be very useful for preparing a client to face an anticipated difficult circumstance, and does not require processing anything negative from the past. It's very client-friendly, and almost always helps.

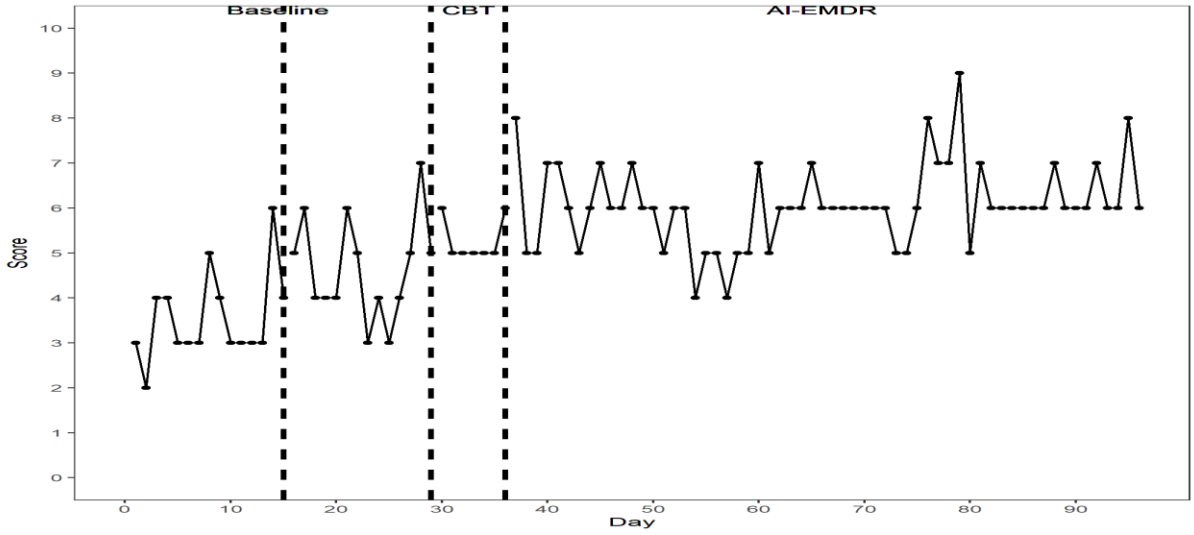
- Identify with the client an event or experience in the future which is causing stress and apprehension now.
- *Close your eyes, imagine it, how stressful does this feel on a scale of 0-10?*
- *What are the three key **qualities** you would need to allow you to manage that situation well.* **WRITE THEM DOWN!**
- *Now let's park that future event, and look to the past. Think of a time in the past where you manifested that quality in full measure.*
- With each quality in turn*:*
    - *Close your eyes, go back there, truly inhabit that space again, doing that, being there, feeling really good about having that quality of …..*
    - *Notice where this feels good in your body, breathing into that space.*
    - Now gently tap that in, just 20" or so. *Give me a nod when that feels really strong.*
    - *Now, let's move on to quality 2…* repeat, and with Q3.
- *Now,* with all three qualities tapped in individually, *I'd like you to bring all three past experiences together, imagining yourself manifesting all three, and, closing your eyes, let me know when you have them all in mind.* Then tap this collective experience in with a further 20"-30" of tapping.
- *Now, I'd like to bring your attention back to the future experience of…… When you think of doing that/being there now, bringing to this the qualities of 1, 2 and 3, how distressing does it feel on a scale of 0-10?* (It will almost always be significantly lower than at the outset).
- *So finally, what I'd like you to do is close your eyes, imagine this happening, you doing that, being there.* Tap that for a further 20"-30". *How does that feel?*
- Taps can continue until the imagined future plateaus at maximum positive.
- Well done! And Good luck!

Appendix J:_Raw data graphs for initial analysis

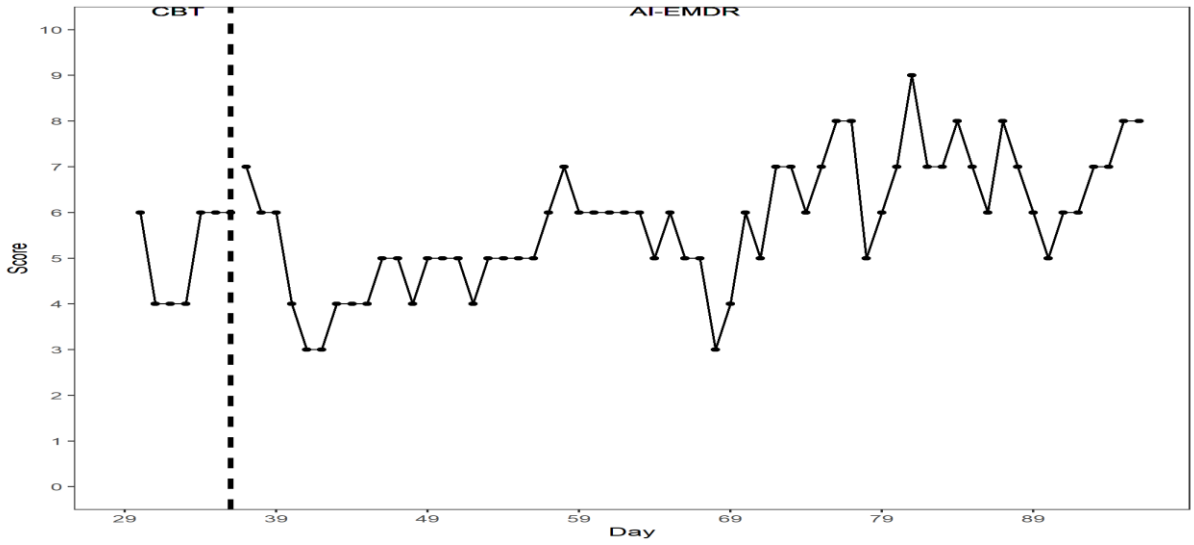
John's subjective daily rating of severity of his OCD



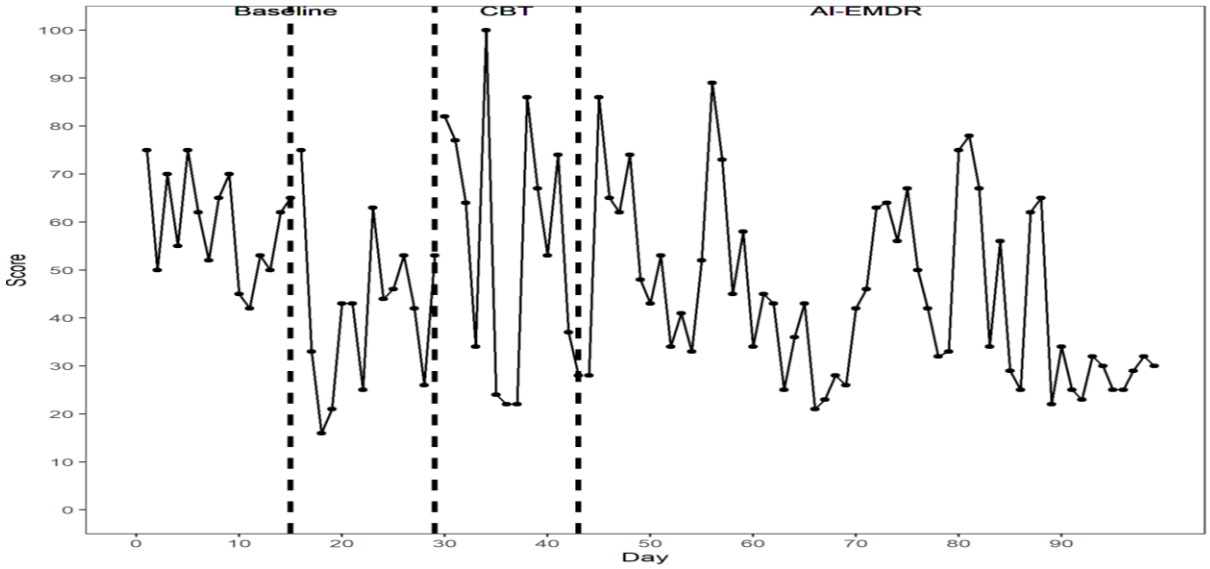
John's subjective daily rating of mood



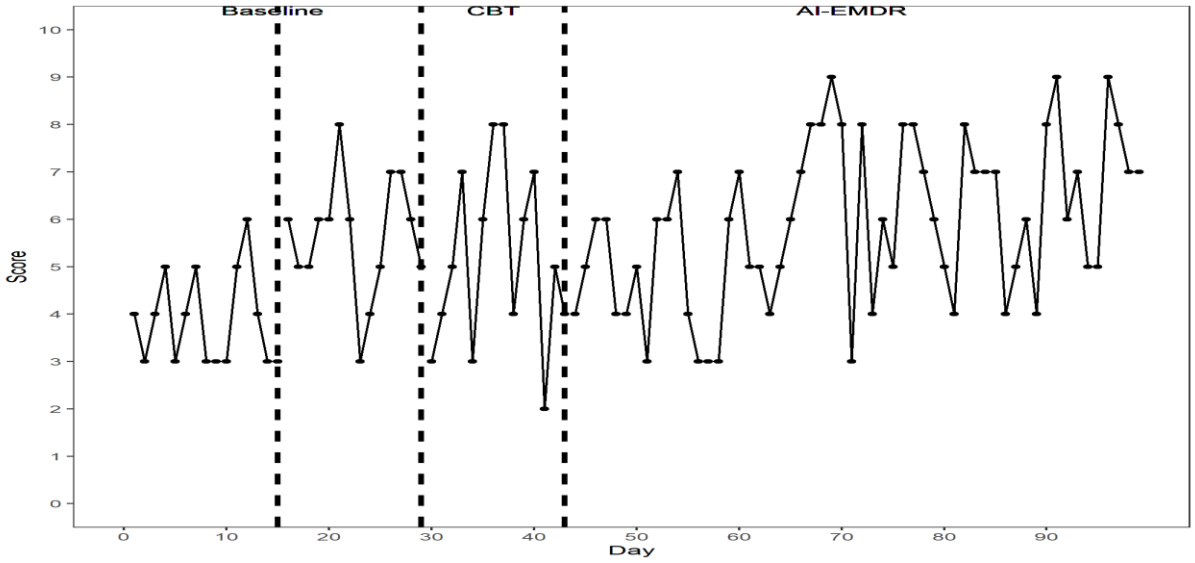
John's ability to undertake ERP activities



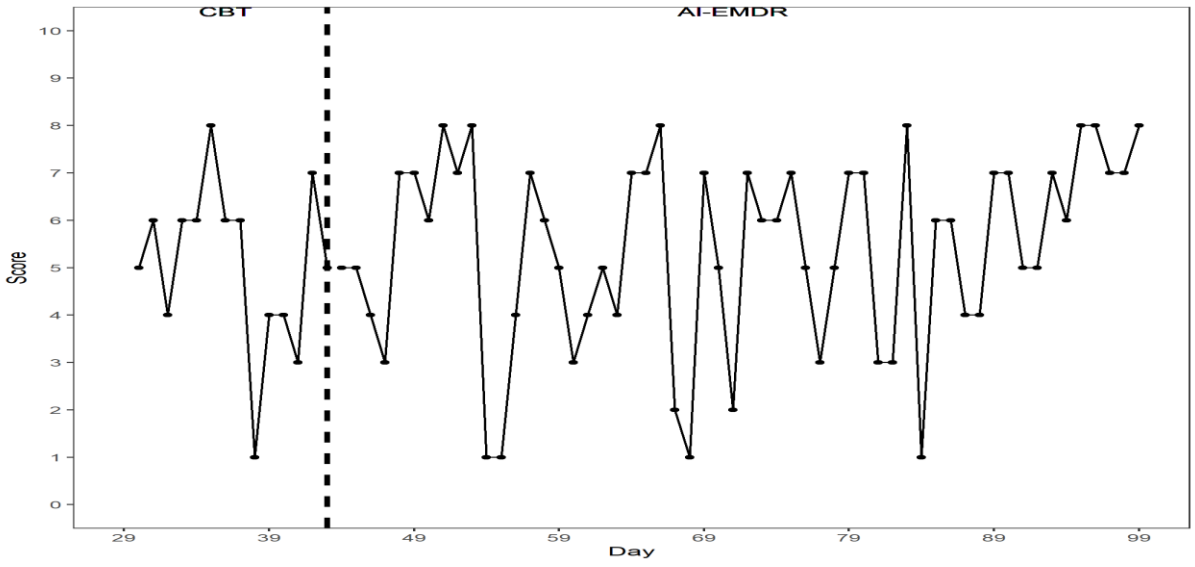
Jane's subjective daily rating of severity of her OCD



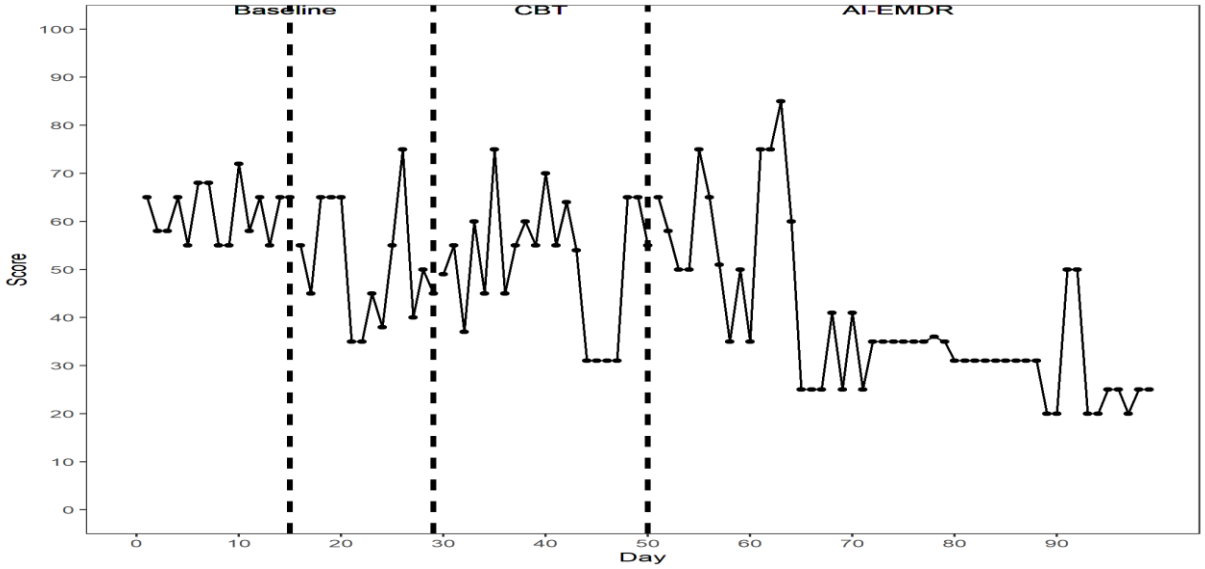
Jane's subjective daily rating of mood



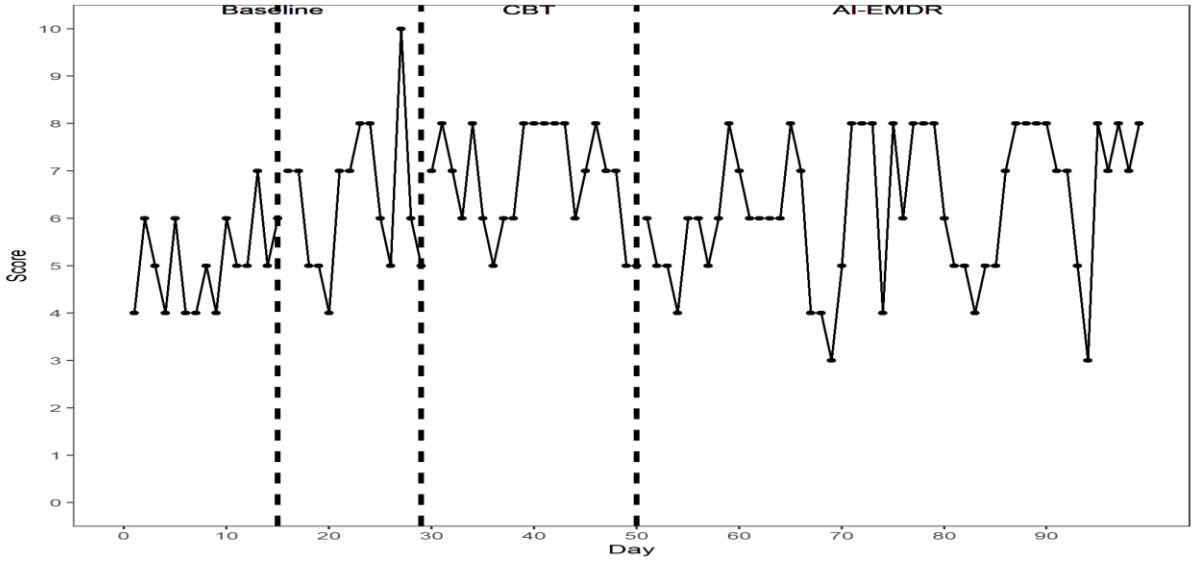
Jane's ability to undertake ERP activities



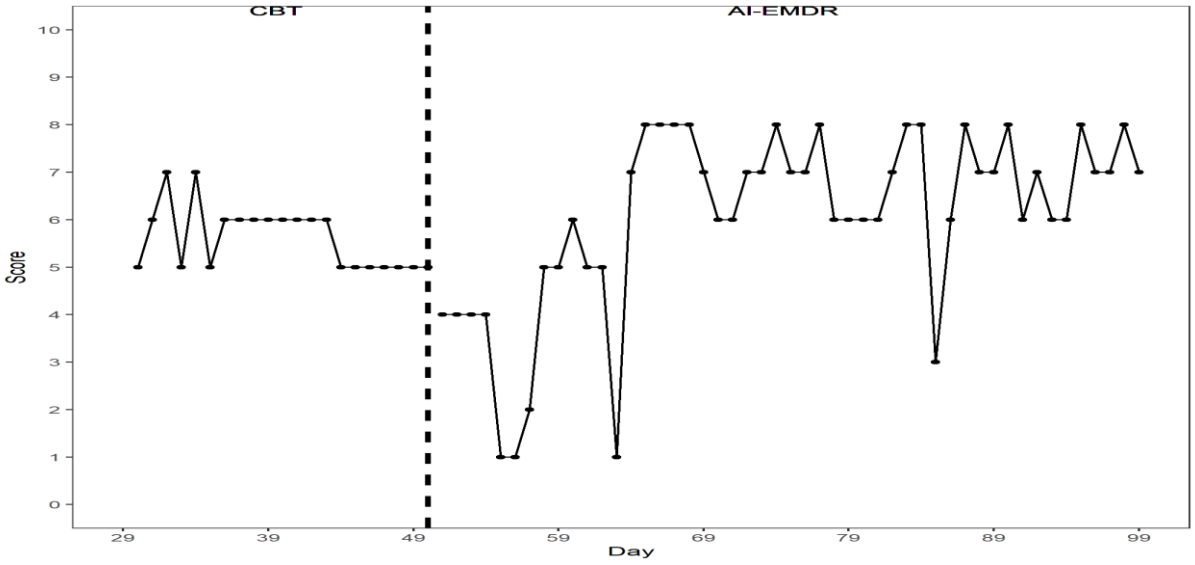
Susie's subjective daily rating of severity of her OCD



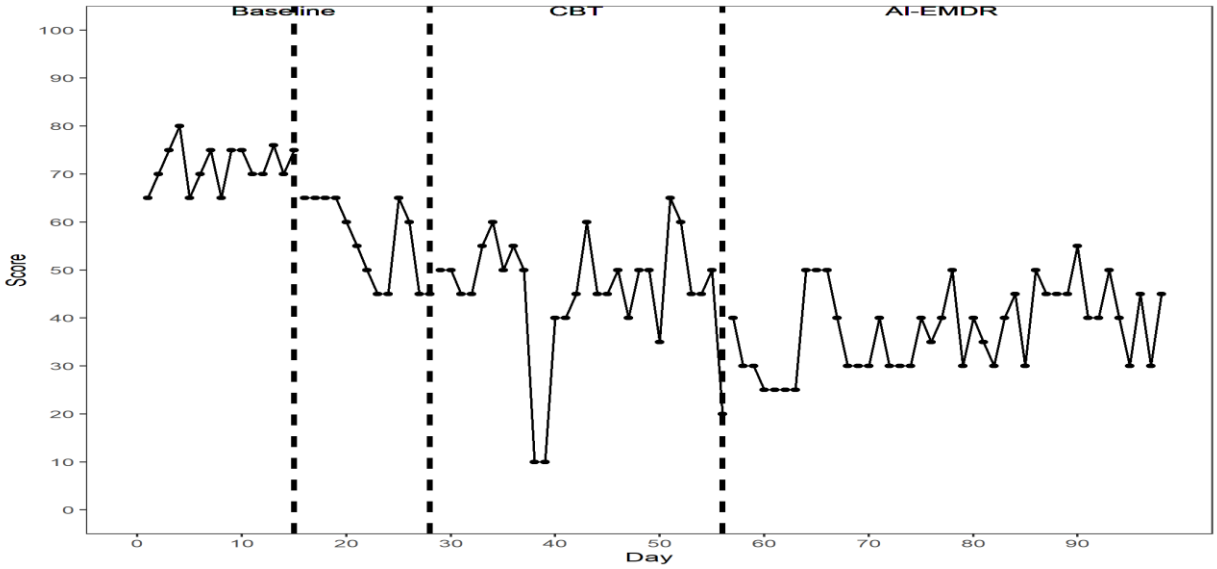
Susie's subjective daily rating of mood



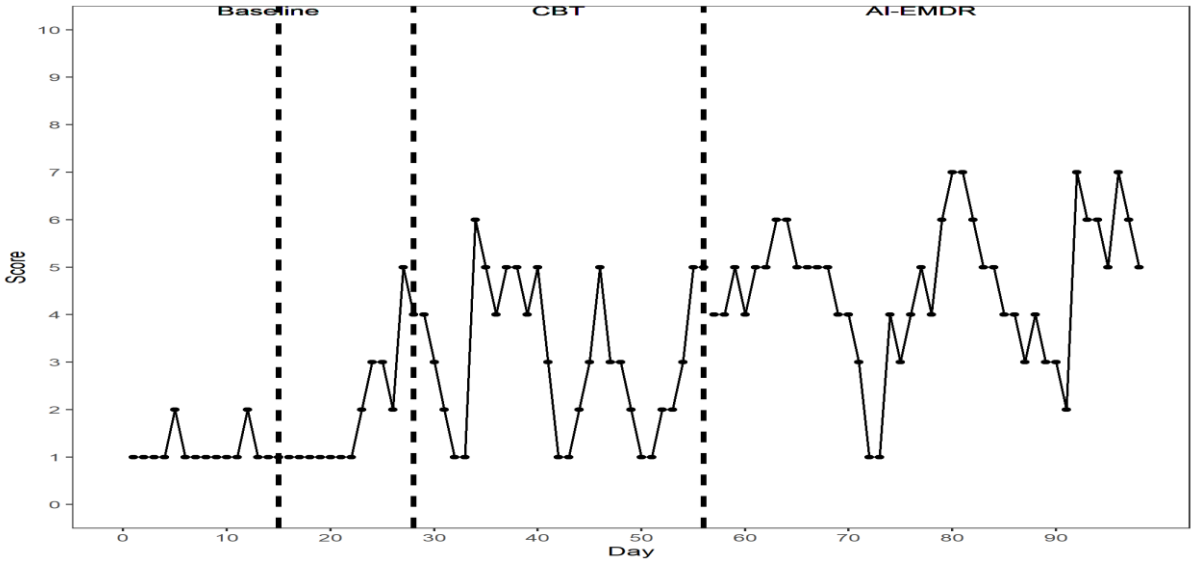
Susie's ability to undertake ERP activities



