Bobby Cramp BSc Hons, MSc

Psychosis and Recovery

What is the Role of Mentalising in Recovery from Psychosis?

A Critical Interpretative Synthesis

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Summary

Section A was a literature review of the role of mentalising in recovery from psychosis. The review was based on a systematic search of the literature which enabled a tentative model of mentalising in recovery to be constructed from the data through a critical interpretative synthesis. Two main processes were enabled through mentalising that potentially improved subjective experience and active engagement in recovery. Although the study had some limitations, there were some novel findings that had clinical implications and highlighted a need for further research.

Section B was a grounded theory of the processes between attachment, EMDR for psychosis and recovery. Seven participants were identified and data analysed from interviews suggested a clear model of these processes. A theory emerged that EMDR therapy might improve an individual's connection with self and others to promote attachment security in recovery from psychosis. The role of wider wrap around services and therapeutic alliance were integral to participants recovery from psychosis. Limitations, clinical implications and future research were considered.

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Part B

Part A: Literature Review

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Abstract

Research on recovery from psychotic experience indicates that individuals often continue to experience a high level of distress and difficulties in coping with day-to-day life even after the strange phenomena associated with psychosis have ceased. Some researchers have suggested that this discrepancy can be explained by difficulties in mentalising, a process closely associated with attachment security. The present study set out to answer the question: 'What is the role of mentalising in recovery from psychosis?'. A systematic search of four databases was carried out (Web of Science, SCOPUS, PsychInfo, and Medline ESCBO) to identify papers that could address the review question. After screening for relevance and quality, 15 articles remained. Critical interpretative synthesis (CIS), a systematic review method born from meta-ethnographical processes, was used to allow inclusion of data across a range of sources. This enabled the synthesis of information drawn from both qualitative and quantitative studies, as well as from expert opinion papers and case studies. The results of the synthesis indicated that mentalising capacity underpinned reciprocal processes of developing sense of self (through self-reflection and developing complex self-narratives) and adaptation to the social environment (through attachment security and the ability to think about interaction). This in turn afforded agency in communicating self-states, accessing social connection and support, navigating social interaction, and a return to positive activities. Mentalising in recovery also influenced subjective experience, including feeling connected, reduced self-stigma, an integrating recovery style, a reduction in unusual experiences and a sense of self continuity. The study highlighted the need for research with a specific focus on first person accounts of mentalising and the importance of attachment in recovery processes.

Key words: Mentalising; psychosis, recovery, attachment, emotion regulation

Introduction

Psychosis is a mental health condition characterised by a disconnection from reality. People experiencing psychosis may see, hear, or sense things that are not there, and form rigid, distorted perceptions and beliefs about these and the world around them that are not shared by others (National Health Service, 2023). These difficulties can significantly impact a person's thoughts, emotions, and behaviour, making it challenging to distinguish between what is real and what is not, and can result in severe distress (National Health Service, 2023).

There is a question about how psychosis might be understood as different from spiritual encounters. There is some consensus that distress, hinderance of personal growth, loss of functioning, and loss of control over the experience, might differentiate psychosis from mystical and religious “psychospiritual” encounters that are generally sought out and seen as opportunities for growth and sociocultural connection across different cultures (Spittles, 2018, p139; Menezes Junior & Moreria-Almeida, 2009).

The epistemology of psychosis has been framed through lenses of genetics (Kendler et al., 1995), neuroinflammation (Aricioglu, 2016) and disrupted neural processes such as disturbances in dopamine pathways (Anticevic & Corlett, 2012), but can also be understood as a response to trauma. Trauma can arise through multiple experiences, such as single events (e.g. witnessing a death of another), relationships (e.g. domestic violence), and more complex experiences such as early abuse and neglect (developmental trauma) that might contribute to difficulties in the reflective processing (mentalising) of traumatic experience (Mitchell & Steele, 2021). The content of psychosis can often reflect past traumatic experience (Read et al, 2005) and can be mapped onto presentations associated with post-traumatic stress (e.g. losing a sense of context; Morrison et al., 2003). Hardy (2017), suggests intense emotions arising from traumatic experience can become so unbearable that the ability to regulate emotion is lost, dissociation from the experience occurs, and the traumatic experience

becomes decontextualised and perceived as external, arising in symbolic form (e.g. hearing voices, feelings of persecution).

Considering terminology

There is no consensus on what terminology is preferred by individuals who experience psychosis, but some service users suggests that the term schizophrenia be avoided due to the stigma associated with it (Howe et al., 2014). The current review approached psychosis through a lens of trauma, moving away from stigmatising language that draws focus away from underlying causes and recovery narratives. Instead, the term 'unusual experience' was used interchangeably with the term psychosis, and non-medicalised descriptions of psychotic experience were employed, such as 'seeing things that are not there', 'perceiving threat when there is none', 'holding unshared, unusual beliefs', and 'hearing voices'. These are descriptive terms used by the charity, Mind (2023).

Mentalising

The term mentalising is used interchangeably with theory of mind and metacognition across the literature (Lysaker et al., 2021). Each of these terms conceptualise the ability to understand self and others, although they differ slightly in focus. Mentalising is the ability to infer mental states of self and others and has also been referred to as reflective function (Fonagy & Allison, 2012). Metacognition is the monitoring of one's own thoughts in relation to self (Flavel, 1979), and theory of mind focuses on attributing mental states to others (Doherty, 2009). Lysaker et al. (2021) posited that there is a danger of reducing the chances for discovery by studying the same phenomenon with different labels. Despite the variation in focus attached to each of these terms, there has been criticism of the overlapping processes involved in each and a call to map these terms as distinct constructs, each with their own

processes. To avoid merging concepts, the present study will focus specifically on mentalising and will be guided by how it is described by the authors in the identified literature.

According to Fonagy and Allison (2012), mentalising can be described as the capacity to infer the mental states of self and others in terms of intentions, beliefs, desires and emotions. They suggest mentalising is a product of early attachment experience, developed through repeated and consistent appropriate mirroring and response by caregivers to an infant's emotional and intended facial expressions. The caregiver's simultaneous containment and validation of an infant's emotion form the basis for emotion regulation, identity development and social interaction, and they are intrinsically linked to the development of secure attachment style.

Fonagy and Allison (2012) go on to suggest that infants learn to recognise their own wishes and intentions through the mirroring of the caregiver, which plays a formative role in obtaining a sense of their mind as being separate from others. This later underpins the internal working models of self and others, which garners ability to predict one's own and others' behaviour. Having healthy internal working models is understood to significantly improve emotion regulation, relationship dynamics, and psychological well-being later in life (Mikulincer & Shaver, 2016).

Mentalising is a developmental tool that is vital for adaptation to social challenges and effective navigation of the social landscape (Debbané et al., 2022). Mentalising capacity fluctuates across different social contexts and can be hindered in times of extreme stress (Kliemann & Adolphs, 2018; Asen & Fonagy, 2020) or when threat response systems are activated (i.e. fight, flight, freeze; see Mitchell & Steele, 2021). This suggests that those with lower mentalising capacity are less able to process self and other states in stressful or traumatic environments.

Poor or frightening early carer responsiveness (developmental trauma) leads to increased risk for insecure attachment and disrupted mentalisation capacity (Fonagy & Allison, 2012). When there are few or inconsistent opportunities to learn from reflected emotion from their care givers, infants are prevented from forming ideas about themselves and regulating emotion (Fonagy & Allison, 2012). The ability to trust or consider the perspectives of others is also impacted, along with the development of frameworks with which to predict others' behaviour (internal working models). This reduces the chances of feeling a sense of connection with others in later life (Fonagy et al., 2002).

Mentalising and psychosis

There has been much research supporting the theory that disrupted mentalising and attachment experience though abuse, neglect, or engulfment in infancy increases vulnerability for the generation of psychosis (e.g. Langdon & Coltheart, 1999; Varese et al., 2012). It is suggested that early trauma (e.g. from childhood abuse and neglect) can generate a state of hypervigilance in later life that can pervasively impact people's ability to infer self and other states (Kimble et al., 2014).

People experiencing psychosis often have difficulties in mentalising, which endure into recovery (Weijers et al., 2020), a finding that supports the notion that these difficulties may have existed prior to the onset of psychotic experience. Moreover, it has been suggested that difficulties in mentalising as a result of developmental trauma may play an active role in the content of psychotic experience (Sprong et al., 2007).

Mentalising difficulties have been linked to specific experiences, such as seeing or believing things that others do not (Harrington et al., 2005), unrealistic feelings of threat or an unfounded sense of being monitored (Versmissen et al., 2008), difficulties reflecting on strange experiences (Bora et al., 2007) or relating to others (Fett et al., 2011). Van Os et al.

(2009) hypothesised that disruption in mentalising impedes reality testing, leading to the emergence of aberrant self and other understanding, which can also contribute to misplaced feelings of persecution or grandiosity.

The recurrence of unusual experiences is highly correlated with stressful events (Martland et al., 2020) potentially because mentalising becomes compromised, which results in some individuals oscillating between psychosis and recovery (Lysaker & Dimaggio, 2014). Understanding these links between mentalising in stressful environments and psychotic recurrence might provide clues for how an individual might improve mentalising to sustain recovery.

Recovery

A clear definition of what constitutes recovery from psychosis has been widely debated, and no clear consensus has emerged. There are suggestions that recovery can only be defined individually by those on a recovery journey (Douglas et al., 2022). In many cases, despite distressing unusual experiences being reduced, individuals who have experienced psychosis, still experience difficulties navigating social situations and having a sense of agency in their day to day lives (Van Eck et al., 2017). Individuals have reported a loss of meaning and feelings of alienation in recovery, which maintain distress and anxiety and reduce quality of life (Hamm et al., 2018). Van Eck et al. (2017) suggested recovery is multifaceted and found, in their systematic review and meta-analysis, only a small to medium relationship between the disappearance of unusual experience (clinical recovery) and personal growth beyond psychosis, stigma, and societal consequence. This included adaptation to the adversity of psychotic experience (personal recovery, PR) in people who had received a diagnosis of ‘schizophrenia’.

A new recovery model, derived from a systematic review of the literature on mental health in general, encapsulated elements of PR into the acronym CHIME that describes five

key factors: connectedness; hope; identity; meaning in life; and empowerment, which together engender emotional recovery (Leamy et al., 2011). This model has been used to inform studies investigating aspects of recovery from psychosis (e.g., Concerto et al., 2023; Lim et al., 2020; Vogel et al., 2020). Much recovery research has relied on the accounts of family, carers and clinicians, but it is important to take account of service user perspectives when considering what constitutes meaningful recovery. Douglas et al. (2022) based their research on the perceptions of 36 inpatients experiencing psychosis, and found several priorities, including themes of "stability, independence and 'keeping a roof over your head'; hope, optimism and enhancing well-being; personal change, self-management, and social support; and symptom reduction through mental health support." (p.10). Another study found five themes relating to service user perceptions of recovery including "symptomatic relief; a contented life; a meaningful life; a contributing life and functional improvement" (Hampson et al., 2018, p53).

Two distinct recovery styles following a psychotic episode have been described in the literature (Levy et al., 1975). The first has been described as an integrating recovery style: Through improved mentalising, the experience of psychosis can be readily integrated into an individual's sense of self by finding meaning in unusual experiences and connecting them to early trauma (Ridenour et al., 2021). An integrating style affords personal agency in reflecting on experiences, regulating emotional responses, help seeking, and utilising others to help make sense of experience, (Bell & Zito, 2005). The current review sets out to explore precisely how mentalising might influence each of these processes and perhaps increase the chances of sustained recovery following psychosis.

The second has been described as a sealing-over recovery style. It is characterised by a lack of curiosity about psychotic experience, avoidance, and dissociation of self from unusual experience, regarding these experiences as separate from personal problems and

historical experience, and therefore not worth reflecting on. Individuals with a sealing-over style are more likely to have insecure attachments, adverse childhood experiences and poor self-image (Tait et al., 2004). Staring et al. (2011) found that those with a sealing over recovery style were less likely to maintain recovery one year post intervention than those with an integrating recovery style. Those with a sealing-over recovery style were less likely to seek or engage with treatment; however, it was possible for recovery style to be changed if interventions were delivered soon after the onset of first episode psychosis (Tait et al., 2003). The current review sought to identify how developing the capacity to mentalise through intervention might allow this change from a sealing over to an integrating recovery style.

Brent and Fonagy (2014) proposed that improving mentalising ability for those experiencing psychosis through attachment relationships might offer opportunities to make sense of the core experiences of psychosis and promote recovery. Initially developed to address the experience of mania, there have been an increasing number of studies exploring the use of mentalisation-based therapy to promote recovery from psychosis (Brent et al., 2014; Weijers et al., 2020; Bateman et al., 2023). Although these studies contained rich descriptions of how the therapy works to improve mentalising from a clinician's viewpoint, they lacked detailed accounts of how improved mentalising might go on to support recovery. To address this gap in understanding, the current review employed the use of critical interpretative synthesis (Dixon-Woods et al., 2006) to synthesise disparate accounts of mentalising and recovery into a richer framework to answer the question: 'What is the role of mentalising in recovery from psychosis?".

Method

Critical interpretative synthesis

Critical Interpretative Synthesis (CIS) was developed in response to the absence of a literature review process that could readily include studies from a range of both qualitative and quantitative research (Depraetere et al., 2021). This method allows for the critical construction of new theory that draws on findings and concepts from a diverse range of sources. The current CIS is grounded in critical realism (Bhaskar, 1975), as it constructs a theory about potential underlying mentalising mechanisms that contribute to observable accounts of recovery from psychosis. The present study followed Dixon-Woods et al.'s (2006) proposed six stage process to CIS.

The six-stage process to CIS

Stage 1: Formulating the research question

The study began with the formulation of an open research question: 'What is the role of reflective functioning in recovery from psychosis?'. The aim, as directed by Dixon-Woods and colleagues' (2006) methodology, was to refine this initial question through the iterative analysis of the literature. A search of PROSPERO indicated no similar studies, and the intention to carry out the study was registered on their database (ID: CRD42023465210).

Stage 2: Searching the literature

Dixon-Woods et al. (2006) suggested a wide search strategy encompassing databases, websites, reference chaining and consulting expert opinion. They posited that expanding searches in this manner allowed for the inclusion of otherwise discarded sources and reduced the chance of losing potentially important information that might support the achievement of theoretical saturation. For the current review, a systematic search of databases enabled the

development of a working theory of mentalising processes in recovery from unusual experience, and a model was developed.

A systematic search was carried out for abstracts from four databases (Web of Science, SCOPUS, PsychInfo, and Medline ESCBO) using the same search terms for each search, (Table 1.).

Table 1. Database search including related term and wildcard terms

Core search terms	Psychosis	Mentalising	recovery
Expanded terms	Schizo*	Psychological	Rehabilitation
	FEP	mindedness	Remit*
	First episode	Reflective function	Remission
	psychosis		
	Delusions		
	Hallucinat*		
	Thought disorder		
	Positive symptoms		
	Negative symptoms		

Note: * wildcard search terms used to capture variations in syntax.

Stage 3: Sampling

The search included all articles from the start of records to 23rd July 2023. Duplicates were removed, and then the remaining abstracts were screened for relevance to the research question using inclusion/exclusion criteria (Table 2).

Table 2. Inclusion and Exclusion criteria

Inclusion criteria	Exclusion criteria
Reference to mentalising or similar terms in relation to recovery from psychosis	Paper focussed on another enduring mental health concern such as mania or depression or reviewed culturally driven experiences/practices such as spiritually informed visions or beliefs
Includes discussion/review of psychosis/schizophrenia in abstract in relation to recovery	No mention of recovery or similar terms in relation to psychosis/schizophrenia in the abstract
Clear reference to the process of mentalising in the main body text with reference to how this improves adjustment to/recovery from psychosis	No clear reference to the process of mentalising in the main body text with reference to how this improves adjustment to/recovery from psychosis
Articles that present expert opinion drawing from extant literature	Articles that provided only commentary on other articles without reference to supporting literature

Poor quality articles e.g. where sample size was small were included except for cases where the methodology was fatally flawed	Articles that were fatally flawed in their methodology, i.e. where papers only met three or less areas on the quality assessment, and/or little or no evidence to back up claims.

Stage 4: Quality appraisal

Dixon-Woods et al. (2006) used five questions focusing on the aims of the research, research design, research process, amount of data, and method of analysis, to assess the quality of the literature. A family of tools was identified for the present review to support with this process, and each source was appraised for quality based on its sampling and methodology using the Joanna Briggs Institute (JBI) family of quality assessment tools for qualitative papers (Lockwood et al., 2015), quantitative papers (Barker et al., 2023), systematic reviews (Aromataris et al., 2015), case studies (Moola et al., 2015) and descriptive text and opinion (McArthur et al., 2015; Appendix A).

` Dixon-Woods et al. (2006) distinguished between relevance and quality, suggesting that even if a source is methodologically weak, it may still offer important concepts that contribute to theory. They posited that only papers that are fatally flawed should be removed. The JBI quality tools did not identify 'good' or 'bad' quality per se; rather they provided an indication of bias. Papers were deemed fatally flawed if they satisfied three or less areas on the JBI, which might indicate the level of bias was so great that data provided could not be relied upon.

Stage 5: Data extraction and coding

NVivo software was used to code and arrange the data. The data were coded paragraph by paragraph as suggested by Dixon-Woods et al. (2006), rather than the coding line by line strategy seen in other qualitative methodologies. Codes were collapsed together where appropriate or allowed to stand alone where there were more than two contributing sources. Themes were evaluated to explore how they might be explained by an overarching theme, and the sources were revisited to identify potential connecting relationships or ways

of sequencing in a conceptual framework. Appendix B table presents the codes with examples from different papers, and the table in Appendix C contains example extracts detailing how concepts might be connected or sequenced to each other.

Finding connecting relationships involved reviewing the text to see where authors specifically described or inferred a relationship. Throughout this process the sources were reread to situate information in the context of each contributing article and the developing synthetic construct (Table 5).

Stage 6: Formulation of a synthesizing argument:

An iterative process of reviewing the constructs and revisiting the text was employed throughout the analysis to identify their relationships to one and other. As suggested by Dixon-Woods et al. (2006), consultation is an important process in improving the validity of the synthesizing argument. The project supervisor was consulted to discuss and agree resonance for the concepts identified and the relationships between them. An example of a coded article is included in Appendix D. It was important to maintain reflexivity throughout the six stages of the CIS to identify where the researcher's prior experience, values and background might influence interpretation. The researcher positioned theory construction through an understanding of psychosis as a long-term effect of trauma rather than result of neurobiological difference. A theoretical network of synthetic constructs and their associated themes was generated in the form of a model diagram to illustrate the synthesizing argument (Figure 2. Page 39).

Results

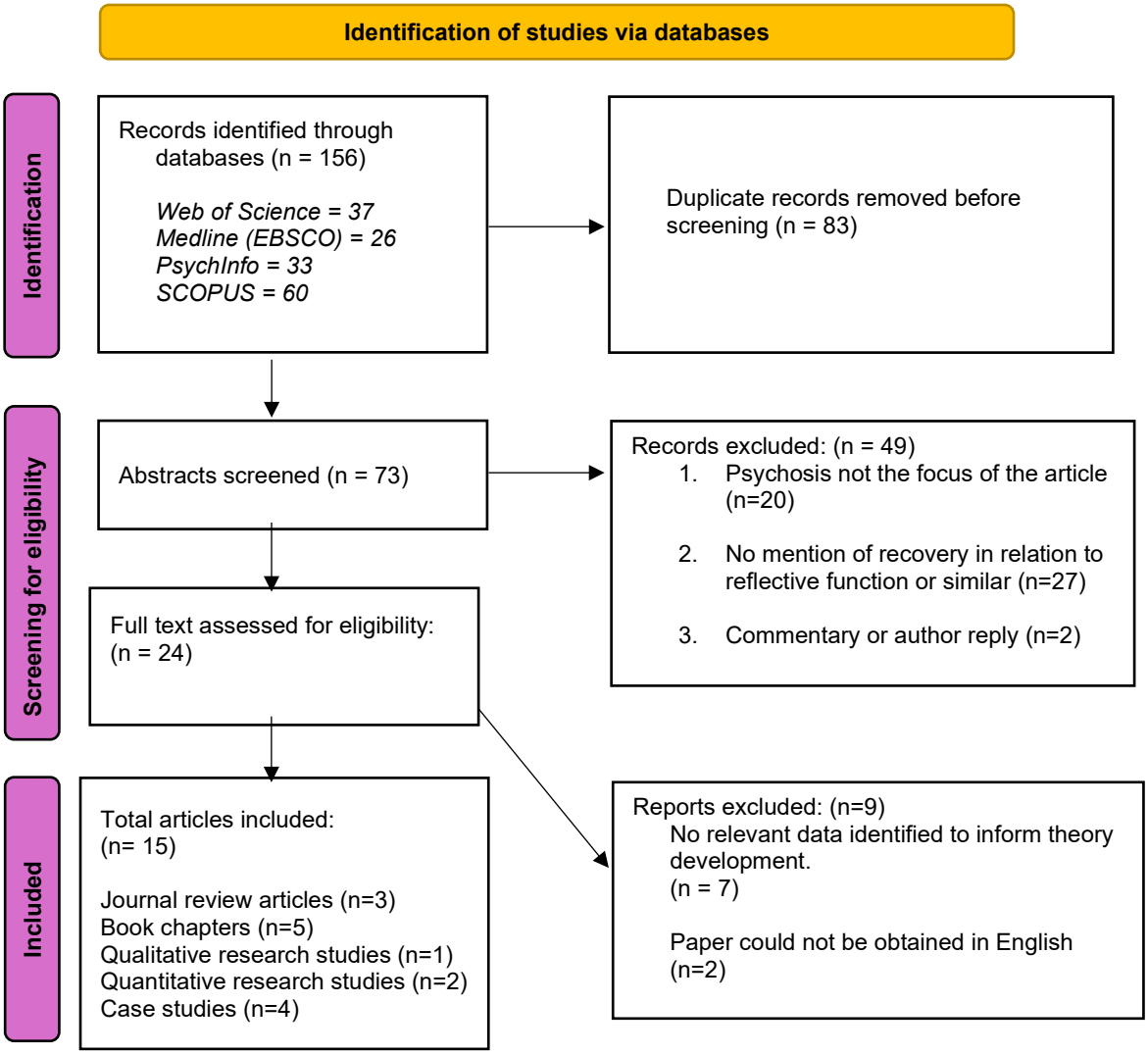
Literature search results

Initial searches indicated articles favoured the term ‘mentalising', which was presented with the same definition used for reflective function. As described in stage one of the CIS methodology (Dixon-Woods et al., 2006), this information helped to refine the research question to: ‘What is the role of mentalising on recovery from psychosis?’.

A PRISMA diagram was used to track the systematic literature searching, inclusion and omission process (Figure 1.). This encompassed findings from stages two and three of Dixon-Woods et al.’s (2006) CIS methodology. The search yielded 156 results. Eighty-three duplicates were identified, and the remaining 73 abstracts were screened for likely relevance using inclusion/exclusion criteria (Table 3). After this, 24 sources remained for full text screening. There were no further papers identified through reference chaining.

After full text screening a further nine articles were removed. Seven lacked information in the main body of the text to inform the analysis, and two articles could not be obtained in the English language. At the coding stage two more articles were omitted as they lacked concepts relating mentalising to recovery. This left a total of 15 articles for inclusion in the review comprising five expert opinion papers including book chapters and journal articles, (6, 9,10, 12 &13), three qualitative review papers (4, 7, 8), four case studies (1, 3, 11, & 14) one qualitative study (2), and two quantitative studies (5 & 15).

Figure 1. Prisma diagram illustrating the literature search and screening process.



Quality appraisal

In stage four, no sources were considered fatally flawed. Seven papers were assessed to have a low level of bias (1, 3, 4, 7, 10, 12, 13), seven with moderate bias (2, 5, 6, 8, 9, 11, 15) and one presented high bias (14). Expert opinion papers, together with qualitative and quantitative studies, were authored by extensively published experts in the field of psychosis and/or attachment and drew on widely accepted theory and research. Two case studies were of excellent quality. The third (14), did not clearly explain her client's characteristics or history timeline or include a clear description of her procedure through therapy. She did,

however, offer a rich account of how development of mentalising through therapy played a role in the client's recovery. As a result, this article was still included in the review. Details of each paper including quality score, methodology and a summary are included in the table below. Details of individual quality reviews are in the appendix (Appendix A). Articles have been presented in order of contribution to the final model starting, with the article offering the greatest contribution (Table 4).

Data extraction and coding

The following tables (4 & 5) summarise information extracted in stage five of CIS from the final 15 identified papers. Table four provides a summary of each paper including demographic information, method, quality, and findings. Table five summarises the themes and concepts identified in each paper. Each article has been allocated a number in the study summary table. For ease of reading, these numbers will be used for the remainder of the review in place of citations where two or more articles are being referred to.

Table 3. Summary of study characteristics

Source No.	Authors	Title	Ref. Type	Participant demographics	Method	Quality	Paper summary and findings
1	Buck and George (2016)	Metacognitive Reflective and Insight Therapy for a Person Who Gained Maximal Levels of Metacognitive Capacity and Was Able to Terminate Therapy	Journal Article	Caucasian male in his sixties raised by grandparents in a Midwestern rural town in America. Educated to degree level. Served in the military then worked as a stage actor.	Qualitative, description of MERIT illustrated by a case study	8/8 (Low bias)	Case study focussing on metacognitive reflective and insight therapy [MERIT]. Described metacognitive processes of reflective activities about the self and others, and, stimulating thoughts about how best to understand and to respond to psychological and social challenges, which supported a client in his recovery from psychosis.
2	Braehler and Schwannauer (2012)	Recovering an emerging self: Exploring reflective function in recovery from adolescent-onset psychosis	Journal Article	Eight young people between aged 18 and 21 who were attending CAMHS early onset psychosis service. Median age of onset of psychosis was 16.5 years although one participant started hearing voices at aged eight.	Qualitative, grounded theory analysis	9/10 (low bias)	Mentalising allowed the development of a complex and coherent self, which involved integration of sensory effective experience and supported affect regulation, leading to a reduction in stress and better adaptation to psychosis. Sense of self though mentalising enabled individuals with psychosis to adapt to the social environment and underpinned an integrative recovery style. Participants with greater RF experienced a reduction in distressing unusual experience. Those with greater relationship security experienced greater mentalising capacity and improved adaptation to psychotic experience through integration of psychotic experience into self-narrative.
3	Ridenour et al. (2021)	Promoting an integrating recovery style: A mentalization-	Journal Article	19-year-old female, European-American. Parents were lawyers	Qualitative, single case study	7/7 (Low bias)	A review on MBT for psychosis and a case study. Mentalising in therapy led to a return to college despite feelings of worry and loss. The client experienced a reduction in experience of psychosis and increased emotional

Source No.	Authors	Title	Ref. Type	Participant demographics	Method	Quality	Paper summary and findings
		informed approach		Education level, degree in process. Non-religious.			expressiveness, social reciprocity, and volition. Increased number of friendships and investment in these relationships.
4	Knauss et al. (2018)	Emerging Psychotherapies for Psychosis	Journal Article	N/A	Qualitative review	6/6 (Low bias)	Paper exploring different mentalisation based treatments. Discussed collaborative meaning making, describing how enhanced self-understanding in therapy for psychosis allowed individuals to navigate the social world. Mentalising connected to better Quality of life (QoL)and community functioning for individuals with psychosis.
5	Concerto et al. (2023)	Exploring Personal Recovery in Schizophrenia: The Role of Mentalization	Journal article	81 outpatients (53 male, and 28 females) with a DSM V diagnosis of schizophrenia aged 18 years and over. Mean age 44.2 years 12% completed elementary school 36% completed secondary school and 41% completed high school with 11% graduating. 19 participants had children. 25% were employed	Quantitative cross sectional design	7/8 (Moderate bias)	Described a discrepancy between reduction in experience of psychosis and resultant wellbeing. Described aspects of personal recovery vs clinical and functional recovery. Participants (n=81) were assessed using multiple measures for mentalising. Results: Improved self-insight (insight orientation scale) associated with improved subjective experience of recovery and help seeking (recovery assessment scale). Mentalising (Multidimensional Mentalizing Questionnaire; MMQ) associated with functional recovery. MMQ scores negatively associated with difficulties navigating recovery. The ability to be reflexive in the moment (mentalising process) correlated with better trust in self and others.
6	Brent and Fonagy (2014)	A Mentalization-	Book section	N/A	Qualitative expert opinion	5/6	Described mentalisation based therapy.