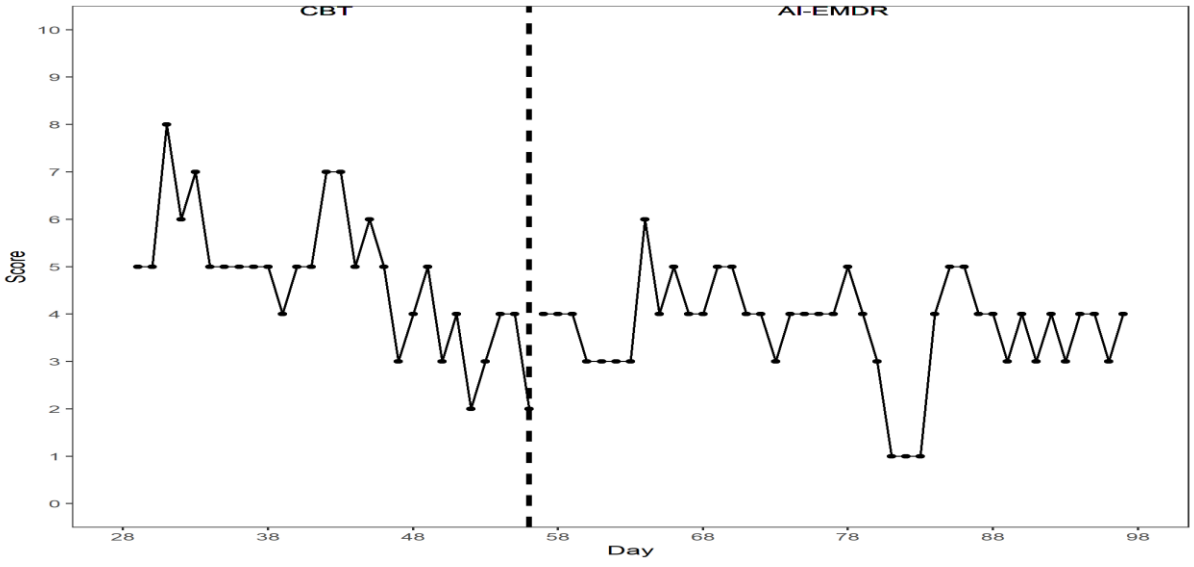
Kate's subjective daily rating of severity of her OCD



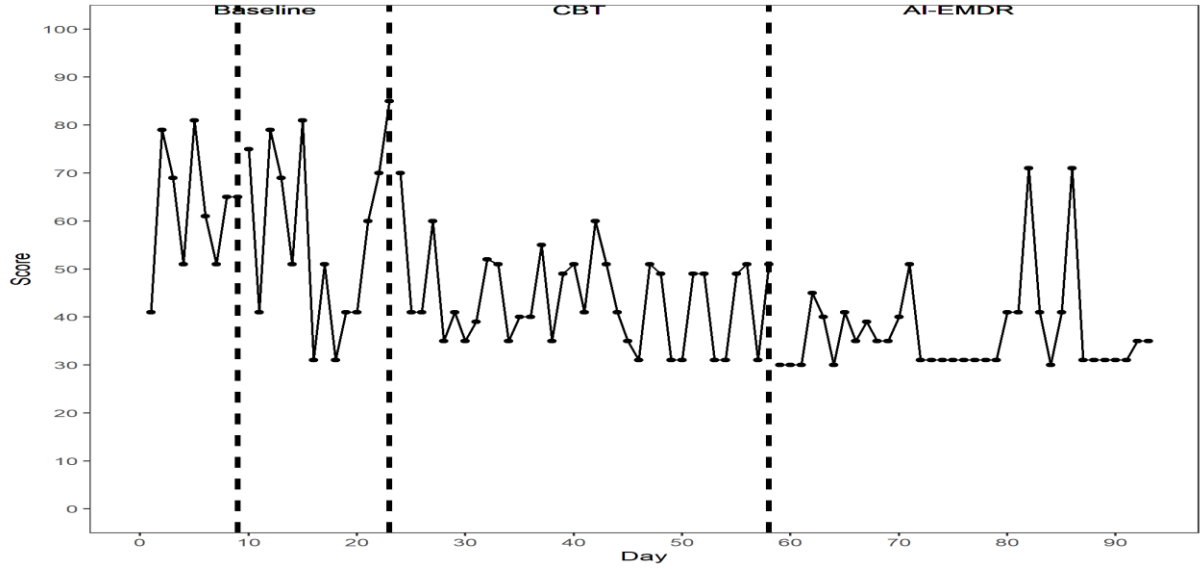
Kate's subjective daily rating of mood



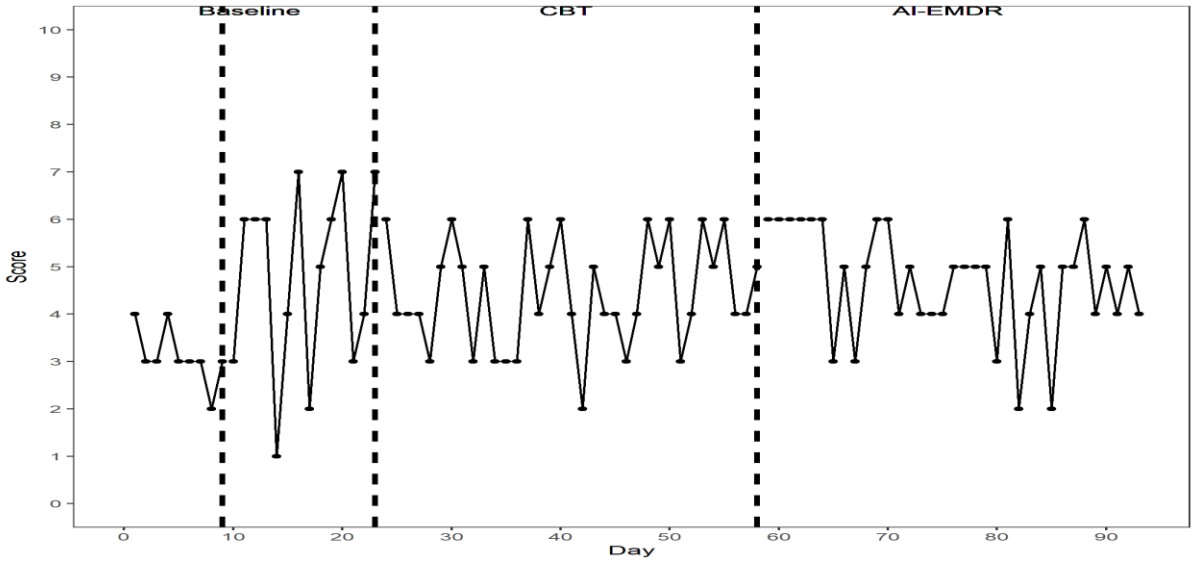
Kate's ability to undertake ERP activities



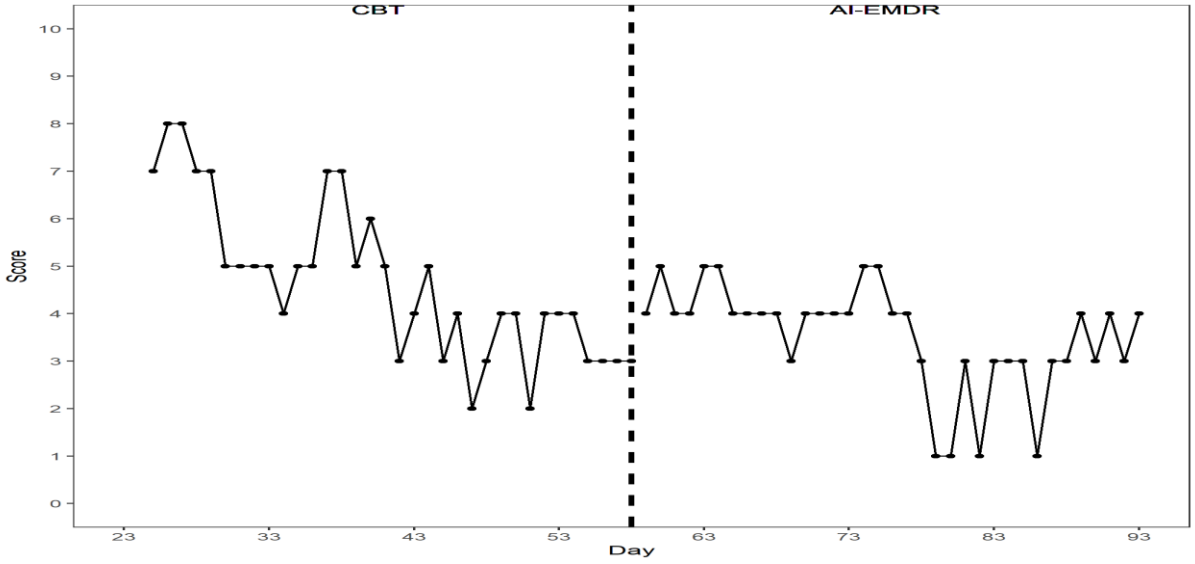
Hannah's subjective daily rating of severity of her OCD



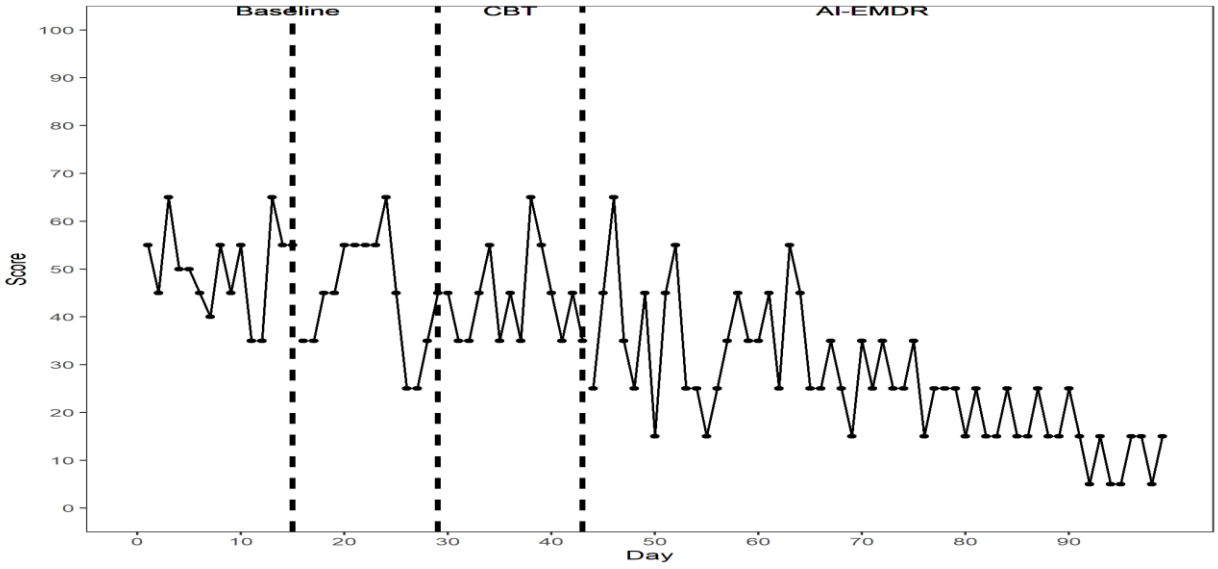
Hannah's subjective daily rating of mood



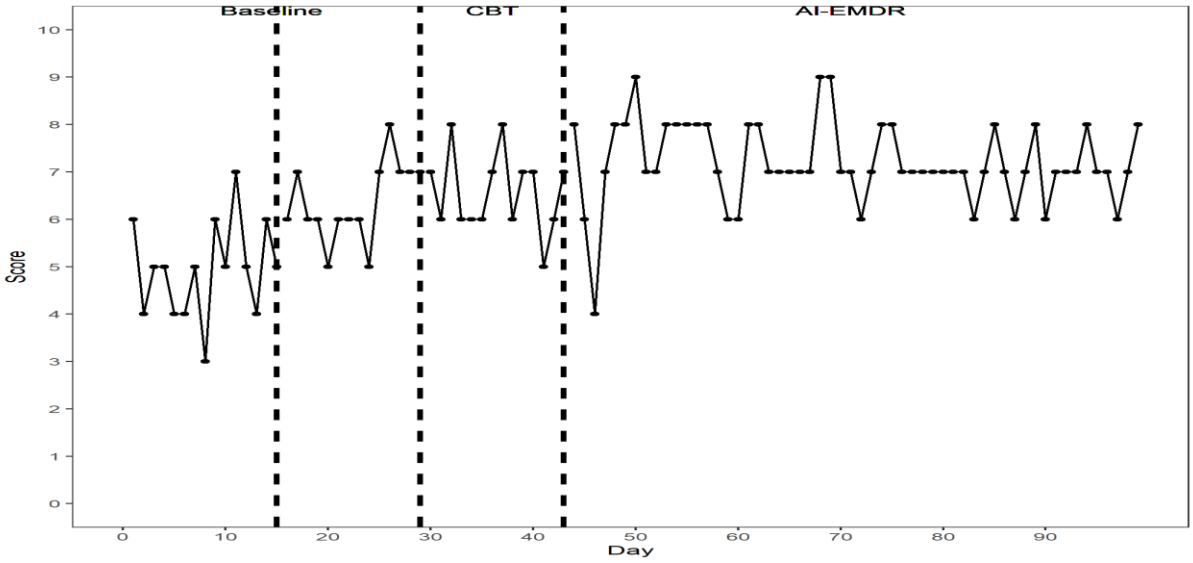
Hannah's ability to undertake ERP activities



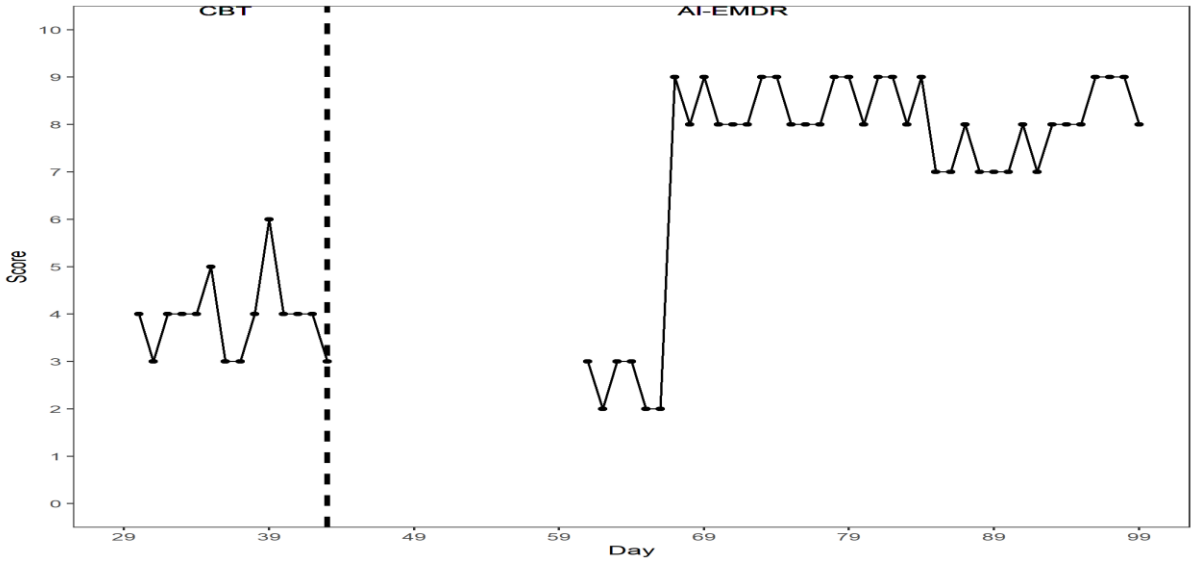
Sam's subjective daily rating of severity of his OCD



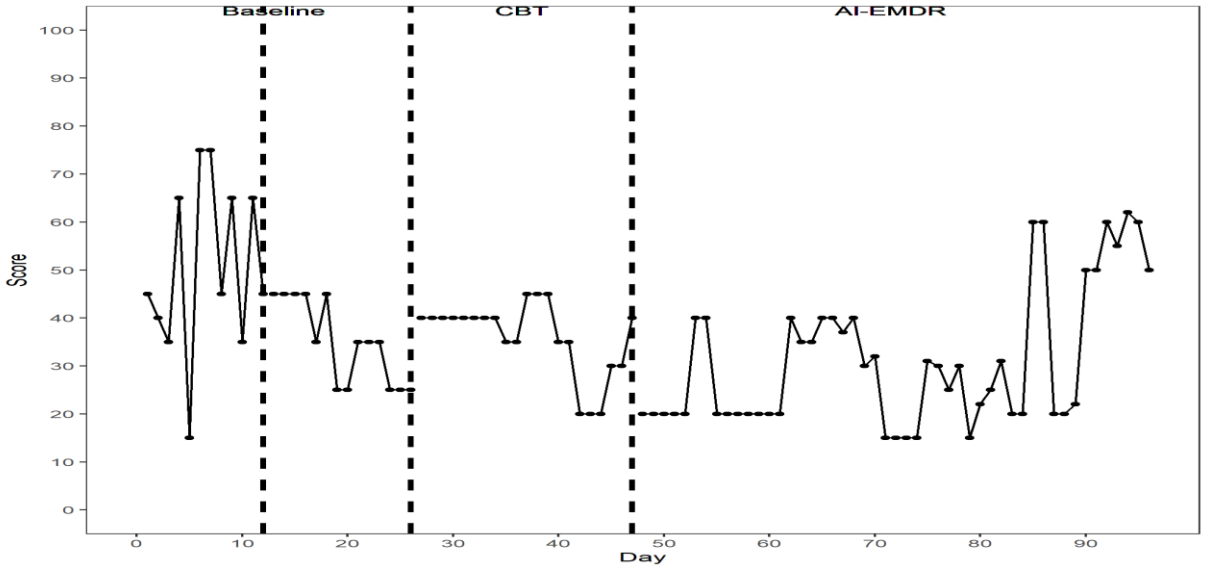
Sam's subjective daily rating of mood



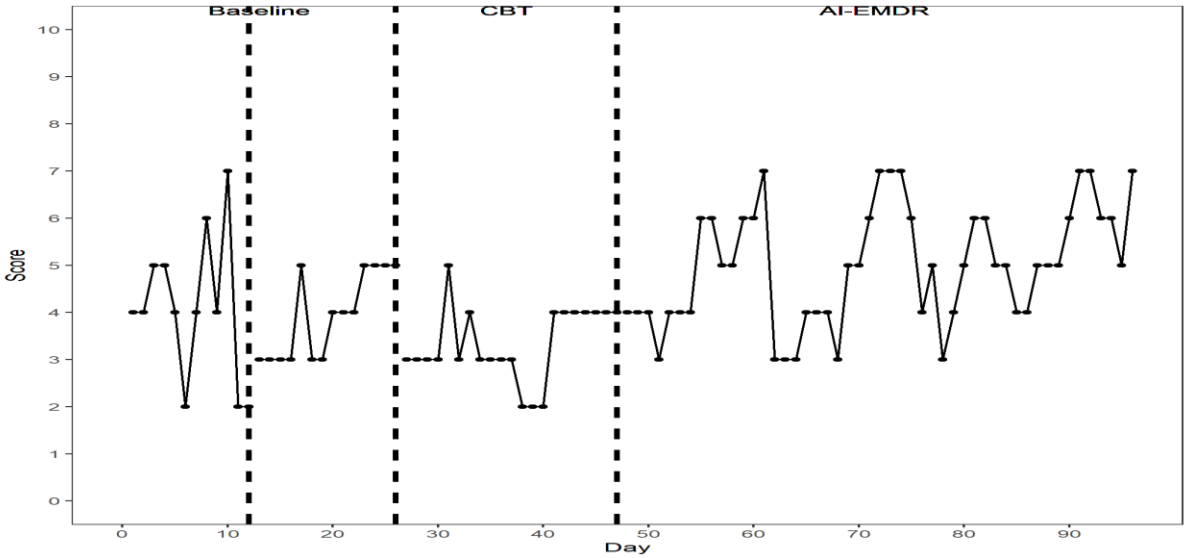
Sam's ability to undertake ERP activities



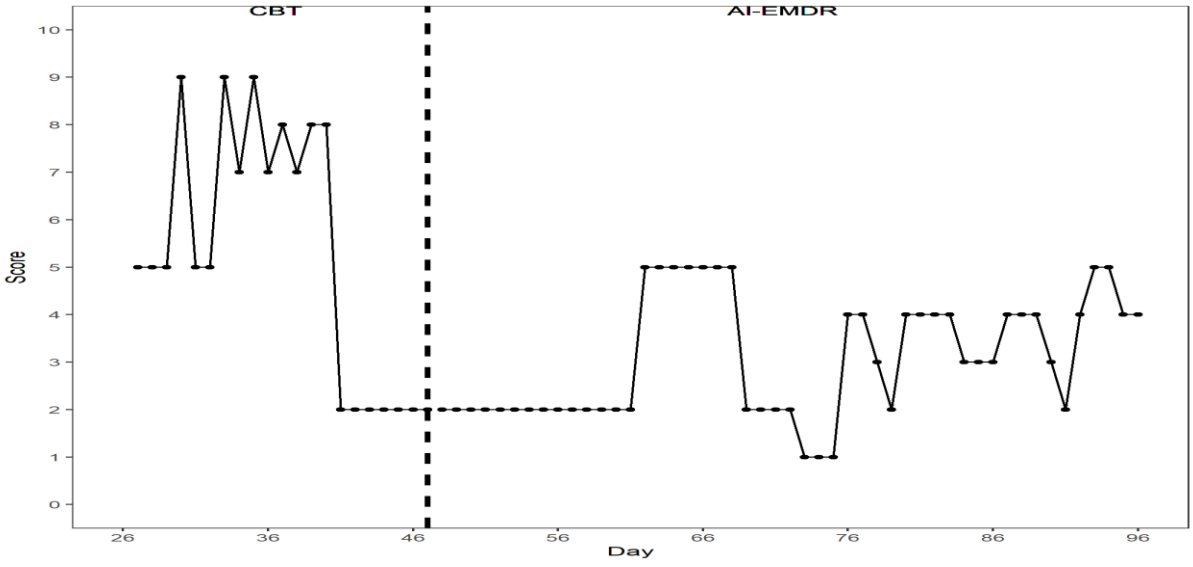
Peter's subjective daily rating of severity of his OCD



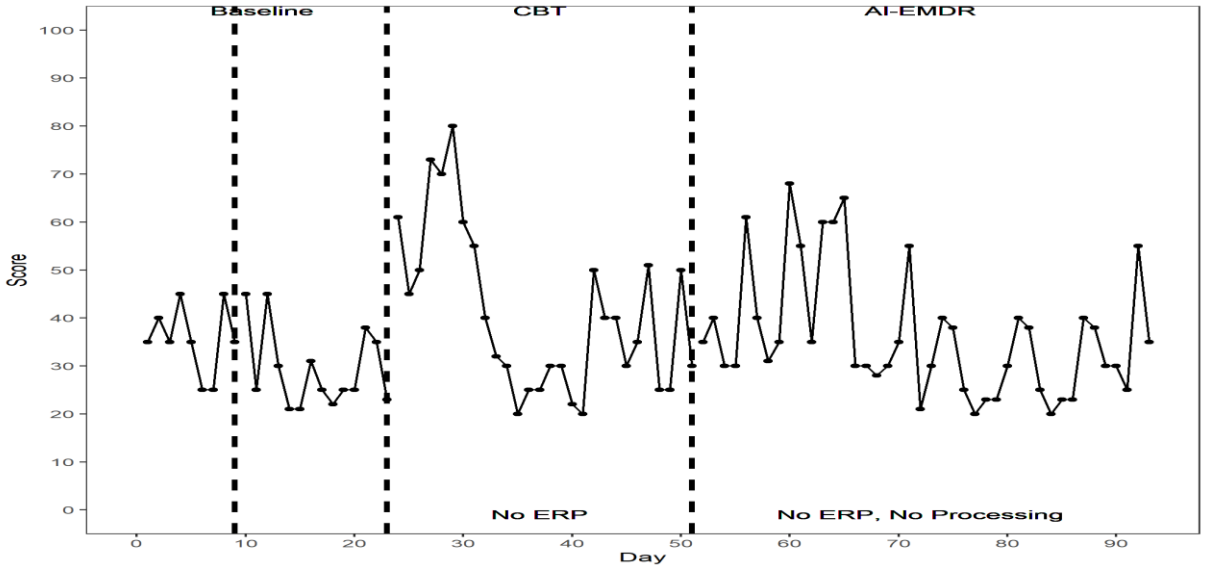
Peter's subjective daily rating of mood



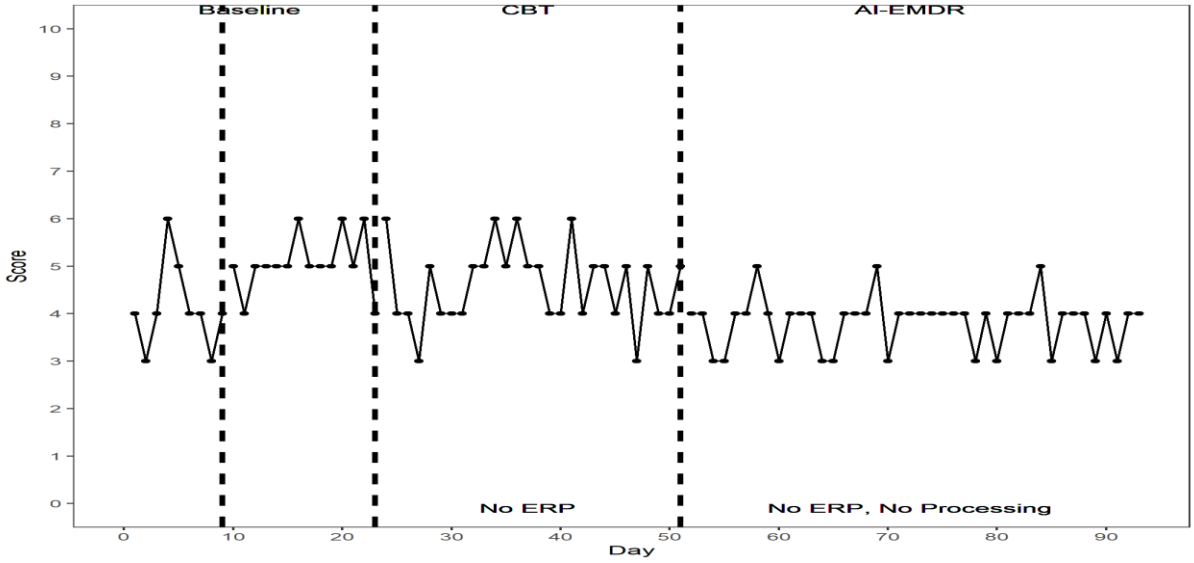
Peter's ability to undertake ERP activities



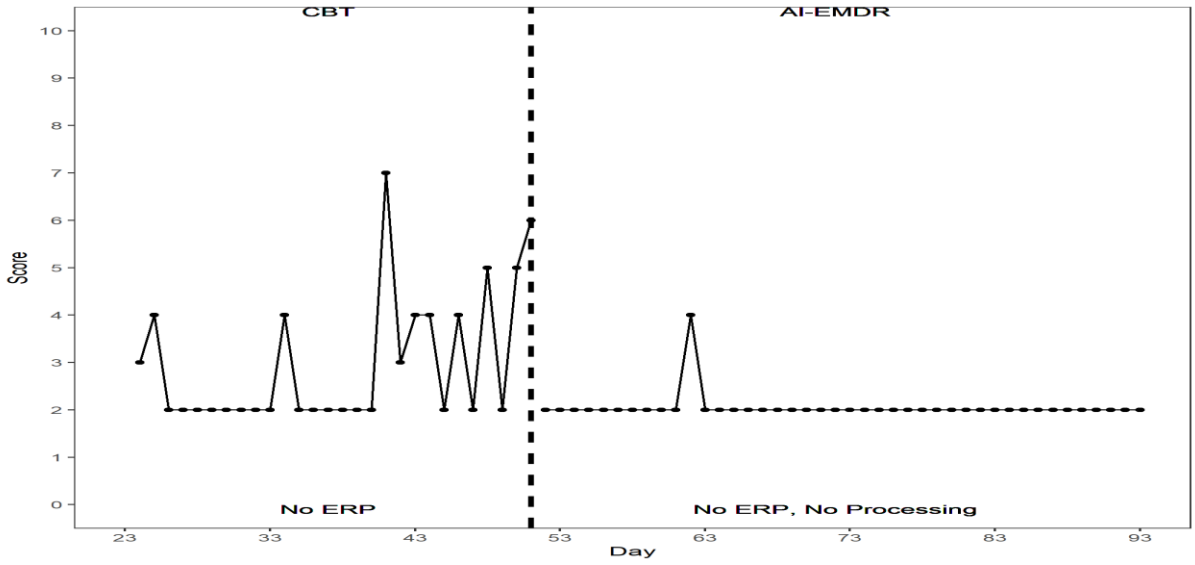
Dan's subjective daily rating of severity of his OCD



Dan's subjective daily rating of mood



Dan's ability to undertake ERP activities



Appendix K: First stage of quantitative analytic process

Participant 1: John

Hypotheses and Outcome	**Evidence of change in each phase (i.e. mean/trend)**	**Importance of change**
Hypothesis 1 **The subjective severity of OCD symptoms will:**		
a). Remain stable during the initial baseline phase (A1) **Refuted**	There is a fluctuation in scores and a decrease in trend	The variation in scores and the decreasing trend led to the hypothesis being refuted.
b) Remain stable or improve (decrease) during the assessment baseline phase (A2) **Refuted**	There is an increase in trend during this phase. The mean is consistent across both phases of the baseline.	Whilst the mean is consistent, the increase in trend led to the hypothesis being refuted.
c) Improve (decrease) during the CBT intervention phase **Confirmed**	The trend suggests an improvement in this phase. The mean also shows an improvement in this phase.	The mean and the trend suggest that the CBT intervention was beneficial which confirms the hypothesis.
d) Show an enhanced improvement (decrease) during the AI-EMDR intervention phase **Refuted**	There is a deterioration at the start of the AI-EMDR phase, followed by an improvement. Overall, the trend shows an improvement during the AI-EMDR phase. The mean is marginally lower than in the CBT phase.	The improvement in both trend and mean are positive. However, the strong improvement in trend in the previous (CBT) phase means further improvements cannot necessarily be attributed to the EMDR intervention.
Hypothesis 2 **Subjective ratings of mood will:**		
a). Remain stable during the initial baseline phase (A1) **Confirmed**	The trend is stable during this phase.	This stable trendline confirms the hypothesis
b) Remain stable or increase) during the assessment phase (A2) **Confirmed**	The trend shows a minimal decline during this phase. The mean is higher compared with Phase A1.	The relatively stable trendline and the improved mean confirm the hypothesis.
c) Improve (increase) during the CBT intervention phase. **Confirmed**	The trend is stable in this phase and there is a higher mean.	It was a borderline decision to confirm the hypothesis due to the improvement in the mean.

d) Show an enhanced improvement (increase)during the AI-EMDR intervention **<u>Refuted</u>**	The trend is stable in this phase. Both the trend and mean are higher than in the previous phases.	Whilst there is an increase in mean and trend in this phase, the improvement in the previous (CBT) phase led to the hypothesis being refuted.
<u>Hypothesis 3</u> **The subjective severity of OCD symptoms will:**		
The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities **<u>Refuted</u>**	The trend shows that John was better able to participate in ERP tasks after the CBT phase, with further improvements after the AI-EMDR intervention. This is compatible with the findings from the mean.	The improvement in mean and trend during the AI-EMDR phase confirms the hypothesis, but the positive trend in the previous phase means improvements may not be able to be attributed to the intervention.
<u>Summary</u>		There are some distinct fluctuationss in John's daily ratings. Despite this, the overall trend suggests that John found treatment beneficial. However, the strong improvement in the CBT phase means that this improvement cannot be attributed to the addition of the AI-EMDR intervention.

Participant 2: Jane

Hypotheses and Outcome	**Evidence of change in each phase (i.e. mean/trend)**	**Importance of change**
Hypothesis 1 **The subjective severity of OCD symptoms will:**		
a). Remain stable during the first baseline phase (Phase A1) **Refuted**	The trend shows an improvement (decrease) in Phase A1. The mean is highest in this phase.	The absence of a stable baseline trend led to the hypothesis being refuted.
b) Remain stable or improve (decrease) during the assessment phase (Phase A2) **Confirmed**	The trend shows a deterioration (increase) in Phase A2, which appears to be caused by some outlier ratings at the onset. The mean is considerably lower during this phase. The ratings show extreme fluctuation.	Whilst there is a deterioration in trend due to some outlier ratings at the onset, the mean suggests an improvement in this phase. It was a borderline decision to confirm the hypothesis.
c) Improve (decrease) during the CBT intervention phase – ratings should decrease **Refuted**	Whilst the trend suggests an improvement (decrease), the final outcome in this phase is similar to that at the end of Phase A. There are also large fluctuations in Jane's daily ratings in this phase.	These mixed results make it difficult to ascertain the impact of the CBT intervention. The trend suggests an improvement, while the mean is comparable to the previous phase. On this basis, the hypothesis was refuted.
d) Show an enhanced improvement (decrease) during the AI-EMDR intervention phase **Refuted**	The trend suggests a marginal improvement during this phase. The mean is lower than during the CBT phase, but marginally higher than in A2. Lots of fluctuations in scores	Whilst the trend shows an overall improvement across the course of the trial, it is not possible to attribute this directly to the AI-EMDR. The mean suggests that Jane found the assessment phase most beneficial. This led to the hypothesis being refuted.
Hypothesis 2 **Subjective ratings of mood will:**		
a). Remain stable during the baseline and assessment phase **Confirmed**	The trend shows a minimal decline in Phase A1, but is relatively stable. The mean is lower in this phase compared with all other phases.	The trend suggests that a stable baseline was achieved which led to the hypothesis being confirmed.

b) Remain stable or improve (increase) during the assessment phase (Phase A2) **Confirmed**	The trend suggests a minor decline in Phase A2, but is relatively stable. The mean shows an enhanced improvement in this phase compared with Phase A1.	The relatively stable trend and improved mean led to the hypothesis being confirmed.
c) Improve (increase) during the CBT intervention phase. **Confirmed**	The trend suggests a marginal improvement in mood during the CBT phase. The mean is consistent with that in Phase A2.	The marginal improvement during Phase B led to a confirmation of the hypothesis, but the consistent mean made this a borderline decision.
d) Show an enhanced improvement (increase)during the AI-EMDR intervention **Refuted**	The trend does show an improvement in Phase C. The mean is also higher. However, this increase appears to be a continuation from the previous phase rather than an enhancement.	Whilst the increased trend and mean support the hypothesis, there does not appear to be an enhanced effect in this phase. On this basis the hypothesis is refuted.
Hypothesis 3 **The subjective severity of OCD symptoms will:**		
The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities **Confirmed**	Both the mean and trend showed that Jane was better able to participate in ERP tasks after the AI-EMDR intervention. Indeed, Jane's ability to undertake ERP tasks appears to deteriorate during the CBT phase.	Whilst these results are positive and confirm the hypothesis, it is of note that the improvement is minimal.
Summary		There are some extreme fluctuations in Jane's daily ratings, with some outliers potentially skewing the results. Despite this, the overall trend suggests that Jane found treatment beneficial. However, the improvement in the CBT phase means that this cannot be directly attributed to the addition of the AI-EMDR intervention.

Participant 3: Susie

Hypotheses and Outcome	**Evidence of change in each phase (i.e. mean/trend)**	**Importance of change**
Hypothesis 1 **The subjective severity of OCD symptoms will:**		
a). Remain stable during the first baseline phase (Phase A1) **Confirmed**	Both the mean and trend are stable during this phase.	The stable baseline in this phase confirms the hypothesis.
b) Remain stable or improve (decrease) during the assessment phase (Phase A2) **Confirmed**	The trend shows a marked improvement (decrease) in Phase A2. The mean is also lower during this phase compared to A1.	The distinct improvement in trend and mean in this phase confirms the hypothesis.
c) Improve (decrease) during the CBT intervention phase **Refuted**	The trend suggests a deterioration (increase) during this phase, while the mean is comparable to that in A2.	The deterioration in trend and the lack of change in the mean from the previous phase refutes the hypothesis.
d) Show an enhanced improvement (decrease) during the AI-EMDR intervention phase **Confirmed**	The trend suggests an enhanced improvement during this phase. Ratings become increasingly consistent towards the end of this phase. This is further endorsed by the lower mean.	The clear improvement in both mean and trend supports the hypothesis.
Hypothesis 2 **Subjective ratings of mood will:**		
a). Remain stable during the first baseline phase (A1) **Refuted**	The trend shows an improvement in mood in Phase A1. The mean is lower in this phase compared with all other phases.	The improvement in mood refutes the hypothesis.
b) Remain stable or improve (increase) during the assessment phase (A2) **Confirmed**	The trend suggests a further improvement in mood in Phase 2. The mean shows an enhanced improvement in this phase compared with A1.	The clear improvement in mood is apparent in both the trend and mean. This led to the hypothesis being confirmed.
c) Improve (increase) during the CBT intervention phase. **Refuted**	The trend shows an improvement during the CBT phase. This is compatible with the increased mean.	Whilst there is an improvement in both trend and mean, this is not convincing when compared to the trend in Baseline A1.

d) Show an enhanced improvement (increase)during the AI-EMDR intervention **<u>Refuted</u>**	The trend shows an improvement in Phase C. The mean is lower than in the previous phase. There are major fluctuations in ratings in this phase.	Whilst the trend is encouraging, the mean is lower than in the CBT phase. For this reason the hypothesis is refuted.
<u>Hypothesis 3</u> **The subjective severity of OCD symptoms will:**		
The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities **<u>Confirmed</u>**	Both the mean and trend showed that Susie was better able to participate in ERP tasks after the AI-EMDR intervention.	These results are positive and confirm the hypothesis.
<u>Summary</u>		The overall trend suggests that Susie benefitted from treatment. However, the mixed results in the CBT phase means that this cannot be directly attributed to the addition of the AI-EMDR intervention. It is of note, however, that her ability to undertake ERP activities deteriorated during the CBT phase and was enhanced during the AI-EMDR phase of the trial.

Participant 4: Kate

Hypotheses and Outcome	**Evidence of change in each phase (i.e. mean/trend)**	**Importance of change**
Hypothesis 1 **The subjective severity of OCD symptoms will:**		
a). Remain stable during the first baseline phase (Phase A1) **Confirmed**	The trend shows a minimal deterioration during this phase. The mean is higher than in all other phases.	The relatively stable baseline confirms the hypothesis.
b) Remain stable or improve (decrease) during the assessment phase (Phase A2) **Confirmed**	The trend shows a marked improvement (decrease) in Phase A2. The mean is also lower during this phase compared to A1.	The distinct improvement in trend and mean during this period led to the hypothesis being confirmed.
c) Improve (decrease) during the CBT intervention phase **Confirmed**	There is a minimal improvement in trend. The mean is lower in this phase compared with both baseline phases.	The slight improvement in trend and the lower mean confirms the hypothesis.
d) Show an enhanced improvement (decrease) during the AI-EMDR intervention phase **Refuted**	The trend suggests a deterioration during this phase. The mean is lower compared with all other phases.	The mixed results led to the hypothesis being refuted.
Hypothesis 2 **Subjective ratings of mood will:**		
a). Remain stable during the first baseline phase (A1) **Confirmed**	The trend and mean are both stable during the first assessment phase.	The stable trend and mean confirmed the hypothesis.
b) Remain stable or improve (increase) during the assessment phase (A2) **Confirmed**	The trend remains stable for the first part of this phase. There is a sharp improvement of mood part way through this phase. The mean is higher than in the first phase.	The distinct improvement in trend and mean during this period led to the hypothesis being confirmed.

c) Improve (increase) during the CBT intervention phase. **Refuted**	The trend shows a deterioration in mood during the CBT phase. However, the ratings do fluctuate. The mean is higher than in the previous phases.	These mixed results including a decline in trend led to the hypothesis being refuted.
d) Show an enhanced improvement (increase)during the AI-EMDR intervention **Confirmed**	The trend shows an improvement in Phase C. The mean is higher than in the previous phases. There are major fluctuations in ratings in this phase.	The improved trend and higher mean led to the hypothesis being confirmed.
Hypothesis 3 **The subjective severity of OCD symptoms will:**		
The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities **Refuted**	The trend shows a reduced ability to undertake ERP tasks in both phases. The mean is higher in the CBT phase. There are some extreme outliers in the AI-EMDR phase that may have contributed to this decline	These results suggested that Kate's ability to undertake ERP tasks decreased over the course of the trial and the hypothesis is refuted.
Summary		The graphs suggest that Kate benefitted from treatment overall. However, the mixed results from the CBT and AI-EMDR phases mean it is not clear whether either intervention was responsible for this improvement.

Participant 5: Hannah

Hypotheses and Outcome	**Evidence of change in each phase (i.e. mean/trend)**	**Importance of change**
Hypothesis 1 **The subjective severity of OCD symptoms will:**		
a). Remain stable during the initial baseline phase (A1) **Refuted**	The trend shows some improvement during this phase. The mean is highest in this phase.	The improvement (decrease) in trend means the hypothesis is refuted.
b) Remain stable or improve (decrease) during the assessment phase (Phase A2) **Confirmed**	The trend shows a greater improvement compared to all other phases. The mean shows a marginal improvement (decrease) compared with the A1 baseline.	The improvement in trend led to the hypothesis being confirmed.
c) Improve (decrease) during the CBT intervention phase. **Confirmed**	The trend suggests an improvement. The mean is lower than in the previous phases.	The improvement in trend and the lower mean led to the hypothesis being confirmed
d) Show an enhanced improvement (decrease) during the AI-EMDR intervention phase **Refuted**	The trend suggests a marginal improvement. This is compatible with the reduction in mean.	Whilst there is a marginal improvement in both trend and mean, the lack of an 'enhanced' improvement led to the hypothesis being refuted.
Hypothesis 2 **Subjective ratings of mood will:**		
a). Remain stable during the first baseline phase (A1) **Confirmed**	The trend shows a minimal deterioration in mood. The mean is lower than in all other phases.	The fact that the deterioration in mood was minimal, along with the lower mean, led to the hypothesis being confirmed.
b) Remain stable or improve (increase) during the assessment phase (Phase A2) **Confirmed**	The trend suggests a marginal improvement in mood during this phase. The mean shows an enhanced improvement compared with phase A1	The increase in trend and the enhanced improvement in the mean led to the hypothesis being confirmed.
c) Improve (increase) during the CBT intervention phase. **Refuted**	The trend suggests a slight improvement, but the final outcome is lower than in A2. The mean is also lower than in the previous phase (A2).	The lower trend and mean compared to Phase A2 led to the hypothesis being refuted.

d) Show an enhanced improvement (increase)during the AI-EMDR intervention **Refuted**	The trend shows a decline in mood. The mean is higher than in the CBT phase, but lower than in the A2 phase of the baseline.	The decline in trend and the mixed outcome in the mean led to the hypothesis being refuted.
Hypothesis 3 **The subjective severity of OCD symptoms will:**		
The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities **Refuted**	The mean and trend showed that Hannah's ability to undertake ERP activities decreased over both phases of the trial, with a continued deterioration during the AI-EMDR component of the trial.	The decline in mean and trend led to the hypothesis being refuted.
Summary		Whilst Hannah appeared to benefit from treatment overall, her most marked improvement was during the A2 baseline phase. This means the impact of the CBT and AI-EMDR interventions is not conclusive.