Source No.	Authors	Title	Ref. Type	Participant demographics	Method	Quality	Paper summary and findings
		Based Treatment Approach to Disturbances of Social Understanding in Schizophrenia				(Moderate bias)	Suggested that fostering social understanding through mentalising, supports greater ability to cope with interaction in day-to-day life. Suggested that becoming open to considering the alternative suggested viewpoints of others, an aspect of mentalising, reduced feelings of paranoia as provided an environment where worries could be discussed/processed, and a balanced understanding of others' intentions achieved. Suggested mentalising allows individuals to take charge of recovery.
7	Weijers et al. (2020)	Mentalization and Psychosis: A Rationale for the Use of Mentalization Theory to Understand and Treat Non-affective Psychotic Disorder (NAPD)	Journal article	N/A	Case study/ clinical vignette	6/6 (Low bias)	Explored social functioning in psychosis, included a clinical vignette of mentalising in therapy for a client with psychosis, and linked the genesis of psychotic experience to difficulties in mentalising. Distinguished between social cognition, mentalisation and metacognition. Described the contribution of trauma and abuse to mentalising deficits. Highlighted the importance of epistemic trust for individuals experiencing psychosis, to develop flexible ways of thinking about social interaction. Described the use of therapist mentalising in therapy.
8	Armando et al. (2019)	A Mentalization-Informed Staging Approach to Clinical High Risk for Psychosis	Journal article	N/A	Qualitative literature review	5/6 (Moderate bias)	Described what intervention might be most suitable at varying stages of the emergence of psychotic experience. Proposed mentalising helped to: Regulate affect, manage stressful situations, anticipate behaviour, reflective problem solving, reduce unusual experience, understand

Source No.	Authors	Title	Ref. Type	Participant demographics	Method	Quality	Paper summary and findings
							relationship patterns and adapt to the social environment.
9	Schwannauer (2013)	A mentalization-based treatment framework to support the recovery of the self in emerging psychosis during adolescence	Book section	NA	Qualitative, expert opinion	5/6 (Moderate bias)	Focus on attachments and mentalising. Proposed emotional recovery is/was governed by integration of affective experience, interpersonal adaptation and constructive help seeking. Proposed capacity to seek support is/was tied with attachments and mentalising. Described learning how to generalise emotions to other contexts. Described the origins of attachment theory, linking mentalising with attachment states. Proposed the development of internal working models though mentalising, supports self-regulation (agency), which is protective as allows realistic appraisal of unusual experiences and an ability to maintain a supportive relationship network which would help in recovery from psychosis. Mentalising is 'mind-mindednesses'. Discussed integrating verses sealing over recovery styles that influence recovery from psychosis. Distinguished between metacognition and mentalising and reflective function.
10	Salaminios and Debbané (2021)	A mentalization-based treatment framework to support the recovery of the self in emerging psychosis	Book section	N/A	Qualitative, expert opinion	6/6 (Low bias)	Conceptual framework for application of MBT. Focus on adolescents. Argued that supporting mentalising in adolescence allowed for embarkment of developmental and interpersonal trajectories that might be protective against emerging or enduring psychosis (e.g. individuation)

Source No.	Authors	Title	Ref. Type	Participant demographics	Method	Quality	Paper summary and findings
		during adolescence					Described how affect regulation marked the start of mentalising, which aided the recovery of self. Proposed sensory affective experiences are what are perceived as 'real' so if these are not integrated then this can give rise to distorted perception and psychosis. Described the gap between recovery from experiencing psychosis and experiencing emotional wellbeing and contentment, suggesting there needed to be a recovery of self-concept in order to improve experience of recovery.
11	Debbane et al. (2022)	Clinical Evaluation and Intervention of Emerging Psychosis: A Mentalization-Informed Perspective	Book section	Female client used for case illustration. No further demographics given	Qualitative, expert opinion. (case illustration)	7/8 (Moderate bias)	Described mentalising intervention in psychosis. Proposed mentalising bridged the gap between wellbeing and reduction in psychotic experience and inferred association between difficulties in mentalising and unusual experiences. Described mentalising as protective of positive self-image, core self-belief, providing individuals with the ability to cope with powerfully strong negative thoughts and images associated with psychosis. This would close the gap between disappearance of unusual experiences and wellbeing in recovery. Argued mentalising afforded resilience against strange experiences by allowing individuals to integrate sensory perceptive experience through source monitoring which meant less need for care/intervention, which improves experience of recovery. Proposed mentalising was a developmental capacity and supports affect regulation and functioning in interpersonal domains.

Source No.	Authors	Title	Ref. Type	Participant demographics	Method	Quality	Paper summary and findings
							Found mentalisation mitigated vigilance, distrust and persecution and promoted a feeling of safety in interaction. Proposed mentalisation reduced the impact of psychosis on individual's developmental trajectory.
12	Griffiths and McLeod (2020)	Promoting recovery from negative symptoms: An attachment theory perspective	Journal article	38-year-old man who had first episode of psychotic experience at aged 18. Lived at home with elderly mother.	Qualitative review with case example	6/6 (Low bias)	Explored how difficulties with mentalising could be first addressed to allow access to cognitive behavioural therapy for those who would otherwise find this therapy inaccessible. Found mentalising allows organisation of changing social information to inform response which allows individuals recovering from psychosis to be an agent of their life especially in challenging social situations. Commented mainly on impact of a lack of mentalising capacity in individuals experiencing psychosis and explored this in the context of early attachments.
13	Hasson-Ohayon and Lysaker (2021)	The role of metacognition and mentalization in the recovery of the self: Introduction and overview	Book section	N/A	Qualitative expert opinion	6/6 (Low bias)	Discussed the interchanging labels of mentalisation and metacognition. Suggested mentalisation contributes to the development complex self and identity, coherent self-narratives that allow people to have purpose and understand their position in the social landscape. Focused on mentalisation based therapies that enhance capacity for recovery from psychosis by helping individuals to understand their experiences, thus reducing distress.
14	Morante (2004)	Thinking about voices: A clinical	Journal article	36-year-old female with 9-year history of experiencing	Qualitative case study	4/7 (High bias)	Through scaffolded mentalising with therapist, Miss A was able to regulate affect and integrate external reality with internal mental state

Source No.	Authors	Title	Ref. Type	Participant demographics	Method	Quality	Paper summary and findings
		framework for using psychoanalytic psychotherapy to recover a non-psychotic self-representation in a schizophrenic patient		psychosis. Author indicated she was a daughter of "immigrants" (p311) but no further information offered.			(feelings, thoughts sensations). She was able to distinguish others' feelings from her own. This enabled her to feel safe to have a mind giving her agency to infer mental states of others. This allowed her to form a complex representation of herself and greater capacity to negotiate closeness to others. This agency allowed her to reconnect with positive activities and gave her a sense of self control.
15	Montag et al. (2014)	A pilot RCT of psychodynamic group art therapy for patients in acute psychotic episodes: Feasibility, impact on symptoms and Mentalising capacity	Journal article	16 inpatients (7 female, 9 male) between age 18-64 with schizophrenia diagnosis average age of onset 26.6 years old. Mean age of participant 38.8 Mean years in education 15.3	Quantitative randomised controlled trial	24/30 (Moderate bias	A study examining the processing of thoughts and feelings through art therapy that promotes mentalising. Suggested that art therapy (AT) invites participants to consider the perspective of others when reviewing artwork, which also supports interpersonal learning Outcomes of therapy were improved self-esteem, greater general functioning, and reduction in unusual experiences. AT facilitated explicit mentalising, which encouraged self-exploration and insight, strengthening sense of self, and reducing self-stigma. This study was underpowered with significant limitations and confounding factors, however contained useful information that supported theory generation.

Table 4. Summary of papers and associated themes and concepts.

Article No.	Authors	Codes generated by paper	Associated Codes/Themes/Concepts	Relationships identified between concepts
1	Buck and George (2016)	19	Reacting differently. Contextualising sense of self. Actively seeking understanding of others' thoughts. Daily functioning. Curiosity Listening to the perspective of others. Learning from interaction. Thinking about interaction. Adaptation to effective mental states. Integrating a complex self-understanding. Noticing and reflecting on affective states. Complex self-narrative. Reappraisal of distorted thinking. Reflective problem solving. Agentive self.	Sense of self / recovery Affect regulation / reduction in unusual experiences. Affect regulation / self-appraisal. Self-narrative / reduction in unusual experience
2	Braehler and Schwannauer (2012)	16	Perceptions of QoL. Integrating a complex self-understanding. Realistic evaluation of future. Reestablishing sense of self. Mentalizing is a developmental capacity. Acceptance of psychosis. Flexible thinking. Self-soothing. Coping. Embracing vulnerability and uncertainty. Adaptation to affective mental states. Agentive self. Positive adjustment to psychosis. Successful Individuation.	Sense of self / Recovery Affect regulation / Self-appraisal.
3	Ridenour et al. (2021)	12	Reestablishing sense of self. Agentive self. Adaption to affective mental states.	Attachment / Mentalizing Affect regulation / Attachment

Article No.	Authors	Codes generated by paper	Associated Codes/Themes/Concepts	Relationships identified between concepts
			Reappraisal of distorted thinking. Feeling connected. Epistemic trust. Integrating thoughts and feelings. Flexible thinking.	 Self-reflection / help seeking Self-reflection / shared language / attachment
4	Knauss et al. (2018)	10	Complex self-narrative. Contextualising sense of self. Mentalizing in stressful situation. Agentive self. Reestablishing sense of self. Creating a coherent narrative. Enhancing self-understanding and social cognition. Enhances Therapeutic alliance. .	Sense of self / social adaptation Sense of self / social adaptation / ego strength
5	Concerto et al. (2023)	10	Thinking about interaction. Enhancing self-understanding and social cognition. Self Esteem. Daily functioning. Positive adjustment to psychosis. Hope.	Attachment / recovery Sense of self / perception of recovery Reality testing / Sense of self / social adaptation Sense of self / attachment
6	Brent and Fonagy (2014)	8	Mentalizing in stressful situations. Agentive self. Daily functioning. Adaptation to affective mental states. Reducing unusual experiences Reciprocity of mentalising.	Affect regulation / relatedness / attachment. Mentalising / self-states / therapist mentalising
7	Weijers et al. (2020)	8	Self-understanding and social cognition. Daily functioning. Feeling connected.	Attachment / recovery Reality testing / social adaptation.

Article No.	Authors	Codes generated by paper	Associated Codes/Themes/Concepts	Relationships identified between concepts
			Integrating a complex self-understanding. Integrating affective and sensory experiences. Epistemic trust.	
8	Armando et al. (2019)	8	Mentalizing in stressful situations. Reducing distress. Enhancing self-understanding and social cognition. Anticipating behaviour. Noticing and reflecting on affective states. Reflective problem solving. Agentive self. Reducing unusual experiences	
9	Schwannauer (2013)	8	Flexible thinking. Allows trauma processing. Ability to apply emotional experience in different social contexts. Affect regulation. Integrating thoughts and feelings. Agentive self. Trauma processing. Positive adjustment to psychosis.	
10	Salaminios and Debbané (2021)	7	Integrating affective and sensory experiences. Creating a coherent narrative. Sustaining self-continuity. Initiation of relationships. Contextualising sense of self. Reality testing.	Affect regulation / self-narrative.
11	Debbané et al. (2022)	7	Mentalising as a developmental capacity. Reappraisal of distorted thinking. Noticing and reflecting on affective states. Coping. Processing negative thoughts and images. Anticipating behaviour.	Epistemic trust / recovery.

Article No.	Authors	Codes generated by paper	Associated Codes/Themes/Concepts	Relationships identified between concepts
12	Griffiths and Mcleod (2020)	6	Therapist mentalising. Reestablishing sense of self. Ability to apply emotional experience in different social contexts. Anticipating behaviour. Noticing and reflecting on affective states	Affect regulation / social adaptation / Agency.
13	Hasson-Ohayon and Lysaker (2021)	6	Contextualising sense of self. Curiosity, seeking understanding of others' thoughts. Reestablishing sense of self. Sense of shared meaning. Integrating a complex self-understanding.	Sense of self / social adaptation.
14	Morante (2004)	5	Daily functioning. Agentive self. Reestablishing sense of self. Adaptation to effective mental states.	Recovery / attachment.
15	Montag et al. (2014)	2	Accepting the perspective of others (Epistemic trust). Acceptance of psychosis into self-concept.	

Formulation of a synthesising argument

In stage 6, all the identified articles contributed to the synthesis of three constructs: 'Mentalising in the development of psychosis', 're-developing a sense of self' and 'adaptation to the social environment'. The first concept, 'mentalising in the development of psychosis', was added to help illustrate how unusual experiences might have arisen from difficulties in mentalising and to suggest how individuals might go about increasing mentalising capacity. The second two constructs then detail the impact on recovery of improved mentalising of self (re-developing a sense of self) and others (adaptation to the social environment).

Most of the articles were assessed to have a low level of bias, suggesting that the data contained in them can be relied upon. The following synthesizing argument used extracts from the identified articles to illustrate how these synthetic constructs were formed and fit together to form a model of mentalising in recovery.

Construct 1: Mentalising in the development of psychosis

For construct one, processes were synthesised to provide an account of how difficulties in mentalising might contribute to the development of psychotic experience. All reviewed papers contributed to this construct. They suggested that early trauma forced individuals to disconnect from painful emotions as a means of self-protection (e.g. 10), which prevented mentalising development and the ability to self-reflect. Accounts were given that unbearable feelings relating to trauma were placed outside the self and experienced as external to the self, e.g. voices, visions, unusual, unshared beliefs.

All papers suggested that poor capacity for mentalisation also hindered social interaction, as individuals had difficulty understanding other's thoughts, wishes and intentions, and tolerating the painful emotions that often arose in interpersonal interactions. It

was proposed that these challenges gave rise to vigilance, distrust, feelings of persecution, anxiety, interpersonal avoidance, and social retreat, all of which are common experiences for people with psychosis:

> *In essence, bodily signals may signify the presence of a very real and often painful feeling, but the disruption of higher order mentalizing processes prevents the individual from knowing what this feeling is and why it is present. In order to escape the intolerable uncertainty linked with these states of fragmentation, and to regain a minimal sense of self continuity, individuals may engage in a form of disembodied hyper-mentalizing (Sharp et al., 2013), where sensory affective signals coming from one one's body are discarded to attenuate their distressing effect. Instead, delusional explanations of self-experience, de-coupled from shared reality with others and impervious to contradictory sensory evidence, are developed and held with rigid certainty, offering a psychic retreat (Steiner, 2003) from the intensity of un-mentalised sensory affective signals.* (Salaminios & Debbané, 2021, p21)

It was proposed that experiencing greater emotional wellbeing and developing skills to cope with the demands of day-to-day life in recovery from psychosis might involve developing greater mentalising capacity. Accounts were given of how this might be achieved through an empathic and respectful therapeutic relationship. These accounts described how working with a therapist who repeatedly modelled mentalising and guided self-reflection allowed individuals to practice and integrate skills in inferring self and other mental states. Also noted was the importance for individuals to be told about what mentalising is and how improving this skill might reduce or remove the experience of psychosis. Papers suggested that by increasing the capacity to mentalise, clients might experience achievements in recovery beyond that of respite from distressing unusual experiences. Accounts were provided of the processes involved in mastering mentalising and the role this played in recovery in constructs

two and three:

> *Mentalizing is about generating safety, trust, understanding, and collaboration between people … where safety and trust when thinking about minds can be sufficiently and regularly experienced in order to be learned and used to mitigate the vigilance, distrust, and persecution that constitute the hallmark of mentalizing perturbations observed along the clinical continuum, and which inevitably induce anxiety, interpersonal avoidance, and social retreat* (Debbané et al, 2022, pp137-138)

Construct 2: Reconnecting with a sense of self

This construct synthesises the psychological processes, described in the reviewed papers, proposed to underlie reconnection with a sense of self. These processes represent different aspects of mentalising and reveal its role in contributing to the resolution of psychotic experience and an increase in emotional wellbeing, i.e. recovery. All the reviewed papers contributed to this construct.

For individuals who had experienced a disconnect from painful emotions, leading to the development of psychosis, it was recognised as important for sensory, affective, and perceptive experiences to be integrated back into the self (2, 3, 4, 9, 10, 14). This meant these experiences would be no longer felt as external to the self, as voices and unusual beliefs (i.e. the experience of psychosis) but would be correctly identified as internal experiences (corrective source monitoring), contributing to a sense of recovery: "*By reinvesting aberrant bodily and perceptive experiences with affective meaning, clients can develop a more coherent view of their self-experience, which can in turn strengthen their self-continuity"* (Salaminios & Debbané, 2021, p28).

It was suggested that integrating sensory, perceptive and affective experience through corrective source monitoring would support affect regulation (1, 2, 3, 8, 9, 10,11, 14).

Understanding the origin and nature of an emotion or sensory experience would reduce anxiety of the unknown and moderate perception of that experience. Moreover, it was proposed that being able to integrate all this available information from a specific experience might allow more balanced in-the-moment meaning-making and cause experiences to be perceived as less threatening, thus downregulating affect. This would allow individuals to tolerate painful emotions they may have previously dissociated from, which supports recovery (1, 2, 3, 8, 9, 10,11, 14). This process of integration was described as driven by self-reflection, which allowed individuals to develop a fuller sense of themselves in the context of their social environments and to tolerate any anxiety that might arise through interpersonal interaction. This could then enable greater capacity to socialise and connect with others, both important aspects of recovery:

> *The acknowledgement of her anger towards me marked the beginning of a process that eventually would enable Miss A to re-appropriate disavowed feelings, which she attributed to the 'voices'. It would lead her to own not only anger but also fear, sadness and other ordinary human emotions such as curiosity about me and my life.* (Morante, 2004, p314)

The processes of sensory, perceptive, affective integration, and affect regulation, were described as allowing individuals to become curious about themselves, leading to the development of a complex self-narrative (1, 2, 3, 4, 6, 7, 10, 12, 13). This may have included an understanding of the original traumatic experiences that led to the experiences being put outside of the self. Such an understanding could enable circumstances where self-states could be communicated to others, trauma could be processed, and unusual experiences integrated into the self-concept. This was referred to in two articles (2 & 3) as an integrating recovery style, which reduced anxiety and led feelings of hope and a sense of calm, i.e. experiences of recovery:

> *An integrating recovery style is characterized by those who think of their psychotic experiences as meaningful, consider how their psychotic symptoms emerged from their life experiences…Given MBT-p's focus on increasing mentalization, affect modulation, and interpersonal awareness, it might promote an integrating recovery style, which is based on a person's ability to be curious about their psychotic episode, make meaning of the experience, and use others as resources in this exploration.* (Ridenour et al., 2021, pp 1786-1788)

Developing a self-narrative was described as involving a reflection on one's position in relation to others from a less overwhelmed viewpoint, where the individual could think more clearly about themselves. As such, previously demeaning and degrading views of the self (self-stigma) could be replaced by a more balanced self-appraisal, including valued aspects of the self (1, 2, 3, 6, 10, 11, 12, 14, 15). This could lead to individuals feeling better about themselves and experience less shame, a vital aspect of personal recovery:

> *At the termination of her therapeutic program, Dana had managed 18 months without any hospitalization, was in a professional curriculum and was involved in a romantic relationship for over a year. In her own words, Dana evoked the therapeutic journey with an increased capacity to hold herself in mind:*
>
> > *I've gone through a lot in the past three years, hallucinations. . . hospitalizations. . . yeah gone through a lot and now ... I am kind of proud of myself, I mean, I was at the very bottom of a hole. At age 15, I was in the abyss, totally, and now I am climbing the slope ... I am climbing the ladder ... I am climbing the ladder of life, and I am congratulating myself for this ...* (Debbané et al., 2022, p138)

Construct 3: Adapting to the social environment.

All papers except one (15) contributed the synthesis of this construct, and detailed mentalising processes that might underlie effective adaptation to the social environment. As individuals developed skills in self-reflection, igniting curiosity about themselves, they became curious about others. It was suggested by some papers that the complex self-narrative (described in concept 2) that allowed people to consider themselves in relation to others might also have generated curiosity about how this knowledge could be applied in social settings. This may have led to a greater understanding of interaction (1, 3, 4, 6, 7, 8, 12, 14), which started with the ability to anticipate the internal mental states of others based on understanding of self and enabled individuals to moderate their responses in social interaction. It followed that having these mentalising skills in interaction might allow individuals to confidently navigate a variety of social situations and develop social networks, which was described as an important aspect of recovery:

> *With time he began to imagine that he could impose specific behaviours upon himself and challenge the specific things he was thinking, the next step was to then be able to use the knowledge about himself and others to decide how to respond to different dilemmas … he was able to use his knowledge of himself and others to think about the situation and react differently…He was able to form complex and integrated ideas of himself and others which helped him sustain a sense of himself and others across narrative episodes.* (Buck and George, 2016, pp 193-194)

Curiosity and the resulting understanding of others that potentially allowed individual to moderate their responses in social situations equated to greater 'social agency', (1, 3, 5, 8, 9, 10, 11, 12, 14). Having greater social agency might have given individuals the autonomy to continue accessing social environments, particularly when moving on from the security of a therapeutic relationship to wider social networks. It was suggested that having a sense of

agency would improve self-esteem and provide individuals with the confidence to experience secure attachment relationships. These, in turn could provide a safe environment from which individuals could continue to evolve skills in interaction leading to personal growth in recovery. Accounts were given where individuals became able to proactively communicate distress, seek out connection and support from others, and to return to positive daily activities, which maintained achievements in recovery: *"Effective mentalisation allows the individual to organise changing social information in a way that regulates emotions, provides a guide to action and supports the person's ability to act independently as an agent of their own destiny."* (Griffiths & McLeod, 2020, p67).

Curiosity and developing attachment security seemed to have a reciprocal relationship. Secure attachments were forged through curious exploration and discovery of others' intentions, needs and perspectives. Once experienced, papers suggested these secure relationships encouraged greater curiosity about wider social interaction and provided opportunities for discussion to deepen understanding of the role of self across different contexts (1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13, 14). Details of this cyclical process between secure attachment and curiosity were given through accounts of client therapist relationships (1, 3, 4, 6). It might be that this process could be translated to other kinds of relationships along the social spectrum where friends or loved ones are able to provide a stable environment in which mutual exploration and shared meaning making can take place in discussions about day-to-day experiences and interaction and where learning can happen about the intentions, needs and desires of others. This kind of relationship and the associated mentalising processes were described as vital for starting the process of improving connection with others in recovery:

> *It is thought that because attachment relationships provide the context in which the ability to mentalize initially develops, relationships with attachment figures may*

> *constitute a social setting that is especially well adapted to facilitate curiosity about minds and the acquisition of mental state understanding.* (Brent and Fonagy, 2014, p246)

Five papers suggested that having greater understanding of interaction and social agency not only supported the seeking out and development of secure attachments but also increased the potential for trusting others' viewpoints (epistemic trust; 1, 3, 7, 11 & 14). This might allow individuals to consider feedback from others to help them to reduce any anxiety, vigilance and distrust that might have occurred when socialising. Being able to consider the views of others and integrate these into understanding could constitute another aspect of personal growth and lead to the ability to successfully interact and learn from others across a range of social situations. This ultimately could improve individuals' subjective experience of recovery:

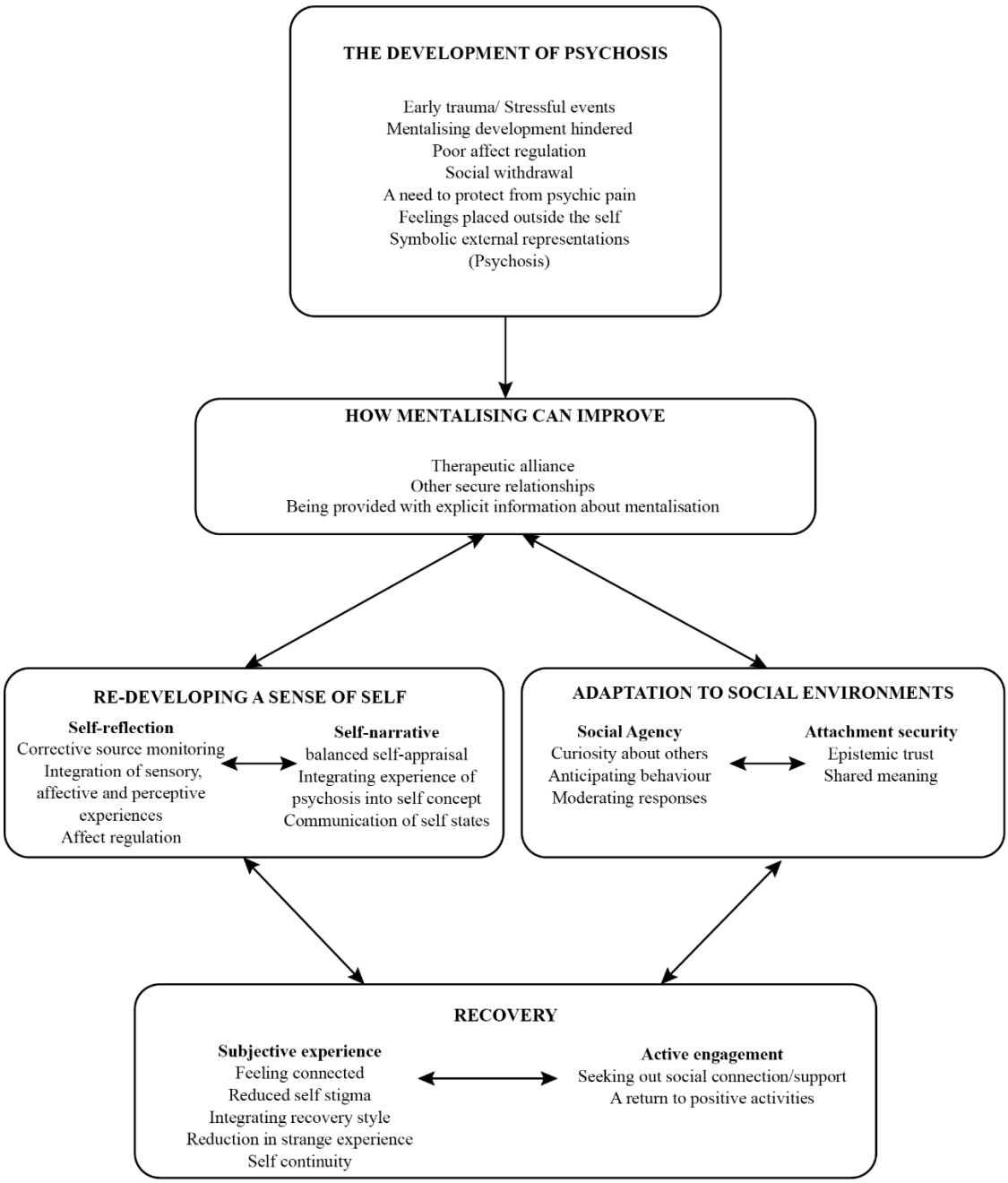
> *Lacking a secure attachment, Zoe downregulated her feelings to avoid states of overwhelm that might threaten her self-stability… They noticed a shift towards attachment security and trust that had developed over the months of their work, scaffolding Zoe's ability to reflect on her self-experience, mentalize others, and gradually establish epistemic trust…Zoe gradually became more open to exploring her psychosis, could stand to face her terror, insecurities, and grief about her psychotic experience, and developed more attachment security*. (Ridenour et al., 2021, pp1789-1794)

In summary, the analysis identified that the role of mentalising in recovery might be to enable individuals who have experienced psychosis to reconnect with a sense of self and to support them in adapting to social environments. In achieving these tasks, individuals might be more likely to have a positive subjective experience of recovery and enjoy a sense of agency in navigating their day to day lives.

Model of mentalising in recovery

The themes, concepts, constructs and their relationships to one another described above were arranged into a model diagram (Figure 2) to further illustrate the synthesising argument.

Figure 2. The model of mentalising in recovery



Discussion

This is the first systematic review to explore the role of mentalising on recovery from psychosis. CIS (Dixon-Woods et al., 2006) allowed synthesis of information from a wide range of published articles and enabled the drawing together and elucidation of processes scattered throughout the literature to develop a cohesive model of mentalising in recovery.

There was congruity in the understanding of the role of mentalising in recovery between the expert opinion papers (6, 9, 10, 11 & 13). These papers provided the initial framework of mentalising processes to be included in the current model. Three of the case studies (1, 3 & 14) and one qualitative research study (2) provided illustrations of how these processes translated into recovery stories on an individual level.