Participant 6: Sam

Hypotheses and Outcome	**Evidence of change in each phase (i.e. mean/trend)**	**Importance of change**
Hypothesis 1 **The subjective severity of OCD symptoms will:**		
a). Remain stable during the initial baseline phase (A1) **Confirmed**	The trend is stable at the start of treatment.	The stable baseline confirms the hypothesis.
b) Remain stable or improve (decrease) during the assessment baseline phase (A2) **Confirmed**	The trend shows an improvement during this assessment phase. The mean is lower than in the previous phase.	The improvement in trend and lower mean led to the hypothesis being confirmed.
c) Improve (decrease) during the CBT intervention phase **Refuted**	The trendline shows a deterioration during this phase. The mean is lower than in previous baseline phases.	The results are mixed, but the deteriorating trend led to the hypothesis being refuted.
d) Show an enhanced improvement (decrease) during the AI-EMDR intervention phase **Confirmed**	The trendline shows a marked improvement in this phase that is compatible with the lower mean.	The results in this phase confirm the hypothesis.
Hypothesis 2 **Subjective ratings of mood will:**		
a). Remain stable during the initial baseline phase (A1) **Refuted**	The trend shows an improvement in mood during this phase.	The improved trendline refuted the hypothesis
b) Remain stable or improve (increase) during the assessment phase (A2) **Confirmed**	The trend shows a distinct improvement during this phase. The mean is higher compared with the previous phase (A1).	The major improvement in mean and trend led to the hypothesis being confirmed.
c) Improve (increase) during the CBT intervention phase. **Refuted**	The trendline shows a within-phase improvement in mood and the mean is higher than in previous phases. Sam's ratings for mood were higher in the previous phase (A2)	The mixed trendline results led to the hypothesis being refuted.

d) Show an enhanced improvement (increase)during the AI-EMDR intervention **<u>Refuted</u>**	The trendline shows a deterioration in mood during this phase. The mean is markedly higher compared with previous phases.	These mixed results led to the hypothesis being refuted.
<u>Hypothesis 3</u> **The subjective severity of OCD symptoms will:**		
The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities **<u>Confirmed</u>**	The trendline shows a marked improvement in Sam's ability to undertake ERP activities compared with in the CBT phase. The greatly increased mean endorses this result.	The results in this phase endorse the hypothesis.
<u>Summary</u>		Sam showed a marked improvement in his tolerance of his OCD symptoms and ability to undertake ERP during the course of the trial. The graphs convincingly suggest that the AI-EMDR interventions did enhance his ability to undertake ERP tasks

Participant 7: Peter

Hypotheses and Outcome	**Evidence of change in each phase (i.e. mean/trend)**	**Importance of change**
Hypothesis 1 **The subjective severity of OCD symptoms will:**		
a). Remain stable during the initial baseline phase (A1) **Refuted**	The trendline shows a deterioration (increase) during this phase.	The absence of a stable baseline means the hypothesis is refuted.
b) Remain stable or improve (decrease) during the assessment baseline phase (A2) **Confirmed**	The trend shows a distinct improvement during this assessment phase. The mean is lower than in the previous phase.	This marked improvement in trend and mean led to the hypothesis being confirmed.
c) Improve (decrease) during the CBT intervention phase **Refuted**	The trendline shows an improvement, but this is not as great as the improvement in the previous phase. The mean is compatible with the previous phase.	The higher trendline and the mean being comparable with the previous phase (A2) mean led to the hypothesis being refuted.
d) Show an enhanced improvement (decrease) during the AI-EMDR intervention phase **Refuted**	The trendline is lower than in the other phases. However, the high ratings in the final week led to an upward trendline. The mean is lower than in all other phases.	The mixed results for this phase led to the hypothesis being refuted.
Hypothesis 2 **Subjective ratings of mood will:**		
a). Remain stable during the initial baseline phase (A1) **Confirmed**	The trend shows a marginal decrease in mood during this phase, which is influenced by a significant drop in the final 2 data points.	Whilst there is a drop in the final two data points in this section, there is a relatively stable trendline. This led to a borderline decision to confirm the hypothesis
b) Remain stable or improve (increase) during the assessment phase (A2) **Refuted**	The trend shows a distinct improvement during this phase. The mean is marginally lower compared with Phase A1.	These mixed results in the mean and trend led to the hypothesis being refuted.

c) Improve (increase) during the CBT intervention phase. **Refuted**	The trendline shows an improvement in mood during this phase, but it is not as high as in the previous phase (A2). The mean is lower than in the previous phase.	The lower trendline and mean led to the hypothesis being refuted.
d) Show an enhanced improvement (increase)during the AI-EMDR intervention **Confirmed**	Both the trendline and mean are markedly higher in this phase, compared with previous phases.	The improved trend and mean endorse the hypothesis
Hypothesis 3 **The subjective severity of OCD symptoms will:**		
The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities **Refuted**	The trendline shows that Peter's ability to undertake ERP tasks is diminished by the end of the CBT phase. It starts to improve during the EMDR phase, but he does not return to his initial confidence. The mean is higher in the CBT phase than the EMDR phase.	The mixed results in this phase led to the hypothesis being refuted.
Summary		Overall, Peter appeared to benefit from treatment. He did not respond especially well to the CBT component of the trial, but he did show some improvement during the AI-EMDR phase. The results are not, however, conclusive regarding the impact of the AI-EMDR intervention.

Participant 8: Dan (no ERP or AI-EMDR trauma processing undertaken)

Hypotheses and Outcome	**Evidence of change in each phase (i.e. mean/trend)**	**Importance of change**
Hypothesis 1 **The subjective severity of OCD symptoms will:**		
a). Remain stable during the initial baseline phase (A1) **Confirmed**	The trend shows a minimal improvement during this phase.	The trend is relatively stable and confirms the hypothesis.
b) Remain stable or improve (decrease) during the assessment baseline phase (A2) **Confirmed**	The trend shows a further improvement during this phase. The mean is lower than in the previous phase.	The marginal improvement in trend and the lower mean endorses the hypothesis.
c) Improve (decrease) during the CBT intervention phase **Not valid**	The ERP exercises were compromised in the subsequent phases due to safety concerns.	The results for this section are compromised as no ERP was undertaken.
d) Show an enhanced improvement (decrease) during the AI-EMDR intervention phase **Not valid**	No trauma processing was undertaken in the AI-EMDR phase.	The results for this section are compromised as no ERP or trauma processing were undertaken.
Hypothesis 2 **Subjective ratings of mood will:**		
a). Remain stable during the initial baseline phase (A1) **Confirmed**	The trend shows a marginal decrease in mood during this phase.	This relatively stable trendline confirms the hypothesis
b) Remain stable or improve (increase) during the assessment phase (A2) **Confirmed**	The trend shows a marginal improvement during this phase. The mean is higher compared with Phase A1.	The improving trendline and the improved mean confirm the hypothesis.
c) Improve (increase) during the CBT intervention phase. **Not valid**	The ERP exercises were compromised in the subsequent phases due to risk concerns.	The results for this section are compromised as no ERP was undertaken.

d) Show an enhanced improvement (increase)during the AI-EMDR intervention **<u>Not valid</u>**	No trauma processing was undertaken in the AI-EMDR phase.	The results for this section are compromised as no ERP or trauma processing were undertaken.
<u>Hypothesis 3</u> **The subjective severity of OCD symptoms will:**		
The AI-EMDR intervention will enhance (increase) participants' subjective ability to engage in ERP activities **<u>Not valid</u>**	No trauma processing was undertaken in the AI-EMDR phase.	The results for this section are compromised as no ERP or trauma processing were undertaken.
<u>Summary</u>		Dan did not undertake any ERP or AI-EMDR trauma processing due to some safety concerns. My supervisor and I debated whether his data should be included in the analysis. We finally agreed that it was relevant to show all outcomes in evidence-based research and that it could be seen as more questionable to exclude data that did not fit the criteria.

Appendix L: Semi-structured interview questions

Semi-structured interview questions

Intro: Now I appreciate that you may feel a bit uncomfortable giving honest answers to some of these questions, bearing in mind that I was your therapist and you may not want to hurt my feelings. That said, I truly won't take offence and I would really appreciate you being as honest as you can – even if you didn't find the therapy at all helpful. I am conducting this interview with my researcher hat on and I would really like to hear what you truly thought as your input has potential to inform future OCD research.

Questions

What has your experience been of having OCD?

What treatments had you received in the past and how did you experience them?

What did you expect therapy to be like when you came on this trial and was it different from your expectations?

Do you think that the fact we were working online made a difference?

Were there some parts of treatment that you thought were more helpful or less helpful?

Have your OCD behaviours changed since taking part in the trial – for better or worse?

If so, do you think therapy contributed to this and in what way?

Has your mood changed overall since taking part in this trial?

How did you experience the relaxation and AI-EMDR tapes and did you feel they were of any benefit to treatment?

Is there anything you would have changed if you could go back in time and designed this course of treatment yourself?

How did this course of treatment compare with other treatments you have received?

How do you plan to address your OCD now and in the future? Self-help, more therapy? If so, what type?

Are there any other questions I should have asked you during this interview?

Do you have any questions for me?

APPENDIX M: The development of the Template analysis

Exemplar Interview (with comments)

Interview 8 – Sam

S1: Interviewer: Joyce Blake

S2: Responder: Sam

S1: So I just want to start this with saying that I appreciate that we've been working together for a while now and it may feel a bit uncomfortable giving honest answers to some of these questions bearing in mind that I was your therapist and you might not want to hurt my feelings. But, that said, I truly won't take offense and I really appreciate you being as honest as you can in these sessions because I'm doing this with my researcher hat on now. And this is a foundation for work that I hope people will try and build on, so I'd like you to be as honest as possible about what was good and what wasn't, to inform future research. So, the first question is probably one of the harder ones, can you give some sort of brief synopsis of how your OCD developed and what type of OCD you have?

S2: Yes, so I really recognised my OCD for the first time in any form when I was in my mid-20s and really only identified it as actually OCD specifically when I was 29. Through the work I did with you but also some of the work I've done with other therapists I've come to realise that a lot of the origin of that OCD was centralised around an event that happened when I was a child with my dad getting beaten up in front of me, and obviously a massive, quick violation of my safety as a kid. I think also a lot of other factors that would have played a part in terms of my attachment, so a very overbearing mother, very quickly thrown into a divorce as a kid and I think that just lots of instability and lots of unanswered questions, and I think generally a lot of feeling *"what have I done wrong?",* or *"what the hell is going on?"* It manifests predominantly in what is referred to unclinically as what's called "pure O" which is more about ruminations and thoughts in an obsessive manner rather than compulsive behaviours, but I have also had various compulsive behaviours along the lines of sometimes – what do you call it – washing

Comments

Final coding used
Life before trial
Experience of trial
External events affecting the trial
Experience of trial in general
Looking forward

Origins of OCD = traumatic events in childhood + parents' divorce

hands, and hygiene related stuff. Often though it's more about behaviours of, I guess what would look more like an addiction pattern of things that make me feel either intensely alive or very much numb. But the OCD itself manifests predominantly in either paedophilic thoughts, intrusive thoughts, or violent thoughts of which it is quite sad to admit that I didn't have any way of coping with them other than to just pretend they weren't there or try very hard to not give meaning, even though my head would constantly try and give them meaning. I don't know if that answers comprehensively enough?

S1: It really does, thank you very much. And what treatment have you received in the past, and have how have you experienced that?

S2: So, yeah, so before my OCD was identified I was receiving some CBT, and I know it sounds like a very loose term but "general therapy" from a woman for anxiety, then once it was actually identified as OCD I've had specifically integrative therapy on it, I've had sexual and boundary therapy on it which really attacked it more from a psychodynamic perspective as well as from, I guess in part understanding it from a framework of DBT, and then obviously with you tackled it with some EMDR. And I really – and I'm not just saying this because we're now analysing your research together – I really believe that was the most powerful change for me. Was that attachment focused EMDR, cos I, I was managing my OCD pretty well and I think my first YBOCS scores will show this. My management of my OCD was pretty good and when we started working together it's kind of, almost gone, which is a very, very strange feeling for someone that's lived with crazy thoughts and horrible feelings attached to them for all these years. So yeah, I've done a lot of work on it but the EMDR has definitely been the icing on the cake.

Previous treatment: CBT
Previous treatment: talking therapy
Previous treatment: integrative
Previous treatment: sexual and boundary therapy plus psychodynamic

Experience of trial: Attachment focused EMDR = most helpful aspect of treatment

Positive outcome of trial: OCD symptoms almost alleviated

S1: I'm pleased to hear it. And what did you expect therapy to be like when you came on this trial and how is it different from your expectations?

S2: You know, uncharacteristically actually for me, I didn't come in with huge amounts of expectations other than being quite scared of EMDR because I'd heard from other clients' and people I knew who'd had it, like it's so intense, it throws you all over the place, part of me felt naively felt *"that won't happen to me"*, always the way! My head immediately goes *"I'm fine, they don't know me, I've dealt with worse!"* But then the other side of me being genuinely quite scared, like *"ooh, God I genuinely feel like I'm in a place with my OCD that it's okay, what am I gonna do, am I gonna open something up I can't close?"* In terms of how I went from then to actually experiencing it, it blew my mind actually how quickly you were able to get in touch with the raw feeling for me, like what was there that had maybe been unprocessed or untouched, and then by the same token how much after a session rather than it being *"I'm now an unstable mess"* you always managed to close it off, and I could come back to it but didn't feel like an open wound that was festering throughout the weeks, it felt more like, I don't know, it felt like having multiple little surgical procedures to stitch stuff back up in the right way rather than let it be an open wound, if that makes sense.

Initial uncertainty re EMDR – opening up too much

Initial uncertainty re EMDR – opening up too much

Experience of trial: EMDR = highly effective in accessing previously "untouched"/blocked memories

Experience of trial: EMDR = manageable/not overwhelming
Positive outcome of trial

S1: Yeah, that makes sense – you were certainly quite receptive, and engaged quite viscerally with it as well.

S2: Yeah, for sure.

S1: And do you think the fact that we were working online made a difference, do you think it might have been better, or worse?

S2: I hadn't actually thought about that. I reckon, I don't know, I'm a big believer that in the room you can do more, but my experience of what we did was, there was a huge change in me and there was a very strong… as you've just said, right – I was very receptive – so I wonder, I don't know how much more receptive I could have been than I was, so I don't think like the underlying format really for me felt like it made too much of a difference, I guess with one notable exception that I can think of – I found it really annoying that I had to use earphones for the beats part but then have you loud in the room, because at times

Working online: Dislike of technology/audio generally but not problematic/not much of a difference

it was like managing two audios, that was a bit irritating, but I mean that was very much of a muchness, if I'm nit-picking that could be something I could point out, but other than that I don't think in-person would have made any difference, personally.

S1: Okay. Were there parts of this treatment that you found more helpful or less helpful during this process?

Experience of trial: Somatic EMDR work most helpful

S2: Yes. I think more helpful – I found it very helpful when we were focusing on sensations I had in my body, predominately when I would go into a state where I would be feeling something I that couldn't really put my finger on rather than trying to articulate something that was a visualisation or a thought or a memory. It's not to say I found it unhelpful when we focused on thinking about an actual narrative, but I felt like for me I think I had a very strong somatic response to what we did so that was very helpful. Less helpful, I dunno I think maybe but this is more me, I think, than some things you did, I was so eager to get to the deep dark shit as quickly as possible…

Visceral / Somatic nature of EDMR

S1: I did notice!

S2: …that maybe the intro EMDR sessions where we were learning how to frame it and putting our safe people and place, maybe a part of me was frustrated that we weren't going further into it. But I actually can also reflect on the fact that had we not done those I wouldn't have had the necessary tools to bail out which would have completely changed how the next sessions would have worked anyway. I can appreciate as a therapist how that was necessary but I think for me, I just wanted to get into it asap.

Looking forward: Desire to progress deeper/further with EMDR

Experience of trial: Initial frustration at resourcing processes

S1: Yeah, I could see that. And how about the exposure response stuff, did you think that was helpful alongside it?

CBT component: ERP = helpful in short-term, not favourite, but can see the rationale and potential benefits.

S2: I found that really helpful in the short term, but by the end of the research that was really irritating me, but I also can appreciate that that was kind of the point, where you were

supposed to get to a stage where you can read the exposure scripts out loud, in a slow and deliberate manner and kind of engage with it in a way that felt like it was reading a really boring article in a newspaper, but at the beginning I found that so scary, I remember when you said for the first time *"how'd you feel writing some theory A theory B exposure scripts"* and I had a very unusual response for a guy like me because I'm usually quite open to anything, and I was like *"absolutely no way do I want to get anywhere near that"*, so I think the fact that in the end that I actually found it irritating was a great sign.

S1: Yeah. Depending on why it was irritating. But yeah, you went for that very quickly, I could see that it was losing its intensity. So you'd say that that was helpful doing that, in the short term or the longer term do you think?

S2: No I think longer term too I think for me maybe what I would have done, and again this is in no way a criticism this is just to reflect on my own process is make the ERP more hardcore.

S1: Sure.

S2: I don't know what that would have looked like, and I'm very aware that with paedophilic OCD you've got to be very careful of the boundaries, it's not like "hey, let's go and look at naked children on the street" or whatever, but yeah.

S1: Yeah. To raise that…

S2: But I'm aware that could have been very destabilising to the EMDR, I'm not sure. I mean I completely trust the process cos as I say Joyce, from start to finish, this has been nothing but eye-opening for me and hugely beneficial, so I'm not able to criticise any aspect of it.

positive outcome of trial

S1: Yeah. So do you, well you've kind of answered the next questions, do you think your OCD has changed since taking part in the trial and then I've put for better or worse, but it sounds…

S2: Massively for the better.

S1: Okay.

S2: And I really do stress this, in a way I really did not expect. I thought this would be helpful, I didn't expect this to be life changing.

Experience of trial: EMDR = most helpful aspect of treatment

S1: Okay.

S2: That's the best way I can describe it. This has changed my life in a way I couldn't anticipate, because as I said I was fine, my OCD was in a place where it felt safe enough to engage with, but I was still getting a lot of very uncomfortable thoughts, I still didn't really like that they were there, I would have days, in particular certain days were I was feeling maybe more vulnerable, more stressed, etc, where I would find it really hard to live with my head, and since we've been doing the treatment together I actually find no matter what goes on in my mind I'm almost not even aware of it any more. Occasionally I'll catch myself going like *"ooh what's that about?"* but then I'm able to really – get out of it. So yeah, I'd say it's changed my behaviour with my OCD a lot, especially in terms of my thinking.

Positive outcome of trial: more able to disengage with thoughts/reactions

S1: Great. That's a really nice thing to hear. And, okay so we'll advance to the next one, do you think therapy contributed to that and in what way? So, you think it was mainly the EMDR component, you think, the ERP alongside the EMDR?

Experience of trial: EMDR/Somatic work = most helpful
Visceral nature of EDMR: Bodily reconnection with/release from past trauma
Visceral nature of EMDR - physically and somatically cleared the system

S2: Yeah I think, I mean I dunno, if I was to do it like a pie chart I'd say that 20% of changes I've experienced are due to the

ERP, the CBT, and the outside EMDR parts. I'd say 80% was the EMDR, in particular the somatic stuff, I don't know whether I'm just attributing a higher value to it because of whatever, let's call it a personal bias thinking that trauma in the body needs to be released. I think the way I experienced physically and somatically and emotionally, those EMDR sessions, that was clearly in my system and it was crazy to me that that was coming out, I absolutely did not expect that. And that felt like a real seismic shift.

S1: Yeah. It looked like it to me too, it was big physical reactions, so yeah, interesting.

S2: Yeah. Definitely.

S1: Again, you've kind of answered this, so has your mood changed overall since taking part in this trial?

S2: I'm gonna say yes and no, no because I already had… whether it was authentic all the time, I already had a pretty calming disposition towards my life, my head could sometimes be quite noisy, but I was feeling pretty good in myself before. Yes 100% in terms of like I've deepened the level of authenticity of both that calm and my ability to tolerate the bad stuff. I think a perfect example is with the stuff that we did with my step-father, whenever I'd think about that imagery it was a full body reaction and I felt physically like I wanted to rip my skin off and now when I think about it it's like a butterfly flutter in my stomach and I'd think "ooh that was quite bad", but that was it.

S1: That was our last session, wasn't it? So I didn't… that's interesting. Okay, that's interesting. How did you experience the relaxation and the EMDR tapes, the resourcing tapes, do you feel they were of any benefit to the treatment? You've covered that a little bit as well, I realise that.

S2: I feel they were, I think I didn't make quite as good use of them as I might have been able to. If I'm being quite honest, I'm

Positive outcome of trial: Symptoms lessened

Additional resources: Tapes/recordings = less compelling

External events: Not engaged in tasks outside of sessions

aware I'm being recorded, I was quite lazy with the outside of session stuff and I think the hardest balance for me to strike is I can objectively know as someone that's done a lot of research before that it's important for research that we fill in questionnaires that we do grounding stuff, etc. As a person, let's say, I found all of that stuff really, really irritating, because I was like, I almost wanted to do like *"okay well let's do 3 sessions a week and I don't have to do anything outside of it"* because that's more me, I'm very lazy with homework-y type things and I'm very proactive with experiential things. Yeah. So that was, again, that was my way of interpreting the resourcing and the EMDR grounding stuff – I found it relaxing when I did it, but I dropped the ball on creating a pattern of doing it, so I can't really answer if it would have been beneficial to the treatment full stop. For me it felt, yeah, let's say it was helpful but it wasn't like…

S1: So it wasn't a central theme of the treatment for you.

S2: Not for me, no.

S1: No. That said you're quite well resourced in therapy as you've had a lot of therapy.

S2: Yeah, that's very true.

S1: Which might have helped you with the resourcing there. If you – and I'm very interested in this from you, bearing in mind your background – is there anything you would have changed about the way this research was done, if you designed this, go back in time and treat yourself, is there anything you'd have done differently?

Positive outcome of trial: Reduced symptoms of OCD

S2: Um… that's a great question, and one, interestingly one I've thought about, but not really been able to come up with a concrete, like, yes - this! Honestly, Joyce, I think I can sit here safely now having done it and say there's nothing I would have wanted to change given how it's, how the outcome has been. The outcome for me was, OCD before was, let's call it

Looking Forward: Desire for more sessions

moderate, OCD now is very slight. That is a change that can only be described as a massive improvement, therefore I look at those 12 weeks together and I go, *"that obviously made a big difference."* If I were to look at it and say, *"how could I perfect and fine tune the little things",* I would probably have wanted to do more sessions with you, so I don't know whether two sessions a week would have worked and that gives you double the input, obviously there's a financial implication, but for me personally speaking that wouldn't have been a problem at all, so maybe seeing you twice a week or maybe for 24 weeks so you're doubling the length of the time. I would have done less stuff you have to fill in in between…

Experience of trial: Desire for more EMDR

Experience of trial: Desire for less CBT

[Irrelevant conversation]

I would maybe have done fewer things to fill in, but again I'm massively projecting cos I'm lazy as hell and I don't like to do that. I also think that maybe when it comes to within the sessions the… how you break it up between ERP, EMDR, and CBT, I would maybe have done more EMDR and maybe focus less on the CBT stuff, again though I'm slightly biased because I like CBT but I think for me this was all about like *"ooh EMDR!"* I think if you'd said to me at the beginning that we were going to do ERP and CBT trial I probably wouldn't have signed up for it.

Before Trial: Positive expectation of EMDR

Positive outcome of trial: Positive engagement with trial: trust

S1: Right, okay.

S2: So I think that I'm obviously coming at it pretty much from like I wanted to experience EMDR in the way that I'd heard it helped. I mean it worked really well, it felt really safe, and secure, I always felt that I left the sessions absolutely battered but in a way that was productive and I could leave and sit with it comfortably rather than *"what the hell's going on I feel totally unstable",* but then I've been very used to therapy before so I don't know if that makes it easier.

Visceral / Somatic nature of EDMR: Reconnection with/release from past trauma

Additional resources: Reconnection with/release from past trauma through re-enactment

S1: It's really helpful, and again you've kind of answered this one but I'll ask it anyway, how did this treatment compare with

other therapies, treatments that you've received what was the key difference, do you think?

S2: Yeah so, I think in processing some of my traumas, the residual trauma trapped within the energy system of the body like getting in contact with that and processing it in a different way, and I guess that is also as you say the EMDR component that was very new. It was also very new – I've never in a therapy session before we had that moment where I was playing the violin, have I ever accessed a memory through re-enacting something, that was really, and actually very, very unexpectedly powerful. When we started and I was like "do you mind if I play the violin?" I kind of had that moment of like *"oh god I'm a fucking idiot, what am I doing, this isn't going to do anything, I'm just going to be embarrassing myself, looking like I'm playing a violin…"* and all of a sudden I actually felt like I was that person again.

Visceral / Somatic nature of EDMR

S1: It was really poignant.

S2: Yeah, it was powerful. And you know, it was genuinely a deep source of loneliness and I feel like I couldn't have contacted that without the physical part. So like you say the somatic and the physical, that was different, I also think the amount you asked me to reflect on the experience as I went was new. Every therapist I've ever had has been "we do our therapy, we meet next week, we do our therapy, we meet next week" there's very rarely a "please now write down on this piece of paper how you think your OCD has changed", so even though I'm kind of pissing a little bit on the aspects of the homework,

S1: Yeah yeah.

S2: Actually that was really nice cos it meant I could leave the treatment after 12 weeks and go "holy crap, at the beginning I was circling all of these things and I was putting like maybe this is a two because a couple of hours a day I'm in my head and it's really uncomfortable, and now I'm circling zeros everywhere"

Looking forward / Future treatment: Desire to continue with EMDR
Looking forward:
OCD symptoms improved
OCD unlikely to disappear fully

that's a really nice thing to know, cos I think that awareness can be missed, maybe, otherwise.

S1: It's like in the NHS I often show people their graphs cos it is cheering for people, the questionnaires can be a bit sort of, off, but it is nice you can overall see progress, I think. And how do you plan to address your OCD now and in the future? Is it self-help, more therapy, if so what type? Where are you at now? Have a break?

Looking forward: therapy/ curing OCD:Desire to re-engage with different past traumas; Desire for more somatic work

S2: So, I'm going to do my couples work, and my integrative therapy that I've had running sort of on an open-ended contract. I think I'd like to do more EMDR with you, I'm not sure when and I'm not sure at what frequency, but I think that could be helpful because I don't know, I'm almost aware that my OCD has improved so much but it's not something that just disappears, and you go through different waves and cycles with it, so I guess there's a part of me that feels like maybe at some point it'd be nice to go back in and address different traumas and maybe different things that have been stuck in the body. And just generally I will take – I've spoken to so many people since we worked together about the experience I had of working with you and what we did, and I think what's very interesting is when I reflect on it with those people in conversation the bit that really is an awareness for me – it's not like my OCD moved because I put in a coping strategy or because I changed a behaviour, I did exactly the same thing I'd been doing but I got in touch with something that was real and that was difficult. And I think that part has stayed with me, it's like when my OCD flares up which to be honest has not really happened a huge amount in the last few months, and when it has it tends to be because I've like watched porn, had a coffee, and I'm sleep deprived all at the same time, so like oh right so my brain's going nuts.

Positive outcome of trial: Reduced OCD symptoms

Positive outcome of trial: more able to engage with thoughts/reactions

S1: The perfect storm!

S2: *"Well done, that was smart!"* I'm much more able to sit with that discomfort cos I think, I can't describe how hideous the feelings were that I experienced in those EMDR moments, because when you know that that's in there and it's coming out.

When you feel *"ooh this is really uncomfortable"* it's very easy to be like sit with it, it's fine, it's gonna move, rather than try and change it, so I think I'm taking that as well.

S1: So yeah, so that sort of ties in with – we're nearly done, there's just a couple more questions.

S2: Yeah, no, sure.

S1: Do you conceptualise your OCD differently after our sessions?

S2: Yes, I do.

S1: How has it changed?

S2: Yeah. Well you were the first person – actually sorry, that's a lie, you were the second person, but you were the first person in which it really clicked for me – thinking about the OCD in terms of a very powerful friend rather than a very powerful enemy. That's massively helpful, cos I think when you can sit with your head spinning like mad and you're flooded with horrible thoughts, and you kind of know, do you know what? It's actually quite sweet, in a way, to understand that this is that little child's mechanism of protection, it's just evolved to the point where this is how he does it. It does not know what it does, essentially, that's been really nice. So too obviously is the ability to sit with more intense discomfort, and my ability to talk about it differently. I think before we did the work I could tell people about OCD, I'm now much more aware of the link between the attachment part of it, like how it relates back to that internalised attachment figure, of maybe the idea of the persecutory mother figure, and the trauma that violated your safety, and I think before we'd done that work that was a missing gap in my narrative, and I think that's helped me a lot to then also describe my OCD to other people who are curious or sharing that suffering. I've actually had it here, there's a girl who has really crippling OCD, it's actually horrible hearing her describe her

Experience of trial: Reconceptualised role of OCD as a friend

Experience of trial: OCD sweet child's mechanism of protection

experiences, I'm like oh God you're at the beginning of this journey, and it's just nice to be able to have a way of describing it that might be helpful for her as well.

S1: I think there's a lot more of it around, and as I say I think the paedophile OCD and the harm OCD, is really much more common, because by its nature I think people are too scared to discuss it, which is a very sad thing, isn't it?

S2: Yeah, exactly.

S1: I think we still need a lot more awareness. Is there, are there any questions which I should have asked you, or anything you'd like to add about this experience?

S2: No, I don't think so. I mean I thought you were an excellent therapist, I don't know whether that's relevant, but I think it's important actually, I think in different hands this kind of work doesn't land, so I think to speak to your ability – and I really like this in you, I actually almost, I'll be honest about this so you know, it's not necessarily important to our treatment, it's my stuff. One of the things I took from you that I found really impressive, I really like your directness but in that empathic sense. Very much, "yeah well this is what I think's happening", but you say it in a way that's very sort of like, kind. I was already doing that, but I think you're the first therapist I've had that I felt almost said it… I don't know how to say that. It was almost as if it was like having a chat with a friend, but the friend was not a friend. You were aware that boundaried therapist was there, but the content was delivered in a way that was very easy to take on. That's a skill. And I think that that speaks volumes of you as a practitioner, but also I think of the way that you were able to do things like the EMDR in a safe and secure way, it was like every time I felt like I was about to have a moment of really anxiety inducing experience I felt safe to have that experience.

Experience of trial: Positive engagement with therapist

Experience of trial: Positive engagement with trial: safety

S1: I'm very pleased to hear that, I felt vaguely terrified about starting this with you because I felt you were so knowledgeable

S2: I can imagine!

S1: I thought, *"oh, he's gonna catch me out!"*

S2: No quite the reverse.

S1: Phew! So there's no other questions that I should have asked you, do you have any questions for me?

S2: Do I have any questions for you… immediately my head's like *"was I a good client for therapy*?"

S1: Yes you were (both laugh)

S2: You don't have to answer that.

S1: I can now cos we've finished the trial, you were great.

S2: No, tell you what I would be curious, actually yes I do have a question for you – do you think that by me not engaging with the kind of resourcing bits the way I did, do you think that that would have had an effect on the efficacy of the other stuff, the EMDR and the general process.

S1: It's a good, really good question, and I'm not sure. I mean it sounds like things have worked well for you. I've got another client with paedophile OCD who was on the first research trial, who thought it was purely the EMDR, so he stopped the ERP and resourcing, and found he was lapsing. He is now – which is very interesting for this research, working on a trial-and-error basis, the resourcing, the ERP, which bits are working, what's needed, what's not, and how often. So he's sort of doing that as his own project and giving feedback. So, for that client, doing

regular ERP, maybe every two or three days, was an important part of the process it appears. But then also doing the resourcing has been a hugely important part too. So he's at the moment just trying to work out the perfect formula for him. I've had other clients where I've just done EMDR in my private practice and it's kind of been good enough.

S2: To each their own.

S1: Yeah. I mean what's interesting about this is that most people doing EMDR for OCD they're doing the EMDR as exposure work. I think it's more interesting to go back, though. I think it's essential.

S2: Yeah, I agree. Yeah. No, I totally agree. I actually think going back enables you to be able to understand how to go forward, that's very much my view.

S1: Yeah. Well it's interesting to hear it from you as you've been on both sides, being a clinician and having OCD. Well thank you, for being part of this trial, I know we're going to be in touch, but thank you for being part of the trial and thank you for contributing to this research.

S2: Thank you so much, for what it has enabled me to change in myself, or feel in myself. It's been, I mean, honestly Joyce, I'm hugely grateful.

S1: Well it's been win-win. I'll turn off the recording now and have a quick catch up with you if that's alright.

S2: Absolutely.

(End of audio)

The Template Analysis

A priori themes

1.0 Life before the trial

2.0 Experience of the trial

3.0 Impact of COVID-19

4.0 Looking forward after the trial

Initial template developed from subset of 3 interviews – Sam, Dan, Susie

Yellow highlights used to show additions to the initial themes

1.0 Life before trial

1.1 Living with OCD

SAM: *it is quite sad to admit that I didn't have any way of coping with them other than to just pretend they weren't there or try very hard to not give meaning*

DAN: *maybe 10 years ago it was the worst it's ever been in my life, and, I don't know ... I'm really isolated, and it affects all areas of my life.*

SUSIE: *I think I've probably experienced this kind of thought for like, you know, at least 15 years, I think, maybe, you know, a little bit longer, at least early teens, mid-teens. You know, I was in this kind of like, really, really sort of rigid, kind of anxious mindset.*

1.2 Previous treatment

1.2.1 CBT, ERP, or other [non-specific] therapies: negative experiences or ambivalence

SAM: *before my OCD was identified I was receiving some CBT, and I know it sounds like a very loose term but "general therapy" from a woman for anxiety, then once it was actually identified as OCD I've had specifically integrative therapy on it, I've had sexual and boundary therapy on it which really attacked it more from a psychodynamic perspective as well as from, I guess in part understanding it from a framework of DBT*

SUSIE: *there was a lot of kind of just me talking and I'm kind of with a little bit of reflecting that back. And…and I found, actually that it just…I got…I...I felt worse in the end actually.*

1.2.2 CBT, ERP: positive experiences

DAN: *I think literally my OCD was about as severe as it could get for anyone on this planet, and it got me to a point where I was functioning again and I had a life. I definitely got a lot of mileage out of it.*

SUSIE: *gave me like a fantastic understanding of my…of the OCD element of my brain. And gave me a lot of resources to sort of start tackling it, I don't know that I actually really got to grips with it*

1.2.3 Difficulty adhering to treatment plans

DAN: *I got into a more [ERP]-type situation. I found that really helped me get out of a crisis, but it was so incredibly difficult and unsustainable that I … I really had a hard time keeping it going.*

SUSIE: *a lot of the stuff that we worked on felt really hard, I find it really hard for it to become tangible for me because my obsessions are so kind of subjective and internal. And…and so it was hard for me to…a lot of the time, I kind of felt like I was doing it wrong, you know. And I think impacted my ability to fully engage with it because I was constantly criticizing my…myself…… and I found, actually that it just…I got…I...I felt worse in the end actually.*

1.3 ~~Impact of previous trauma~~ Origins of OCD

1.3.1 Previous trauma

SAM: *the origin of that OCD was centralised around an event that happened when I was a child with my dad getting beaten up in front of me, and obviously a massive, quick violation of my safety as a kid*.

SAM: *thrown into a divorce as a kid*

1.3.2 OCD as protection from trauma

SAM: *It's actually quite sweet, in a way, to understand that this is that little child's mechanism of protection*

1.3.3 Negative self-belief

SUSIE: *there was like a kind of very sort of direct parallel with the kind of the ideas I've sort of embodied about myself from being really, really small to the present day*

2.0 Experience of trial

2.1 CBT [Comment: keep CBT and ERP separate? Or merge them?]

2.2 ERP Divide into positive and negative?

SAM: *I found that really helpful in the short term, but by the end of the research that was really irritating me*

2.3 AI EMDR

2.3.1 Initial uncertainty about EMDR (change to fear of?)

SAM: *I didn't come in with huge amounts of expectations other than being quite scared of EMDR because I'd heard from other clients and people I knew who'd had it, like it's so intense, it throws you all over the place*

DAN: *The mother one, I remember being worried about it and then doing it and then it felt good.*

2.3.2 Impact of visceral/somatic nature of EMDR (helpfulness of…?)

SAM: *I found it very helpful when we were focusing on sensations I had in my body, predominately when I would go into a state where I would be feeling something I that couldn't really put my finger on rather than trying to articulate something that was a visualisation or a thought or a memory*

SAM: *I think the way I experienced physically and somatically and emotionally, those EMDR sessions, that was clearly in my system and it was crazy to me that that was coming out*

SAM: *it was genuinely a deep source of loneliness and I feel like I couldn't have contacted that without the physical part*

SUSIE: *yeah, I think it definitely is more visceral and more felt, yeah.*

2.3.3 Additional helpful resources

2.3.3.1 Befriending OCD

SAM: *you were the first person in which it really clicked for me – thinking about the OCD in terms of a very powerful friend rather than a very powerful enemy. That's massively helpful*

2.3.3.2 Resource team

DAN: *I think the resourcing stuff we did during our sessions I think it was good, it helped my overall mental wellbeing. I think it contributed to better overall mental wellbeing*

SUSIE: *thinking about my resource team and sort of like, and deciding on those individual people and whatever, actually was also just a really comforting exercise that I think set me up to kind of engage in the work quite well*

2.3.3.3 Ideal mother

DAN: *The mother one, I remember being worried about it and then doing it and then it felt good.*

2.3.4 Benefit of AI EMDR for OCD symptoms (and/or effectiveness of AI EMDR in accessing previous trauma?)

[Comment: Move to its own section]

SAM: *I really believe that was the most powerful change for me. Was that attachment focused EMDR*

SAM: *it blew my mind actually how quickly you were able to get in touch with the raw feeling for me, like what was there that had maybe been unprocessed or untouched*

SUSIE: *Because what it elicited was, like, real emotional reaction that I wasn't really ready for, I wasn't…didn't see coming, you know, the kind of like…the kind of snotty crying I was doing during the first exercise felt like it came out of nowhere, you know. And I was like, oh, my goodness, what is going on? So yeah, I think it definitely is more visceral and more felt, yeah*

SUSIE: *it was absolutely integral. I think it's…it's made a start on shifting some really, really, really ingrained, you know, possibly like quite subconsciously ingrained feelings and ruminations and ideas that I kind of, carried about my experiences and myself in relation to that most of my life*

2.4 Experience of trial in general [Comment: Move to its own section]

2.4.1 Life experiences during trial

DAN: *I think the stuff we did in our sessions wasn't enough to counteract the other stuff that was happening for me.*

[Comment: Divide this section into positives and negatives]

2.4.2 Difficulty engaging with trial

DAN: *there were many days – certainly when we started doing the homework – where I just didn't do my homework because I was tired, or I*

felt like later would be better or whatever and then I got too tired or whatever, so I could have done it

2.4.3 Positive outcome of trial (?)

SAM: *From start to finish, this has been nothing but eye-opening for me…My management of my OCD was pretty good when we started working together and it's kind of, almost gone, which is a very, very strange feeling for someone that's lived with crazy thoughts and horrible feelings attached to them for all these years… I thought this would be helpful, I didn't expect this to be life changing*

SAM: *OCD before was, let's call it moderate, OCD now is very slight*

[Comment: not sure about this here]

2.4.4 Negative outcome of trial (?)

DAN: *I went to that government agency and faced that and got home and got a whole bunch of shit done, you know, so OCD got better in that sense, and now it's worse again.*

[Comment: although – other quotes suggest both good and bad outcomes – not sure this is accurate / in the right section]

2.4.5 Engagement with therapist/therapy

SAM: *it felt really safe, and secure, I always felt that I left the sessions absolutely battered but in a way that was productive and I could leave and sit with it comfortably rather than "what the hell's going on I feel totally unstable",*

SUSIE: *one of the things I think has been really, really helpful in the sessions is how much flexibility and openness you've brought to them with*

3.0 Impact of COVID-19 – [Comment: Maybe this is an example of 'external factors that affect trials]

3.1.1 Working online

3.1.1.1 Difficulties with technology (or dislike of using tech?)

SAM: *I found it really annoying that I had to use earphones for the beats part but then have you loud in the room, because at times it was like managing two audios, that was a bit irritating*

SUSIE: *there is definitely something about being in a physical space with someone and feeling like you've got, you know, that environment holds the kind of the content of your conversation*

3.1.1.2 Advantages of working online

DAN: *it never felt like a problem to me, in fact it made it less intimidating for me. I didn't have to manage anything contamination wise, with your office or something.*

SUSIE: *so many times where I was actually really grateful to just close the computer and be in my living room.*

4.0 Looking forward

4.1 Coping with OCD

4.1.1 Self soothing

SAM: *whenever I'd think about that imagery it was a full body reaction and I felt physically like I wanted to rip my skin off and now when I think about it it's like a butterfly flutter in my stomach and I'd think "ooh that was quite bad", but that was it.*

SUSIE: *I've definitely felt much more able to kind of sit with it, not attempt to it redirect from it. I don't feel necessarily as kind of controlled by it now, I think.*

SUSIE: *I went from my rigid previous therapy to actually your OCD is complicated, and it's linked in and knotted up with other stuff, and that other stuff is valid, and it's okay to kind of get that out as well and think about it and feel it…that was a really, really valuable thing for me that, you know, that I took away from it.*

4.1.2 Improvement of symptoms

SAM: *My management of my OCD was pretty good and when we started working together it's kind of, almost gone*

SAM: *If I was to do it like a pie-chart I'd say that 20% of changes I've experienced are due to the ERP, the CBT, and the outside EMDR parts. I'd say 80% was the EMDR, in particular the somatic stuff*.