The model synthesised mentalising processes into three distinct concepts: 'mentalising in the development of psychosis', 're-developing a sense of self' (comprising processes of self-reflection and developing a coherent self-narrative) and 'adapting to the social environment' (comprising processes of social agency and attachment security). The model illustrated recovery gains linked to mentalising, of 'improved subjective experience' and 'active engagement'.

It is important to note that the flow of concepts illustrated in the model diagram is not necessarily linear, as many individuals experience a resurgence of unusual experiences on their recovery journey, particularly following stressful life events (Martland et al., 2020). The role of mentalising in allowing individuals to cope better in stressful situations and tolerate distress was highlighted in the literature included in this review. However, mentalising capacity can be inhibited in times of extreme or enduring stress (Asen & Fonagy, 2020). More specifically, it is suggested that disruptions in mentalising can be triggered by the activation of threat systems such as fight, flight, and freeze (Mitchell & Steel, 2021). One potential explanation for the recurrence of psychosis is that if the ability to mentalise is

sufficiently disrupted, individuals might resort to earlier strategies of protecting themselves from psychic pain by detaching once again from unbearable feelings and placing them outside of the self. This suggests that even if mentalising capacity is increased for those recovering from psychosis, there may still be a risk of recurrence if a felt sense of safety is not maintained.

The question remains, however, exactly how a felt sense of safety might be preserved for mentalising to endure sufficiently in times of stress. Many individuals who have experienced psychosis have a history of trauma (Hardy, 2017; Varese et al., 2012). When individuals experience trauma, they can be left in a constant state of arousal (hypervigilance), continually searching for threat in a way that undermines their capacity to keep calm in stressful environments and renders them more likely to experience disruptions in mentalising (Kimble et al., 2014). One hypothesis is that if trauma is processed, hypervigilance might be reduced and the window of tolerance for stress might be increased. This might lead to a greater sense of felt safety thus protecting mentalising capacity. If mentalising capacity is somewhat protected in stressful environments, this might be protective of psychotic recurrence. There is some evidence in the wider literature that processing trauma might lower recurrence of psychosis (Adams et al., 2020).

Secure attachments were found in the current review to provide an environment where mentalising could be mastered. It follows that understanding more about the role of secure attachments in recovery might also provide an answer to how mentalising can be maintained in recovery, even in times of stress. The synthesis highlighted the role of mentalising in reciprocal processes of understanding self to support the understanding of others, potentially resulting in greater connections with others. Greater connections with others are considered an important aspect of recovery in the wider literature (e.g. Leamy et al., 2011) as being able to connect and interact with others allows the development of secure social networks of

friends and loved ones. These support networks could be a source of support and enhance individuals felt sense of safety in times of stress which might mitigate the potential for them to disconnect from painful emotions again.

Fonagy et al. (2002) provide an account of how the understanding of mentalising, trauma and attachment has evolved over the last several decades and describe epistemic trust as the foundation for feeling secure connection with others in later life. Links between both concepts (epistemic trust and connection) also emerged in the current analysis, adding plausibility to the synthesis. Fonagy et al. (2002) also highlight the importance of mentalising for individuals to develop a framework for understanding of how other people might behave in varying situations (internal working models). This was described by the concept of 'social agency' in the current model, which was characterised by processes of curiosity, understanding, and anticipating the behaviour of others. These processes are understood in the wider literature to significantly improve emotion regulation, relationship dynamics, and psychological well-being (Mikulincer & Shaver, 2016).

Clinical implications

Mentalising was positioned as a foundational building block in therapy for reconnecting with self and adapting to the social environment, which are vital capacities for navigating life outside of the therapy room. This suggests that assessing mentalising capacity should be a priority for clinicians working with people who have experienced psychosis. The reviewed literature suggests that building mentalising skills might be best supported in therapy with a clinician who can nurture a sense of felt safety where trust can be built, and the therapist can model mentalising to help the client reflect on their own and others' mental states. This is reflected in wider literature (e.g. Bröcker et al, 2023; Salaminios et al., 2024; Sanz et al., 2024). The current review highlighted that mentalising has a reciprocal

relationship with epistemic trust which is key factor in establishing a therapeutic alliance where individuals might consider alternative explanations for their unusual experiences. This builds on a notion in the wider literature for therapeutic relationships in general, that mentalising is fundamental to building epistemic trust (Krupnik, 2022; Talia, 2024). This suggests that clinicians should first focus on mentalising to build trust and develop the kind of attachment security that can be experienced sufficiently for clients to be able to translate new understandings of interaction into their day-to-day relationships outside the therapy room, thus increasing the chances of maintaining recovery from psychosis.

Prioritising the development of mentalising capacity in the clinical environment might support clients who have experienced psychosis to develop ways of coping with overwhelming feelings as they arise without resorting to pushing them outside of the self. Understanding the role of mentalising in affect regulation and the management of stress has clinical implications for trauma therapies (e.g. EMDR) that rely on supporting clients to stay within an optimal range of emotional intensity (window of tolerance; Siegel, 2012) where they can effectively and safely process traumatic memories (Shapiro, 2001). Building mentalising skills prior to other trauma work might widen an individual's window of tolerance, allowing for trauma memories to be reprocessed faster and more effectively. Having a wider window of tolerance might also allow individuals to feel safer and be able to consider other avenues of self-exploration (mentalising self) in therapy that they might have previously avoided. Links between emotion regulation and greater mentalising are discussed by Luyten and Fonagy (2015). Moreover, having the ability to reflect on internal mental states though mentalising might increase accessibility to therapies that require individuals to connect with internal mental states to formulate and process distress.

Those individuals who have a sealing over recovery style, characterised by lower mentalising capacity and higher rates of therapy drop out (Tait et al., 2003), might benefit

from mentalisation-based therapy in the first instance. If clinicians were to focus on supporting better mentalising capacity for these individuals, findings in the current review suggest that this might see a shift towards a more integrating recovery style. This presents a case for the National Health Service to consider mentalisation based therapies as a first line approach to supporting individuals with psychosis, particularly for those who have a sealing over recovery style.

In addition, the present model suggests that a focus on improving mentalising capacity in therapy might close the gap identified between clinical and personal recovery (Van Eck et al., 2017) and be the key to reducing residual distress once the experience of psychosis has subsided. This would lead individuals to experience a fuller sense of recovery.

Limitations

As with any interpretative review, this analysis relied on the researcher's interpretation of the data. This interpretation may have been influenced by the values and experience of the researcher, whose approach to psychosis was through the lens of unusual experiences existing on a trauma pathway. This may have influenced the focus on mentalising in attachment processes and the role of improving attachment security as a means of recovery from developmental trauma where there may have been other themes (e.g. grounded in neurobiological models such as oxytocin pathways) that were overlooked.

This review relied on expert opinion drawing from a range of evidence, which may also have been influenced by the source author's personal positioning and clinical background. Several of the articles approached mentalising through a neurobiological lens, (5,6, 7, 8 & 11) focussing more on the brain function and associated presentation than recovery outcomes. The synthesis required a larger leap to interpret medicalised themes of 'deficit' and 'consequence' into a model of recovery. For example, discussions of insecure

attachment, trauma and the associated neurobiological oxytocin pathways and their link to the development of psychosis (e.g. 6) were interpreted as a need to earn secure attachment to optimise connection in recovery and adaptation to psychosis.

In addition, five articles (4, 6, 7, 9, 11) focused on the developmental stages prior to the onset of unusual experience and describe 'what went wrong' rather than 'how recovery happens'. This positioning of the papers made it harder to translate their contained themes to those themes identified in other papers and some of the linking of concepts may have been tenuous.

Only one study included first-hand accounts of recovery from psychosis (2). As the search included only articles identified from journal databases, other sources of information that could have yielded first person accounts of mentalising in recovery from psychosis may have been missed, e.g. online service user forums or video blogs.

The focus of the current review was on mentalising and considering the discussion regarding the danger of conflating similar concepts in the introduction (e.g. metacognition and ToM) there may also have been some articles missed in the search because they had either used these similar terms interchangeably or provided other creative labels for mentalising. The identified articles were sufficient to build a model of mentalising in recovery from psychosis, but further case studies illustrating the outcomes of mentalising in therapy, and qualitative research detailing first person accounts of mentalising and recovery might have strengthened the model and provided further elaboration on specific processes. The case studies identified (1, 3 ,7, 11, 12 & 14) relied on the interpretations of third-party clinicians, which again may have been biased by their background, values and interests. For example, the purpose of case study may have been to showcase therapeutic strategy; as a result, interpretation of recovery for their clients might have been inadvertently biased towards positive outcomes. Similarly, showcasing the efficacy of mentalisation-based

strategies might not include some of the poorer outcomes for the therapy, such as the potential for clients' distress increasing, perhaps because mentalising evokes a more realistic perception of how difficult life is when faced with intrusive strange and upsetting experiences (2).

Future research

If this review were repeated, expanding search terms for psychosis e.g. 'psychotic' and 'hearing voices', might yield more papers and improve the quality of the review. Adding metacognition, social cognition and theory of mind into the search parameters might also improve this research by synthesising a greater understanding of how each process interacts to inform recovery. In addition, given that the study offering first person accounts of recovery (3) only had eight participants, and no other similar studies were identified, further research is needed that explores richer first-person accounts of mentalising in recovery from psychosis.

To build on the model that emerged in the current synthesis, research is needed to identify what processes might exist between mentalising, attachment and healing trauma that could enhance recovery from psychosis. This research might also reveal whether processing trauma could support the maintenance of mentalising in stressful situations and whether this might prevent the recurrence of psychosis.

Conclusion

CIS was an appropriate methodology for synthesising information on the role of mentalising in recovery from psychosis. A model was developed to illustrate how mentalising contributed to the development of a sense of self and adaptation to the social environment, which in turn contributed to a sense of agency and better subjective experience of recovery. More research is needed to explore these mentalising processes in the context of earning secure attachment and processing trauma.

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Part B: Major Research Project

Bobby Cramp BSc Hons, MSc

Promoting attachment security:

Processes between attachment, EMDR for psychosis and recovery

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Abstract

Disruptions in early attachment experiences have been associated with greater risk for the development of psychosis. Eye movement desensitization and reprocessing (EMDR) has been found effective in supporting individuals with psychosis to make sense of and heal from adverse experience, while improving attachment security. This research approached psychosis as a response to early attachment trauma and sought to identify processes between attachment and EMDR that might promote recovery from psychosis. Seven participants who had received EMDR for psychosis were recruited and completed two attachment screening measures before taking part in a semi structured interview. The interviews were analysed using Glaser and Strauss (1967) grounded theory approach from a critical realist perspective, and a clear model emerged from the data. The model highlighted the role of relationships with therapists and wider supporting mental health team through the EMDR process that encouraged a reconnection with a sense of self and reconnection with others. EMDR processes and improvements in relationships contributed to a reduction in psychosis, greater sense of connection and felt support, personal growth and a sense of distance from trauma in recovery that allowed a return to normal day to day activities. Clinical implications, limitations and future research were considered.

Key words: Attachment, psychosis, EMDR, emotion regulation, mentalising, recovery

Introduction

Trauma and psychosis

Trauma is an extreme emotional response to distressing events. It can be caused by a single incident (e.g. natural disasters, accidents), or exposure to multiple or recurring distressing events such as childhood abuse and neglect (Read et al., 2005). Varese et al. (2012) identified a potential pathway from childhood abuse to psychosis and found that those who experience psychosis, were 2.72 times more likely to have experienced adverse experiences in childhood. Psychosis affects approximately 0.7% of people (McManus et al., 2016), can lead to severe distress, and is characterised by intrusive experiences such as hearing voices that others do not, seeing things that are not there, and difficulties making sense of affective and bodily sensations (National Health Service, 2023). Often emerging in adolescence and early adulthood, these experiences give rise to unusual behaviour driven by perceptions, and rigid beliefs that skew reality (Bentall, 2004; Read et al., 2004).

Much of the literature on the experience of psychosis is framed through a model of 'disease' (e.g. psychosis being driven by chemical imbalances in the brain) thus uses medicalised terminology to describe psychotic experiences (e.g. hallucinations and delusions). However, many features of psychosis overlap with those of post-traumatic stress (Read et al., 2001) and the power threat meaning framework (PTMF; Johnstone & Boyle, 2018), posits that psychosis might arise in response to extreme, inescapable distress possibly caused by imbalances in power in earlier life that prevent opportunities for the development and mastery of secure attachments with others (i.e. leads to developmental trauma). This notion is reflected in other literature and the present paper aligns with this understanding (Berry et al., 2019; Read et al., 2005).

Attachment and psychosis

Bowlby's (1982) attachment theory described how infants are born with a drive to seek proximity and care from a primary caregiver and form secure attachments. Achieving secure attachment in infancy is contingent on several processes: a sense of felt safety, attunement, and being comforted.

It is proposed that secure attachment allows for the construction of healthy internal working models of self and others through childhood and affords greater mentalising capacity into adulthood (Allen et al., 2008). Mentalising is the capacity for individuals to infer mental states of self and others and is understood to be protective against the development and maintenance of mental health difficulties in later life (Katznelson, 2014). An absence of proximity and care in infancy, where care is unreliable or frightening, can lead to insecure attachments being formed, with fragmented internal working models and difficulties understanding the internal states of self and others. Seventy-eight percent of people with psychosis were found to have insecure attachment status (thus potential difficulties mentalising), in comparison to thirty-eight percent in the general population (Carr et al., 2018). Furthermore, a meta-analysis found childhood emotional neglect (often associated with insecure attachments) predicted slower recovery from psychosis and hindered improvement of global functioning (Aas et al., 2016).

Reducing anxious-insecure attachment status has been associated with a reduction in psychotic experience (Quijada et al., 2015) and it has been suggested that relapse is less likely in the presence of secure attachment and a close support network (Gumley & Schwannauer, 2006). Given the links between developmental trauma (leading to insecure attachment) and the emergence of psychosis, there is a need for greater understanding of how trauma therapies might improve outcomes for those experiencing psychosis with specific focus on the role of attachment status.

Earning secure attachment

Earning secure attachment is the process of changing from an insecure attachment status to one of security (Saunders et al., 2011). Dansby-Olufowote et al. (2019) developed a grounded theory of the process of earning attachment security, highlighting three areas. The first was 'meta-conditions', which described what the participants did differently in their lives, for example, developing an intention to make the change, attending therapy, and having surrogate attachment figures. The second was making interpersonal changes, which involved making peace with the past and taking small risks with trust. The third was making intrapsychic changes by redefining identity and worth.

In Braehler and Schwannauer's (2012) grounded theory of adaptation to psychosis, adolescents with a more secure attachment, and higher reflective function (RF; mentalising), showed greater ability to cope with trauma and recover from psychotic experiences, than those with lower RF and insecure attachment. This is reflected in the wider literature (Bentall & Read, 2015; Read & Gumley, 2008; van Bussel et al., 2023) which suggests that earning secure attachment, might improve outcomes for those with psychosis.

EMDR and attachment

EMDR is an evidence-based trauma therapy founded on the theory that when some individuals experience trauma, information can become fragmented, and memories are incorrectly processed in the brain, so they lack temporal and contextual information. This causes individuals to repeatedly relive the trauma as if it is occurring in the present. EMDR was developed to reprocess fragmented trauma information into a lineal, temporally encoded coherent memory that can then be stored correctly in long term memory, thus reducing distress and healing the traumatic response (Shapiro, 1989).

There is some evidence to suggest that during this processing of trauma memory, attachment security might also be improved (Barazzone et al., 2023; Blake et al., 2024; Wesselmann & Potter, 2009; Wesselmann et al., 2012). It is proposed that attunement achieved in the therapeutic relationship through mutual eye gaze, the client's ability to feel safe and seen in their vulnerability, the cognitive representation of self and others, and the simulated oxytocin-mediated emotional regulation, could potentially mimic that of a parent infant dyad and activate attachment systems in the process of EMDR (Litt, 2018; Obegi & Berant, 2009; Shapiro, 2001).

EMDR for psychosis

There has been much research on the efficacy of EMDR to treat psychosis (Adams et al., 2020; Varese et al., 2024) and numerous studies indicate that EMDR reduces psychotic experiences (e.g. Laugharne et al., 2014; McGoldrick et al., 2008), prevents recurrence of symptoms (e.g. de Bont et al., 2016) and significantly reduces readmissions to hospital (e.g. Kim et al., 2010). One pilot study found that trauma was healed, and psychotic experiences significantly reduced by EMDR, in all but five out of twenty-two participants (van den Berg & van der Gaag, 2012).

EMDR therapy is being used for psychosis in the British National Health Service (NHS) but to date, there are no studies exploring the attachment processes in this therapy that may promote healing from trauma and subsequent psychosis. Understanding these processes is important as it will allow clinicians in the NHS to focus their EMDR practice to promote better outcomes and reflects the NHS's commitment to quality of care. This study aimed to inductively explore these processes and generate a theoretical model using classic grounded theory (Glaser & Strauss, 1967) to answer the following research questions:

1. What happens to relationship security through the EMDR for psychosis process?
2. Do participants think EMDR contributed to recovery?
3. What are the processes in the interaction between attachment, EMDR for psychosis and recovery?

Method

Design and epistemology

The present study was conducted from a critical realist perspective (Bhaskar, 1975). It sought to build a model of the underlying processes between attachment and EMDR and their relationship with observable aspects of recovery from a data driven process. The critical realist perspective acknowledges that although we can measure and quantify knowledge into a form of reality, that reality can never be totally free of the influence and bias of the observer (Johnstone & Boyle, 2018). In this instance, both attachment (Bowlby, 1982) and outcomes achieved through EMDR are concepts that can be observed and quantified with scientific predictability, but this observable knowledge can never be reduced to 'true fact' as it is subject to the scientist's interpretation, biased by their own perceived reality of the world.

A grounded theory methodology was followed as prescribed by Glaser and Strauss (1967), which used purposive sampling to inductively discover theoretical explanations for these processes from interview data. Although Glaser and Strauss (1967) were not explicit that their grounded theory method was framed in critical realism, they believed that an objective reality could be rigorously and systematically studied through their qualitative method. Moreover, their method highlights the importance of allowing theory to emerge from the data, rather than applying predetermined ideas of what might exist (Levers, 2013).

Ethics

This study received approval for recruitment through the Wales Research Ethics Committee and Heath Research Authority (Appendix E). Care was taken to consider the needs and potential vulnerabilities of this population, and it was considered that participants should only be recruited through their EMDR clinicians, best placed to assess their suitability for the project.

An expert by experience was recruited at the beginning of the project to provide input on the viability of the interview schedule and provide advice on how best to support participants through the interview. Unfortunately, they became uncontactable during the process, so the researcher relied on feedback from the first participant following their interview to ensure subsequent interviews ran smoothly. This feedback altered some of the preamble for interviews to include a statement that participants did not need to share anything in the interview that they felt uncomfortable with, and prompted an agreement being made before the interview between participants and the interviewer, about how they might let the interviewer know if they became uncomfortable with a specific line of questioning. There was also a plan in place to stop interviews immediately if participants became distressed.

Participants

Purposive sampling took place from early intervention in psychosis teams and other mental health teams delivering EMDR for psychosis. EMDR clinicians across seven NHS trusts were identified to help with recruitment from their caseloads through EMDR support networks attended by the study's supervisor. Initially, 12 participants were identified from five of these trusts but due to extensive delays completing capacity and capability checks, four participants could not be approached as they had moved on from services. A fifth participant withdrew consent before the interview took place.

Seven participants remained from four trusts and signed informed consent. Participants comprised five females and two males between the ages of 34 and 65 (mean age 46.9), and had received, or were in the process of receiving EMDR. All had experienced psychosis as part of their mental health concerns. Five participants (P1, P3, P4, P6 & P7) had received other therapies prior to receiving EMDR and two of these had received therapy that focussed on attachments (P6 &P7).

To be included, participants needed to be aged 18 or over, be assessed by their clinician to have experienced psychosis prior to receiving EMDR, and have processed at least one trauma memory through EMDR therapy. Participants still experiencing a high level of distress or overwhelming feelings relating to their trauma and psychosis were not approached to avoid them being further traumatised by the interview process, which asked what kinds of trauma memories they worked on in EMDR. One participant (P5) was not approached initially for this reason but following a period of stability was eventually invited to participate.

Materials

Participants were asked to complete two screening measures prior to interviews to assess present levels of attachment security and how this might have changed since childhood (Appendix F).

Experiences in close relationships questionnaire (ECR)

Participants completed Dansby-Olufowote et al.'s (2019), modified Experiences in Close Relationships Scale-Short Form (ECR-S; Wei et al., 2007), which had two subscales of attachment anxiety and attachment avoidance. The original measure, developed by Wei et al., (2007), had just eight questions relating to relationship styles in adulthood. Dansby-

Olufowote et al. (2019) revised this measure to include a further eight questions relating to childhood relationships. To do this, Dansby-Olufowote et al. (2019) changed the wording in the original Wei et al. (2007) questions from 'partner/romantic partner' to 'caregivers' in the child section, and 'partner/romantic partner' with 'loved ones' in the adulthood focused section of the measure. This enabled them to capture the range of adult relationships discussed in their study. The revised screening tool included questions such as, *'I needed a lot of reassurance that my caregivers loved me'* (childhood) and '*I tried to avoid getting too close to my loved ones'* (adulthood).

Responses were scored on a seven-point Likert scale with 1 indicating '*strongly disagree',* 4 indicating *'neutral',* and 7 indicating, s*trongly agree*'. Items 1 and 5 on both the childhood and adulthood questions were reversed scored and higher scores on each subscale indicated higher levels of anxiety and avoidance. The resulting 16 question tool enabled Dansby-Olufowote et al., (2019) to measure changes in relationship anxiety and avoidance between participants' childhood and adulthood, so they could identify which participants might have 'earned security' in their attachments.

The reliability of the unmodified ECR-S (Wei et al., 2007) was adequate (anxiety coefficient $\alpha = 0.8$ and avoidance coefficient $\alpha = 0.83$) and the internal consistency was also adequate (anxiety coefficient $\alpha = 0.86$ and avoidance coefficient $\alpha = 0.88$). Total scores of 24 or greater for either the childhood or adult questions indicated participants were predominantly insecure in their attachments, with subscale scores indicating a tendency towards either anxious or avoidant attachment.

For the current study, it was recognised that the modified screening tool's validity and reliability in measuring attachment style had not been assessed. Instead, the scores were used in conjunction with data drawn from the participant interviews, to provide insight into the participants' attachment security.

Revised Psychosis Attachment Measure (PAM-R)

The revised psychosis attachment measure (PAM-R; Pollard et al., 2020) is a 23-item measure, with a four-point scale ranging from 'not at all' to 'very much', referring to thoughts, feelings, and behaviour in close interpersonal relationships. It has three subscales of 'anxiety', 'avoidance' and 'disorganisation'. Internal consistency (avoidant = 0.804, anxious =0.845, disorganised = 0.887) and test-retest reliability (avoidant = 0.863, anxious = 0.957 and disorganised = 0.910) was good for all three subscales (Justo-Nunez et al., 2024), indicating this is a reliable measure for attachment. Higher scores on each subscale indicated higher levels of that tendency in attachment relationships. As the PAM-R was designed to be used as a continuous scale rather than categorising people, participant scores were used to give insight into higher tendencies versus lower tendencies amongst the participants.

Interview schedule

The semi-structured interview included questions covering themes of relationship change (friends, family, romantic partners, and therapist), and the perceived impact of these relationships on participants' recovery and sense of security, for example, 'have there been changes to your relationships with friends since starting your EMDR therapy?' and 'have these relationships influenced your recovery, if so, how?'. Relationship changes that occurred prior to engaging in therapy were noted to keep the theory generation located in the EMDR process.

Theoretical sampling was adopted, and the interview schedule was reviewed and updated after analysis of the third and sixth participants, when a need for further information to elucidate an emerging theme or process arose. For example, 'connecting with a sense of

self' started to emerge in the first three interviews, so questions were added to the schedule and this notion was explored in more depth in subsequent interviews (Appendix G).

Procedure

Participants that were interested in participating agreed for contact details to be shared with the researcher and were given a participant information and a consent form (Appendix H and I). Those who provided informed consent after speaking with the researcher were invited to take part in a semi structured interview of up to one hour. Participants completed the screening measures online before the interview, and scores were used to help elucidate each participant's attachment security and note attachment between childhood and adulthood to support with the analysis.

Discussions in the interview provided further information on when changes in feelings of attachment security and relationship style might have occurred (i.e. prior to or after EMDR therapy started). Interviews were held via Microsoft Teams and recorded. Interview recordings were transcribed though Microsoft Teams, checked for accuracy, and anonymised before analysis began.

Process of analysis

In Glaser and Strauss grounded theory, data collection occurs simultaneously with data analysis so that new data can be continuously compared with existing data and categories, to refine and develop the model. This iterative process ensured that deeper understandings of the processes between attachment and EMDR for psychosis were firmly grounded in the data. Participant scores on the PAM-R (Wei et al., 2007) were compared with each other to determine which category they fell into (Appendix J).

Coding

The data were systematically reviewed to look for repeating themes and patterns. The transcripts were then open coded line-by-line using keywords and phrases describing the themes and patterns (Appendix K). Further codes were added as new patterns were identified and constantly compared with each other to identify relationships. All transcripts were coded by the researcher, one was co-coded collaboratively between the researcher and first supervisor and a second transcript was coded independently by the researcher and second supervisor so that differences in interpretation could be discussed and agreed.

As suggested by Glaser and Strauss (1967) it was helpful to use gerunds in this process (i.e. verbs ending in -ing) to help focus on actions associated with attachment changing and recovery processes, for example 'sharing experience of psychosis with others' and 'setting boundaries'. There was a continuous cycle of data collection, coding, analysis of relationships and consideration of differences between participants with higher, medium and lower attachment security across domains of anxiety, avoidance and disorganisation.

Codes were then grouped into higher level concepts and then into categories ensuring these were still grounded in the data. For example, codes 'EMDR connected the dots' and EMDR put fragments together' were grouped together into a higher order concept of 'timelines and building a coherent trauma narrative' which was then grouped with another higher order concept, 'window of tolerance', into a main category, 'EMDR processes' (Appendix K). The categories and associated higher order concepts were synthesised into a theoretical framework and a visual model was generated that illustrated the theorised processes between attachment and EMDR for psychosis and how this informed recovery (Figure 1.)

Reflexivity

The researcher had a history of working with people experiencing psychosis in NHS settings which may have informed how participant descriptions of relationships and 'healing trauma' were understood and conceptualised when analysing the data. Moreover, the researcher's own attachment experiences might have influenced how relationships processes were identified and coded, potentially giving preference to those processes that were easily recognisable to the researcher.

Part A of this work highlighted mentalising as an attachment process, and this prior research may have encouraged particular focus on these processes over others. The researcher's preference for psychosis being conceptualised through the lens of trauma, rather than a medical condition, not only determined the focus of the research questions but also influenced the focus of the interview questions and subsequently, which aspects of the data were favoured for inclusion in the model.

Sample population vulnerability influenced ethical considerations and would have impacted on the number of participants that could be identified. It was intentional to omit financial reward for participation on the grounds that it was important for participants to feel completely able to participate without needing an incentive, which may have swayed those who were unsure or not entirely ready to participate.

Results

All participants had experienced psychosis as part of their mental health difficulties. Six participants were living in the community and two were in the process of transitioning back into the community from a secure forensic hospital. All participants had experienced an extended period of stability prior to the interviews of six months or more and were no longer

experiencing psychosis (Table. 1). Two participants continued to receive neuroleptic medications.