SUSIE: *that doesn't feel like my kind of primary area of concern, perhaps as the way to put it right now.*

SUSIE: *To be able to say that it's not the biggest pre…preoccupier in my life is quite an interesting thing. Actually, I hadn't really said that before.*

4.2 Recovering from OCD

4.2.1 Not recovering from OCD

SAM: *my OCD has improved so much but it's not something that just disappears*

SUSIE: *I think it's got the…you know, the little kind of creeping possibility of getting bigger in my brain every now and then.*

4.3 Future therapy (or self-directed work?)

DAN: *Initially I know there are some things I need to do to start taking back my health, which will be some self-directed stuff. The answer is I just don't really know. I'm hoping I can continue with you*

SUSIE: *what I need to keep doing, I need that…I need that from a therapist, I need that person to be able to kind of step in and out of the different...the different, you know, approaches when…when it suits and when it's relevant.*

SUSIE: *I don't think I ever realized I could have a bit of a higgledy-piggledy mashed together, bit of everything, you know. And I think if I'd known that, it would have made me feel so much more comforted.*

Template 2.0

1.0 Life before trial

- 1.1 Living with OCD
  - 1.1.1 Suffering, exhaustion, overwhelm, isolation
  - 1.1.2 Previous treatment
    - 1.1.2.1 CBT
      - 1.1.2.1.1 Positive experiences
      - 1.1.2.1.2 Negative experiences
      - 1.1.2.1.3 Ambivalence
    - 1.1.2.2 ERP
      - 1.1.2.2.1 Positive experiences
      - 1.1.2.2.2 Negative experiences
      - 1.1.2.2.3 Ambivalence
    - 1.1.2.3 Other / Non-specific therapies:
      - 1.1.2.3.1 Positive experiences
      - 1.1.2.3.2 Negative experiences
      - 1.1.2.3.3 Ambivalence
    - 1.1.2.4 Difficulty adhering to treatment plans

- 1.2 Participants' perception of their OCD ~~Origins of OCD~~
  - 1.2.1 Previous trauma (merged with 'Protection from trauma')
  - 1.2.2 Negative self-belief

2.0 Experience of trial

- 2.1 CBT
  - 2.1.1 Positive
  - 2.1.2 Negative
- 2.2 ERP
  - 2.2.1 Positive
  - 2.2.2 Negative
- 2.3 AI EMDR
  - 2.3.1 Initial uncertainty about EMDR ~~(change to fear of?)~~
  - 2.3.2 Impact of visceral/~~somatic~~ nature of EMDR ~~(helpfulness of…?)~~
  - 2.3.3 Additional helpful resources
    - 2.3.3.1 Befriending OCD
    - 2.3.3.2 Resource team
    - 2.3.3.3 Ideal mother

3.0 External events affecting the trial

- 3.1 Impact of COVID-19
  - 3.1.1 Working online
    - 3.1.1.1 Difficulties with technology (or dislike of using tech? or both?)
    - 3.1.1.2 Advantages of working online

- 4.0 Experience of trial in general
  - 4.1 Life experiences during trial
    - 4.1.1 Positive experiences
    - 4.1.2 Negative experiences
  - 4.2 Positive outcome of trial
    - 4.2.1 Benefit of AI EMDR for OCD symptoms (and/or effectiveness of AI EMDR in accessing previous trauma?)
    - 4.2.2 Engagement with therapist/therapy
    - 4.2.3 Negative outcome of trial
    - 4.2.4 Difficulty engaging with trial

- 5.0 Looking forward
  - 5.1 Coping with OCD
    - 5.1.1 Self-soothing
    - 5.1.2 Improvement of symptoms
    - 5.1.3 Recovering from OCD
      - 5.1.3.1 Not recovering from OCD
  - 5.2 Future treatment
    - 5.2.1 Therapy
    - 5.2.2 Self-directed work?)

Template 3.0 – adding Jane and Hannah

1.0 Life before trial

1.1 Living with OCD

1.1.1 Suffering, exhaustion, overwhelm

JANE: *I've been through, like, longer periods that was really bad.*

JANE: *I didn't tell anyone and I didn't know I had OCD. It was all just in my mind, I didn't Google anything, I didn't talk about it. Even then it was difficult to...get rid of. But, yeah, it has become worse since I've been more open about it I think*

HANNAH: *I felt very, very anxious and very ashamed about feeling anxious.*
*[*Comment: is this about the OCD or the origins of the OCD?]

1.1.2 Previous treatment

1.1.2.1 CBT

1.1.2.1.1 Positive experiences

1.1.2.1.2 Negative experiences

1.1.2.1.3 Ambivalence

1.1.2.2 ERP

1.1.2.2.1 Positive experiences

1.1.2.2.2 Negative experiences

1.1.2.2.3 Ambivalence

1.1.2.3 Other / Non-specific therapies:

1.1.2.3.1 Positive experiences

1.1.2.3.2 Negative experiences

HANNAH: *I had some CAT therapy which made me feel less self-doubt. And when I felt less self-doubt and had a better relationship with myself, I genuinely felt better and the OCD subsided a bit*

1.1.2.3.3 Ambivalence

1.1.2.4 Difficulty adhering to treatment plans

1.1.2.5 Limitations of previous treatment

JANE: *I have been on antidepressants before for a little while and that really, it helped, but it also helped a bit too much in a sense that I just didn't care about anything anymore which is not good.*

1.2 Participants' perception of their OCD

1.2.1 Previous trauma

JANE: *made me now over compensate in the form of OCD and trying to understand everything and analyse everything. And be prepared for everything*

1.2.2 Negative self-belief

HANNAH: So I think it has loosened up *this grip that I'm a bad person and I have to be perfect to compensate.*

1.2.3 Magical Thinking

HANNAH: *my OCD started as a child, in an attempt to keep me safe and protect my family. It was a kind of magical system that I...that I came up with, to keep people safe in a world where they didn't feel any, where they didn't feel safe. And then I didn't feel like I had access to safe adults to ask them to do that for me*

HANNAH: *I developed it as a scaffold as an attempt to cope without needing another because it didn't feel like there was another available*

2.0 Experience of trial

2.1 CBT

2.1.1 Positive

JANE: *I think the CBT was probably the most helpful… I feel like because there were rules I could follow, it was easy for me to stick to them…*

HANNAH: *some of the CBT stuff, I did find really helpful, actually, certainly the Velcro analogy really helpful, you know, like and some of the kind of formulation stuff within the CBT model was really helpful*

2.1.2 Negative

2.2 ERP

2.2.1 Positive

2.2.2 Negative

HANNAH: *I wouldn't really be bothered about [having more ERP].*

2.3 AI EMDR

2.3.1 Initial uncertainty about EMDR

JANE: *I wasn't really too sure the whole emotional approach would make a big difference really.*

2.3.2 Impact of visceral nature of EMDR

HANNAH: *the EMDR, I found helpful, definitely helpful, but I think I would have liked...I think that was the stuff that was probably more helpful, really, that I'd like more of that.*

HANNAH: *So I think it [AI-EMDR] has loosened up this grip that I'm a bad person and I have to be perfect to compensate.*

2.3.3 Additional helpful resources

2.3.3.1 Befriending OCD

2.3.3.2 Resource team

2.3.3.2.1 Positive

JANE: *my resource team, that really helped me. And just knowing that I have these people in my life regardless, especially people I know like my brother or my sister*

2.3.3.2.2 Negative

HANNAH: *the ordering of the resource team at the end is probably less helpful because I didn't have that there from the beginning* [Comment: Is this more about ordering of the sessions and less about the resource team in itself]

2.3.3.3 Ideal mother

HANNAH: *the ideal mother was awesome*

2.3.3.4 Meeting your younger self

JANE: *where I talked to my younger self, that really, really helped me because, yeah I really want to, kind of, make her feel good and protect her*

HANNAH: *the little girl thing was like probably one of the most helpful things really, I've ever had in any therapies. And I still think about that little girl*

3.0 External events affecting the trial

3.1 Impact of COVID-19

3.1.1 Working online [Comment: Change to 'Undertaking therapy online'?]

3.1.1.1 Difficulties with technology/ dislike of using tech? or both?

JANE: *I have to get to my parents' house because I don't want to do it in my flat share because I feel like it's just too much personal things. And they can – our walls are so thin, and stuff like that. So I think in person would've been easier for me.*

HANNAH: *I don't think it...I think you do get so much from that in terms of the quality and the actual connection and it doesn't feel the same. Yeah, I think that did affect it*

HANNAH: *I found it quite stressful having to, I mean, some of it was difficult for me because my OCD involved tech… so I struggled downloading recordings and sending emails.*

[Comment: Some crossover between this section and the section on 'difficulty engaging with trial'?]

3.1.1.2 Advantages of working online

4.0 Experience of trial in general

4.1 Life experiences during trial [Comment: Move this to 'External events affecting the trial']

4.1.1 Positive experiences

HANNAH: *I met a partner just before the research started. And I've been locked down previously for the past three years and I hadn't been with*

anybody. You know, actually being locked down really for the past 13 years because I was in a very unhappy marriage. So I met somebody and fell in love, basically, which has been wonderful ***and massively triggering***
[Comment: so not all positive]

4.1.2 Negative experiences

HANNAH: *I also had stuff going on with my mum because I was financially dependent on her as a result of the divorce and I was also going through a divorce.*

4.2 Positive outcome of trial

4.2.1 Benefit of AI EMDR for OCD symptoms (and/or effectiveness of AI EMDR in accessing previous trauma?)

4.2.2 Engagement with therapist/therapy

JANE: *I was always really looking forward to speaking with you because everything that happened in the week I can tell you*

4.2.3 Negative outcome of trial

4.2.4 Difficulty engaging with trial

JANE: *have a more inflexible structure of the session. Because I know I always had, like, so many things I wanted to talk about that happened. And they would take up a lot of time*
[Comment: although this seems to be part of the reassurance OCD]
HANNAH: *I am aware that I have gone back to some of my old ways on that*
HANNAH: *I struggled to access [the tapes] because of my IT stuff*
HANNAH: [on being part of a research project] *Relationally, it can feel a bit jarring*

5.0 Looking forward

5.1 Coping with OCD [Comment: change to 'Curing OCD'?]

5.1.1 Self-soothing

JANE: *It's become easier to spot when I have...when my response to something is OCD. That's definitely really good because I used to just think I overthink and stuff like that, which is true, but it's easier when I can just name it and say yeah, but that's just my OCD going a bit through the roof, it's not an adequate response.*
HANNAH: *I became kinder to myself. But also understood that it was being, I was being unnecessarily harsh and also really connected to the fact that it was absolutely...it's not normal to carry on as I was carrying on, and it… there was no need to have that sort of I am, I didn't have to do it. I wasn't a bad person*
HANNAH: *just to allow other people to be human beings you know, rather than having to be sort of perfect.*

5.1.2 Improvement of symptoms

HANNAH: *Overall, I would say better, definitely better*

5.1.3 Worsening of symptoms

JANE: *I think they've become a bit worse just because I've been focussing on OCD so much. And out of curiosity and stuff like that, I've been reading about OCD a lot and, kind of, obviously as a psychology student I've been, like, researching on it a little bit online and stuff like that and in books. So I think yeah, it has intensified*
[Comment: Not sure this is strong evidence as she also said "but it also helped at the same time]

[Comment: Move 5.1.1, 5.1.2, 5.1.3 to experience of trial section as they appear to provide evidence related to experiences of the trial]

5.1.4 Recovering from OCD

5.1.4.1 Not recovering from OCD

5.2 Future treatment

5.2.1 Therapy

JANE: doing these tasks and maybe doing a bit more EMDR and just trying to resolve some stuff that, kind of, influence the way I see myself and stuff like that. I think if I work on all of that, I can really reach a point where it's okay.
HANNAH: *more of some attachment EMDR to focus on those wounds*

5.2.1.1 Self-directed work

JANE: *continuing the exposure tasks. I think it's gonna be really, really helpful… maybe trying to improve underlying issues like maybe self-esteem or my perception of myself*
HANNAH: *I need to do this [future work] alone.*

Template 4.0 – Updated TA after previous additions

1.0 Life before trial
- 1.1 Living with OCD
  - 1.1.1 Suffering, exhaustion, overwhelm
  - 1.1.2 Previous treatment
    - 1.1.2.1 CBT
      - 1.1.2.1.1 Positive experiences
      - 1.1.2.1.2 Negative experiences
    - 1.1.2.2 ERP
      - 1.1.2.2.1 Positive experiences
      - 1.1.2.2.2 Negative experiences
    - 1.1.2.3 Other / Non-specific therapies:
      - 1.1.2.3.1 Positive experiences
      - 1.1.2.3.2 Negative experiences
    - 1.1.2.4 Difficulty adhering to treatment plans
    - 1.1.2.5 Limitations of previous treatment
- 1.2 Participants' perception of their OCD
  - 1.2.1 Previous trauma
  - 1.2.2 Negative self-belief
  - 1.2.3 Magical Thinking

2.0 Experience of trial
- 2.1 CBT
  - 2.1.1 Positive
  - 2.1.2 Negative
- 2.2 ERP
  - 2.2.1 Positive
  - 2.2.2 Negative
- 2.3 AI EMDR
  - 2.3.1 Initial uncertainty about EMDR
  - 2.3.2 Impact of visceral nature of EMDR
  - 2.3.3 Additional helpful resources
    - 2.3.3.1 Befriending OCD
    - 2.3.3.2 Resource team
      - 2.3.3.2.1 Positive
      - 2.3.3.2.2 Negative
    - 2.3.3.3 Ideal mother
    - 2.3.3.4 Meeting your younger self

3.0 External events affecting the trial
- 3.1 Impact of COVID-19

- 3.1.1 Undertaking therapy online
  - 3.1.1.1 Difficulties with technology/ dislike of using tech? or both?
  - 3.1.1.2 Advantages of working online
- 3.2 Life experiences during trial
  - 3.2.1 Positive experiences
  - 3.2.2 Negative experiences

4.0 Experience of trial in general

- 4.1 Positive outcome of trial
  - 4.1.1 Enhanced ability to self-soothe
  - 4.1.2 Benefit of AI EMDR for OCD symptoms
    - 4.1.2.1 Engagement with therapist/therapy
  - 4.1.3 Negative outcome of trial
    - 4.1.3.1 Difficulty engaging with trial

5.0 Looking forward

- 5.1 Curing OCD
- 5.2 Future treatment
  - 5.2.1 Therapy
    - 5.2.1.1 Self-directed work

Template 5.0 Adding *John, Kate, Peter* to previous template

1.0 Life before trial

1.1 Living with OCD

1.1.1 Suffering, exhaustion, overwhelm

JOHN*: And the subjects of the OCD had morphed and changed. It was...it was always around sexual or violent things.*

JOHN*: ...and then it got so bad. I was watching a film called Shutter Island and the woman at the end says something like before she kills her own children. She said, "It feels like there's something crawling across my brain." And I just freaked out. I became so worried that was me and that I could do those things.*

1.1.2 Previous treatment

1.1.2.1 CBT

1.1.2.1.1 Positive experiences

1.1.2.1.2 Negative experiences

1.1.2.2 ERP

1.1.2.2.1 Positive experiences

1.1.2.2.2 Negative experiences

JOHN*: I am a researcher by trade, that's my job, so much of the ERP that was just done on blind faith and 'no, don't...don't try and understand it, whatever, just absorb it, accept it, let it be and carry on'. And I just felt like with the way that I was thinking and feeling about OCD and the way that my brain was reacting to it, like yes, things reduced and lessened with that, but I didn't really feel any better even when it was lower*

KATE: *it was quite...for me, quite radical, I suppose is the only word I can use in that there are things that I didn't feel safe at all doing. And I was just told you have to do them as an anti-OCD, kind of, therapy. And I just couldn't bring myself to do it. Because it was just me and Sarah living at home. And I thought, my god, what if something does happen? I just couldn't bring myself to do some of the exercises that I was told to.*

1.1.2.3 Other / Non-specific therapies:

1.1.2.3.1 Positive experiences

Peter: *I think I did maybe eight or ten sessions with a woman, and that was actually really good for me at the time.*

1.1.2.3.2 Negative experiences

JOHN*: I went to the GP and I started seeing somebody but they didn't recognise or diagnose OCD, they said generalised anxiety disorder. And I saw them for a long time … I kept seeing them for years and kept not...kept being able to just get by, but didn't believe that these things weren't real and I was doing a lot of avoidance behaviour still.*

PETER: *Well, I've done bits of counselling before. Not specifically for OCD, but just counselling, and one - a couple, which I did briefly, weren't very beneficial.*

KATE: *I've had anti-anxiety medication, various different types of anti-anxiety medication. But they either make me very jittery or they just didn't work for me, so I came off of those.*

1.1.2.4 Difficulty adhering to treatment plans

JOHN*: I never did the ERP that properly because I found it so difficult.*

1.1.2.5 Limitations of previous treatment

[Comment: Merge with above sections?]

1.2 Participants' perception of their OCD

1.2.1 A consequence of previous trauma?

JOHN: *And I thought that, you know, they might tell people or that my family might find out as well, that whatever and being gay was not something that was OK in a small village 25 years ago*

KATE: *So yeah...so I think my OCD started when...I have always thought back on this quite a lot, I believe it started when I was about seven when my sister was born. And it really affected me as a child and through, kind of, adolescence. So I used to unplug everything...everything had to be... I was terrified of fire, I wanted to make sure everybody was safe. I feel that my upbringing, the house that we lived in was pretty chaotic. And when I say cluttered, just a bit...it was always clean. Just, kind of, messy. You know, three kids and lots of people coming round to stay and stuff, so I was very mindful of unplugging everything and making sure that there was no danger as far as I could see… A couple of things, so my mum was an alcoholic, but a high functioning alcoholic. So she worked constantly. And I think that yeah, it was about really making sure that the people that I lived with and, you know, the animals as well because we had a couple of dogs, everybody was safe.*

1.2.2 Underlying negative self-belief

JOHN: *was also really very revealing to me how, what a low opinion I had of myself*

1.2.3 OCD as magical thinking

JOHN: *Or I'd try and control my own thoughts and feelings and then try and do this magical thing, you know like, where if I, you know, if I make this shot then I'm not gay. If I can throw this up in the air and catch it in my mouth, I'm not gay, loads of things like that. And yeah, my life just began to spiral quite badly from there on out.*

2.0 Experience of trial

2.1 CBT

2.1.1 Positive

KATE: *No, no, they* (OCD symptoms) *changed for the better, definitely. The fact that, you and I had the conversation about 'what ifs' and you can't live your life by 'what ifs'. And I'm really mindful of that and really taking that on board. And also I think that we did the CBT, but we did it in much...you were much more gentle than what I'd experienced previously. So you were saying, take it in small steps, do a little thing at a time. …. And taking those smaller steps for me, has been much more beneficial than me trying to do something massive …. From what we did and the baby steps, if you like, I found that much easier.*

PETER: *I think the CBT element, as well, was quite beneficial just in terms of, I don't know, like, really training the way you - like your brain in a way, or whatever*

2.1.2 Negative

[Comment: Peter in 4.2.3 overlaps here]

2.2 ERP Comment:

2.2.1 Positive

[Comment: Kate in 2.1.1 overlaps here]

2.2.2 Negative

[Comment: Merge ERP with CBT section]

2.3 AI EMDR

2.3.1 Initial ~~uncertainty~~ reservations about EMDR

KATE: *The EMDR side of things, when we first talked about it and I thought, you know, anything like, kind of, role-play or anything like that, fills me with absolute dread and horror.*

2.3.2 AI-EDMR as a visceral response ~~Impact of visceral nature of EMDR~~

KATE: *the other sessions that we did, so for instance, in the house...when I was in my house and I brought some of my...my aunty and uncle in, that really had a massive impact. And a positive impact I think. That really helped.*

KATE: *And those...those sessions that we did with the EMDR where...there was one that didn't really do anything for me. Which was the one when, you know, I had to imagine something that I really don't want to even think about.* [Comment: Negative]

2.3.3 AI-EDMR conceptualisation and resources ~~Additional helpful resources~~

2.3.3.1 Befriending OCD

2.3.3.2 Resource team

2.3.3.2.1 Positive

KATE: *you need to build your group of nine people or, you know, nine, kind of, heroes whether, you know, they are there to protect you or to nurture you, or whatever it is, I did think oh my god, what is that all about? But actually, I totally get it now*

2.3.3.2.2 Negative

2.3.3.3 Ideal mother

JOHN: S2: *The resource team and the perfect, ideal mother.*
S1: Okay. And so...and with that your anxiety was coming back, but then you implemented the ERP alongside it and that improved?
S2: Yes.

2.3.3.4 Meeting your younger self

3.0 External events affecting the trial

3.1 The impact of COVID-19

3.1.1 Undertaking therapy online

PETER: *I think the online element had - has a bit of an impact there as well when you're not maybe feeling that sort of into a session or something. It definitely becomes a lot harder when it's online, as opposed to maybe if you were in person, you could relax into it a bit more.*

3.1.1.1 Difficulties with technology/ dislike of using tech? or both?

3.1.1.2 Advantages of working online

3.2 Other external factors ~~Life experiences during trial~~

3.2.1 Positive experiences

3.2.2 Negative experiences

JOHN: *I added layer upon layer of more anxiety-provoking things I wanted to do. Talking to my parents, going into relationships, spending a lot more time, you know, with...with children, families and just generally doing things that were difficult for me.*

[Comment: Unclear if this is positive or negative; if the trial empowered them to add more things that they 'wanted to do'- this is a success. However, if these things subsequently created anxiety, is that a success? Or are these different types of anxieties?]

4.0 Overall experience of the trial ~~Experience of trial in general~~

~~Positive outcome of trial~~

4.1 Enhanced ability to self-soothe

PETER: *I found bits of EMDR really - really useful and really helpful to sort of make me think about, you know, the sort of where you get - where pressure comes from,*

and ideas of - I have a surrounding sort of… The person I need to be, or putting too much pressure on myself. It was very helpful in that regard

4.2 Alleviation of OCD symptoms ~~Benefit of AI EMDR for OCD symptoms~~

PETER: *at times I found EMDR really beneficial*

PETER: *The thing is I think it has a big impact, yeah. I think so, yeah. Because, yeah, just thinking about, obviously, all the stuff you talked to me about in terms of do the exercise, do this, do that, I think that has had a big - a big impact on me*

JOHN: *Then I started seeing you and… things are better than they've...than they've ever been. I just have a different relationship with my OCD now… I don't want to get carried away because it's quite early on and things like that, but I mean, I genuinely haven't felt this good in...in 20 years.*

JOHN: *The way I think about OCD, I'm gonna find it hard to articulate, I know, but it has shifted an enormous amount.*

4.2.1 Engagement with therapist/therapy

KATE: *actually just add more of the other EMDR, which I think is really useful*

KATE: *No, I just...I really appreciate to be part of...to be part of it. I just...I found it. Like I say, you know, I just found it so helpful. So in comparison to anything else I've done. So thank you very much*

4.2.2 Negative outcome of trial

PETER: *I think at times it's been worse, but I think it's more down to - I think that's more down to me… Personally, in terms of, like, my behaviours and what I'm doing in terms of drinking or being stressed out. And, yeah, being stressed out from work and being tired, and then drinking.*

[Comment: Could this actually be viewed as 'difficulty engaging with the trial'? Peter does also talk about positive impacts of the trial, e.g. 4.2]

4.2.2.1 Difficulty engaging with trial

PETER: *but sometimes it's not always that easy to do or it's easy just to stay with the same bad habits.*

5.0 Looking forward

5.1 A cure for OCD ~~Curing OCD~~

5.2 Future treatment

5.2.1 Therapy

JOHN: *[If I couldn't see you] I would ask you, who do you know that can work on trauma in the same way as you have incorporating EMDR, ERP and sort of the psychodynamic work that we've done because I can't just go down the route of just ERP. It doesn't work for me. (John)*

5.2.1.1 Self-directed work

KATE: *I just need to be really mindful and just need to keep working at it and not let it almost...it feels like some, sort of, Ivy*

that's creeping up me and taking over. You know, I need to keep trimming it down and making sure that it's not just overpowering me ... Because that's what happens. It just kinds of...it just completely almost suffocates me… And I just need to make sure I keep cutting it down and keep it manageable.