Table 1. Participant demographics

Participant no	Sex	Age	Approx. time since EMDR (months)	Length of EMDR therapy (months)	Trauma memories processed in EMDR	Attachment screening notes. ECRS: scores compared between childhood and adulthood scales PAM-R: scores compared between participants*
1	F	46-55	4	18	Multiple childhood traumas: Family relationships and psychosis	ECRS: Decrease in both anxiety and avoidance. PAM: Higher scores in disorganised attachment
2	F	36-45	2	12	Single incident trauma in late adolescence: Unnecessary medical procedure sanctioned by parents rupturing childhood relationship security	ECRS: Increase in both anxiety and avoidance. PAM: Lower scores in all attachment domains
3	F	56-65	2	12	Multiple childhood traumas: Emotional abuse/ Family relationships and psychosis	ECRS: Anxiety stayed same; avoidance decreased. PAM: Higher score in disorganised attachment
4	F	46-55	2	24	Multiple childhood traumas: Family relationships and psychosis/episodes of mania and psychosis	ECRS: Anxiety increased; avoidance stayed same. PAM: Higher scores in anxiety and avoidance
5	F	36-45	2	24	Multiple childhood traumas: Emotional and sexual abuse	ECRS: Anxiety decreased; avoidance increased. PAM: Higher scores in anxiety and avoidance

6	M	46-55	12	18	Multiple childhood and adulthood traumas: Severe neglect, abuse and childhood trauma/ index offence	ECRS: Decrease in both anxiety and avoidance. PAM: Higher scores in avoidance
7	M	26-35	18	6	Single incident trauma in adulthood: traumatic loss of a close family member rupturing childhood relationship security	ECRS: Increase in both anxiety and avoidance. PAM: Higher scores in avoidance

*PAM-R scores were compared amongst participants to categorise between higher, middle, and lower scores in anxiety, avoidance and disorganisation

The changes seen in the ECR-S (Wei et al., 2007) screening between childhood and adulthood were only partially consistent with what participants said in their interviews. In some cases, anxiety was increased (P2, P4 & P7) or stayed the same (P3), and in some cases avoidance was increased (P2, P5 &P7) or stayed the same (P4), yet all participants described improved relationship security following EMDR. Despite describing improved relationship security, both participants two and seven reported an increase in anxiety and avoidance on the adult ECR-S (Wei et al., 2007). Unlike others, both participants reported a major single incident trauma in either late adolescence or early adulthood that had led to the loss or rejection from their family whom they reported they were close to in childhood. Both participant stories described improvement in attachment security through EMDR that had still not returned to the kind of felt security experienced in their childhoods.

Although participants had varying experiences of attachment, trauma and psychosis, a clear model of the interaction between attachment EMDR for psychosis and recovery emerged quickly from the interview data. There were no clear differences identified between gender.

Wider therapeutic relationships

Participants shared a sense that EMDR on its own was not enough to support recovery and that the wrap around support of multi-disciplinary mental health teams seemed vital to provide an environment where secure interaction might be experienced and modelled outside therapy, *"But it was the package that the early intervention team put together that did it. EMDR in unison…I don't think I would have got better like I have if I only had EMDR"* (P1, 265-267).

Consistent contact with professionals appeared to contribute to a sense that they could be trusted even in an instance of rupture for one participant, and seemed to provide a secure

backdrop for the therapeutic relationship in EMDR to develop: *"[it] was a trust issue, but it hasn't, it hasn't um ruined all the good work that's been done in in psychology and in relationships."*(P7, 209). Two participants (P5 & P6) described being able to move past setbacks in recovery without the recurrence of psychosis through the wider support of their mental health teams, and described a significant felt sense of support that contributed to personal growth and their sense of recovery.

> *they'd like seeing me at rock bottom and then they'd, like, seen me get better and then and they were just really nice to me. They were like, we're so proud of you … it was like a nice model of, like, what a good relationship is, and also, like, how to talk about yourself with friends. (P5, 214)*

EMDR and the therapeutic relationship

Participants spoke about their desperation to feel better as a primary motivator for taking up EMDR with their clinicians. For some, this desperation appeared to override their sense of distrust in mental health professionals, and for others, a previous experience of therapy meant they had an idea of what to expect which had led to trusting that the process might work for them, "*I trusted her and I 100% wanted to get better and I didn't wanna stay the way I was*". (P2, 174.),

All participants described how they came to trust their EMDR therapists, and described their therapist's warm, empathetic approach, *"she's lovely and she was persistently lovely, that, it was quite amazing that she was that nice for that long." (P1,199).* and ability to hear and champion their stories without judgement. *"it's not judging…. sometimes she did share, you know it's common or… I think that I, I wasn't feeling judged" (P2,177-178).*

This approach from therapists appeared to provide a safe base where participants felt supported to process trauma and reframe difficulties. All participants described how

relationship interaction and difficulties were explored in EMDR therapy and three described a process of their therapist mirroring emotion (P2, P4 & P7), which potentially enabled them to reframe and process difficulties: *"having another person mirror and, and, sort of reflect back to me" (P7, 145).* Rich descriptions of collaboration, trust and positive mutual regard suggested that secure relationships were modelled in the therapeutic relationship: *"it was having somebody who's absolutely who on your side, who thinks you're great and just… wants you to do well and… is really rooting for you." (P4, 175*). This modelling of secure interaction appeared to provide a framework for participants to understand and build secure relationships with others outside the therapy room.

> *It probably is because of the EMDR. Like, I don't feel like I'm being demanding or attention seeking if, just for checking in and I used to feel like that for a long time. … with my brother and like my like besty, …, I know that I, I feel secure enough to, to know that if I was going through something, I could absolutely talk about it with them (P4, 115-117)*

Three EMDR processes emerged that seemed key for evolving this attachment security: emotion regulation through working within participants' window of tolerance (Siegel, 2012); building timelines to develop a coherent trauma narrative; and integrating that trauma narrative into concept of self.

Emotion regulation

Participants described how, following EMDR, intense emotion was either reduced: *"making it possible to, so that was, you know, being able to talk about really, really traumatic stuff, like, really visceral,"* (P7, 200), or that they were reconnected with avoided or dissociated emotion: *"blunted emotions, so I had years of, of not feeling anything… I'm a bit more soppy than, than, I er used to be"* (P6, 86). Consistent with the notion of 'window of

tolerance' (Siegel, 2012), these quotes suggested that EMDR either brought them downward into their window of tolerance from a place of feeling overwhelmed or brought upward into their window of tolerance from a place of emotional numbness. By supporting participants to stay in their window of tolerance (a central premise for EMDR processing), EMDR seemed to allow them to reflect with some clarity on the emotional impact of their trauma, a vital process in building a coherent trauma narrative:

> *I was able to get it out emotionally by just crying over it, which I think helps and I was able to realise how much it was influencing things, so we were able to process it by me gaining a better understanding of it and by having cry over it, to let it all go.* (P3, 40)

Being able to stay within their window of tolerance also seemed to allow participants to learn how to identify and make sense of embodied emotion, potentially as a basis for developing enhanced emotion regulation in day-to-day life:

> *Yeah, like where it is like if it's in my like heart, I'll just feel really sad or if it's in my tummy, I know it's like worry, maybe that sort of thing or like if it's in my in my neck and in my head, it's like a little bit stressed. I get that now. Whereas before, I just felt, I'd feel out of sorts or I'd just feel funny. (P6, 118)*

All participants described how being able to distance themselves from the intensity of overwhelming emotion associated with their trauma and psychosis was the greatest contributor to their recovery:

> *It helps you be more objective, it and it also it kind of removes you from the raw nerve, it gives you that distance, and that, in turn, I think affects, now I think about it, affects communication with, like you're not as in it, it carries on outside of the sort of therapy room in that you are more, you have that little bit of distance that means that you're, you're not consumed like by, by whatever you're dealing with. (P4, 109)*

Developing a coherent trauma narrative

Being able to regulate emotions and stay within a window of emotional tolerance appeared to allow the second key EMDR process of creating a trauma timeline in therapy. This timeline seemed to enable a rich and coherent narrative of their traumatic experience to emerge, allowing them to link past experience to current relationship styles, and to contextualise and link their experience of psychosis to their trauma:

> *the major turning point was when we went through all the timelines I think, going through the timelines helped connect things…. I had thoughts, we touched on some of the hallucinations that I had I during psychosis. And then I thought, oh my gosh, that's probably why that thought was there and kept manifesting with all these hormones… I think connecting the dots and realising oh that's just a thought, it actually didn't happen. (p2, 117)*

Reconnecting with self and recovery

Self-acceptance after making sense of trauma and psychosis may have enabled the third EMDR process to occur. Being able to regulate emotion appeared to mean a reduction in anxiety for all participants; "*extreme anxiety… forever, um and when it finally left me, I could I almost time, time and date stamp it because it was so profound."* (P1, 52). This might also have enabled balanced self-reflection and self-acceptance: *"my internal voice became much kinder, much calmer, soothing, encouraging, supportive…And it helped me through the day"* (P1, 66-68). Four participants (P2, P5, P6, P7) referred to no longer being solely defined by their trauma or psychosis and other mental health labels: *"so the biggest part is not having your identity as a patient, being a member of the public and having them friends around you,"* (P6, 82).

Integrating coherent trauma narrative into self-concept

Building a coherent trauma narrative in EMDR also seemed to allow reappraisal of their perceived part in the trauma e.g. I am weak, I am to blame, I was in the wrong (EMDR term: negative cognition) and participants appeared able to integrate this with more positive views of self (EMDR term: positive cognition) and heal from their trauma:

> *I was very low on confidence. Umm, I've done a lot of self-hatred, um a lot of um blaming myself for things that happened, but the, the um, sessions of EMDR I did… with [Clinician name] taught me that it wasn't my fault I was just a child.* (P6, 52)

Participants described an integration of their newly understood, coherent trauma narrative into their self-concept. This seemed to further balance self-appraisal, allow enhanced ability to regulate emotion outside of the therapy room, and potentially furthered the reconnection with a sense of self in their recovery:

> *I know that it's part of me, but it's also not like….a dirty evil part of me…like it's something that wasn't my fault and I think, yeah, it'd been ignored all this time because I didn't want to face it… I realised that I'm made-up of lots of different 'me's rather than this thing on the outside, that's like a horrible thing that we don't talk about, like it's it's OK to have that part of me as well. (P5, 156-158)*

Reconnecting with others and recovery

Reconnecting with a sense of self and self-narrative through the EMDR process appeared to enable participants to feel confident in articulating self-states and negotiating interaction with others (mentalising self). Processing relationships in EMDR also seemed to allow a better understanding of interaction which contributed to a felt sense of support in recovery.

> *So I like doing EMDR, has kind of helped me map my life a little bit better as well, which has made it easier to talk to [partner name] because I can actually talk about it in a tangible way rather than it being like some memory of some sort at some point. (P5, 98)*

All participants described how understanding emotions and reconnecting with a sense of self enabled them to identify their needs in relationships and update interaction strategies to have those needs met which suggested the building of securer relationships. These involved processes of setting boundaries in interaction, which helped participants avoid falling into old patterns of oversharing, being overly negative, volatile, or passive. "*EMDR has helped me ... put healthy boundaries in place mentally, so that I can have a relationship today that's not got a foundation of the past. I just don't overshare now."* (P1, 26-28)

Moreover, part of updating their interaction strategies appeared to be a consideration of who to connect with and who to confide in. Participants considered how others might perceive them and respond to being told about their histories for trauma and psychosis (mentalising others); "*if I do disclose what happened to someone and they decide they don't want anything to do with me… I think that's more about them than about me.*" (P7, 142).

Reconnecting with self and building more balanced self-appraisals appeared to enable participants to imagine that others might see them in a positive light (mentalising others) which might have given them confidence to seek out connection and build or deepen secure bonds with others, a vital aspect of recovery. "*I'm hoping that they noticed that I'm not back to how I was, that I'm forward to someone different, um, that I'm more settled and stable and, and, and all the rest". (P1, 52)*

It appeared that being able to manage interaction with more success both in the therapy room and in the wider supporting mental health team, provided a springboard for updating interaction strategies with others, enabled existing relationships to be strengthened

or repaired, boundaries to be set in interaction, and gave participants the confidence to seek out new connections.

> *before EMDR, it was, I was thinking me, me, me and I had to protect me, and everyone was against me and that was a very toxic way of thinking … And since the EMDR I've, I've opened myself up to relationships, so I've opened myself up to having a girlfriend again and open myself up to making friends again. (P6, 156-162)*

Descriptions of recovery were varied amongst participants. They each described instances of personal growth, such as greater confidence in interaction, an ability to trust their own judgements, a regaining of a sense of control and an ability to manage emotions in day-to-day life.

> *the biggest gift that I was given was being able to trust myself again and trust my judgement…so the EMDR it's, it's, empowering because it makes you more objective and you feel more in control which … kind of gives you your power back (P4,246)*

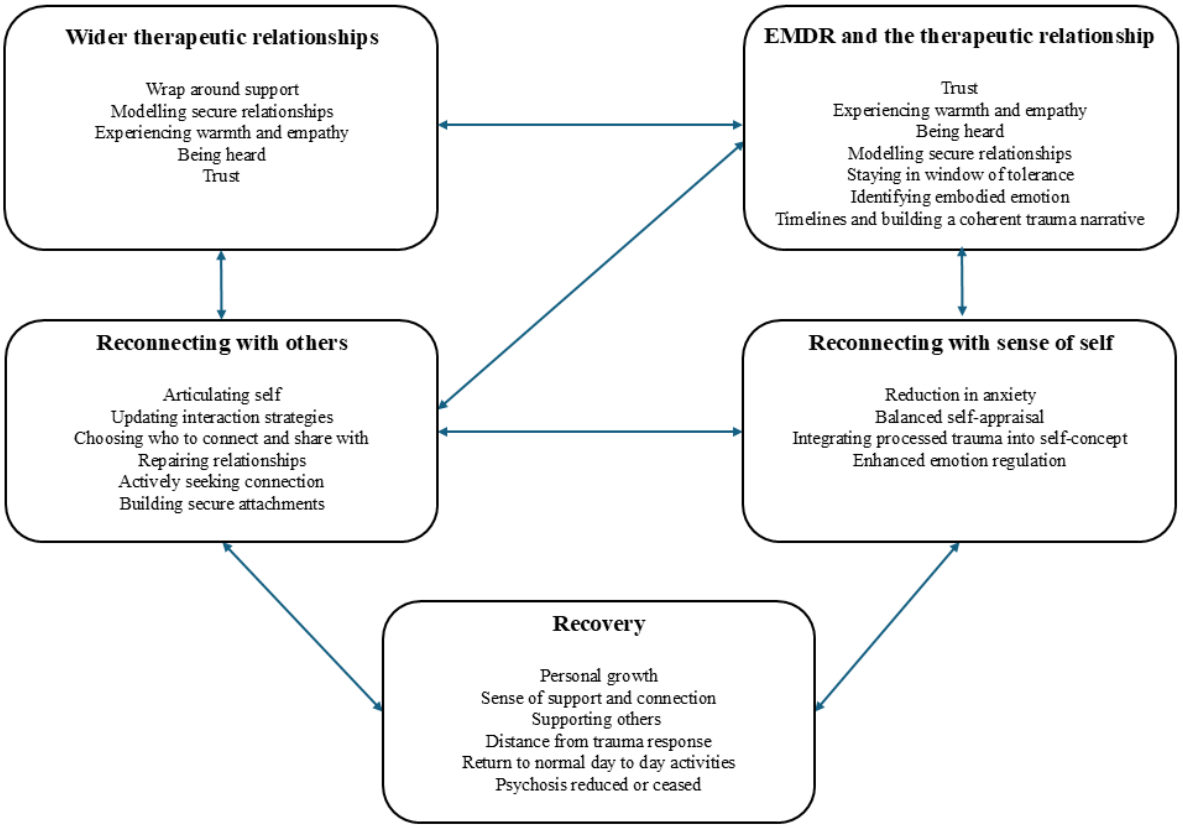
All participants described a shift in their approach to relationships through the process of EMDR that seemed to improve their sense of connection and relationship security in recovery. They described how they had come to feel closer to their loved ones through an ability to articulate their experience, express their needs, and feel supported: "*we like, help each other out and try and talk to each other as much as possible... I definitely talked to him more about like, making sense of things that have happened in childhood" (P5, 90-94)*

Three participants shared stories of supporting others e.g. through educating family members about their psychosis (p2), supporting friends (P2, P5, p6) or supporting others seeking recovery (P2)

> *and I got them to watch, uhm, a similar instance, somebody else who went through though psychosis, a video so they can understand that. And I think that helped a lot with how they dealt with me, I think, them understanding. (p2, 34)*

Descriptions of positive gains in recovery appeared balanced with an acknowledgement that sadness and grief still remained for some, but all participants stated that processing trauma through EMDR had enabled distance from the intensity of distressing emotion and enabled a return to normal day to day activity. "*I'm carrying this trauma, you know, still, you know, so there's probably this, this more melancholy side to me, you know, so it's not all positive.*" (P7,196). All participants reported a healing of trauma, and all appeared to experience a disappearance of psychosis apart from participant three, who shared that she had learned to live with her voices and enjoy a quality of life.

Figure 1. Model of attachment processes in EMDR for psychosis



Discussion

This research aimed to investigate what happens to relationship security through EMDR for psychosis, whether EMDR contributed to recovery, and what the processes were between attachment, EMDR for psychosis and recovery. The model developed, suggested that by reconnecting with a sense of self and others through the therapeutic and wider relationships in EMDR, participants' sense of attachment security might have been improved, contributing to a sense of recovery.

What happened to relationship security through the EMDR for psychosis process?

The model developed suggested that the therapeutic relationships with clinicians and the wider team in EMDR allowed participants to reconnect with a sense of self, improving self-appraisal, which enabled the ability to articulate self and adapt social skills to navigate relationships with others. The present findings suggested that this enabled participants to increase their attachment security through a felt sense of support and an ability to repair and forge new relationships.

The current model showed remarkable similarities with Dansby-Olufowote et al.'s (2019) grounded theory of earning secure attachment both in and outside of therapy. Dansby-Olufowote et al.'s (2019) theory included 'metaconditions' that described what participants did differently to move along the path of earning security, which maps onto the process of forging secure attachments with surrogate attachment figures in EMDR in the current model. Their second concept of 'making interpersonal changes' aligns with the current model's choosing to trust in therapeutic relationships and updating interaction strategies. The third concept of 'making intrapsychic changes' reflects the current model's process of reconnecting with self and balancing self-appraisal through the building of a coherent trauma narrative. Dansby-Olufowote et al. (2019) suggested that a move towards attachment security

is more likely to occur with more sessions of therapy. As all participants except participant seven in the current study had EMDR over a year or more, this presents a case for extended therapy duration for those who have experienced psychosis. This might also explain some of the success of Early Intervention Services (EIS: Neale & Kinnair, 2017) who offer wrap around care for up to three years.

Mentalising was identified in part A of this project as supporting the building of secure relationships, thus improving a sense of recovery from psychosis. Three mentalising processes that emerged both in part A and in the current research were: individuals' potential to come to a more balanced self-appraisal through reconnecting with self; to build trust with others; and to be able to anticipate others to adjust approaches in interaction. This strengthens the findings in the current study and suggests that crucial processes in EMDR might not be limited to processing trauma but also building mentalising capacity.

Do participants think EMDR contributed to recovery?

Participants' stories suggested that the ability to regulate emotion, reduce anxiety and improve attachment security, resulted in a sense of support and connection, including being able to support others, personal growth, and an ability to remember and talk about their trauma without feeling overwhelmed in recovery. This enabled a return to normal day to day activities.

The findings for mentalising and recovery in the current research are supported by Braehler and Schwannauer (2012), who found a connection between greater reflective function (mentalising capacity) and improved recovery outcomes. Their findings also support the current theory that an ability to regulate emotion in EMDR allowed mentalising, which enabled participants to cope with and integrate trauma and psychosis into their self-concept. It is understood in the wider literature that greater mentalising capacity enables people more

resilience in the face of adverse events (e.g. Wagner-Skacel et al., 2022). In the current model, this suggests that EMDR's ability to improve mentalising processes might support with maintaining recovery.

The support from wider mental health professionals was deemed integral for recovery for four participants (P1, P2, P5 & P6). This is consistent with the initial model for assertive outreach that focussed on the role of developing attachment to a whole team and suggested that those with insecure attachments found this easier than working solely on a one-to-one basis (Burns & Firn, 2022). In the current model, wrap around support during EMDR also provided an opportunity where participants could practice their new interaction strategies in the knowledge that they would be securely held while doing so. This suggests that where attachment insecurity might have played a role in the development of mental health difficulties, EMDR might increase chances for recovery in the context of wider multi-disciplinary teams (MDTs). The findings also suggest that the importance of relationship building with people accessing these teams, might be over and above other duties such as medication reviews, which is reflected in the wider literature (Murphy & Brewer, 2011; Chandra et al., 2018; Tindall et al., 2019). The importance of considering attachment relationships, in trauma informed care (TIC) has been highlighted across the literature (Morrissey & Higgins, 2022; Pleines, 2019) and their quality has been described as the most important determinant of outcome across many of the therapeutic modalities (Paul & Charura, 2014; Norcross & Lambert, 2018).

What are the processes in the interaction between attachment, EMDR for psychosis and recovery?

Three main processes were identified between attachment and EMDR for psychosis that contributed to recovery in the model. The first was the therapeutic and wider team relationships that enabled participants to feel heard, develop trust, and have secure

relationships modelled to them. The second was the reconnection with self through developing and integrating a coherent trauma narrative into self-concept, enabling emotion regulation, a reduction in anxiety, and improved self-appraisal. The third was seeking reconnection with others through new abilities to articulate a sense of self, updated interaction strategies, and the building of secure attachments.

These processes, however, are not all specific to EMDR. The importance of developing attachment security in the therapeutic relationship to optimise outcomes is widely understood (e.g. Norcross & Lambert, 2018; Rogers, 1995; Horvarth, 1994) and other therapies also support the building of emotion regulation strategies through trauma processing (e.g. trauma focussed CBT; Bisson & Andrew, 2005). Narrative Exposure Therapy was the only other identified therapy where trauma timelines are *integrated* into self-concept using other knowledge of self to create a coherent narrative (Schauer et al., 2020), but evidence is extremely limited for the efficacy of this approach for psychosis (Sparrow & Fornells-Ambrojo, 2024), suggesting this process might be specific to the current model for EMDR and psychosis.

The process of developing a coherent narrative that allows communication of self to others has also been described in the wider literature as supporting the development and maintenance of secure attachments (Di Fini & Veglia, 2019; Lind et al., 2019) which lends support to the connection between these two processes in the model.

The current findings are also strengthened through resonances with a recent study exploring experiences of intensive EMDR for post-traumatic stress. In this study, a theme of ‘A chance to live the way I want to’ captured processes of reconnecting with self, through developing a coherent self-narrative and recognising embodied emotion that allowed (re)connection with others (Butler & Ramsey-Wade, 2024).

Limitations

A clear model emerged from the data, but the current study was not without its limitations. Despite an eighteen-month search across seven NHS Trusts, only seven people agreed to participate, and they were of an older cohort (none under aged 30) with only two males. Although the interview data was rich and yielded clear interacting processes between attachment and EMDR, there was not enough information to confidently define potential differences between attachment style, gender or age. However, similarities between the current study and Braehler and Schwannauer (2012) whose focus was on adolescents and young adults, and Dansby-Olufowote et al., (2019) who had a larger sample of adults (15 females and 5 males), does go some way to mitigate this.

The PAM-R (Pollard et al., 2020) was underutilised in the study as there were not enough participants to draw robust comparisons between participants' attachment styles across the interview data. Moreover, participants described reductions in anxiety or avoidance between childhood and adulthood in interview, which were not reflected in their ECR-S scores (Wei et al., 2007) so this questionnaire data could also not be fully utilised. The ECR-S (Wei et al., 2007) relied on participants being able recall early relationships after decades which may have influenced their clarity so more focus could have been given in the interview to explore participants' perceptions of changes in specific items in the screening tool and when they think these changes might have occurred (e.g. prior to the EMDR process or during the EMDR process). Furthermore, changes in disorganisation, which has a higher prevalence in psychosis (Bucci et al., 2017), could not be identified as this aspect of attachment was only measured in the PAM-R (Pollard et al., 2020).

Several participants had accessed other therapy prior to EMDR, and two participants specifically described a focus on attachment in earlier non-EMDR therapy. Although

attempts were made in these interviews to clarify, it was difficult to distinguish where the process of earning securer attachments might have started. However, these participants were still able to describe aspects of how making sense of their traumas in EMDR enabled them to consider closer bonds with others.

Although there were some data to start to answer the question of how participants might have defined recovery, this question was not asked directly. This aspect of the model might have benefitted from further questioning which was cut short due to difficulties recruiting participants. Moreover, there were no participants for whom EMDR had not worked. Future studies might benefit from interviewing those who were unable to heal their trauma to identify other factors that might have reduced the chance for a sense of security to be achieved.

The model represented connections between concepts that emerged from the data. Based on the established literature, a direct connection between wider therapeutic relationships and reconnecting with a sense of self would be expected to be seen, however, this could not be justified from the accounts given by participants. It is possible that this link might have been identified with a greater sample size through theoretical sampling.

Clinical implications

The current findings indicate the need for EMDR clinicians to focus on the attachment processes of emotion regulation and ability to mentalise self and others. A focus on these processes might support clients to access vital support from social networks in their recovery from psychosis.

It is possible that those coming into EIS and other psychosis pathways might never have experienced security in relationships prior to seeking help. The current findings suggest that both EMDR practitioners and the surrounding MDTs should place emphasis on building secure attachments with those recovering from psychosis that are grounded in warmth,

empathy, trust and the ability to hear and validate clients' stories. This clinical implication is supported by current literature on trauma informed care (Adshead, 1998; Adshead, 2001; Berry & Drake, 2010; Schuengel & van Ijzendoorn, 2001) and suggests that endings might need to be carefully planned across the service when discharging from services to ensure that a newly developed ability to form and maintain security in attachments is carefully transitioned to clients' social networks in the community. This approach has been encouraged in the wider literature (e.g. Marmarosh, 2017).

Attachment security is protective of mental health (Bowlby, 1982) and there is strong evidence that people are less likely to experience post-traumatic stress following a traumatic event if they have secure relationships (Cushing et al., 2024). This suggests that the ability to develop skills for mentalising and relationship security in EMDR might have a longer-term effect of enabling clients to overcome later adverse life experiences without recurrence of psychosis.

Further research

This study highlighted attachment processes in healing trauma through EMDR for psychosis. As there are numerous psychological approaches to psychosis, it might also be useful to identify attachment processes in other interventions that could promote better recovery outcomes when healing trauma and psychosis such as trauma focussed CBT or CBT for psychosis.

Further research might also benefit from exploring outcomes for younger populations with an 'at risk mental state' (ARMS: Ajnakina et al., 2019) of developing psychosis receiving EMDR. Only one study of this kind was identified and just half of the participants experienced improvements, potentially because time in therapy for this study was brief and may not have been sufficient for earning attachment security (Strelchuk et al., 2024). It is

hypothesised that EMDR embedded in longer term intervention such as EIS might be an important preventative intervention for those at risk of developing psychosis.

If the current research was to be repeated, the ECR-S (Wei et al., 2007) might be better utilised in a larger sample to interpret patterns between what was reported and what participants shared, and why they might have differed. For example, it was noted that the two participants who reported greater attachment security in childhood had both experienced major single event traumas later in life that potentially impacted attachment security (see table 1). For these participants, it might have been that attachment anxiety was reduced through EMDR but not to the levels experienced in childhood. Another option would be to screen participants using the adult attachment interview (George et al., 1985) as this might provide a richer picture of participants' prior attachment experiences and allow better comparison between attachment styles and how they interact with EMDR for psychosis. Part A suggested mentalising supports recovery from psychosis, which was reflected in the processes of reconnecting with self and interacting with others in the current study. Further research is needed with a deeper focus on precisely how EMDR might promote the development of mentalising capacity by interviewing participants on specific aspects of the EMDR process accounting for pre-post ability to infer the internal states of self and others.

Considering that rates of disorganised attachment are higher for people who experience psychosis than the rest of the population (Bucci et al., 2017), it is hypothesised that healing trauma and promoting secure attachments through EMDR using the current model, might reduce levels of disorganisation in attachment. It would be useful to repeat the current study with a focus on individuals in EIS with disorganised attachment to identify how disorganisation might differ from other attachment styles in the pursuit of earning security.

Conclusion

The current grounded theory generated a model that elucidated the processes between attachment and EMDR for psychosis. Through EMDR, participants were able to heal their trauma, reconnect with stories of self, connect with others and develop greater attachment security, enabling personal growth in recovery. The vital roles of therapeutic and wider professional relationships were highlighted in this process.

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Part C: Appendices and Supporting Materials

Bobby Cramp BSc Hons, MSc

Submitted in partial fulfilment of the requirements of Canterbury Christ Church University for the degree of Doctor of Clinical Psychology 2024

2024

SALOMONS INSTITUTE FOR APPLIED PSYCHOLOGY CANTERBURY CHRIST CHURCH UNIVERSITY

Appendix A: Quality review

Joanna Briggs Institute (JBI) family of quality assessment tools for qualitative papers (Lockwood et al., 2015), quantitative papers (Barker et al., 2023), systematic reviews (Aromataris et al., 2015), case studies (Moola et al., 2015), and descriptive text and opinion (McArthur et al., 2015)

JBI critical appraisal checklist for text and opinion

	Armando et al. (2019)	Brent and Fonagy (2014)	Griffiths and Mcleod (2020)	Hasson-Ohayon and Lysaker (2021)	Knauss et al., (2018)	Schwanauer (2013)	Weijers et al., (2020)	Salaminios and Debbane (2021)
Is the source of the opinion clearly identified?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the source of opinion have standing in the field of expertise?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Are the interests of the relevant population the central focus of the opinion?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is the stated position the result of an analytical process, and is there logic in the opinion expressed?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is there reference to the extant literature?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is any incongruence with the literature/ sources logically defended?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Overall appraisal	Included	Included	Included	Included	Included	Included	Included	Included

JBI critical appraisal checklist for qualitative research

	Braehler and Schwanner (2012)
Is there congruity between the stated philosophical perspective and the research methodology?	Yes
Is there congruity between the research methodology and the research question or objectives?	Yes

Is there congruity between the research methodology and the methods used to collect data?	Yes
Is there congruity between the research methodology and the representation and analysis of data?	Yes
Is there congruity between the research methodology and the interpretation of results?	Yes
Is there a statement locating the researcher culturally or theoretically?	No
Is the influence of the researcher on the research, and vice- versa, addressed?	Yes
Are participants, and their voices, adequately represented?	Yes
Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?	Yes
Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	Yes
Overall appraisal	Included

JBI Critical appraisal checklist for case reports

	Buck and George (2016)	Ridenour et al., (2020)	Morante (2004)	Debbane et al. (2022)
Were patient's demographic	Yes	Yes	Unclear	No

characteristics clearly described?				
Was the patient's history clearly described and presented as a timeline?	Yes	Yes	Unclear	Yes
Was the current clinical condition of the patient on presentation clearly described?	Yes	Yes	Yes	Yes
Were diagnostic tests or assessment methods and the results clearly described?	Yes	N/A	N/A	Yes
Was the intervention(s) or treatment procedure(s) clearly described?	Yes	Yes	Unclear	Yes
Was the post-intervention clinical condition clearly described?	Yes	Yes	Yes	Yes
Were adverse events (harms) or unanticipated events identified and described?	Yes	Yes	Yes	Yes
Does the case report provide takeaway lessons?	Yes	Yes	Yes	Yes
Overall appraisal	Included	Included	Included	Included

JBI critical appraisal checklist for analytical cross-sectional studies

	Concerto et al., (2023)
Were the criteria for inclusion in the sample clearly defined?	Yes
Were the study subjects and the setting described in detail?	Yes
Was the exposure measured in a valid and reliable way?	Yes
Were objective, standard criteria used for measurement of the condition?	Yes
Were confounding factors identified?	Yes

Were strategies to deal with confounding factors stated?	No
Were the outcomes measured in a valid and reliable way?	Yes
Was appropriate statistical analysis used?	Yes
Overall appraisal	Included

JBI critical appraisal checklist for randomised control trials

	Montag et al. (2014)	
Bias related to selection and allocation		
Was true randomization used for assignment of participants to treatment groups?	Yes	
Was allocation to treatment groups concealed?	No	
Were treatment groups similar at the baseline?	yes	
Bias related to administration of intervention/exposure		
Were participants blind to treatment assignment?	No	
Were those delivering the treatment blind to treatment assignment?	No	
Were treatment groups treated identically other than the intervention of interest?	No	Stated control group involved in various other therapeutic activities in discussion
Bias related to assessment, detection and measurement of the outcome		

Were outcome assessors blind to treatment assignment?	yes	
Outcome 1	yes	Neuropsychological tests
Outcome 2	no	LEAS transcripts by psychiatrist not otherwise involved in study
Were outcomes measured in the same way for treatment groups?	yes	
Were outcomes measured in a reliable way		Although reliability and validity not discussed in paper
Outcome 1	yes	
Outcome 2	yes	
Outcome 3	yes	
Outcome 4	yes	
Outcome 5	yes	
Outcome 6	yes	
Outcome 7	yes	
Outcome 8	yes	
Outcome 9	yes	
Outcome 10	yes	

Outcome 11	yes	
Was follow up complete and if not, were differences between groups in terms of their follow up adequately described and analysed?		
Outcome 1		
Result 1	Yes	Follow up at only 6w and 12 w post intervention
Result 2	Yes	Follow up at only 6w and 12 w post intervention
Outcome 2		
Result 1	Yes	Follow up at only 6w and 12 w post intervention
Result 2	Yes	Follow up at only 6w and 12 w post intervention
Were participants analysed in the groups to which they were randomized?		
Outcome 1		
Result 1	yes	Some drop out from group
Result 2	yes	Some drop out from group
Was appropriate statistical analysis used?		

Outcome 1	Yes	ANCOVA, normality tests, T and CHI tests used for differences between groups of demographic and illness parameters. Post treatment and follow up scores were compared
Outcome 2	Yes	As above
Was the trial design appropriate and any deviations from the standard RCT design (individual randomization, parallel groups) accounted for in the conduct and analysis of the trial?	No	No power calculations were performed. Small sample size 29 participants in each group so study may be underpowered. Also no standardised active control group to control for the impact of group dynamics and relationship to therapist
Comments: This was an underpowered study with multiple limitations however. Information discussed in the outcomes for the AT group were relevant to the current study		

Appendix B: Table of extracts

Table 1. Part A Table of Extracts

Construct	Concept	Theme/code	Extract
The development of psychosis	Trauma/stressful events	Childhood Trauma	disorganized attachment is related to childhood trauma, which heightens one's risk of developing positive psychotic symptoms. (Ridenour et al., 2021, p1787)
		Developmental trauma	In particular, we hypothesize that aberrant mental state understanding arising in the context of attachment disturbances, especially in the context of trauma, may potentiate dysregulation of the stress-response system….There is growing recognition that early childhood adversity, such as aberrant relationships with caregivers (Howes *et al*., 2004) and other experiences of trauma (Varese *et al*., 2012), represent an important environmental risk factor for schizophrenia. (Brent & Fonagy, 2014, p248-249)
	Poor mentalising role in psychosis	Loss of mentalising	When early attachments are disorganised or riddled with anxiety: and are therefore not secure, persons are believed to become vulnerable to the loss of their mentalization abilities. Thus, in contrast to metacognitive theory, deficits in mentalization are believed to be state-like, and occur in response to situations that activate the experiences of insecure attachment, which then leads to a temporary state of emotional dysregulation (Hasson Ohayon & Lysaker, 20 p4)

Construct	Concept	Theme/code	Extract
		Disrupted attachments	People at risk for psychosis who develop mentalization impairments in the context of aberrant attachment relationships, therefore, may be particularly susceptible to forming abnormal explanatory models of their social experience (i.e., 'prodromal' symptoms) during acute stress. (Brent & Fonagy, 2014, p250)
		Mentalising linked to specific unusual experiences	Consistent evidence shows that mentalization is significantly impaired in schizophrenia and may be a trait marker for the illness (Sprong *et al*., 2007). For example, meta-analyses have shown that mentalization (typically measured via theory of mind (ToM) tasks) is abnormal: (1) among patients with schizophrenia in the absence of acute psychotic symptoms (Bora *et al*., 2008); (2) in genetic high-risk (i.e., first-degree) relatives of patients (Bora and Pantelis, 2013); (3) in people meeting criteria for the schizophrenia prodrome (i.e., individuals with attenuated psychotic symptoms who are thought to be at increased risk of transitioning to schizophrenia) (Bora and Pantelis, 2013). The importance of mentalization deficits in the psychopathology of schizophrenia is further suggested by studies linking disturbances of mentalization with key psychotic symptoms (e.g., delusions and hallucinations) (Harrington *et al*., 2005), poorer insight into illness (Bora *et al*., 2007), and greater social dysfunction (Fett *et al*., 2011) in people with the illness.((Brent & Fonagy, 2014, p250)

Construct	Concept	Theme/code	Extract
	Feelings placed outside self	Disconnecting from emotion	Alternatively, if the mirroring is too exaggerated and imbued with the caregivers own preoccupation (i.e. responding to the child's anxiety with a sense of panic), the child may experience their affective states as overwhelming and dangerous. In both cases, rather than internalising modulated mental representation of self-experience, the child will internalise the *perceived* attitude of the caregiver, either disconnecting from their affective and bodily states, or be coming overwhelmed by them. (Salaminios & Debbané 2021, p17)
		Poor affect regulation	Adults with disorganised and unresolved attachments patterns will characteristically show disorganisation of affect regulation, behaviour and the monitoring of narrative and discourse. This is characteristic of the approach avoidance conflict that we often see in adults seeking help for past trauma and abuse. (Schwannauer, 2013, p72)
		Avoidance of psychic pain	Where sensory affective signals coming from one’s body are discarded to attenuate their distressing effect. Instead, delusional explanations of self-experience, decoupled from shared reality with others and impervious to

Construct	Concept	Theme/code	Extract
			contradictory sensory evidence, are developed and held with rigid certainty, offering a psychic retreat. (Salaminios & Debbané 2021, p21)
			To summarise, individuals prone to psychosis demonstrate emotional reactivity in conjunction with a diminished awareness of their own affective state, but use normal, if ultimately maladaptive, regulatory processes to deal with emotional arousal. This style of dealing with emotional information might shape negative symptom expression. (Griffiths & McLeod, 2020 p69)
		Difficulty differentiating between internal and external	The total dismantling or unavailability of any differentiated internalised object relations, with a corresponding fragmentation of affects, of self and object representations, and chaotic fusions of the self and object representations'. (Morante, 2004, p308)
			Since acute psychotic symptoms commonly arise in the context of misunderstanding social situations (e.g., persecutory delusions and hallucinations), or as a result of aberrant self-appraisal with respect to other

Construct	Concept	Theme/code	Extract
			people (e.g., grandiose delusions), one hypothesis is that the breakdown of mental state understanding during stressful social settings may contribute to the disruption of reality testing (i.e., the ability to differentiate between internal and external stimuli) and, thus, to the emergence of psychosis in vulnerable individuals. (Brent & Fonagy, 2014, p246) Further, one of the consequences of impaired mentalization from an MBT standpoint is the likelihood that early, 'pre-mentalistic' forms of thinking may emerge during stress; including: (1) psychic equivalence thinking, in which the ability to consider outside perspectives on one's inner experience becomes lost and one's own thoughts and/or feelings are taken as unequivocally real; (2) pretend mode thinking, in which one's mental life is decoupled from any meaningful relationship to external reality, lacking genuine connectedness to actual experiences involving other people;(Brent & Fonagy, 2014, p248) Failures to construe mental representations of these apparent sensory states may result in experiences of overwhelming confusion, where embodied signals, which normally sustain self-continuity, lose their meaning, become highly unpredictable, and are perceived as external to the self. (Salaminios & Debbané 2021, p 21)

Construct	Concept	Theme/code	Extract
	Symbolic representation	Protective response	as indicators of a learned coping response in the face of overwhelming life adversity that includes both externally experienced events and painful affects that are avoided…It has also been proposed that negative symptoms can reflect protective responses to overwhelming life experience including psychosis itself (Griffiths & McLeod, 2020 p62)
		External objects	Although this retreat to delusional thinking patterns often entails profound distress characterised by feelings of fear and persecution, the threat to the self is no longer nameless, or experienced as originating from one's own mind, but is instead organised around objects in the external world. In other words, delusional states afford a false sense of cohesion that temporarily reduces the anxiety of fragmentation linked to states of overwhelming affect, albeit at the grave cost of mental and relational isolation. (Salaminios & Debbane, 2021, p21)
	Social withdrawal	Dismissing attachment	Additionally, impaired mentalization (i.e., the ability to understand one's behaviors and the behaviors of others as linked to underlying thoughts, feelings, and desires) is more severely compromised with people who have a dismissing attachment style (MacBeth et al., 2011). For instance, if a person has trouble

Construct	Concept	Theme/code	Extract
			identifying their motives and deciphering the emotions and intentions of others, heightened anxiety and social confusion might lead to withdrawal. (Ridenour et al., 2021, p1787)
		Loss of connection	Social withdrawal may affect the establishment and maintenance of close interpersonal relationships, a context in which significant interpersonal and social understanding can be experienced and deepened. Thus, many of the key manifestations in distal risk for psychosis (60) already affect the creation of the psychological tools to seek, participate in, and understand the interpersonal social world. In the opposite but complementary direction, the development of mentalizing seems to confer a protective role in those individuals at risk of developing psychosis. (Armando et al., 2019, p4)
		Diminished expressivity	The inability to reflect upon emotional distress and its psychosocial causation is not only likely to result in diminished expressivity, but may also block social behaviour, given that distress fails to be communicated. Possible links between unhelpful self- focus (e.g. rumination) and the use of emotional avoidance and withdrawal strategies to deal with interpersonal difficulties have been demonstrated. (Griffiths & McLeod, 2020 p69)

Construct	Concept	Theme/code	Extract
How mentalising can be initiated	Safe relationships	Therapeutic relationship	Within this framework, the primary goal of MBT-p is for the therapist to foster mentalization by holding the patient's mind "in mind" and providing a context that promotes curiosity and reflection …. Importantly, therapists monitor their own mentalizing capacity, openly reflecting on their experience in an effort to foster the examination of different perspectives as well as shared experiences, creating a context for interpersonal reflection. (Knauss et al., 2018, p350)
		Other relationships	It is thought that because attachment relationships provide the context in which the ability to mentalize initially develops, relationships with attachment figures may constitute a social setting that is especially well adapted to facilitate curiosity about minds and the acquisition of mental state understanding. (Brent and Fonagy, 2014, p246)
		Education	For example, by providing explicit information about mentalization, patient psychoeducation at the outset of treatment helps facilitate a collaborative treatment process (Brent & Fonagy, 2014, p251)

Construct	Concept	Theme/code	Extract
		Facilitating curiosity	In MBT, the therapist's focus on the patient's mind is crucial to developing a collaborative mentalizing process. Toward this end, maintaining an inquisitive, 'not-knowing' therapeutic stance with respect to a patient's thoughts and feelings is considered a key part of the process of stimulating the patient's curiosity about his or her own mind and facilitating the patient's ability to generate 'second-order representations' of self-states. (Brent and Fonagy, 2014, p253-254) Within this framework, the primary goal of MBT-p is for the therapist to foster mentalization by holding the patient's mind "in mind" and providing a context that promotes curiosity and reflection. (Knauss et al., 2018, p350)
Reconnecting with a sense of self	Self-reflection	Corrective source monitoring	Debbané et al. (2016) further expanded upon Frith's hypothesis by suggesting that patients with NAPD suffer specifically from problems with 'embodied' mentalizing. Embodied mentalizing involves the ability to consciously detect and identify sensory-affective signals coming from one's body and to critically think about them. Indeed, NAPD patients tend to make errors in the detection and identification of self-generated events, or 'source monitoring errors' (Weijers et

Construct	Concept	Theme/code	Extract
			al., 2020, p3)
			mentalizing enables us to form flexible and predictable representational models of human subjectivity in order to distinguish inner from external reality, sustain a coherent sense of self, and attenuate experiences of confusion and distrust within interpersonal relationships. (Salaminios & Debbané, 2021, p14)
		Integration of sensory affective and perceptive experience	By reinvesting aberrant bodily perceptive experiences with effective meaning, clients can develop a more coherent view of their self-experience, which can in turn strengthen their sense of self continuity. (Salaminios & Debbané, 2021, p28)
			Emotions are thus integrated with cognitions, and mentalisation therefore combines both emotional and cognitive appraisal and construction of meaning and intentionality. (Schwannauer, 2013, p75)

Construct	Concept	Theme/code	Extract
		Affect regulation	mentalization as a strategy for affect regulation and self-organization has a critical role to play in influencing emotional adaptation to psychosis. (Braehler & Schwannauer, 2012, p50) The acknowledgement of her anger towards me marked the beginning of a process that eventually would enable Miss A to re-appropriate disavowed feelings, which she attributed to the 'voices'. It would lead her to own not only anger but also fear, sadness and other ordinary human emotions such as curiosity about me and my life. … They have included: the capacity to feel concern for others and conversely to own feelings of hostility and jealousy; … At our monthly meetings I find her more able to acknowledge and think of feelings without having to disavow and project them out completely into the voices. (Morante, 2004, p314)
	Self-narrative	Balanced self-appraisal	In parallel, as he synthesized a more complex picture of himself, there were also reflections about others, including the therapist, which similarly became increasingly complex. As Part quickly was able to realize others had their own emotional reactions and sought to communicate particular things, the therapist wondered with him about the effect his behaviors may have had on others within specific narrative episodes. … it more easily followed that he began to show

Construct	Concept	Theme/code	Extract
			some ability to question his own thinking, which led to synthesizing a more complex image of himself. … He was able to form complex and integrated ideas of himself and others which helped him sustain a sense of himself and others across narrative episodes. (Buck & George, 2016, p193) Robust mentalizing is viewed as a developmental achievement, not a given, that bolsters an individual's capacity to navigate the interpersonal world while framing his or her own experience within a coherent narrative. (Knauss et al., 2018, p350)
		Integrating experience of psychosis into self-concept	Furthermore, the way in which people process their psychotic experience ('recovery style') has been linked to outcome. McGlashan described a continuum of recovery style ranging from 'integration' to 'sealing over' (McGlashan, 1987). An integrative style is marked by flexible thinking, which allows some individuals to readily accommodate their illness experiences into their wider life context. (Braehler & Schwannauer, 2012, p49)
		Communication of self states	This provided an opportunity for Andreas to practise noticing and reflecting on mental states in a way that minimised threat, ambiguity and misinterpretation. He was gradually encouraged to communicate to the therapist when he was

Construct	Concept	Theme/code	Extract
			experiencing high levels of affect during the session. (Griffiths & McLeod, 2020, p75) MBT attempts to loosen the dominance of affect-driven modes of information processing on thought and behavior (Pereira and Debbané 2018) as verbalizing sensory-affective experience has been shown to downregulate the intensity of such affect at neural, physiological, and subjective levels. (Weijers et al., 2020, p6)
Adaptation to social environments	Social agency	Curiosity about others	But actively sought out her thoughts to better understand his own growing ability to view the therapist as an individual with her own thoughts and ideas. (Buck & George, 2016, p190) The acknowledgement of her anger towards me marked the beginning of a process that eventually would enable Miss A to re-appropriate disavowed feelings, which she attributed to the 'voices'. It would lead her to own not only anger but also fear, sadness and other ordinary human emotions such as curiosity about me and my life. … (Morante, 2004, p314)

Construct	Concept	Theme/code	Extract
		Anticipating behaviour	Thinking about mental states underlying individual actions can provide the necessary tools for anticipating behaviour, understanding relationship patterns, and adapting to different types of social environments. (Armando et al., 2019, p3)
			He also demonstrated the ability to use metacognitive knowledge of himself and others to decide how to think about and respond to psychological and social challenges. Interestingly, as these abilities emerged he developed the capacity for Decentration. In particular, he first noticed that others had valid and differing perspectives and then could see the events occurring around him resulting from complex factors which varied according to the individuals involved. (Buck & George, 2016, p194)
		Moderating responses	He was able to use his knowledge of himself and others to think about the situation and react differently. (Buck & George, 2016, p194)
			Effective mentalisation allows the individual to organise changing social information in a way that regulates emotions, provides a guide to action and supports the person's ability to act independently as an agent of their own destiny. (Griffiths & McLeod, 2020, p67)

Construct	Concept	Theme/code	Extract
	Attachment security	Epistemic trust	Termination, which often activates feelings of grief and loss, provided a powerful moment for both Zoe and her therapist to reflect on the intimacy of the therapeutic relationship. They noticed a shift towards attachment security and trust that had developed over the months of their work, scaffolding Zoe's ability to reflect on her self-experience, mentalize others, and gradually establish epistemic trust. Tolerating the exploration of grief and loss was central to this process. (Ridenour et al., 2021, p1795)
			Patients with NAPD not only have difficulty updating their beliefs on the basis of sensory-affective experience but often become unsusceptible to others' viewpoints. Psychosis often coincides with a loss of socially construed meaning ('common' sense in its literal meaning) and 'epistemic trust' (e.g. Pereira and Debbané 2018). Epistemic trust is defined as the "willingness to consider new knowledge from another person as trustworthy, generalizable, and relevant to the self" (Fonagy et al. 2015). According to the epistemic trust hypothesis, there are two ways in which people may come to accept new views as true: They can try to deduce by themselves whether such new knowledge offers an accurate model of

Construct	Concept	Theme/code	Extract
			reality, or they can rely on the knowledge of someone they deem both epistemically trustworthy and well-meaning (Fonagy et al. 2017). A chronic lack of epistemic trust, sometimes referred to as epistemic hypervigilance, results in treating others as untrustworthy sources of information. It is thought to be pathogenic because it cuts individuals off from easy, interpersonal approaches to updating belief systems. Additionally, epistemic trust plays a central role in the sharing of cultural customs and values, because belonging to a certain cultural group gives rise to the expectation that one construes meaning of behavior in similar ways. Customs and values often have opaque functions but are nonetheless important to "fit in". (Weijers et al., 2020, p3)
		Shared meaning	the shared focus on agency and meaning-making enables individuals to develop a greater sense of identity and purpose in the world. (Knauss et al., 2018, p349) Psychotic patients may externalise their inner states in a concrete physical way - the artwork than allows to reflect upon, to clarify and to re-internalize meaning of internal states, and to develop a mentalising stance. (Montag et al., 2014, p9) Finally, the therapeutic relationship itself can be an opportunity to reflect on

Construct	Concept	Theme/code	Extract
			shared experience which can foster mentalization and learning about the patient's experience of attachment. (Ridenour et al., 2021, p1788)
Recovery	Subjective experience	Feeling connected	Rather than pharmacological factors however, social factors such as feeling connected (Eisenstadt et al. 2012; Hendryx et al. 2009) and experiencing social support (Norman et al. 2013; Thomas et al. 2016) seem instrumental to subjective and objective functional recovery. (Weijers et al., 2020, p3)
			In parallel, the field has evolved and developed constructs such as metacognition, mentalization, which have the potential to organise treatment around guidelines that support these kinds of subjective trains, changes that are central to recovery from psychosis. But how would this concretely occur in the real world? Clients presenting for psychotherapy do not arrive and simply ask for help with remedying alterations to their self-experience. They may announce that they suffer, but for vastly differing reasons. Some note oppression by stigma or disruptive power differentials, and some come after experiencing different types of trauma. Others note that their lives are adversely affected by anomalous experiences, a history of trauma or lack of deeper sense of connection with the human community. Others merely report that their lives and the world they inhabit have become confusing and unpredictable, and they feel lost. (Hasson-

Construct	Concept	Theme/code	Extract
			Ohayon & Lysaker, 2021, p7)
		Reduced self stigma	Self-exploration and insight are facilitated together with a strengthening of a creative sense of self [56], thus preventing self-stigma. (Montag et al., 2014, p9)
			Mentalization was positively associated with self-esteem as well as with general, social, and role functioning, suggesting that good mentalization skills are correlated with global measures of mental health (Concerto et al, 2023, p8)
		Integrating recovery style	Furthermore, the way in which people process their psychotic experience ('recovery style') has been linked to outcome. McGlashan described a continuum of recovery style ranging from 'integration' to 'sealing over' (McGlashan, 1987). An integrative style is marked by flexible thinking, which allows some individuals to readily accommodate their illness experiences into their wider life context. (Braehler & Schwannauer, 2012, p49)
			An integrating recovery style is characterized by those who think of their

Construct	Concept	Theme/code	Extract
			psychotic experiences as meaningful, consider how their psychotic symptoms emerged from their life experiences and take responsibility for their recovery…. Given MBT-p's focus on increasing mentalization, affect modulation, and interpersonal awareness, it might promote an integrating recovery style, which is based on a person's ability to be curious about their psychotic episode, make meaning of the experience, and use others as resources in this exploration. (Ridenour et al., 2021, p1786-1788)
		Reduction in strange experience	Further, avatar therapy for refractory auditory hallucinations, which implicitly initiates a mentalizing process as patients create a dialogue with an externalized avatar based on voices that have previously been experienced as 'other', and about which the person could not mentalize, has proven effective in reducing both the intensity and frequency of persistent auditory hallucination. (Brent & Fonagy, 2014, p250)
			Of note, as his narrative became richer, delusional material vanished, as it seemed he no longer needed it to explain pain or loss. In parallel, as he synthesized a more complex picture of himself, (Buck & George, 2016, p193)

Construct	Concept	Theme/code	Extract
		Self-continuity	By intuitively engaging in this reflective process about thoughts and feelings we quickly become aware that the voices we heard were products of our own imagination, and that we may have misattributed other's intentions as malevolent because of our own anxiety. In essence, we recover our self-awareness, which provides us with an implicit sense of self-continuity. (Salaminios & Debbané, 2021, p15)
			A clear focus on mentalization and associated areas of cognitive, interpersonal and social functioning within psychotherapeutic treatment in psychosis allows us to combine and integrate the co-construction of a coherent narrative of significant attachment experiences, emotional reaction and adaptation in the context of past trauma and current life events and stressors, with a positive outlook to emotional and social recovery. Within this approach, recovery after psychosis allows for the expression of symptoms and individual adaptive coping strategies to be understood as a reflection of the individual's attempts to make sense and regulate the effective impact of past experience and transitions. (Schwannauer, 2013, p79)

Construct	Concept	Theme/code	Extract
	Active engagement	Seeking out connection/social support	Furthermore, the RAS [Recovery Assessment Scale] Help subscale was directly associated with the IOS [Insight orientationScale] total score, the RAS Success subscale with the MMQ [Multidimensional Mentalising Questionnaire] total score, (Concerto et al, 2021, p7) Emotional recovery from psychosis is governed by an integration of the affective experience interpersonal adaptation and constructive help seeking in the face of emotions of thus integrated with cognitions and mentalization therefore combines both emotional and cognitive appraisal and construction of meaning and intentionality. (Schwannauer, 2013, p68) She has recovered a will, albeit at times a fragile one, to live and an enjoyment of life and increasingly reaches out to personal and social possibilities that she had discarded in the course of almost a decade of mental illness. (Morante, 2004, 321)

Construct	Concept	Theme/code	Extract
		A return to positive activities	He was not experiencing any persistent distress and had developed positive relationships with his family and others, and began to volunteer in his church. Part noted awareness that it was still painful to not be seen in a positive light by others but indicated that this was not disabling in anyway. (Buck & George, 2016, p194) Conversely, young people with moderate RF were able to face up to a difficult adjustment process. Avoidance, angry protest, and gradual reappraisal eventually led to acceptance and reinvestment in life. They successfully embraced their vulnerabilities and prognostic uncertainty, which in some cases led to personal growth. This process is in keeping with other stage models of recovery (Andresen et al., 2003; Spaniol et al., 2002). Young people's stories suggest that positive adaptation to psychosis is closely connected to a young person's ability to re-embark on their developmental trajectories. Re-establishing a stable sense of self is considered to be at the heart of recovery. (Braehler & Schwannauer, 2012, p63)

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Appendix C: Table of extracts linking concepts

Table 2. Part A how concepts link to one and other

Concepts	Reference
Affect regulation/ attachment	Eventually, these internalized, modulated representations of experiences of distress build up the child's capacity for affect regulation and lead to genuine relatedness with caregivers that include a sense of appropriate self-sufficiency and independence. (Brent & Fonagy 2014, p247) Zoe gradually became more open to exploring her psychosis, could stand to face her terror, insecurities, and grief about her psychotic experience, and developed more attachment security over the course of residential treatment. (Ridenour et al., 2021, p1794) Emotional recovery from psychosis is governed by an integration of the affective experience, interpersonal adaptation and constructive help seeking in the face of crisis. (Schwannauer, 2013, p75)
Affect regulation/ Self appraisal	In contrast to Leon, Sarah spontaneously shows a high level of reflective self-awareness and distress tolerance when talking about how she copes with low mood. Being aware of the transient nature of emotions seems to allow her to adopt an accepting and caring attitude towards herself, which appears to help her adaptation. (Braehler & Schwannauer, 2012, p58)