Template 6.0

1.0 Life before the trial

- 1.1 Living with OCD
  - 1.1.1 Suffering, overwhelm and exhaustion
  - 1.1.2 Previous treatment
- 1.2 Participants' perception of their OCD
  - 1.2.1 A consequence of previous trauma?
  - 1.2.2 Underlying negative self-belief
  - 1.2.3 OCD as magical thinking

2.0 Experience of the trial

- 2.1 The CBT Component
- 2.2 The AI-EMDR Component
  - 2.2.1 Initial reservations regarding EMDR
  - 2.2.2 AI-EMDR as a visceral response
  - 2.2.3 AI-EMDR conceptualisation and resources

3.0 External events affecting the trial

- 3.1 The impact of COVID-19
  - 3.1.1 Undertaking therapy online
- 3.2 Other external factors

4.0 Overall experience of trial

- 4.1 Enhanced ability to self-soothe
- 4.2 Alleviation of OCD symptoms

5.0 Looking forward

- 5.1 A cure for OCD?
- 5.2 Future treatment

Appendix N: Ethics Application

Ethics ETH1920-1872: Ms Joyce Blake (Medium risk)

Date Created	25 Jun 2020
Date Submitted	13 Dec 2020
Date of last resubmission	12 Feb 2021
Date forwarded to committee	04 Jan 2021
Date of committee meeting	13 Jan 2021
Academic Staff	Ms Joyce Blake Dr Tanya Lecchi
Student ID	170049181
Category	Doctoral Researcher Academic Staff
Supervisor	Dr Tanya Lecchi
Project	Does Attachment-Focused Eye-Movement Desensitization Reprocessing, used in conjunction with a Cognitive Behavioural Therapy/Exposure Response Prevention (ERP) protocol,improve treatment outcomes for individuals with Obsessive-Compulsive Disorder?
School	School of Arts and Social Sciences
Department	Psychology
Current status	Awaiting Psychology committee: medium risk meeting

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Ethics application

Risks

R1) Does the project have funding?
No

R2) Does the project involve human participants?
Yes

R3) Will the researcher be located outside of the UK during the conduct of the research?
No

R4) Will any part of the project be carried out under the auspices of an external organisation, involve collaboration bet`^/een institutions, or involve data collection at an external organisation?
No

R5) Does your project involve access to, or use of, material that could be classified as security sensitive? No

R6) Does the project involve the use of live animals?
No

R7) Does the project involve the use of animal tissue?
No

R8) Does the project involve accessing obscene materials?
No

R9) Does the project involve access to confidential business data (e.g., commercially sensitive data, trade secrets, minutes of internal meetings)?
No

R10) Does the project involve access to personal data (e.g., personnel or student records) not in the public domain?
No

R11) Does the project involve deviation from standard or routine clinical practice, outside of current guidelines?
Yes

R12) Will the project involve the potential for adverse impact on employment, social or financial standing?
No

R13) Will the project involve the potential for psychological distress, anxiety, humiliation or pain greater than that of normal life for the participant?
Yes

R15) Will the project involve research into illegal or criminal activity where there is a risk that the researcher will be placed in physical danger or in legal jeopardy?
No

R16) Will the project specifically recruit individuals who may be involved in illegal or criminal activity?
No

R17) Will the project involve engaging individuals who may be involved in terrorism, radicalisation, extremism or violent activity and other activity that falls within the Counter-Terrorism and Security Act (2015)?
No

Applicant & research team

T1) Principal Applicant

Name: Ms Joyce Blake

Provide a summary of the researcher's training and experience that is relevant to this research project.
I hold full accreditation with the British Association for Counselling and Psychotherapy (BACP) and the British Association for Behavioural and Cognitive Psychotherapies (BABCP) and I am a registered member of the Eye Movement Desensitisation and Reprocessing (EMDR) Association UK.

I have many years' experience of providing therapy to clients with Obsessive-Compulsive Disorder (OCD), both in the National Health Service (NHS) and in my private practice.
I was working with Central and North-West London (CNWL) NHS at the time of the Grenfell fire and I undertook trauma therapy with many residents and their relatives who were impacted by this event, I received a good deal of training and expert supervision in working with trauma at this time.

Whilst working for CNWL NHS I also undertook weekly risk assessment duties, where all members of the team would use me as the point of contact if they had any risk/safeguarding concerns or queries.

In my private practice my specialist interests are working with clients who have experienced trauma and/or OCD and I generally work using Cognitive Behavioural Therapy (CBT), EMDR, Attachment Focused-EMDR (AF-EMDR) and Compassion Focused Therapy (CFT).

I have indemnity insurance with Towergate and hold an enhanced Disclosure and Barring Service (DBS) check.

T2) Co-Applicant(s) at City

Name Dr Tanva Lecchi

Provide a summary of the researcher's training and experience that is 'relevant to this research project.
Dr Lecchi has extensive training in a range of approaches to therapeutic work, with a focus on cognitive-relational models, and has 10 years experience of providing psychological assessment and treatment to adults, families, children and young people in different care settings, including hospital environment and private practice.

Her main interests include developmental trauma, personality disorders and mindfulness-based interventions, in particular Mindfulness-Based Stress Reduction (MBSR). These research interests are highly compatible with my research project.

T3) External Co-applicant(s)

T4) Supervisor(s)
Name Dr Tanva Lecchi

T5) Do any of the investigators have direct personal involvement in the organisations sponsoring or funding the research that may give rise to a possible conflict of interest?
No

T6) Will any of the investigators receive any personal benefits or incentives. Including payment above normal salary, from undertaking the research or from the results of the

research above those normally associated with scholarly activity?
No

T7) List anyone else involved in the project.

Project details

P1) Project title
Does Attachment-Focused Eye-Movement Desensitization Reprocessing, used in conjunction with a Cognitive Behavioural Therapy/Exposure Response Prevention (ERP) protocol, improve treatment outcomes for individuals with Obsessive-Compulsive Disorder?

P1.1) Short project title
Does AF-EMDR, used in conjunction with a CBT/ERP protocol, improve treatment outcomes for individuals with OCD?

P2) Provide a lay summary of the background and aims of the research, including the research questions (max 400 words).
Background: The current `gold-standard' therapeutic intervention for OCD in the UK is CBT that incorporates exposure and response prevention (ERP) interventions (National Institute for Health and Care Excellence (NICE) 2005). Whilst evidence suggests this approach is effective to some extent, it does have limitations. Abramowitz (2006) found that approximately 20-30% of OCD patients refuse treatment, drop out of ERP prematurely or fail to benefit, which may be a consequence of the challenging nature of the treatment. Simpson et. al. (2006) found that only around half of the patients who underwent ERP experienced complete symptom remission.

Recent research suggests that EMDR may also be efficacious for OCD treatment (Bohm, 2016; Keenan et al.; 2018, Logie, 2014; Marr, 2012). Further research suggests that individuals with an ambivalent attachment style and/or those who have experienced relational trauma may be more susceptible to OCD (Parnell, 2013, Seah et al., 2018). Parnell (2013) argues that these individuals are prone to having an overactive right hemisphere, experience difficulties self-soothing and may feel `there is something wrong with me'. Parnell (2013) purports that attachment-focussed EMDR resources can help these individuals calm their anxiety and soothe their self-criticism in order to create new neural pathways.

The committee questioned Parnell's (2013) `pseudo neuroscientific explanation' of ambivalent attachment. Laurel Parnell has been teaching EMDR for 30 years, has trained 1000s of therapists, written five books on EMDR, has her own Institute in America and hosts an annual conference. Further details of her work can be found here: http://drlaurelparnell.com/. That said, it is true that she rarely backs up her writing with existing research or theory. On this basis the relevance of her writing could be viewed within the longstanding `practice-based evidence vs. evidence-based practice debate'. However, Parnell's (2013) description of ambivalent attachment style is compatible with Bowlby's original (1969) attachment theory. It also concurs with Perry's (2006) neurosequential model of therapy and other neuropsychological research (e.g. Schore and Schore, 2007; Siegel, 2003) suggesting that right brain systems are relevant for attachment, affect regulation and developmental change.

Aim: To investigate whether attachment-focused EMDR (AF-EMDR) interventions, used alongside a CBT/ERP protocol, may improve treatment outcomes for individuals with OCD.

Hypothesis: It is hypothesised that the incorporation of AF-EMDR interventions, when used alongside a CBT/ERP protocol, will improve treatment outcomes for individuals with OCD. Treatment outcomes will be determined by participants' self-rating and Obsessive Compulsive Inventory-Revised (OCI-R) (Foa et al., 2002) and Florida Obsessive Compulsive Inventory (Storch et al., 2007) outcome measures.

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P4) Provide a summary and brief explanation of the research design, method, and data analysis.

This study will implement a Single Case Experimental Design (SCED). This experimental design method is used to test the efficacy of interventions using a small number of participants, who are closely monitored at regular intervals. Kazdin (2011) proposes that a SCED with a multiple baseline across participants is preferential when examining new areas of research. This facilitates rigorous. investigation of the efficacy of the intervention on each individual at frequent intervals and it also has high internal validity. This is in contrast to larger experimental studies which have the potential to hide individual differences and may not be representative of the behaviour or any one individual within the group (Moriey, 2018).

In Phase A, a baseline will be established for all ten participants during the two, weekly assessment sessions. The baseline will be established by the participants completing a daily self-rating of the level of distress their OCD is causing them (this will be defined in the first assessment) and rating their mood (0-10).

Participants will move from a baseline (no intervention) to a treatment phase. All participants will commence with CBT/ERP sessions, with a 15 minute relaxation recording to listen to each day. Participants 1+2 will commence AF-EMDR interventions in week 4 and be given a 15 minute AFEMDR recording to listen to each morning. The remaining participants will continue with the CBT/ERP and relaxation tape protocol. Each week a further two participants will be introduced to the AF-EMDR protocol, with all participants undertaking the AF-EMDR protocol by week 8. This should facilitate an adequate timeframe to monitor efficacy of the interventions whilst allowing all clients to have a minimum of 5 sessions of EMDR. Due to my time constraints it may be necessary for the research to be undertaken with two consecutive cohorts of five participants who will, as above, each be introduced to the interventions on consecutive weeks between weeks 4 and 8.

There will also be a follow-up review with all clients one month and three months after treatment is completed. This can be undertaken by phone or via email, depending on each participant's preference. In each instance, participants will be asked to complete the Ocl-R measure and self-rating on their mood and OCD distress levels to gauge the current severity of their OCD symptoms.

A thematic analysis will also be undertaken. Semi-structured interviews will be undertaken (most likely via Zoom) with all participants approximately one month after treatment is completed and after the one-month review questionnaires have been completed. These interviews will take place at a mutually agreed time. Please see the list of semi-structured interview questions attached. The interviews will be transcribed by me and the data will be coded in order to ascertain themes and patterns that emerge from the data. The Ethics Committee raised the issue that some participants may refuse to take part in the interview. I appreciate that, in keeping with the guidelines for informed consent, participants have the right to refuse participation in this follow-up interview. If this proves to be the case. I win complete the thematic analysis with a smaller number of participants. This should still provide insights into the therapeutic process. I will reflect on the reasons that some participants may not have wanted to participate.

I did reflect on the potential to reduce experimenter and/or participant bias if a colleague conducted these interviews and I initially endorsed this view. I have, however. now concluded that it is more appropriate for me to undertake the follow-up interviews for two key reasons.

The first reason is that shame and guilt can play a significant role in OCD (Fergus et al., 2010, Wettemeck et al., 2014). This is certainly something that I have encountered in my client work, where it has been essential to achieve a good therapeutic alliance before they are prepared to disclose their 'shameful' obsessive thoughts. In this way, I believe that it would be far less ethical to expect participant to be interviewed by someone they have never encountered before and to be asked to share their (often very personal) lived experience of therapy. I will, however, endeavour to lessen the potential for researcher and participant bias by reflecting on the Impact that my interview questions prior-and-post interview may have had in my research diary.

The second reason that I think it would be more appropriate for me to conduct the follow-up interview is because the aims of SCED research are idiographic. Moriey (2018) acknowledges that randomized-controlled trials, systematic reviews ancl meta-analyses are Invaluable to research. However, he argues that the immense power of these methods carries the danger of reducing the clinician to a passive consumer of `health-technology. Morley (2018) suggests that SCED research facilitates the professional researcher in being actively engaged in the application and production of knowledge. Barkham et al., (2010) describe how clinicians need effective tools to deliver good health care and to generate robust practice-based evidence, with SCED research offering one such suite of tools (MCMillan and Morley (2010). Having worked closely with my participants for twelve weeks I think that I will be able to conduct a far more nuanced interview with them, taking into account their fears and concerns and thoughts and insights regarding their therapeutic journey.

Data Analysis: Hayes (1981) describes how the repeated measurement of participant variables across different phases of time is the fundamental basis c)f SCED. Data will be analysed using visual inspection, which entails plotting each individual's data in order to review the effect (if any) that the Iv (the AF-EMDR intervention) has had on the DV (the participant's measures). The Iv is the the introduction of AF-EMDR interventions. The DV is the participant's self-rating of the level of distress their OC is causing and clinical measures. In this way, each participant is their own control. Three factors are taken into account within this assessment. The first is the level of the dependent variable across conditions. If the DV is much higher or lower in one condition this suggests the intervention has had an effect. The second consideration is the trend which refers to gradual increases or decreases in the DV across observations. A third factor is latency which is the time it takes for the DV to start to change after a change in conditions (Jhangiani et al., 2018).

The Committee requested further details with regards to the Visual Inspection and the analysis. Please find attached a more detailed methods section, with these points highlighted. I have considered the comments from the ethics committee regarding the methods of data analysis for this SCED and elaborated on these further in the attached methods submission. I also intend to liaise with my university and external supervisor and may develop the ¬statistical analysis further at a later date. With regards to the comments on EMDR and exposure, there appears to be some confusion regarding the nature of the EMDR and AF-EMDR interventions that I am undertaking. By its nature, EMDR does contain an element of exposure, but there is a whole protocol that is being utilised which Incorporates emotions, Images, negative cognitions, physical sensations etc. This comprises of far more than CBT/ERP with additional eye-movement treatment. Whilst I.i may be interesting to discuss the quantity of ERP each participant receives in treatment, it is not central to my research and the level of exposure does not, therefore, need to be controlled in the design. The primary focus of this study is to see whether AF-EMDR therapy (the whole protocol) facilitates clients in their ability to self-soothe with a view to undertaking CBT/ERP activities more readily.

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P4.1) If relevant, please upload your research protocol.

P5) What do you consider are the ethical issues associated with conducting this research and how do you propose to address them?

All research will comply with British Psychological Society (BPS) Ethical Guidelines (BPS, 2014) along with Medical Research Council (2020) guidelines on Intervention Development. University

Ethics Approval will be received prior to recruiting participants.

This research will involve the use of EMDR interventions that are not specified for the treatment of OCD in the NICE guidelines (NICE, 2005). However, EMDR is recommended as a treatment for trauma (NICE, 2018) and I am an experienced OCD and trauma practitioner. Other researchers have undertaken similar studies into the use of EMDR with participants who have OCD without reporting any adverse effects (Bohm, 2016, Logie, 2014, Keenan et al., 2018). Indeed, all of these researchers' studies concluded that there were benefits to utilising EMDR interventions for clients with OCD. I have recently been liaising with Professor David Veale's team at the Maudsley Hospital (we have a mutual client with OCD) and I am aware that they are planning to run some small scale trials on the use of EMDR for OCD In the near future.

Ethical considerations particular to this study are that it may cause distress for clients to undertake CBT/ERP therapeutic interventions and/or address their past traumas through EMDR. However, individuals with OCD and/or post-traumatic stress disorder (PTSD) would experience similar difficulties if they were to receive treatment through the NHS. In any event, it will be important to manage participants' expectations from the outset, teach them some good grounding/stabilisation techniques and inform them that some of the work we will undertake may prove quite challenging and anxiety-provoking initially.

There are some complexities to conducting EMDR online if, for example, the client starts to dissociate or shows high affect. I have received good training in working online with trauma, dissociation and risk management. I am undertaking the proposed EMDR interventions online with around seven private clients who have OCD and/or PTSD each week in my private practice and have been doing so for the past nine months. I believe that my experience and training make me competent to undertake this research. I am insured and a fully accredited BABCP and BACP practitioner, registered with the UK EMDR Association. I have worked in the NHS and in private practice for more than ten years.

I did give a lot of consideration to the issue of charging participants for these sessions and concluded that it would be most ethical to charge them a reduced fee of £40 for therapy per session, which is less than half my usual fee In private practice. One reason for this is that I felt they were more likely to feel coerced to remain in treatment if the sessions were free. These sessions will be undertaken online so participants will not incur travel or any other expenses.

Participants will be required to spend some extra time (maximum 15 minutes each week) completing questionnaires. This may take longer in the two initial assessment sessions (up to 30 minutes each session). There will also be some in-between session tasks to do (e.g., listening to a 15 minute relaxation tape each day). Participants should allow one-hour each for the one-month and three-month follow up interview. If they participate in the thematic analysis interview, they should allow an additional two hours for this process.

Participants may also be asked to complete some other activities (e.g., ERP, creating an OCD hierarchy) in their own time and by mutual agreement. It is difficult to quantify the time taken to complete this type of activity, which is not specific to my research project as my NHS and private clients with OCD undertake similar activities.

Potential participants will all be given a Participant Information Sheet, a Permission to Record Sessions sheet and a Participant Consent Form. They will also receive a Debrief sheet at the end of the study.

The Informed consent sheet specifically details:

a) The research content. purpose and intended audience.
b) Data anonymity procedures including removal of any identifying information.
c) Information regarding GDPR and confidentially of data
d) Data storage and disposal methods
e) Participants' right to withdraw from the research at any time

I am aware that there is potential for researcher bias in this study as I will be both the researcher and therapist and will be investing a large amount of time in this study. Fischer (2009) describes how this process will necessitate significant bracketing of the researcher's hopes and expectations. I recognize my potential for disappointment, both as a therapist and as an academic, if the AF-EMDR interventions prove ineffective. However, I am also aware that, whatever the results, they will still contribute to the body of academic research. I do have a reasonable level of confidence that it is worth taking on this challenge as I have already seen the potential of this approach with my existing clients in private practice.

The ethics committee required further clarification with regards to the way that I will dissociate my role as the therapist and the researcher. As highlighted in my amendment in P4, the focus of SCED research is to provide idiographic knowledge where the researcher is actively engaged in the application and production of knowledge (Morley, 2018), rather than producing generalizable knowledge. That said, I am aware that there are some tensions in my dual role and I decided to explore this by looking at the differences between my role as a researcher and the potential modifications I will need to make in the way I usually work with clients with OCD in my private practice.

1. In my research capacity, I will be sending participants more detailed information about CBT/ERP/EMDR processes than I generally offer to my private clients and the maximum number of sessions will be clearly stated.

2. I will be more attentive to screening and exclusion criteria for the purpose of the study.

3. As a researcher I intend to randomly allocate participants for more CBT or EMDR sessions by pulling names out of a hat.

4. My research sessions win have more structure with regards to the implementation of certain interventions (see methods sheet attached).

5. As a clinician, I will be committed to achieving the best results for all my clients whether I am conducting the CBT or the EMDR component. I do not believe that any of my research aims will override my desire for my participants to do well, whatever the dominant approach that I am using. This is also relevant for my role as researcher. where my primary aim is to Contribute authentic research knowledge for the treatment of OCD.

6. As a researcher, I do plan to be far more reflective and keep a detailed journal with regards to each participant and any issues or ethical dilemmas that have arisen within my dual roles. I will highlight these tensions for discussion in supervision.

7. As can be seen on the interview questions (attached) I have prefaced the interview by saying that I will not take offence at any insights that are negative with regards to me or the therapy. My

primary aim in asking these questions is to provide authentic research that contributes to research into the treatment of OCD.

8. Wherever possible, I will take a short break (e.g., have a cup of tea, go for a walk) prior to moving from a clinical role to a researcher role and vice versa. I plan to write up any research notes at a different desk, with a different chair from the one I use for therapy.

With regards to the Committee's comment about conducting a double-blind experiment, I do not believe that this will be possible due to the nature of SCED research. It will be apparent to both the therapist and participant when the CBT/EMDR intervention has changed. It may, however, be feasible to have an independent assessor, but this will be more complex than applying it to a RCT which commonly has two or three discrete time points (pre. post and follow-up) for data collection. Tate et al. (2013) describe how data collection in a SCED is almost continuous. I am aware of the potential implications of having a third party review the weekly measures in order to avoid experimenter and participant bias. However, I do find these measures helpful to inform my ongoing clinical work with the client. I am currently discussing the pros and cons of this issue with my supervisor and plan to follow her advice.

Data Protection: All sessions will be recorded on Zoom and on a digital recorder designed for this purpose. Session content will be uploaded onto an encrypted memory stick directly after each session and the initial recording deleted. Any notes or other data will be anonymised and stored securely in my office or on a password-protected computer.

Safeguards: Any potential participants who were excluded from the trial will be given details of relevant organizations where they can obtain treatment (e.g., self-refer to their local NHS service or via their GP and they will be given a sheet of organizations to contact If they are feeling vulnerable. This sheet will inform them that they should make an emergency appointment with their GP, go directly to their nearest A+E or contact the Samaritans if they feel they might act upon a low mood.