	And his agenda began to also involve exploring his emerging emotions and dealing with resultant pain. His focus changed from detailing prior insults to wondering what he thought about himself. (Buck & George, 2016, p)
Affect regulation/ reduction in Unusual experience	Robust mentalizing is characterized by balanced consideration of the links between thoughts, feelings, and desires. However, for Zoe, there was an impoverishment of feelings available for exploration and her thoughts were not clearly connected. This presentation required scaffolding from the therapist to facilitate mentalizing. Curiosity, simple questions, and continual efforts to link emergent thoughts with feelings was a core aspect of the work throughout the treatment. Notably, this was a collaborative process between Zoe and her therapist, allowing for the gradual translation of obscure, unknown, and confusing states of mind into a shared language (Ridenour et al., 2021, p)
Affect regulation/self -continuity	By reinvesting apparent bodily perceptive experiences with effective meaning, clients can develop a more coherent view of their self-experience, which can in turn strengthen their sense of self continuity. (Salaminios & Debbané, 2021, p28)

Affect regulation/ thinking about interaction/Social agency	Effective mentalisation allows the individual to organise changing social information in a way that regulates emotions, provides a guide to action and supports the person's ability to act independently as an agent of their own destiny. (Griffiths & McLeod, 2020, p67)
Attachment/ Mentalising	Finally, the therapeutic relationship itself can be an opportunity to reflect on shared experience which can foster mentalization and learning about the patient's experience of attachment. (Ridenour et al., 2021, p1788)
Attachment/ Recovery	The MMQ subscales "reflexivity", "ego-strength", and "relational attunement" were found as the main predictive factors explaining the PR, suggesting that people with schizophrenia who have better mentalization capacity also have a stronger subjective experience of recovery. (Concerto et al., 2023, p7) Rather than pharmacological factors however, social factors such as feeling connected (Eisenstadt et al. 2012; Hendryx et al. 2009) and experiencing social support (Norman et al. 2013; Thomas et al. 2016) seem instrumental to subjective and objective functional recovery. (Weijers et al., 2020, p2)
Reality testing/ Self-social landscape	A recent meta-analysis by Thibaudeau et al. exploring the associations between ToM and different domains of functioning in schizophrenia showed a strong association between mentalization abilities and functioning in areas involving social interactions such as social functioning and productive activities (Concerto et al., 2023, p8)

	Feeling “mentalized about” in therapy is thought to make the patient feel safe enough to think about himself in relation to his social world and how he operates in it (Fonagy and Allison 2014), which aids the restructuring of the “organization of thinking into less rigid, delusional and pervasive patterns of reality testing” (Pereira and Debbané 2018). Becoming more flexible in one’s cognitive beliefs, opens up the opportunity to again learn from experience and other perspectives, which is thought to lead to an improvement of understanding one’s self and the social world. (Weijers et al., 2020, p6)
Recovery/ Attachment	A stronger will to live and an increased sense of agency and control of her life, including a greater capacity to negotiate closeness to others and participation in social activities (Morante, 2004, p318)
Self-reflection/ Help seeking	A person who has an integrating recovery style remains curious about the psychotic experience and tries to enlist others to help them learn about it. (Ridenour et al., 2021, p1787)
Self/Attachment	That the tendency to understand the profound meaning of one’s life events, with the ability to analyze one’s experiences and the ability to manage daily difficulties with a sense of efficacy and realistic confidence, might influence the ability to discern personal desires and protective strategies, along with the capacity to engage with others. (Concerto et al., 2023, p8)

Self /Recovery	This lends support to the idea that illness adaptation and development of self are parallel and interacting processes. Therefore, a developmental perspective is critical to helping young people recover. (Braehler & Schwannauer, 2012, p64)
	Over the course of treatment, he developed richer and more complex ideas about himself and ultimately could take charge of his own recovery and experience a fully acceptable quality of life. (Buck & George, 2016, p194)
	Based on this perspective, recovery from psychosis would seem for many to involve the reversal or amelioration of alterations to sense of self the need to consider sense of self as a key aspect of recovery has important clinical implications. (Hasson-Ohayon & Lysaker, 2021, p2)
Self / Agency	First, enhancing self-understanding and social cognition can help an individual navigate the social world, which has been connected to indices of recovery such as quality of life and community functioning.13 More immediately, it can aid in the development and maintenance of the therapeutic alliance, (Knauss et al., 2018, p349)
Self-Narrative/ Reduction in unusual experience	Of note, as his narrative became richer, delusional material vanished, as it seemed he no longer needed it to explain pain or loss. In parallel, as he synthesized a more complex picture of himself, (Buck &

	George, 2016, p193)
Self-reflection/Shared language/ attachment	Robust mentalizing is characterized by balanced consideration of the links between thoughts, feelings, and desires. However, for Zoe, there was an impoverishment of feelings available for exploration and her thoughts were not clearly connected. This presentation required scaffolding from the therapist to facilitate mentalizing. Curiosity, simple questions, and continual efforts to link emergent thoughts with feelings was a core aspect of the work throughout the treatment. Notably, this was a collaborative process between Zoe and her therapist, allowing for the gradual translation of obscure, unknown, and confusing states of mind into a shared language. (Ridenour et al., 2021, p1795)
Self/Social landscape	Any larger sense of self and others is always constructed, whether through the enhancement of metacognition or mentalization, with someone else either explicitly or implicitly in mind. Thus, representations of self and others always have meanings because of the actual or potential sharing of that sense. (Hasson-Ohayon & Lysaker, 2021, p6) Robust mentalizing is viewed as a developmental achievement, not a given, that bolsters an individual's capacity to navigate the interpersonal world while framing his or her own experience within a coherent narrative. (Knauss et al., 2018, p350)

Appendix D: Sample coded paper

Psychology and Psychotherapy: Theory, Research and Practice (2012), 85, 48–67

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Recovering an emerging self: Exploring reflective function in recovery from adolescent-onset psychosis

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Objectives. This paper investigates (1) the processes involved in how young people with adolescent-onset psychosis adapt to psychosis and (2) how processes of reflective function (RF) influence the adaptation process.

Design. This study used a qualitative design to inductively construct hypotheses about processes of adaptation and to deductively explore the influence of RF on adaptation.

Methods. Eight young people (aged 18–21) who had experienced clinically significant psychosis and attended a Child and Adolescent Mental Health Services (CAMHS) first-episode psychosis service participated in two interviews: (1) grounded theory open interview; (2) Adult Attachment Interview (AAI). Grounded theory methodology was used to investigate young people's experiences of adaptation to psychosis. Fonagy's manual of RF was used to identify passages with different levels of RF in the adaptation narratives and to assign an overall rating of RF with regard to attachment states of mind to AAI transcripts. Links between adaptation themes and RF were examined qualitatively across participants.

Results. Two main themes relating to adaptation and adolescent individuation emerged. Moderate RF was linked to primarily positive adjustment and successful individuation following psychosis. Impaired RF was associated with unresolved adaptation and blocked individuation post-psychosis.

Conclusion. Level of RF appeared to moderate adaptation and individuation processes post-psychosis and should be considered in the delivery of psychological therapies.

Experiencing a psychotic disorder in the midst of adolescence disrupts developmental tasks of establishing an identity away from parents, of becoming more autonomous and of gaining an education (Harrop & Trower, 2003; McGorry & Jackson, 2008). Whilst the neurodegenerative disease model is gradually being replaced with a more

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Mentalising allows adaptation to psychosis

Mentalising allows individuation, autonomy, identity, gaining education.

hopeful recovery-focused approach, young people and their families still have to contend with prognostic uncertainty (Bentall, 1990). The heterogeneity of outcome following a first episode of psychosis is well documented (Ciompi, 1980; Jablensky *et al.*, 1992). Findings from traditional outcome research provide limited information about what promotes positive long-term outcome (Jablensky *et al.*, 1992; Murray & van Os, 1998). Qualitative recovery research describes how individuals with psychosis move through stages of adaptation akin to grieving a loss, with some reaching acceptance and developing resilience (Andresen, Oades, & Caputi, 2003; Spaniol, Wierowski, Gagne, & Anthony, 2002). Whilst these qualitative models provide rich detail on the psychological processes involved in adaptation, they fail to account for the differences between those who remain stuck at being overwhelmed by their illness and those who adjust well.

Other research has focused on explaining how the high prevalence of emotional dysfunction amongst individuals with psychosis might compromise adaptation (Birchwood, 2003). Negative appraisals of psychosis such as feeling entrapped, lacking control, feeling ashamed and excluded have been linked to increased anxiety (Gumley, O'Grady, Power, & Schwannauer, 2004; Karatzias, Gumley, Power, & O'Grady, 2007) and depression (Birchwood, Mason, Macmillan, & Healey, 1993). Post-psychotic depression has been linked to poorer outcome in terms of increased suicidal thinking (Birchwood, Iqbal, Chadwick, & Trower, 2000), increased risks to self and others, worse quality of life, mental functioning and family relationships (Conley, 2009).

Furthermore, the way in which people process their psychotic experience ('recovery style') has been linked to outcome. McGlashan described a continuum of recovery style ranging from 'integration' to 'sealing over' (McGlashan, 1987). An integrative style is marked by flexible thinking, which allows some individuals to readily accommodate their illness experiences into their wider life context. A sealing over style involves treating the psychosis as separate from oneself and minimizing its impact. Individuals with insecure attachment, more adverse early experiences, and poorer self-image are more likely to adopt a sealing over recovery style. These patients are also less likely to engage with services, which makes them more susceptible to experiencing emotional dysfunction (Tait, Birchwood, & Trower, 2004). Avoiding processing the emotional impact following a first episode of psychosis has been linked to worse symptomatic outcome and reduced quality of life (Thompson, McGorry, & Harrigan, 2003). Based on these findings, recent theories about adaptation to psychosis have focused on the role of attachment style, affect regulation, and mentalization (Gumley & Schwannauer, 2006).

From an attachment theory perspective, mentalization, or reflective function (RF) – the ability to infer one's own and others' mental states to predict behaviour – is critical to emotion regulation and self-organization (Fonagy, Gergely, Jurist, & Target, 2002). The simultaneous containment and validation of the infant's distress by a caregiver communicates to the distressed child a first sense of separateness of mental states between self and caregiver. According to Fonagy and colleagues, internal working models of self and others need to contain a representational processing system that allows inferring of mind states of self and others including emotions, beliefs, intentions, and desires to predict one's own and others' behaviour. The psychological self then develops both through adequate early mirroring and through the integrated representation of one's different mental states. During adolescence, as formal operational thought develops, bodies mature and peer relations become more important, maturation of mentalization

Para 1: Some reaching acceptance and developing resilience in recovery but some experience adaptation like grieving a loss

Para 2: emotional dysregulation might compromise adaptation; negative appraisals of psychosis increase anxiety; increased depression, poorer quality of life

Para 3: how psychosis is processed links to outcome; integrating vs sealing over recovery style; insecure attachment linked to sealing over; flexibility of thinking and accommodating psychosis into wider life context; processing the emotional impact improves outcomes

Para 4: mentalising/reflective function critical to emotion regulation; mentalising and self-organisation; internal working models needed to facilitate mentalising and vice versa; mentalising identifying self-states

is required to deal with the increasing cognitive, social, and physical complexity of the young person's world. This gives rise to an adult-like psychological self, which can engage with peers and further matures through increasing social interactions. Early abuse, neglect, or engulfment is likely to disrupt the development of a mentalizing stance, which can result in states of psychic equivalence or pretend modes. Impaired mentalization subsequent to severe maltreatment is evident in borderline personality disordered individuals (Fonagy, 1995) and juvenile offenders (Levinson & Fonagy, 2000).

In the context of psychosis mentalization is often conceptualized in terms of neurocognition. Several studies have found that 'Theory of Mind' – the ability to think about thinking – is impaired in people diagnosed with schizophrenia (Brune, 2005; Frith, 1992). This perspective neglects its role in regulating affect in interpersonal situations and the observation that Theory of Mind deficits are not common to all patients. To overcome the limitation of a neurocognitive paradigm, narrative-based methodologies have been developed to measure a person's capacity to infer mental states of self and others when talking about their illness experience (Lysaker *et al.*, 2005). Lower narrative-based metacognition has been shown to be linked to greater suspiciousness and emotional withdrawal, and worse social (Lysaker, 2005) and vocational functioning (Lysaker *et al.*, 2010) in people diagnosed with schizophrenia. In the latter study, better work performance was related to greater self-reflectivity irrespective of executive function.

Gumley and Schwannauer (2006) draw on the high prevalence of insecure and disorganized attachment styles in psychosis to argue that impaired affect regulation and mentalization account for deactivation strategies, such as sealing over and poor engagement, which are associated with poorer emotional adaptation. For instance, a person, who primarily feels insecure and views other as rejecting, unreliable, and possibly harmful, is likely to attempt to cope with distress alone even though he/she has insufficient affect regulation capacities. To deal with the threats related to psychosis such a person is likely to shut out painful affects, which inadvertently continue to intrude leading to increased distress, avoidance, social withdrawal, and possibly greater risk of relapse.

Recent theories support the argument that mentalization as a strategy for affect regulation and self-organization has a critical role to play in influencing emotional adaptation to psychosis.

The first study of RF in psychosis (MacBeth, Gumley, Schwannauer, & Fisher, 2011) reported several noteworthy findings. RF scores in the first episode sample were comparable to those in other severely mentally disordered samples (Fonagy *et al.*, 1996). No relationship between psychotic symptomatology and RF was found. RF was lower in individuals with an insecure/dismissing attachment style than those with a secure or insecure/preoccupied attachment style. Higher RF was associated with a more negative perception of quality of life. No other studies to date have examined the role of RF in adaptation to psychosis.

Present study

The present study aimed to address the following questions:

(1) What are the processes involved in young people's adaptation to psychosis?
(2) How do processes of RF influence adaptation to psychosis in young people?

Para 1: Mentalising helps deal with cognitive and social complexity; adult like social self that can engage with peers; mentalising linked to other mental health difficulty

Para 2: mentalising impaired in psychosis; mentalising regulating affect; poorer metacognition linked with poorer functioning and emotional withdrawal (thus higher metacognition i.e. self-reflection promotes higher functioning and social approach?)

Para 3: Mentalising leads to social approach and affect regulation; mentalising might mitigate relapse?

Para 4: Mentalising strategy for affect regulation and self-organisation

Para 5: no relationship to types of psychosis; mentalising capacity poorer for those with insecure attachment (improvements in mentalising might improve attachments and visa versa?); higher rf linked to balanced appraisal of impact of psychosis

Methods

Design

The present study was qualitative. Its theoretical drive was primarily inductive in that it aimed to explore processes involved in young people's adaptation from adolescent-onset psychosis using a social constructivist version of grounded theory (Charmaz, 2006). A secondary aim was to deductively explore how RF influences adaptation by applying a pre-determined coding framework (Fonagy, Target, Steele, & Steele, 1998).

Participants

The study included eight young people (four males, four females) between the ages of 18 and 21 (mean age in years: 18.6), who attended the local CAMHS early-onset psychosis support service because they had experienced clinically significant psychotic symptoms. Participants' presenting difficulties fell within the spectrum of psychotic disorders including schizophrenia-like psychosis ($n = 4$), schizoaffective disorder ($n = 1$), bipolar disorder ($n = 2$), and psychotic depression ($n = 1$). To avoid the potential confounding effects of acute psychosis on the expression of mentalization, only young people were included who were not acutely unwell or distressed. Young people with a significant or severe intellectual impairment were excluded from the study. Table 1 summarizes participants' demographic and illness-related characteristics.

For most participants, psychotic symptoms started in mid to late adolescence (median age at onset (years): 16.5; range 8–19) with the exception of one young person who started hearing voices at 8, followed by visual hallucinations at 11. Most young people were in the critical period of 3–5 years following a first onset of psychotic symptoms (median duration of psychosis (years): 2.5; range 1–10 years) except for the young person with a childhood onset. All received neuroleptic medication and multi-disciplinary psychosocial support. Three had completed psychological therapy. Six participants were currently seen for psychological therapy.

The onset of mental health difficulties had disrupted the education and employment of all participants. Only one participant was attending school. Some were planning to return to college or university. Nobody was employed. Seven of eight participants were living with their parents. The parents of the participant living alone were providing support with daily living.

Materials

Grounded theory qualitative interview

The initial open-ended question asked participants to reflect on how their life had changed since the onset of mental health difficulties. Further questions were used to encourage the development of a narrative surrounding the emerging topics. As the research progressed, the major common themes identified in the preceding interviews were carried forward into subsequent interviews by introducing new questions. The final interview guide consisted of questions covering the following domains: (1) changes in self, future, relationships, maturation; (2) impact of mental health difficulties; (3) managing mental health difficulties on intra- and interpersonal level; (4) experience of health professionals, services; (5) emotion regulation.

Adult Attachment Interview

The Adult Attachment Interview (AAI; George, Kaplan, & Main, 1996) is a structured interview, which invites participants to reflect on early attachment relationships,

Table 1. Participants' demographic and illness-related characteristics

Demographic information of participant sample								
Participant[a]/demographic	Anna 1	Craig 2	Leon 3	Sarah 4	Rebecca 5	David 6	Julia 7	John 8
Age	21	20	18	18	18	18	18	18
Sex	Female	Male	Male	Female	Female	Male	Female	Male
Highest education	Left school at 16	Left school at 16	Completing highers	Highers, started degree	Completing highers	Left school at 16	Highers, started college	Left school at 16
Age at onset psychosis	19	16	15	17	14	17	8	16
Duration of psychosis (years)	2	4	3	1	4	1	10	2
Admissions	Unknown	1	1	0	1	0	0	1
Episodes	1	1	1	1	1	1	1	1
Age at first CAMHS contact	14	16	15	11	14	17	18	16.5
Age at first psychosis service contact	19	16	15	17	17	17	18	16.5

Note. [a]Participants have been assigned pseudonyms including a number referring to their position in the interview sequence.

experiences of separation, rejection, loss, trauma and the effects on adult personality. Its 18 questions are phrased and ordered with the intention to 'surprise the unconscious', that is to provide opportunities for the respondent to contradict or fail to support other statements (George *et al.*, 1996, p. 3). The central challenge of the AAI is to reflect on attachment memories whilst simultaneously maintaining a coherent narrative. At present, AAI transcripts can be used to reliably classify attachment styles (Hesse, 1999; Main, Goldwyn, & Hesse, 2002) and RF (Fonagy *et al.*, 1998) in clinical and non-clinical populations.

Reflective functioning scale

Fonagy and colleagues have operationalized mentalization as reflective functioning (RF) by developing a scale, which allows to rate a person's ability to infer mind states and to use those to interpret behaviour when asked to reflect about early attachment relationships (Fonagy *et al.*, 1998). Following standardized criteria, individual answers to specific demand questions are ranked on a scale of '−1' (negative RF) to '9' (exceptional RF). The content structure of demand questions such as 'Why do you think your parents behaved the way they did?' demands an answer and invites participant to reflect whereas permit questions such as 'How has your life changed since the onset of your difficulties?' do not demand a reflection. By taking into account individual ratings and the transcript as a whole, an overall RF score is assigned varying from absent (−1), to lacking (1), to questionable or low (3), to ordinary (5), marked (7) and exceptional (9). The RF scale has been shown to have satisfactory inter-rater reliability and good discriminant validity (Fonagy *et al.*, 1998). Although designed for the AAI, the RF scale can be applied to other research interviews.

Procedure

The study was approved by local Ethics and Research & Development committees. Keyworkers identified eligible patients from their caseloads and informed them of the study. Interested patients contacted the first author directly to be recruited. Eight of nine eligible patients consented. Two interviews were conducted with each participant in either clinical or home settings. The first author conducted all adaptation interviews using grounded theory methodology. To reduce bias, none of the participants were or had been seen for psychological therapy by the first author. AAIs were conducted either by the first author, an assistant psychologist or by the second author, who were all trained in the AAI interview. Because of the structured nature of the AAI, responses are less dependent on the interviewer than in other less structured qualitative interviews. All interviews were recorded using a digital voice recorder, transcribed verbatim and analysed using NVIVO Version 2 software (QSR, 2002).

Data analysis

Stage 1 – Grounded theory analysis of adaptation narratives

A social constructivist version of grounded theory (Charmaz, 2006) was used to construct hypotheses about the themes involved in young people's adaptation to psychosis. Grounded theory prescribes an interactive process of simultaneous data collection and constant comparative analysis. All interviews were first subjected to descriptive line-by-line open coding. The most frequent and/or significant initial codes were then condensed into higher level analytical categories. Themes common across the initial set of participants were further validated by being carried forward into subsequent interviews. New

Para 2: Mentalising allows interpreting behaviour/understanding others

properties and dimensions of existing categories and new categories were incorporated into the evolving coding framework. Ongoing comparison of codes and memo writing led to the development of several interlinked core categories relating to adolescent development, adaptation to mental health difficulties, and interpersonal experiences. A second literature review was conducted to cross-validate themes interpreted from the interviews. To ensure internal validity, the initial coding was checked by the second author and a clinical psychologist colleague independently coded the third interview transcript.

Stage 2 – RF in adaptation narratives

The first author examined the level of RF in young people's adaptation narratives by applying Fonagy's indicators of moderate to high RF and negative to limited RF (Fonagy *et al.*, 1998) to any passages following demand questions or to any passages following permit questions where the interviewee was spontaneously highly reflective. The second author checked the resulting coding of the first two interviews. Once the major themes in the narratives had been interpreted, the RF coding within those passages was examined. The common links between specific sub-themes and the extent to which young people showed RF in those sections were noted across participants (adaptation RF).

Stage 3 – RF in context of early attachment

The second author rated each participant's level of RF with regard to attachment states of mind (attachment RF) based on the AAI following completion of the RF training course with the authors of the scale (Fonagy *et al.*, 1998).

Results

Themes in adaptation narratives

Two main themes were interpreted from the adaptation narratives: (1) adapting to mental health difficulties and (2) developing the adolescent self. Firstly, adapting to psychosis and the related emotional and interpersonal difficulties seemed to involve a process of grieving losses whilst defending against the ongoing threats resulting from the psychosis. Secondly, adaptation to psychosis during adolescence involved negotiating separation-individuation in the context of experiencing challenges to the construction of an identity.

RF in adaptation narratives

Tables 2a and 2b summarize the relationships between the main themes in the adaptation narratives and the concurrent processes of RF across participants. There was a trend for individuals to demonstrate either primarily lacking/low or moderate RF. Three participants[1] (Sarah, Rebecca, Julia) showed moderate to high RF whereas the accounts of the remaining five participants (Anna, Craig, Leon, David, John) were lacking or low in RF. The most common types of impoverished RF were disavowing and naïve (Fonagy *et al.*, 1998). Disavowal of RF occurred when invitations to reflect on one's own or others' mental states underlying behaviour were either evaded or answered with superficial, generalized, or concrete statements about mental states. Naïve or simplistic RF was evident when actions were attributed to social clichés or to physical reasons, not to mental states.

[1] *Participants have been given pseudonyms to protect their identity.*

Para 4: Mentalising (RF) allowed adaptation top psychosis; Mentalising allowed developing adolescent self (connecting with self?)
Emotional adaptation to psychosis like grieving losses; mentalising allowed separation and individuation; construction of identity/developing sense of self

Para 5: Mentalising might allow reflection on self and deeper understanding of self-states in relation to psychosis; potential flexibility of interpreting self-states.

Table 2a. Relationship between adaptation theme and level of reflective function

	Level of reflective function	
Recovery themes	Moderate to high RF	Negative or limited RF
Adapting to mhd[a]		
Making sense	Acceptance and integration	Avoidance/denial Confusion Cliched/contradictory explanations
Impact	Loss of peers (empathy; sadness) Gain	Loss of peers (indifference) Loss of valued activity Loss of self (awareness, esteem) Disillusionment
Coping	Acceptance & self-compassion Creative self-expression	Low self-efficacy and passive coping Helplessness and numbed emotions Hypervigilance and suppression Dissociative coping (drugs, alcohol)
Averting stigma	Coming out Selective mutual disclosure	Superficial forced disclosure Total transparency Impression management (fear of humiliation, isolation)

Note. RF, reflective function.
[a]mhd, mental health difficulties.

RF and adaptation to mental health problems

The right-hand column of Table 2a summarizes the associations between adaptation themes and *impaired RF*. Young people seemed to be either avoidant, in denial, or confused about their mental illness. They described various losses such as losing their sense of self, valued activities, and peer relationships. Young people reacted with disillusionment and indifference to losses. Maladaptive coping strategies marked by low self-efficacy and helplessness included relying on medication, dissociating from distress using drugs and alcohol, or suppressing any minor signs of distress for fear of recurrence. Most young people with impaired RF reported having avoided disclosing their experiences for fear of being rejected.

The left-hand column of Table 2a shows the associations between adaptation themes and *moderate to high RF*. Mental illness was accepted and assimilated as an integral part of self, which had led to increased maturity and self-awareness in some. Empathic accounts were given of the loss of peers. Young people with good RF used mature coping strategies marked by self-soothing and creative self-expression. After careful consideration, young people chose to disclose their mental health problems to others in order to avert stigmatization.

Table: Mentalising; Acceptance and integration of psychosis; empathy; sadness (connecting with emotion?); Acceptance and self compassion; creative self-expression;' averting stigma by coming out/ selective mutual disclosure

Para 1: losing sense of self when mentalising is impaired; along with connection with others and valued activities;
Para 2:psychosis accepted and assimilated; self-awareness, self-soothing (emotion regulation); self-expression (sharing ideas of self with others); psychosis accepted integral part of self; empathetic accounts of loss; choosing who to share with to avert stigma

Table 2b. Relationship between individuation theme and level of reflective function

	Level of reflective function	
Recovery themes	Moderate to high RF	Negative or limited RF
Adolescent development		
Self-identity	Confident self-expression	Struggling to express identity Defending premorbid identity
Relating to peers	Integration with old peers (valuing) Developing new peer groups	Integration with old peers (dismissing) Isolation from peers (mistrust, alienation)
Relating to parents	Warmth Parental overprotection Improved understanding and communication	Parental criticism Defiant conflict with parents Improved relationships (proximity, grown up)
Separation–individuation	Process of natural separation	Pseudo-individuation Arrested development Threat of secondary individuation
Future self	Realistic reorientation Acknowledging uncertainty	Taking each day as it comes Unrealistic aspirations Denying possibility of relapse

Note. RF, reflective function.

The following quotes illustrate the contrasts in young people's narratives with regards to RF when talking about their understanding of their mental health problems and their coping strategies. Aspects of the excerpts considered to be most relevant to the categorization of RF are underlined.

Impaired RF (lacking in RF-disavowing subtype) – Avoiding to make sense of psychosis

Interviewer: What might she [mother] have done for you to moan at her?
David: I think, I don't know, tell me to do something or, I'm not sure. (Mm). I don't sit in my room as much either. I used to sit in my room all the time, just on my own.
Interviewer: When was that?
David: Before I got ill.
Interviewer: Aha. Why do you think that was, that you were sitting in your room on your own?
David: I don't know.

In this example, David appears to fail to identify the change in his mental states underlying his reduced moaning at his mother. He suddenly changes topic by mentioning that his behaviour has changed. When asked to reflect on his mental states underlying the social isolation during his prodromal period he closes down.

Table: Mentalising themes, self-identity, relating to others; separation and individuation; future self – ideas of the future; realistic appraisals; acknowledging uncertainty; developing new peer groups; reconnecting with peers; experiencing warmth from parents; improved communication

Para 2: Disconnection with self states

Para 3: Lower mentalising =skewed appraisal of causality; unable to connect with or articulate self

Impaired RF (lacking in RF-disavowing subtype) – Contradictory explanations of psychosis

Interviewer: What is psychosis to you?

John: Psychosis to me is just being absolutely drooned off the planet, like floating in space sort of thing, with no idea what is going on or where it's going or stuff like that, just living for the moment. But when you have psychosis you unfortunately can't live for the moment.

Interviewer: Why can't you?

John: Because your feelings, they're just dragging you down.

Interviewer: What are your feelings when you have a psychosis?

John: Cos that's what causes it obviously. And I think, fair enough, a conversation is a good thing and making stuff is a good thing. But a conversation is really just a way of showing your feelings towards a certain thing, like the colour green, it's a good colour, it excites me, eh. And the feeling I get from my brain gets, but that doesn't necessarily mean that I can transcribe it, eh, if you know what I mean. So words aren't really the most important thing, eh. So therefore psychosis is just a feeling, eh, and you say some stupid crap whilst you're on it, eh.

Even though John initially seems to imply that depression causes psychosis, he avoids talking about his own emotional experience by saying he lacks the words to describe his feelings and by making generalized statements. He then seems to contradict his earlier explanation by eventually dismissing the experience of psychosis as a meaningless 'feeling'. This excerpt highlights how denying his emotions might prevent him from integrating his psychotic episode.

Moderate RF – Acceptance and integration of psychosis

Sarah: It's as much part of me, cos it's my brain, as it is my liking of computing. It kind of just made it seem more neutral.

In contrast, Sarah was able to accept her psychosis and mood disturbances as an integral non-threatening part of her self and was able to reflect on the effect this acceptance had on her emotions.

Impaired RF (questionable/low RF – naïve subtype) – Suppression as a coping strategy

Interviewer: Do you cry sometimes?

Leon: Sometimes I feel like crying but I don't cry.

Interviewer: How come? Why do you not cry even though you feel like it?

Leon: At home, I'm like the bigger brother and should set an example, like if they [younger brothers] see me crying it's ok for them to be crying, you know what I mean (uhuh). They're quite old now, well not old but, I'm old. You don't see my dad crying. If I see my dad crying, well then, it must be serious. Well, I think about crying, I like I think like, I go and take my medication 'Oh, I'm taking my

Extract: Impaired RF: Disconnected from self; unable to identify emotions

Para 1: Impaired RF: Unable to articulate emotional experience; denying emotions might mean unable to integrate psychosis

Extract 2: Moderate RF: Self-awareness, balanced appraisal of psychosis; accepting psychosis as non-threatening

Extract 3: Impaired RF: disconnected with embodied emotion; medicating emotion

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medication', then think like of taking an overdose and start crying and everything you know.
Interviewer: Has that happened?
Leon: No, I'm just thinking of an example.

In this example, Leon attributes his suppression of sadness to his family expecting him to act as a model of stoicism to his younger brothers. Following this superficial explanation, he unexpectedly describes a possible memory of being distressed and of considering overdosing on his medication. He quickly withdraws and invalidates this disclosure of underlying suicidal feelings, which leaves this part of the narrative unintegrated.

Moderate RF – Self-compassionate coping

Sarah: Ideally, I'd notice it just as my mood starts to drop. (. . . .) Em, if it does get that bit worse, generally I opt for a sort of curling up and just kind of embracing the fact that at the moment I don't feel good (uhuh) but I'll just keep myself safe and fairlycontented as much as possible (ok) and like I'll go before I do it I'll make adrink and get some food and put it on the table, just like crisps and chocolate,junk food but kind of comforting food (yeah) and I'll just have it there so that as soon as I get a vague passing 'Oh, I could do with some food' it'sthere and I can eat it. Cos if I have to go to the kitchen for it, I won't do it (yeah) so I just try and ride out the storm either until my mum gets home or it just passes by itself.

In contrast to Leon, Sarah spontaneously shows a high level of reflective self-awareness and distress tolerance when talking about how she copes with low mood. Being aware of the transient nature of emotions seems to allow her to adopt an accepting and caring attitude towards herself, which appears to help her adaptation.

RF and separation–individuation

The right-hand column of Tables 2a and 2b shows the developmental themes associated with *impaired RF*. Some of those young people had difficulties knowing and expressing themselves. Isolation from peers was noted in the context of young people being afraid of being stigmatized, feeling alienated, and mistrusting others. Those who reintegrated with peers made efforts to maintain their premorbid identity by creating a 'normal' façade. In the context of blocked separation-individuation, relationships with parents were described as either being tense or as having improved following onset. Impaired RF was linked to entertaining unrealistic ideas about the future, to denying the possibility of relapse and to avoiding to make plans.

The left-hand column of Tables 2a and 2b shows the developmental themes associated with *moderate to high RF*. Young people had integrated their mental health problems and described themselves as more confident. Friendships were a valued part of recovery and young people made an effort to (re)build those. Good RF was linked to having a differentiated view of parents, which helped with re-embarking on a natural process of separation-individuation. Whilst acknowledging prognostic uncertainty, young people with good RF were able to realistically re-evaluate their opportunities for the future.

Para 1: suppression of emotion; superficial interpretation of events; understanding others self-states; narrative not integrated (mentalising helps to integrate narratives?)

Extract 2: moderate RF: Self-soothing, identifying emotion, keeping self safe. Self compassion/comfort. Riding out the storm (sense of transience of emotion?)

Para2: Transience of emotion; distress tolerance; reflective self awareness; accepting and caring attitude towards self

Para 3: Poor mentalising - isolation, mistrust, stigmatised; entertaining unrealistic ideas of future

Para4: moderate to high RF: integrated psychosis; confidence; valuing friendships; rebuilding friendships; sense of identity; realistic evaluations of future

The following quotes illustrate the differences in RF when young people talked about negotiating their identity with others and about individuating.

Impaired RF (questionable/low RF – overanalytical subtype) – Struggling to express self

Interviewer: When you said you would get angry when they [people in general] didn't understand, how do you feel about it now when you keep it [psychotic experiences and interpretations] to yourself?

Anna: Em, I feel like it's a bit annoying at times. It can be really annoying in fact still because I'm like . . . {3 sec} because I'm not exactly being who I am because of the way people are. That annoys me. But then other times I'm quite happy with it because I think, well fine then if you think that, like more fools you lot, but . . . {3 sec} I mean it's a kind of angry feeling both ways but the other way I try and think that I know things that they obviously don't know I know and it makes me feel better. (Mm). Yeah. But I think they've got small minds quite a lot of the people in my own head because they're thinking she's stupid and I'm thinking I'm not really that stupid as you think.

Interviewer: Yeah. Do you think that's affected how you relate to people, how you make new friends?

Anna: Na, no, because I feel I'm too, what's the word, I can come across to people as a right walkover.

In this example, Anna describes feeling annoyed because she anticipates that her perception of reality would lead others to invalidate, reject and humiliate her. In her account, she struggles to separate her mental states from those of others. Instead of evidencing her assumptions of others viewing her as 'stupid' and a 'walkover', her narrative becomes increasingly preoccupied, vague, and lacking in coherence. Despite attempting to analyse her anger she does not arrive at a productive conclusion about the causes of her anger. Her difficulties with inferring other people's thoughts about her and integrating her feelings seem to stop Anna from actually building peer relationships.

Impaired RF (lacking in RF – disavowing subtype) – Defending premorbid identity

Interviewer: So how come you've changed with them [friends], do you think?

John: Cos I appreciate them a hell of a lot more now, eh.

Interviewer: How come?

John: Just from having nothing, eh.

Interviewer: What do you mean by having nothing?

John: As in nothing to do but just sit and watch TV and take drugs all day. Very weird existence like.

Interviewer: So you appreciate their company and that's why you're making more of an effort with them?

John: Yeah.

Para 1: negotiating identity

Extract 1: impaired RF: disconnected with self (not being who I am); negative appraisals of others' intentions/perceptions/ negative self-appraisal

Para1: Impaired RF: anticipating rejection and humiliation; separating self-states from others; assumptions based on negative self-appraisal; self-narrative lacking coherence; strained interaction as unable to anticipate others; prevents building relationships

Extract 1: skewed perception of friendships

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Interviewer: What's it like these days then? What's your everyday life like?
John: I sit in my house and get absolutely drunk out of my face, as in out of control drunk with friends, eh, and sit and get stoned and take eccies and stuff like that, eh. I was taking a drug called 'Salvia' for a while, eh which is really intense trip which comes off an acid plan (uhuh) and helps you have self- realisation, eh (alright ok), and em, it's a hell of a trip as well eh. I had the best experience of my entire life on it, eh, I tell you the whole story, em. (..)

Despite initially describing his premorbid drug lifestyle as 'having nothing' and 'weird', John idealizes it as his drug experiences seem to provide him with a positive social identity. In this excerpt, he evades opportunities to reflect on his appreciation for his friends or on his feelings when he 'had nothing'. Although his first statements imply that there has been a change from his premorbid to his current lifestyle, he gives the same behavioural descriptions without sufficiently differentiating these two points in time. He also shows poor attunement to the interviewer as he proceeds to recount one of his drug experiences in detail. John appears stuck in his familiar yet unhelpful lifestyle marked by a lack of meaningful activities and drug taking because of his refusal to consider his possible feelings of loss or hopelessness.

Moderate RF – Confident self-expression

Julia: It's much the same, but I've always had quite a weird self-confidence cos like, I'm quite self-confident in that I make friends really easily, I chat to complete strangers and I can be quite loud and I'm always running off to other countries and stuff to see concerts and stuff so I guess, I can't use telephones because they frighten me (laughs). So, it's things like that I'm really not confident with at all, so it's quite warped.

As Julia reflects on aspects of herself about which she feels more and less confident, she provides concrete examples and eventually integrates the contrasting observations of herself.

Impaired RF (lacking in RF – disavowing subtype) – Threat of separation–individuation

David: I'm not looking forward to it [growing up] that much. I'd rather stay at home all the time. That will probably change.
Interviewer: Would you say that having become ill has affected your growing up in any way do you think?
David: Yeah, I think so. I probably would want to move. Well, I did want to move out.
Interviewer: Did you? When was that?
David: Just last year, before I got ill.
Interviewer: Mm, so that's changed?
David: I wasn't bothering to move out.
Interviewer: What do you think happened then between you wanting to move out and becoming ill?
David: I don't know, I just think it became more scary to move out.

Extract 1: Impaired RF: disconnected from friends – focus on drug use

Para 1: avoiding self-reflection; Poor attunement to interviewer; Stuck; lack of meaningful activity or social connection

Extract 2: Moderate RF; self-confidence; making friends easily; social approach; 'I am' statements suggest self-understanding/identity? meaningful activities; able to articulate self with examples – sees different parts of herself

Extract 3: Impaired RF: not understanding self-intentions/decisions

Interviewer: Can you say a bit more what was scary about it?
David: Just cos you would be on your own all the time, not all the time but..{2 sec} I don't know what changed actually.

In this excerpt, David oscillates between seemingly being unaware of his feelings about moving out and tentatively considering possible intentions or feelings underlying him not moving out before his first episode. However, despite having been supported by the interviewer to explore his underlying mental states further, he eventually withdraws all his tentative considerations. His avoidance to get in touch with his fear about moving out seems to make him less likely to contemplate this as an actual step in his maturation.

Impaired RF (questionable/low RF – naïve) – Pseudo-individuation

Interviewer: So how has it become better with your parents?
Craig: Well basically smoking hash and drinking. Mum and Dad didn't approve of and I still did it so that's probably why. That's the main fact I think, just me getting older I suppose.
Interviewer: What does that mean, you getting older?
Craig: I don't know, I just do more for mum and dad, more conversation I suppose.
(. . .)
Interviewer: So spending more time with them and talking to them?
Craig: Yeah, because when you get older you dinnae really want to hang about the streets all the time, you kind of grow out of that. You'd rather go to someone's house or whatever, just meet somewhere instead of, I've done it myself, walking about the streets or whatever when you're younger. I says that to my wee cousin, you'll grow out of it, you'll no be bothered, you'd rather be in the pubs or doing something, eh. Just because probably when he's my age he'll probably have a job as well so that's money. He will have his own money and spend it how he wanted. I do know what it's like during the summer. I had a summer job, the only thing rubbish about that was when it was sunny I was working long days, ken, because they were busy. And it was good having money during the summer but you missed your summer as well.

When asked to reflect on changes in his relationship with his parents since his psychosis, Craig attributes the improvement in their relationship to superficial behavioural changes in himself such as talking more or hanging out less in the streets. By comparing himself to his younger cousin, he positions himself as being grown up by virtue of no longer hanging out in the streets whereas he does not work and is largely dependent on his parents for daily functioning and social contact.

Moderate to high RF – Natural process of separation–individuation

Interviewer: Could you maybe say a bit more about the days you really feel like you want to move out? What are they like?
Julia: Oh, I just feel really suffocated like I don't know, it's hard to explain (laughs). I don't know, I just feel a bit alienated in my own house, well not my house, cos like . . . {3 sec} em, just getting this feeling

Extract1: Impaired RF: not wanting to be alone

Para 1: Impaired RF: Unable to access feelings or intentions; avoiding feelings

Extract2 impaired RF: not in touch with needs/ intentions/ superficial meanings

Para 2: attribution errors

Moderate to High RF: Able to articulate experience

that I don't belong here anymore and it's time that I did something else and move on, that's pretty much all I can say.

Interviewer: Do you have any idea of what is creating that feeling of being suffocated?

Julia: I don't know, I mean. Just sort of like. I would say everyone always wanting to know what I'm doing and where I am and why, but that doesn't really bother me so I'm not really sure if that's it, em.

In response to questions, Julia is able to explore some of her mental states of suffocation and not belonging that underlie her wish to move out from her parent's house. As she is exploring her feelings, she acknowledges that the causes of some of her feelings are unclear to her.

Sarah: But with the mood changes, it's, it's made me able to tap into a different bit of myself that's obviously done quite a bit of growing up while I haven't noticed (aha?). And it's obviously just sort of there waiting for it being needed, and when something does go badly wrong it sort of kicks in, and is a bit more like my mum and does the sensible thing.

Sarah shows a good level of RF when she considers the positive impact her mental health problems have had on her emotional maturation. She demonstrates a sophisticated awareness of the changes in her mental states and personality, which include internalizing a supportive aspect of her mother.

Attachment RF

Table 3 lists the categories into which young people's level of RF with regards to attachment states of mind fell. Five young people (62%) showed impaired attachment RF whereas only three showed moderate attachment RF (38%). Overall, participants' ability to reflect on their own and their caregivers' mental states ranged from being 'lacking', to 'questionable' to 'ordinary'. Nobody demonstrated more extreme ratings such as 'absent', 'marked', or 'exceptional' RF.

Summary

The three participants (Sarah, Rebecca, Julia) who showed primarily moderate to high RF in their adaptation narratives were rated as moderate RF on the AAI. Conversely, the

Table 3. Level of reflective function (RF) based on adult attachment interviews

Participant	Overall RF rating	RF subtype	Overall attachment RF
Leon	Lacking in RF	Disavowal	Impaired attachment RF
David	Lacking in RF	Disavowal	Impaired attachment RF
John	Lacking in RF	Disavowal	Impaired attachment RF
Anna	Questionable or low RF	Naïve simplistic	Impaired attachment RF
Craig	Questionable or low RF	Naïve simplistic	Impaired attachment RF
Rebecca	Ordinary RF	Ordinary understanding	Moderate attachment RF
Julia	Ordinary RF	Inconsistent understanding	Moderate attachment RF
Sarah	Ordinary RF	Inconsistent understanding	Moderate attachment RF

Para 1: understanding self-states and others intentions/actions

Extract 1: Moderate to high RF: Identifying mood changes/ different parts of self/ positive self-appraisal/ internalised other (mum)

Para 2: Sophisticated awareness of self-changes

Para 3: Attachment linked to RF securer attachment, better RF

five participants (Anna, Craig, Leon, David, John) who showed primarily impaired RF in the adaptation narratives were also rated as having impaired RF on the AAI.

Discussion

The present findings suggest that adaptation to psychosis in adolescence involves the double challenge of adjusting to a mental health crisis in the context of developing self-identity, building relationships with peers, separating from parents, and striving for autonomy. The observation that all young people showed corresponding levels of RF with regards to their states of mind about adaptation to psychosis and attachment relationships suggests that the ability to mentalize might moderate individuation and adaptation processes following psychosis. Moderate RF seemed related to positive adaptation and successful separation–individuation post-psychosis. Conversely, impaired RF seemed to be linked to unsuccessful adaptation and arrested individuation post-psychosis.

The moderating effect of RF seems to correspond to findings by Lysaker *et al.* (2005; 2010), which suggest that metacognition plays a predictive role in the vocational and social rehabiliation following psychosis.

Psychosis represented an 'ambiguous loss' (Rando, 1993) of psychological integrity, self-confidence, motivation, hope, emotional well-being, autonomy, relationships, and future aspirations. Akin to complicated grief reactions (Stroebe, Stroebe, & Schut, 2005), young people with impaired RF either ruminated over losses or continued to deny the emotional impact. Most remained disengaged from social or work life.

This interpretation is also supported by the finding by Macbeth and colleagues (MacBeth *et al.*, 2011) that those with lower RF perceived themselves as having a better quality of life. Considering that most people who experience psychosis suffer a loss in quality of life (Saarni *et al.*, 2010), it is likely that those with low RF automatically protect themselves against the potential destabilising effect of acknowledging negative affect by closing down to their own and others' mental states.

Conversely, young people with moderate RF were able to face up to a difficult adjustment process. Avoidance, angry protest, and gradual reappraisal eventually led to acceptance and reinvestment in life. They successfully embraced their vulnerabilities and prognostic uncertainty, which in some cases led to personal growth. This process is in keeping with other stage models of recovery (Andresen *et al.*, 2003; Spaniol *et al.*, 2002).

Young people's stories suggest that positive adaptation to psychosis is closely connected to a young person's ability to re-embark on their developmental trajectories. Re-establishing a stable sense of self is considered to be at the heart of recovery (Davidson & Strauss, 1992). However unlike individuals with an onset in adulthood, young people faced the challenge of preserving partly individuated self-structures and continuing to develop a sense of self in the face of primarily negative consequences of mental illness. Though developmental trajectories were relatively unaffected in young people with good RF, those of most young people with impaired RF seemed to have been arrested or showed signs of increased dependence.

Whilst some partly acknowledged the threat of individuating and worried about lacking confidence, others pretended to have individuated whilst still being largely dependent on their parents. All types of dysfunctional separation–individuation were associated with difficulties expressing self-identity, which corresponds to Harrop and Trower's (2003) notion of psychosis arising as a result of blocked self-construction in

Para 1: Mentalising supports adjustment to mental health; mentalising supports identity development (Individuation)

Para 2: Mentalising self might predict social rehabilitation after psychosis

Para3: sense of loss and difficulty accepting this following psychosis linked with disengagement, loss of hope, integrity, self

Para 4 and 5: Balanced appraisal of recovery in those with higher RF. Reinvestment in life, personal growth, reappraisal of self, embracing vulnerabilities

Para 6: Mentalising allows reembarking on developmental trajectories; reconnecting with self; establishing a stable sense of self is vital in recovery

Para 7: Impaired RF related to disconnection with self and expressing self

late adolescence. A further indicator of inadequate separation was the observation that previously conflict-laden relationships with parents had seemingly improved post-onset. The lack of mentalization evident in this context strongly suggested that young people were unable to rebel against parents due to the ongoing threats of relapse leading to 'prolonged adolescence' (Blos, 1979), which hindered individuation and adaptation.

Based on our results it appears that individuals with lower RF – and therefore poorer affect regulation and weaker self-organization – experienced psychosis and its impact as more threatening than those with better RF. 'Sealing over' strategies such as denial, avoidance of meaning-making, and rejection of own mental states or preoccupation could be viewed as safety strategies that defend against intrusions of traumatic and shaming memories of psychosis, associated emotional distress, and fear of further fragmentation. The unintended consequences for this group were that their social and emotional adaptation seemed blocked. Most interestingly, the association between young people's ability to mentalize about their early attachment relationships and their life after psychosis suggests that how a young person reacts to psychosis seems to reflect their general ability to mentalize. Since this capacity developed in the context of early attachment relationships, impairments imply experiences of inadequate caregiving. This lends support to the idea that illness adaptation and development of self are parallel and interacting processes. Therefore, a developmental perspective is critical to helping young people recover. Finally, long-term impairments in social and general functioning commonly seen in adolescent-onset psychosis may be associated with problems in adolescent development rather than with the psychosis *per se*.

Our findings support the idea that treatments for young people with psychosis should be based on underlying developmental and interpersonal processes. Services and therapies might improve by taking into account patients' mentalizing capacity. Young people with poor mentalization might benefit from interactions with therapists and peers that allow them to gradually explore their feelings of fear, shame, and loss in a safe way. Applying a grief model to psychosis might also help young people to empathize with their own emotional reactions (Gumley & Schwannauer, 2006). Compassion-focused approaches have been put forward as an acceptable way to counteract self-attacking, to develop trust in others, and to build emotional resilience (Gumley, Braehler, Laithwaite, MacBeth, & Gilbert, 2010; Laithwaite *et al.*, 2009). As young people become better at exploring their distress and at relating with warmth to their difficulties, they may benefit from refining their understanding of their own and other' minds through mentalization-based interventions (Bateman & Fonagy, 2004; Brent, 2009).

The present study suffered from several shortcomings.

Whilst we followed standard procedures for ensuring rigour in qualitative research, we acknowledge that results from the grounded theory interviews are based on the subjective interpretation of themes from the data, which are inadvertently influenced by the researchers' knowledge and assumptions.

We do not infer causality of RF and outcome and do not exclude the possibility that those young people with better outcome were experiencing less threats, which might have allowed them to feel safe enough to mentalize more. Future studies may also want to explore the causes of impaired mentalized affectivity. For instance, childhood trauma in psychosis is common and has been shown to increase the likelihood of developing psychosis (Janssen *et al.*, 2004). In addition to measuring past threats, differing level of ongoing threatening experiences such as stressful life events, paranoia, or other anxieties may have affected young people's ability to mentalize.

Para 1: Mentalising improves relationships

Para 2: Impaired mentalising blocks social and emotional development/ illness adaptation and development of self are parallel and interacting processes

Para 3: treatment should target underlying social and interpersonal processes/Mentalising of support network should be taken into account/ others' mentalising could hinder or support development of mentalising skills. Therapeutic relationships key to modelling secure attachment/ Therapeutic relationship might help mentalising development/ reconnecting with emotions might support recovery/mentalising developing trust/ counteracting self-attacking through mentalising in therapy.

Para 4: can mentalise better when threats are lower

Developmental psychopathology models acknowledge that a multitude of factors and processes dynamically interact in the context of a maturing adolescent. It is therefore possible that the young people with low RF in our sample may have been developing at a slower pace than those with moderate RF and may have yet to reach a higher level of adaptation and individuation. However, recovery within the first 3–5 years post-psychosis has been shown to predict long-term outcome (Harrison *et al.*, 2001). Future research may want to test our hypotheses about the influence of RF on adaptation longitudinally by using standardized measures of emotional and symptomatic recovery on larger samples of young people with different mental health problems.

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E: Health Research Authority Approval

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F: Screening Measures

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Appendix G: Interview Schedule

Final Proposed Interview Schedule 23.06.2024

(Items in red were added after 3rd interview. Items in Blue were added after 5th interview)

1. What trauma memories have you worked on in your EMDR sessions?
2. Were these traumas experienced in childhood or adulthood?
3. Were these traumas linked to your early relationships?
4. How does what you worked on in EMDR relate to your childhood relationships?
5. Have there been changes to your relationships with family/friends/ romantic partners/ therapist, changed since starting your EMDR therapy? If they have what are the changes? What have you noticed that has changed? If not then why do you think that might be?
6. Have you noticed any new friendships emerging? How did you approach these? What do you look for in new friends? Have you noticed a difference in what you look for since working through your trauma?
7. Has working on these memories influenced your sense of security in relationships, if so how?
8. Can you tell me about any influential relationships and whether they helped you become more secure? (Question used in Braehler & Schwannauer, 2012)
9. Have these relationships influenced your recovery? How?
10. Are you able open up to others and trust they would still be there for you in your vulnerability? If yes then what helped you to do this. If not, then what got in the way of that (Question used in Braehler & Schwannauer, 2012)
11. How does trust work for you, have there been any changes in who/how you trust? Has this had an impact on your recovery? How?
12. In therapy, was there an expectation that you opened up and trusted the therapist? Did that feel ok for you?
13. What, if anything, have you learned about yourself and how you connect with others through the EMDR process.
14. What is your relationship with yourself like?
15. What do your friends think about you as a friend, have they always seen you this way?
16. What are your best qualities as a friend/partner

17. Were there any parts of the EMDR process that stood out for you (i.e. something that was really helpful)? What were these? Did they influence your recovery and if so how
18. Is there anything about how you relate to others that you would like to change? Can you tell me more about this
19. How if at all, has EMDR influenced your recovery?
20. Has there been any changes in the way you deal with emotions since doing EMDR? Can you tell me more about this?

Appendix H: Participant information sheet

Canterbury Christ Church University

Salomons Institute for Applied Psychology

One Meadow Road, Tunbridge Wells, Kent TN1 2YG

www.canterbury.ac.uk/appliedpsychology

Information about the research

A grounded theory of attachment and EMDR for psychosis

Hello. My name is Bobby Cramp and I am a trainee clinical psychologist. I would like to invite you to take part in a research study which is being sponsored by Canterbury Christ Church University. Before you decide whether to take part, it is important that you understand why the research is being done and what it would involve for you.

Talk to others about the study if you wish.
(Part 1 tells you the purpose of this study and what will happen to you if you take part.
Part 2 gives you more detailed information about the conduct of the study).

What is the purpose of the study?

Eye Movement Desensetising & Reprocessing Therapy (EMDR) for psychosis was developed to help people to heal from their trauma and recover from psychosis but has also been found to improve relationships with others. Research has shown that for those experiencing psychosis, having good relationships with others can also increase the chance of recovery. The purpose of this study is to explore what processes in EMDR therapy, help to improve relationships. Having insight into how these processes fit together could help EMDR practitioners improve and focus their practice and could promote better outcomes for their clients.

Why have I been invited?

You have been invited to take part in this study because you have had (or are having) EMDR for psychosis. This means you will have the best insight into how your relationships have been impacted by your EMDR therapy. I will be inviting other participants to take part in this study so that I can hear from people with a range of experiences of EMDR.

Do I have to take part?

No. Taking part in this study is completely voluntary and it is up to you if you would like to take part. If you do agree to take part, you will need to sign a consent form and will be given a copy of this to keep. You can withdraw from this study up to the date of publication, without needing to give a reason. This would not affect the standard care you are receiving from your NHS service in any way.

What will happen to me if I take part?

If you are interested in taking part, I will book a video call appointment to go over the details of the interview and answer any questions you have. In this appointment we will plan how to support you with your wellbeing through the interview process.

I will then book in a second date for the interview. In this interview, I will ask you about your experience of EMDR therapy and your relationships. The interview can be at a time suited to you and will be online. If required, we may be able to arrange for you to attend online in the same location that you receive your EMDR therapy. This meeting will take approximately 90 minutes and we will allow for a break during this time.

Please note, the interview will be recorded so that I can listen back to it to help me write up my study. Participation in this study is anonymous. This means when I write up my study, I will change your name so that you are not identifiable.

Expenses and payments

Up to £10 can be claimed for travel to and from the interview. You will need to retain travel and parking receipts in order for expenses to reimbursed.

What will I be asked to do?

Before the interview starts you will fill in two short questionnaires with the interviewer. These will be multiple choice and will ask you about how you interact with your loved ones. These are to provide more information about your relationship style. It will take around 30 minutes to complete these questionnaires then the actual interview will take around 60 mins.

I will guide the interview with a number of prompts for example; '*what kind of trauma did you work on in your EMDR sessions?'* and *'Tell me how your relationships with loved ones have changed or stayed the same since starting EMDR'.* Following the interview there will be a

debrief, to make sure you are feeling comfortable with the interview and to answer any questions you have.

What are the possible disadvantages and risks of taking part?
There may be some relationship experiences that you find distressing to talk about in the interview. It is important that you feel safe and comfortable speaking about your experiences of EMDR and your relationships before agreeing to take part in this study. We can discuss this further in our initial meeting and make a plan for how I can support you if you become distressed.

What are the possible benefits of taking part?
We cannot promise the study will help you but the information we get from this study may help improve treatment for people with psychosis in the future.

What if there is a problem?
Any complaint about the way you have been dealt with during the study or any possible distress you might suffer will be addressed. Detailed information of the complaints procedure is given in Part 2.

Will information from or about me taking part in the study be kept confidential?
Yes. Your information will be kept confidential and secure and we will ensure we adhere to ethical and legal practise. There are some rare situations in which information would have to be shared with others. Details of this are in part 2 of this information sheet

This completes part 1.
If the information in Part 1 has interested you and you are considering participation, please read the additional information in Part 2 before making any decision.

Part 2 of the information sheet

What will happen if I don't want to carry on with the study?
You can withdraw from this study at any time, including during the interview, up to when the study is submitted for publication. In the event that you wish to withdraw, any voice

recording, questionnaire data and transcripts generated will be securely destroyed. This will not affect any standard care that you are receiving.

What if there is a problem?