CBT, ERP and A-F EMDR can all be challenging interventions and risk will be monitored at each session. AII participants will be given details of relevant organisations to contact (as above) if they feel that they may act upon a low mood. If necessary, a more detailed safety plan will be drawn up in session. I meet with my external supervisor on a regular basis and will highlight any potential safeguarding issues to both my external and research supervisor. If the issue is more pressing, I will contact them both at the earliest opportunity. If there are any concerns treatment will cease Immediately and extra support provided as necessary. The support provided will be determined by me and will incorporate any advice I receive from my university and external supervisor.

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P6) Project start date
The start date will be the date of approval.

P7) Anticipated project end date
06 Mar 2023

P8) Where will the research take place?
Due to the constraints of the Covid-19 pandemic, all therapeutic interventions will be undertaken online using Zoom from my home office. Participants will be sent information on how to download Zoom and the dos and don't of conducting therapy online. They will be asked to download an app BSDR (Bilateral Sounds Desensitization and Reprocessing) which will facilitate the EMDR processing: https ://www. amazon.co. u k/Krasamo-LLC-BS D R-Player/dp/B00AE 82724
This is a process that I have undertaken with my private clients, some of whom have extreme PTSD and/or OCD, to good effect over the past nine months.

P9) Is this application or any part of this research project being submitted to another ethics committee, or has it previously been submitted to an ethics committee?
No

Human participants: information and participation

The options for the following question are one or more of:
'Under 18'; 'Adults at risk'; 'Individuals aged 16 and over potentially without the capacity to consent';
'None of the above'.

H1) Will persons from any of the following groups be participating in the project?
None of the above

H2) How many participants will be recruited?
12

H3) Explain how the sample size has been determined.
Ray et al (2010) suggest beginning with three to five participants when using a SCED. However, for a multiple baseline design, more participants are needed (Horner et al., 2005). I intend to recruit ten-twelve participants. These may be seen as two cohorts of five-six participants which will be more manageable given my current commitments. This should also facilitate sufficient research data being generated, in the unlikely event that there is a 20-30% drop-out.

H4) What Is the age group of the participants?

Lower upper
18 65

H5) Please specify inclusion and exclusion criteria.
Ten/twelve participants with OCD will be recruited initially using convenience sampling with snowball recruitment methods. Kazdin (2011) highlights the benefits of making the sample as heterogeneous as possible to be more representative of the general population. The following criteria for participant acceptance will apply:

Aged between 18-65 years.

Currently meet the DSM-5 diagnostic classification for OCD (APA, 2013).

Have long-standing symptoms of OCD (minimum one year)
No previous experience of EMDR therapy.

Not undertaking any other therapies at the commencement of this trial.

Not taking psychiatric medication or illicit drugs within six months of commencing the trial

No other non-related mental health conditions.

Not include women who are currently pregnant or had a recent stillbirth or miscarriage.
Must be willing to commit to twelve one-hour, weekly (recorded) sessions on Zoom and be prepared to complete weekly measures and follow-up interviews at 25 and 35 weeks after commencement of sessions.

H6) What are the potential risks and burdens for research participants and how will you minimise them?
Potential risks and burdens particular to this study are that it may cause distress for clients to undertake CBT/ERP therapeutic interventions and/or address their past traumas through EMDR.
However, individuals with OCD or PTSD would have similar difficulties if they were to receive treatment through the NHS. It will, however, be important to manage participants' expectations from the outset and inform them that they may find some of the issues raised in treatment difficult and that EMDR sessions may generate more anxiety initially.

As with my private practice, I will ask participants for their GP contact information prior to commencing treatment in order for safeguarding concerns to be shared should they arise.

As part of the treatment process all clients will be taught grounding strategies and a thorough risk assessment will be completed. All clients will be told to make an emergency appointment with their GP if they are feeling low and that they may act upon a low mood. They will also be informed that they can walk into their local A+E and say that they are feeling suicidal. They will also be given the contact number for the Samaritans, which is a 24-hour helpline.

Participation will also require completion of a range of questionnaires throughout the trial. Feedback from my research proposal suggested that I should reduce the number of measures I planned to use as there was potential for measurement fatigue. For this reason, I have amended and reduced these and included my revised measures as an attachment along with my original research protocol.

Due to the constraints of the Covid-19 pandemic, all therapeutic interventions will be undertaken online using Zoom from my home office. I am aware that I need to use different strategies that I would seeing a client in person if they have potential to dissociate etc. I always take an `In Case of Emergency' contact number for someone who lives with the client or nearby and confirm they are available at the start of the session.

Participants will be sent information on how to download Zoom and the dos and don’ts of conducting therapy online. They will be asked to download an app BSDR (Bilateral Sounds Desensitization and Reprocessing) which will facilitate the EMDR processing: https:/twww.amazon.co.uk/Krasamo-LLCBSDR-Player/dp/B00AE82724

This is a process that I have undertaken with my private clients, some of whom have extreme PTSD and/or OCD, to good effect and without incident over the past nine months.

H7) Will you specifically recruit pregnant women, women in labour, or women who have had a recent stillbirth or miscarriage (within the last 12 months)?
No

H8) Will you directly recruit any staff and/or students at City?
None of the above

H8.1) If you intend to contact staff/students directly for recruitment purpose, please upload a letter of approval from the respective School(s)/Department(s).

H9) How are participants to be identified, approached and recruited, and by whom?

I plan to recruit ten participants initially using convenience sampling with snowball recruitment methods. I regularly have enquiries from individuals with OCD who would like therapy in my private practice, I have several former clients who are OCD advocates and have forums, I am in liaison with the Maudsley team about potential research participants and I am a member of two EMDR forums where I can post my request, so I do not anticipate recruitment being an issue. Kazdin (2011) highlights the benefits of making the sample as heterogeneous as possible to be more representative of the general population. Potential candidates will be referred to a temporary website for further details of the study (with dates, inclusion/exclusion criteria, an outline of the study etc.). I plan to undertake the recruitment process myself and `f I exclude any potential participants who meet the criteria I will provide reflections on my reasons for exclusion.

H10) Please upload your participant information sheets and consent form, or if they are online (e.g. on Qualtrics) paste the link below.

H11) If appropriate, please upload a copy of the advertisement, including recruitment emails, flyers or letter.

H12) Describe the procedure that will be used when seeking and obtaining consent, including when consent will be obtained.
I will undertake an initial screening of potentially suitable candidates via phone or Zoom implementing the exclusion criteria detailed earlier. If any potential candidates who meet the criteria are excluded, I
will reflect and log the reason for such exclusions. Ideally the participant will be able to sign and send me a scanned copy of their consent form. If they do not have the facilities to do this I will accept a typed signature on the form and they can also gi.ve their consent in a Zoom recording.

a) Given the current constraints of Covid, I am planning to email all forms (a Participant Information Sheet, a Permission to Record Sessions sheet and a Participant Consent Form) to potential participants.

b) I plan to address any questions potential participants may have about the study, including the informed consent form in a subsequent Zoom session.

c) The researcher and participant will discuss provisional start dates prior to them giving informed consent. It is hoped that the trial will commence within two months of the participant giving their informed consent.

H13) Are there any pressures that may make it difficult for participants to refuse to take part in the project?
Yes

H13.1) Please provide details and describe how you propose to address these.

I will be offering potential participants with OCD relatively inexpensive (£40 per session) specialist psychotherapy, and they will not have to endure being on a long waiting list. This does mean that potential participants may feel under pressure to take up this opportunity. As the

researcher, I do not feel that there is much I can do about this, but I will be mindful of this issue when discussing the project with potential participants.

H14) Is any part of the research being conducted with participants outside the UK?
No

Human participants: method

The options for the following question are one or more of:
'Invasive procedures (for example medical or surgical).; 'Intrusive procedures (for example psychological or social)'; 'Potentially harmful procedures of any kind'; 'Drugs, placebos, or other
substances administered to participants'; 'None of the above'.

M1) Will any of the following methods be involved in the project:
None of the above

M2) Does the project involve any deceptive research practices?
No

M3) Is there a possibility for over-research of participants?
No

M4) Please upload copies of any questionnaires, topic guides for interviews or focus groups, or equivalent research materials.

M5) Will participants be provided with the findings or outcomes of the project?
Yes

M5.1) Explain how this information will be provided.
All participants will be informed that they will have the option to receive a summary of the results by email once my doctorate has been awarded. I will inform them that I will contact them by phone or email close to this time to see if they would still like to receive this information, unless they instruct me to the contrary. Participants will be informed that if they want me to contact them this will necessitate me keeping their contact details on file.

M6) If the research is intended to benefit the participants, third parties or the local community, please give details.
This research has the potential to benefit both Individual participants in this study, other individuals who have OCD and therapists with an interest in this area.

In my private practice I have found the use of AF-EMDR. conducted alongside a CBT protocol, has been of benefit to nearly all of my clients with OCD and resulted in less compulsive behaviours. I have recently been contacted by the Maudsley Hospital as we have one mutual long-term client. Her OCD therapist reported being impressed by the dramatic reduction in her OCD symptoms and her greater capacity to self-soothe. She has suggested to her Head of Department, Professor David Veale. that there is good potential for some form of research collaboration with me in my studies. I am awaiting his response.

M7) Are you offering any incentives for participating?
Yes

M7.1) Please give details, justifying their type and amount.
As mentioned earlier, I will be offering therapy at a reduced price (£40) compared with my usual fees in private practice. However, these participants will be required to complete more measures and participate in interviews at the end of the study.

M8) Does the research involve clinical trial or clinical intervention testing that does not require Health Research Authority or MHRA approval?
No

M9) Will the project involve the collection of human tissue or other biological samples that does not fall under the Human Tissue Act (2004) that does not require Health Research Authority Research Ethics Service approval?
No

M10) Will the project involve potentially sensitive topics, such as participants' sexual behaviour, their legal or political behaviour, their experience of violence?
No

M11) Will the project involve activities that may lead to 'labelling' either by the researcher (e.g., categorisation) or by the participant (e.g. 'I'm stupid', 'I'm not normal.)?
No

Data

D1) Indicate which of the following you will be using to collect your data.
Questionnaire
Interviews
Audio/digital recording interviewees or events

D2) How will the privacy of the participants be protected?
Anonymised sample or data

D3) Will the research involve use of direct quotes?
Yes

D4) Where/how do you intend to store your data?
Data to be kept in a locked filing cabinet.
Data and identifiers to be kept in separate, locked filing cabinets.
Password protected computer files.
Storage on encrypted device (e.g., Laptop, hard drive, USB

D5) Will personal data collected be shared with other organisations?
No

D6) Will the data be accessed by people other than the named researcher, supervisors or examiners?
No
D7) Is the data intended or required (e.g., by funding body) to be published for reuse or to be shared as part of longitudinal research or a different/wider research project now or in the future? Yes

D8) How long are you intending to keep the research data generated by the study?
In keeping with General Data Protection Regulation (2016) guidelines, personal data kept in a form which permits identification of data subjects should be held for no longer than is necessary for the purposes for which the personal data are processed. In keeping with this guideline all identifiable information accrued in this study will be held for the minimum time necessary and destroyed as soon as it is no longer required. I am aware that City's Destruction of Data guidance specifies that data to be destroyed needs to be logged with the University (www.city.ac.uk/itservice or telephone 0207 040 8181). This will facilitate secure destruction of electronic records and detailed audit trails with a validation of destruction notice.

The Ethics Committee requested further information regarding the way different types of data would be treated, which is provided below:

Emergency contact details for each participant will be kept in a notebook stored in a locked drawer of my desk in my private home office. I do not plan to make this information anonymous as I believe it is more important to have easy access if an emergency were to arise. This information will be shredded after the final session of treatment with the participant.

Personal data (e.g., contact details, Informed consent and any other identifiable consent forms) will be securely stored independently from all anonymised participant data. These identifiable forms will be retained until I have completed my viva and destroyed (shredded) immediately after. Participants will, however, be offered the option to receive a summary of my research findings. If they would like to receive this I will ask them to confirm in writing that it ls acceptable for me to retain their contact details (email and telephone) until these findings are produced and sent to them. The forms will also be shredded after that.

I plan to create a log and each client's initials will be given a code number in order to anonymise data, such as questionnaires. Participants will be asked to use their code, rather than their name, on any measures they send through. This log will be retained in a file on my password-protected computer and deleted after my viva. Anonymised questionnaires may be retained by City as part of the research documentation for up to 10 years.

Video recordings: Having reflected on this with my supervisor we have agreed that video recordings are not essential and that audio recordings will suffice.

Audio recording of Sessions: will be recorded on an encrypted digital recorder provided by City. Session content will either be uploaded onto a City Encrypted platform (e.g., OneDrive) or stored on an encrypted memory stick that will be kept in a locked drawer in my office. Whilst these recordings could be deemed as research materials, they are likely to be highly personal in content and I will destroy these after my viva, having first notified my intent to destroy them with City's Destruction of Data department and in accordance with their guidelines.

Notes or other data from the session. These notes will be anonymised as soon as possible after the session and will either be kept in a locked filing cabinet (separate from any identifiable information such as the informed consent forms) or in a file on my password-protected computer. This anonymised research information can be retained by City for up to ten years.

Audio recording of Interviews: will be stored in the same way as recordings of sessions. These recordings will be transcribed at my earliest convenience with any identifiable information changed or excluded. The audio recordings will be deleted in accordance with City's Destruction

of Data policies once I have completed my viva. The anonymised transcripts will be stored in a locked filing cabinet in my office and, at the end of my studies. can be retained by City for up to ten years.

D9) How long will personal data be stored or accessed after the study has ended?
See information provided above in D10.

D10) How are you intending to destroy the personal data after this period?
See information provided above in D10.

Health & safety

HS1) Are there any health and safety risks to the researchers over and above that of their normal working life?
No

HS2) Are there hazards associated with undertaking this project where a formal risk assessment would be required?
No

Appendix O: Emergency contact information

If you need help in an emergency

If you are thinking about taking your life, harming yourself or are in emotional distress, there are qualified people you can talk to.

If you need help urgently please contact your GP Surgery (they will have a 24-hour number). If you need advice and help when your GP Practice is closed you can call NHS Direct on 111

If you need help immediately, go to your local Accident & Emergency Department (open 24 hours a day 7 days a week) or dial 999.

Other Helpful Contacts:

Samaritans: 116 123 (Freephone 24 hrs) www.samaritans.org.
Also have a drop in service 9am-9pm every day at 46 Marshall St, W1F 9BF

Saneline: 0300 304 7000 (open 6pm – 11pm daily). Offer practical information, crisis care and emotional support to anybody affected by mental health problems.

Victim Support: 0845 450 3936

Domestic Violence Helplines:
Women 0808 2000 247 (24 hour) Women's Aid
Men: 01823 334244 (10am- 4pm Mon-Fri) Mankind

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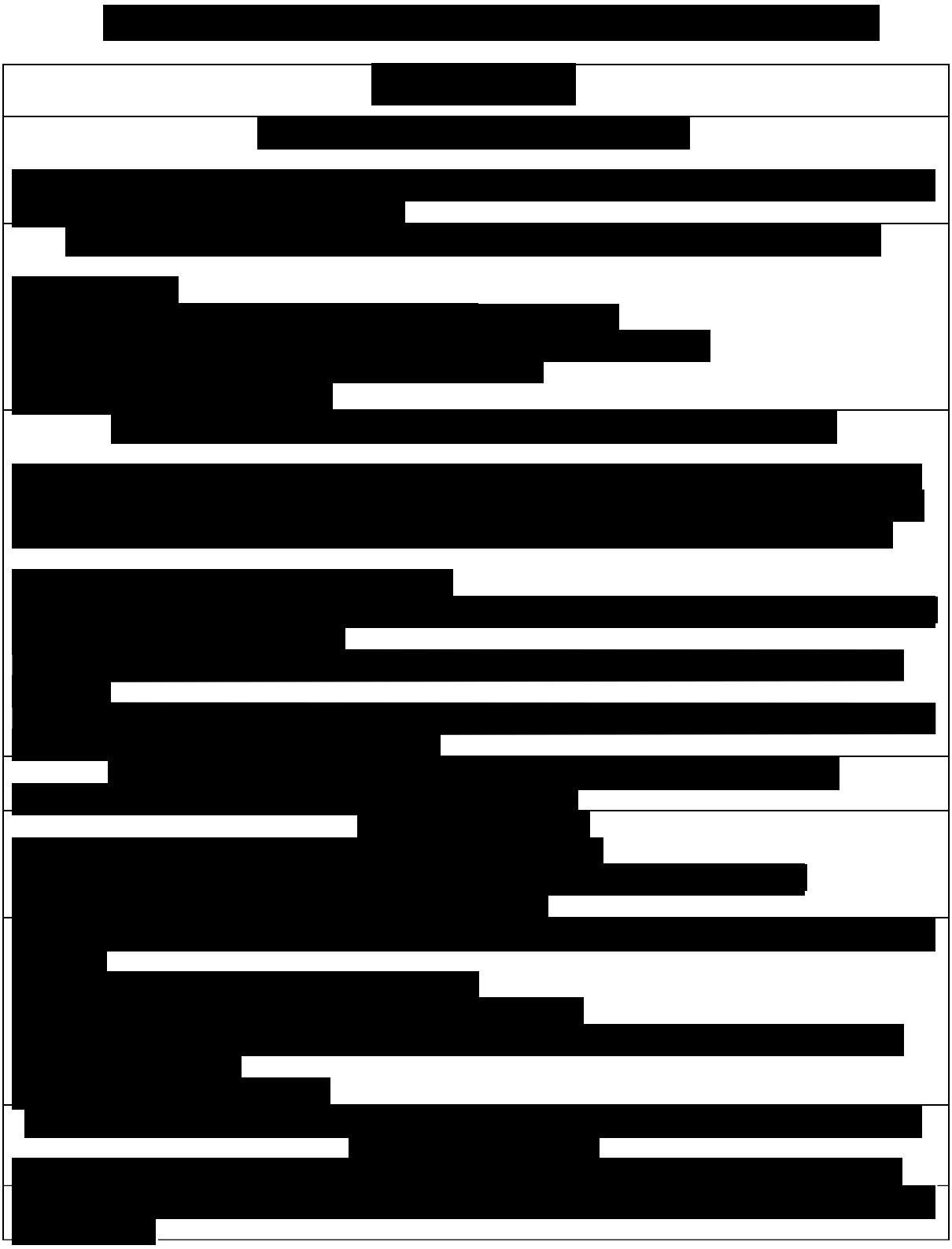

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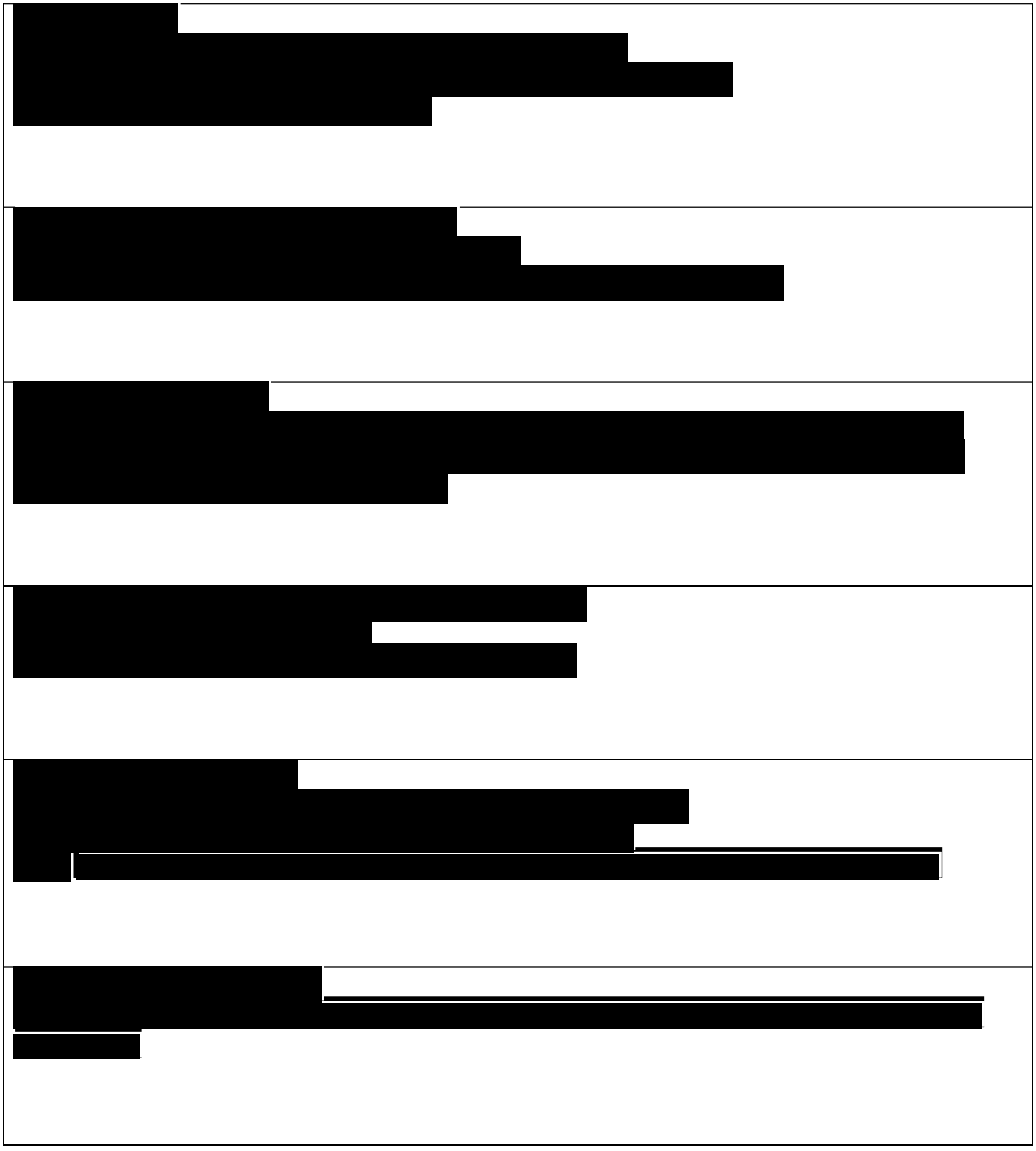

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