Concerns and Complaints

In the event that you have a concern about any aspect of this study, please contact me in the first instance . You can leave a message for me on a 24-hour voicemail phone line at 01227 927070. Please say that the message is for me, Bobby Cramp, and leave a contact number so that I can get back to you. I will address your concerns as soon as possible. If I am unable to resolve your concern or if I am the object of your concern, you may wish to make a formal complaint. This can be done by emailing Prof. Margie Callanan, Clinical Psychology Programme Director, Salomons Institute for Applied Psychology margie.callanan@canterbury.ac.uk

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Will information from or about me taking part in the study be kept confidential?

All information that is collected from or about you during the course of the research will be kept strictly confidential, and any information about you that leaves the interview room will have your name removed so that you cannot be recognised.

The only time when I would be obliged to pass on information from you to a third party would be if:

- As a result of something you told me, I were to become concerned about your safety or the safety of someone else.
- If you were to disclose an uninvestigated crime.

In either of these events, I would inform you of the decision to pass this information on to the relevant authorities to ensure you and others are safeguarded.

How will we use information about you?

We will need to use information from you for this research project.

This information will include your:

- Initials
- Age
- Gender
- Transcripts of our interview
- Your questionnaire responses.

People will use this information to do the research or to check your records to make sure that the research is being done properly.

People who do not need to know who you are will not be able to see your name or contact details. Your data will have a code number instead.

We will keep all information about you safe and secure.

Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that no-one can work out that you took part in the study.

What are your choices about how your information is used?

You can stop being part of the study at any time, without giving a reason.

We need to manage your records in specific ways for the research to be reliable. This means that we won't be able to let you change the data we hold about you.

If you agree to take part in this study, you will have the option to take part in future research using your data saved from this study. You can give consent for this option on the participant consent form that will be provided before taking part in the study

Where can you find out more about how your information is used?

You can find out more about how we use your information:

- At www.hra.nhs.uk/information-about-patients/
- Ask the Data Protection Officer, Dr Fergal Jones, at the Salomon's Institute, Canterbury Christ Church. You can leave a message for him on a 24-hour voicemail phone line at 01227 927070 and he will call you back.

What will happen to the results of the research study?

A report of the outcome of this study will be submitted as a thesis for my doctorate in clinical psychology. I also plan to submit this research for publication. The paper may include anonymised quotes from our interview and results from the relationship and attachment questionnaires. You will not be identified in any report or publication.

You are able to request access to the transcript of your interview and a summary of the study findings. Options will be provided to request these on your consent form.

Who is sponsoring and funding the research?

This research is funded by Canterbury Christ Church University

Who has reviewed the study?

All research in the NHS is looked at by an independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by, REC 4 -Wales Research Ethics Committee.

Further information and contact details

Specific information about this research project or research in general

If you would like to speak to me and find out more about the study or have questions about research in general, you can leave a message for me on a 24-hour voicemail phone line at 01227 927070. Please say that the message is for me, Bobby Cramp, and leave a contact number so that I can get back to you.

Advice as to whether you should participate.

If you are not sure whether or not to participate in this project it may be useful to speak with your EMDR practitioner to help you to decide. Alternatively, you can leave a message for me on a 24-hour voicemail phone line at 01227 927070. Please say that the message is for me, Bobby Cramp, and leave your name and a contact number so that I can get back to you.

Thank you so much for considering this study and taking the time to read this information sheet.

Participant information sheet updated for forensic setting

Canterbury Christ Church University

Salomons

Institute for Applied Psychology

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Information about the research

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Eye Movement Desensetising & Reprocessing Therapy (EMDR) for psychosis was developed to help people to heal from their trauma and recover from psychosis but has also been found to improve relationships with others. Research has shown that for those experiencing psychosis, having good relationships with others can also increase the chance of recovery. The purpose of this study is to explore what processes in EMDR therapy, help to improve relationships. Having insight into how these processes fit together could help EMDR practitioners improve and focus their practice and could promote better outcomes for their clients.

Why have I been invited?

You have been invited to take part in this study because you have had (or are having) EMDR for psychosis. This means you will have the best insight into how your relationships have been impacted by your EMDR therapy. I will be inviting other participants to take part in this study so that I can hear from people with a range of experiences of EMDR.

Do I have to take part?

No. If you do not wish to take part, this will in no way affect decisions regarding your detention. Taking part in this study is completely voluntary and it is up to you if you would like to take part. If you do agree to take part, you will need to sign a consent form and will be given a copy of this to keep. You can withdraw from this study up to the date of publication, without needing to give a reason. This would not affect the standard care you are receiving from your NHS service in any way.

What will happen to me if I take part?

If you are interested in taking part, I will arrange with your EMDR clinician for you to have access to a computer for a video call. I will then book an initial phone call with you to go over the details of the interview and answer any questions you have. In this appointment we will plan how to support you with your wellbeing through the interview process.

I will then liaise with your team and you to book in a second date for the interview. In this interview, I will ask you about your experience of EMDR therapy and your relationships. The interview can be at a time suited to you and the service you are residing in, and will be online. This meeting will take up to 90 minutes and we will allow for a break during this time.

Please note, the interview will be recorded so that I can listen back to it to help me write up my study. Participation in this study is anonymous. This means when I write up my study, I will change your name so that you are not identifiable.

What will I be asked to do?

Before the interview you will be asked fill in two short questionnaires which will be given to you by your clinician who will then send them back to me. These will be multiple choice and will ask you about how you interact with your loved ones. These are to provide more information about your relationship style. It will take around 15-20 minutes to complete these questionnaires.

The actual interview will take around 60 mins and will be via video call with me.

I will guide the interview with a number of prompts for example; '*what kind of trauma did you work on in your EMDR sessions?'* and *'Tell me how your relationships with loved ones have changed or stayed the same since starting EMDR'.* Following the interview there will be a debrief, to make sure you are feeling comfortable with the interview and to answer any questions you have.

What are the possible disadvantages and risks of taking part?

There may be some relationship experiences that you find distressing to talk about in the interview. It is important that you feel safe and comfortable speaking about your experiences of EMDR and your relationships before agreeing to take part in this study. We can discuss this further in our initial meeting and make a plan for how I can support you if you become distressed.

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- Age
- Gender
- Transcripts of our interview

- Your questionnaire responses.

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Advice as to whether you should participate.

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Thank you so much for considering this study and taking the time to read this information sheet.

Appendix I: Consent form

Canterbury Christ Church University

Salomons Institute for Applied Psychology

One Meadow Road, Tunbridge Wells, Kent TN1 2YG

Ethics approval number:
Version number: 1.1
Participant Identification number for this study:

CONSENT FORM

Title of Project: **A grounded theory of attachment and EMDR for psychosis**

Name of Researcher: Bobby Cramp

Please initial box

1. I confirm that I have read and understand the information sheet dated 02.04.23 (version 1.1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw after doing the research interview up the time of publication, without giving any reason, [without my medical care or legal rights being affected]. ☐

3. I understand that my data collected during the study may be looked at by the research supervisors. I give permission for these individuals to have access to my anonymised data. ☐

5. I agree that anonymous quotes from my interview and other anonymous data may be used in published reports of the study findings ☐

6. I consent to anonymised transcriptions of my interview being kept and used for future research ('anonymised' means that I will not be personally identifiable from the transcript, my name and identifiable information will be removed) ☐

7. I consent to the use of audio/video-recording in my research interview ☐

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

Do you wish to receive a summary copy of the study's findings? YES/ NO

Do you wish to receive a copy of the transcript for your interview? YES/ NO

Name of Participant_____ Date_____ Signature

Name of Person taking consent _____ Date_____Signature

Version 1.1
Dated 02.04.2023

When completed:
1 copy for participant;
1 copy for researcher file
1 copy to be kept in medical notes.

Appendix J: Screening outcomes

Table 3. Part B Screening outcomes

	P1	P2	P3	P4	P5	P6	P7
1. It helped to turn to my caregivers in times of need	Disagree 6	Agree 2	Slightly agree 3	Slightly agree 3	Strongly disagree 7	Strongly disagree 7	Agree 2
2. I needed a lot of reassurance that my caregivers loved me	6 Agree	2 Disagree	6 Agree	4 Neutral	5 Slightly agree	2 Disagree	2 Disagree
3. I wanted to be close to my caregivers, but I kept pulling away	6 Agree	1 Strongly disagree	7 Strongly agree	3 Slightly disagree	2 Disagree	6 Agree	1 Strongly disagree
4. I found that my caregivers didn't want to get as close to me as I wanted them to	6 Agree	1 Strongly disagree	6 Agree	2Disagree	6 Agree	7 Strongly agree	1 Strongly disagree
5. I turned to my caregivers for many things, including comfort and reassurance	Agree 2	Agree 2	Disagree 6	Agree 2	Disagree 6	Strongly disagree 7	Strongly agree 1
6. My desire to be very close sometimes scared my caregivers away	4 Neutral	2 Disagree	2 Disagree	2 Disagree	1 Strongly disagree	2 Disagree	1 Strongly disagree
6. I tried to avoid getting too close to my caregivers	5 Slightly agree	1 Strongly disagree	4 Neutral	5 Slightly agree	1 Strongly disagree	7 Strongly agree	1 Strongly disagree
8. I often worried about being left or abandoned by my caregivers	6 Agree	2 Disagree	7 Strongly agree	6 Agree	6 Agree	7 Strongly agree	2 Disagree
CHILD AV TOTAL MAX 28	19	6	20	13	16	27	5

CHILD AX TOTAL	22	7	21	14	18	18	6
1. It helps to turn to loved ones in times of need	Strongly agree 1	Strongly agree 1	Strongly agree 1	Agree 2	Neutral 4	Strongly agree 1	Agree 2
2. I need a lot of reassurance that I am loved by loved ones in my life	5 Slightly agree	5 Slightly agree	6 Agree	4 Neutral	3 Slightly disagree	1 Strongly disagree	1 Strongly disagree
3. I want to get close to loved ones, but I keep pulling back.	5 Slightly agree	2 Disagree	2 Disagree	5 Slightly agree	6 Agree	6 Agree	1 Strongly disagree
4. I find that loved ones don't want to get as close as I would like	4 Neutral	2 Disagree	3 Slightly disagree	3 Slightly disagree	2 Disagree	2 Disagree	2 Disagree
5. I turn to specific loved ones for many things, including comfort and reassurance	Agree 2	Agree2	Agree2	Agree2	Disagree 6	Slightly agree 3	Slightly agree 3
6. My desire to be very close sometimes scares loved ones away	4 Neutral	2 Disagree	5 Slightly agree	4 Neutral	1 Strongly disagree	3 Slightly disagree	2 Disagree
7. I try to avoid getting too close to loved ones	5 Slightly agree	2 Disagree	2 Disagree	4 Neutral	5 Slightly agree	2 Disagree	1 Strongly disagree
8. I often worry about being abandoned by loved ones	6 Agree	2 Disagree	7 Strongly agree	5 Slightly agree	4 Neutral	6 Agree	2 Disagree
ADULT AV TOTAL	13	7	7	13	21	12	7
ADULT AX TOTAL	19	11	21	16	10	12	7
1. I prefer not to let other people know my 'true' thoughts and feelings	2 Quite a bit	1 A little	0 Not at all	2 Quite a bit	3 Very much	2 Quite a bit	0 Not at all
2. I find close relationships over-whelming	1 A little	0 Not at all	1 A little	2 Quite a bit	3 Very much	1 A little	1 A little

3. I find it easy to depend on other people for support with problems or difficult situations	1 A little	0 Not at all	2 Quite a bit	1 A little	0 Not at all	2 Quite a bit	2 Quite a bit
4. I feel frightened in close relationships	1 A little	0 Not at all	1 A little	2 Quite a bit	1 A little	1 A little	0 Not at all
5. I tend to get upset, anxious or angry if other people are not there when I need them	1 A little	0 Not at all	1 A little	1 A little	0 Not at all	1 A little	1 A little
6. I usually discuss my problems and concerns with other people	3 Very much	2 Quite a bit	3 Very much	2 Quite a bit	1 A little	1 A little	3 Very much
7. I worry that key people in my life won't be around in the future	3 Very much	1 A little	2 Quite a bit	1 A little	1 A little	1 A little	1 A little
8. I find people I am in close relationships with to be unpredictable in their actions and behaviours	0 Not at all	0 Not at all	2 Quite a bit	1 A little	1 A little	1 A little	0 Not at all
9. I ask other people to reassure me that they care about me	1 A little	0 Not at all	0 Not at all	0 Not at all	0 Not at all	0 Not at all	0 Not at all
10. If other people disapprove of something I do, I get very upset	3 Very much	1 A little	1 A little	1 A little	1 A little	0 Not at all	1 A little
11. I find it difficult to accept help from other people when I have problems or difficulties	0 Not at all	1 A little	0 Not at all	2 Quite a bit	3 Very much	3 Very much	1 A little

12. When I try to get close to someone, sometimes I shut down and find it difficult to think or move	0 Not at all	0 Not at all	0 Not at all	1 A little	1 A little	1 A little	0 Not at all
13. It helps to turn to other people when I'm stressed	3 Very much	1 A little	2 Quite a bit	2 Quite a bit	1 A little	1 A little	3 Very much
14. I worry that if other people get to know me better, they won't like me	2 Quite a bit	0 Not at all	2 Quite a bit	1 A little	2 Quite a bit	1 A little	1 A little
15. Sometimes I am confused by my feelings towards others	1 A little	0 Not at all	1 A little	2 Quite a bit	2 Quite a bit	1 A little	0 Not at all
16. I worry a lot about my relationships with other people	1 A little	0 Not at all	2 Quite a bit	1 A little	2 Quite a bit	1 A little	0 Not at all
17. I want close relationships, but being close makes me feel frightened	0 Not at all	0 Not at all	1 A little	2 Quite a bit	1 A little	1 A little	0 Not at all
18. I often freeze when I try to get close to someone	0 Not at all	0 Not at all	1 A little	2 Quite a bit	1 A little	0 Not at all	0 Not at all
19. I try to cope with stressful situations on my own	1 A little	1 A little	0 Not at all	3 Very much	3 Very much	3 Very much	2 Quite a bit
20. I worry that if I displease other people, they won't want to know me anymore	3 Very much	1 A little	2 Quite a bit	2 Quite a bit	2 Quite a bit	1 A little	1 A little
21. I want to be close to others but I often find myself pulling away when I am	2 A little	1 Not at all	2 A little	3 Quite a bit	2 A little	2 A little	1 Not at all

22. I worry about having to cope with problems and difficult situations on my own	4 Very much	1 Not at all	4 Very much	4 Very much	1 Not at all	1 Not at all	1 Not at all
23. When I form close relationships, I lose sense of who I am	1 Not at all	1 Not at all	1 Not at all	1 Not at all	3 Quite a bit	1 Not at all	1 Not at all
AV TOTAL /18	10	6	7	12	11	12	11
AX TOTAL/24	5	1	9	15	12	8	2
D TOTAL/27	17	3	13	10	10	5	5

Table 4. Part B Participant groupings in screening scores

	PAM attachment			ECR change		
	Higher scores	Middle range	Lower Scores	Increased	Stayed same	Decreased
Avoidance	P1, p4, p5, p6, p7		P2, p3	P2, P5, P7	P4	P1, P3, P6
Anxiety	P4, p5		P1, p2, p3, p6, p7	P2, P4, P7	P3	P1, P5, P6
Disorganised	P1, P3	P4, P5	P2, P6, P7	-	-	-

Appendix K: Extracts tables

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Table 5. Part B how themes were connected

Connected Themes	**Example extracts**
Therapeutic relationships -Sense of self	"Yeah. Yeah, I did think of [clinician name]. I did think of [clinician name] I was like, oh God, like, I'm gonna do this thing, but it's gonna be OK. You can be brave, like I could always hear her in my head, like you could be brave. It's like, you know, you're safe now there's nothing that's going to harm you anymore" (P5, 251) "I know she sees the difference now, but it's a hard job to go and see somebody knowing all you're gonna hear is complain, complain, negative, negative you know. So what they do is amazing, it is amazing, Umm, they have said so many people don't use this service and I just find it hard because I wouldn't have gotten out of it without the help and I'd be sick and to be where I was a year ago" (P2, 196)
Wider therapeutic relationships - EMDR	"I know she sees the difference now, but it's a hard job to go and see somebody knowing all you're gonna hear is complain, complain, negative, negative you know. So what they do is amazing, it is amazing, Umm, they have said so many people don't use this service and I

Connected Themes	Example extracts
	just find it hard because I wouldn't have gotten out of it without the help and I'd be sick and to be where I was a year ago" (P2, 196)
	"No, at, not at all. No, no, she would, I didn't trust her as far as I could see her. I, no, I had a horrendous experience in hospital and she was associated with the hospital that I was in. It took three months for me to trust her." (P1, 195)
EMDR - sense of self	"the PTSD symptoms of the nightmares and things like that uhm er since they've been taken away, my own personality's been able to shine through where er I want to make friends and go out and do things." (P6, 50)
	"I know what other, and I think, yeah, the therapy is definitely helped bring me back to who I am." (P2, 238)

Connected Themes	Example extracts
	"kind of look at the inner child and the child always had her back to me and, and after therapy session with [clinician name] doing the EMDR and we've been working on a childhood thing, of when I've been scared, and, and then the child came, but she was looking at me she had her head turned round and she's looking at me and she was kind of really engaged and she's smiling." (P3, 195-197)
EMDR – reconnecting with others	"But it, it, gave me the courage the EMDR gave me the courage to approach with that whereas before I would have just let it lie and let him like, stay in. Well, all it took was for me to tell him that I loved him and, and, it was, it was back again." (P6, 40)
Therapeutic relationship – reconnecting with others	"I was able to discuss that with [clinician name] in the therapy sessions, it meant that I had a separate space away from having to kind of either deal with it myself or deal with it, or finding a way to tread on eggshells to discuss it with my family. And it meant that I didn't have to straight away discuss it with my family, to work it through ... I mean with my mum, like we're, we're quite sort of plain speaking. But um most of the time, but I'm still like, um

Connected Themes	Example extracts
	mindful of not hurting her feelings and stuff like that, or make her feel bad or, any of that. But it just gets to the point that it was just like, we're much more honest with each other." (P4, 97-101)
	"My nan actually turned to me, and she's the only one that's ever been direct, this is the thing she said, "You had a really difficult childhood and I think that you've been unwell because of that". And I said, "well, that's interesting, nan, because that's what they say to me in therapy maybe", and she said, "well, you had it really hard", and I said, "well, I don't, it's quite fractured. I don't remember lots of things but I do remember lots of vivid scenes like, like in a cinema like, like, play back at me in my memory. So can you, like, tell me what happened?" (P5, 62)
Sense of self – reconnecting with others	"men aren't very good at expressing themselves, especially if it's from a distance. So, I think the shift was when I kind of knew that they understood what I went through." (P2, 38)

Connected Themes	Example extracts
	"I've grown up more anyway now I think because I'm able to explain what it's done to me, explain different things. She now regrets it, which I think has made our relationship even that stronger, because she now understands it." (P2, 126)
Wider therapeutic relationships – reconnecting with others	"I suppose, like oh, right, I can actually talk about if I can talk about these things with you, I could probably do it with my friends. I still don't. I find it easier to talk to people I don't know about this than like my friendships". (P5, 216)
	"And having that core of my kids, [partner name] and [friend name]. Other people helped knowing that they were there, but it was the core team that, that actually got me back on my feet." (P1, 235)
	"Umm, sometimes we'd had, we did some group family stuff, just said things they went through like the timelines and what I felt and stuff. And then he, he talked to share cause he's not a big talker, so got him to open up and share what he saw because it would stay a

Connected Themes	Example extracts
	lot with me, my you know, the things that I was not aware of at the time. I helped just clear the air a bit." (P2, 88)
Reconnecting with others – recovery	"I got more, I hope so, I've got more capacity, um to be a friend to her, whereas I had none for years. Nothing. I had nothing to give." (P1, 257)
	"And I think seeing my father in person and I having a actual good memory created was part of my healing, so when I came back from Trinidad, my my depression and all that was even quicker to, you know, feel better." (P2, 30)
	"Yeah, I'm kinda liken it too In India, they tend to take them in the, the, um countryside when people have a psychotic breakdown, they tend to not take medication and the family looks after them and they're recovery rate is 10 times faster and longer lasting than it is within us, and I think in recovery, relationships are vital." (P3, 245)

Connected Themes	Example extracts
Sense of self - recovery	"Kind of, sort of, not spiralling, not beyond my mind and everything, and that just doesn't happen in the same way. It's like the intensity is taken away and find that really helpful. I find that just kind of it, it it's empowering" (P4, 52) "the PTSD symptoms of the nightmares and things like that uhm er since they've been taken away, my own personality's been able to shine through"(P6, 50) "'I'm more grounded now because of everything I've been through, you know. And I mean, maybe I appreciate the little things more than I did before … I'm much more sort of happy to just have a life here, you know um of freedom, you know and a quiet life and maybe have, I'd like to have a family" (P7, 196)

Table 6. Part B Table of extracts

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
Wider therapeutic relationships	Wrap around care	• Ongoing monthly support • Keyworker hidden support • EIS helped me recover • Relationship support • Staff calmed me • Whole package of care	P1, P2, P5, P6, P7	"Keyworker name] comes today and it's just touching base and a poor [Keyworker name], I mean, all my negatives, you know, I know she sees the difference now, but it's a hard job to go and see somebody knowing all you're gonna hear is complain, complain, negative, negative you know. So what they do is amazing, it is amazing," (P2, 22) "the er step team had contact with them and was seeing them on a weekly basis for quite a

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				long time until I was feeling well enough to have the therapy." (P5, 96) So I bless them, poor [EIPs staff name 1] and poor [EIPs staff name 2]. I just screamed at them. I said you're not taking my ffing child, like swore at them. So I would say there was nooo trust at the very beginning, like I didn't know who they were and they were very good. Like, I got very much calmed down.(P5 176)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
	Modelling secure relationships	• EIS modelled secure relationships • EIS never felt judged • EIS clinicians noticing change • Improved relationships with professionals • Keyworker knew me so well	P1, P2, P5, P6, P7	"I suppose, like oh, right, I can actually talk about if I can talk about these things with you, I could probably do it with my friends. I still don't. I find it easier to talk to people I don't know about this than like my friendships". (P5, 216) "So [partner name] and I had to, we haven't gone to any counselling, but he has been

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				involved in family intervention as a result of EI." (P1,95) "And [EI clinician 2] has actually put me in touch with uh, another girl that had psychosis on their team, and I meet up with her, who has a little boy my age, my son's age as well. So you know, they kind of rely on me too, to almost give a little support to, to others" (P2, 212) "You learn, you want if you reconfigure your way of being and, and, yeah, I think that's

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				imported in therapeutic relationships". (P7, 164)
	Consistent contact and support	• Ongoing monthly support • Keyworker hidden support • EIS support fantastic • EIP worker explained medication • EIS helped me recover	P1, P2, P5, P6	"It was like [EIPs staff name 1] from, from [service name] was like a different safe place, like it was the person I could talk about (anything?) and she would feel make me feel really comforted and like, safe and you'd go through grounding and." (P5, "but it was the core team that, that actually got me back on my feet".(P1, 10)

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
	Trust	• Different safe places • CBTp helped me to trust • I am able to trust and ask for help now • No trust in the beginning • Trust built over time	P1, P2, P5, P7	"But it was built over time. Um So yeah, like with lots of, so there'd be phone calls with [EIPs staff name 1] every day, if not a visit, and then gradually, like we would have walks every week and then, you know, sit in the park with cup of coffee. And sometimes I'd have [son's name] and sometimes I wouldn't. And then. Yeah, the trust was really built up." (P5, 46)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				"I'm lucky I'm in a hospital, so um yeah, I have the whole team of people around me that are specially trained in, if I'm feeling down or feeling low or anything, I've, I've got the capacity to go and ask for help and not be uhm scared that they're going to overreact or take away my leave or up my medication." (P6,132)
EMDR and therapeutic relationship	Trust	• Not long to build trust with therapist • Trust really built • Identifying with therapist built trust • EMDR taught me to trust	All	"I think that helped build more trust to then like open up more and more". (P2, 32)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				"She was very good [clinician name] was very good, very supportive" (P3, 60) "there is an element of you do have to have sort of trust that that person's gonna be alright and everything. But kind of that happened straight away cause um she's just that sort, she's such a warm person" (P4, 216) "So having that kind of real, being able to completely identify with someone and, and, knowing that they get you. Yeah, yeah, that's

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				a biggie isn't, that it is a biggie when it comes to trust, really is". (P5, 49)
	Experiencing warmth and empathy	• Being able to laugh in therapy • Acknowledging progress in therapy • Clinician sensitivity to voices • Empathetic therapist • Therapist genuine and sincere	P1, P2, P3, P4, P5.	"just it just happened to be the right person at the right time and she was exactly the right person. But also, that's not to discredit her skills and her empathy and her warmth". (P4, 220)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				"you do have to have sort of trust that that person's gonna be alright and everything. But kind of that happened straight away cause um she's just that sort, she's such a warm person," (P4, 57) "She was very good [clinician name] was very good, very supportive" (P3, 37) "and it was very much kind of felt like, and it was like it was having somebody who's absolutely who on your side, who thinks you're great and just want really just wants

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				you to do well and really wants you, like, is really rooting for you" (P4, 175)
	Being heard	• Clinician picking up on the right things • Therapist exacerbated on my behalf • Shared meaning with therapist • My reflections were validated	P2, P3, P4, P5, P7	"She had some professionalism, but even for her to have a normal, kind of humane reaction…The like the healing of that was just amazing." (P4, 187-189) "I, I can honestly say now that I think [Clinician Name]'s quite proud of me and I think…there's a mutual res... Well, I have respect for her, but I can see that you know

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				some things that we went through were a little hard for her to swallow," (P2, 14)
	Modelling secure relationships	• Persistence with processing • Good supportive clinician • Good match with clinician • Wanting to take relationships to therapy • Catharsis from being validated • Clinician insightfulness supported trust • Being vulnerable in therapy	All	"Uhm yeah I want to continue relationship work. Uhm just broadly I want to I want to, you know, have like a lot of what I've done has been theoretical. I'd like to be able to have, you know, a real relationship, intimate relationship or, or, or, even friendships where there's challenges and be able to bring them into therapy and to work on them that way."(P7, 210)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				INT: “And how connected did you feel to [Clinician Name] through your, through your therapy?”... P2: “Very connected I, I’s completely honest and didn’t pull back on anything, yeah”.(P2, 75-77) “It’s literally that strong, it's the opposite of gas lighting. And it sort of it gave me, it was just like it just made me trust my judgement again” (P4, 208)

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
	Staying in Window of tolerance	• EMDR gives distance • Able to talk about the visceral stuff • EMDR allowed me to step back • EMDR gave me breathing space • EMDR going back to look objectively	All	"But when the moment arises and it has happened, I'm able to share what I've been through without breaking down" (P2, 114) "now it's almost like I'm, I'm, desensitised," (P7, 118)
	Identifying embodied emotion	• Body mapping feelings • Couldn't breathe • Feeling hit around the head • Hiding tremors • I feel emotion in my body	P1, P3, P4, P5, P6, P7	Are you upset? Like what, what do you feel? And I had this with [clinician name] as well, like we had to kind of go through, like, where

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				each, where feelings are in my body. Like I couldn't navigate them, I just couldn't and I'm definitely better at doing that. I'll say oh, [partner name], feeling really anxious about this thing, like, or I'm a little bit worried or this is making me feel sad. (P5, 114) "I don't get the tremors that I used, I've had all my life as long as I can remember, I've had internal tremors. Um er extreme anxiety." (P1, 52)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				“So I'm like I there's a somatic sort of response in that I feel it in my stomach. I feel like, you know, my stomach in knots, you know, kind of [inaudible], you know, sort of thing. So that's quite prominent you know, and but I know the feeling of, I don't, when I feel happy, I feel like the swelling on my chest, you know, and. Yeah. So, so it's in my body, I guess that I feel emotion, yeah.” (P7, 122)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
	Timelines and building a coherent trauma narrative	• EMDR connected the dots • EMDR contextualised my experience • EMDR helped map my life • EMDR helped define trauma • Putting trauma into context	All	"I think the major turning point was when we went through all the timelines and these questions, and other things that were discussed just by the way when we touched on the timelines and I think, going through the timelines helped connect things." (P2, 118) "There's no comparison because it didn't, it did open the wounds, but it closed them while you were still in therapy. So every time I did EMDR, I got worse before it got better, and [clinician name] said you have to let the jelly

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
				set. Um, because you've unpicked something. Being forced to look at it so you have open Pandora's box, but you've also processed it and tidied it up before you've closed the session." (P1, 191) "With the EMDR and realising that, that maybe wasn't the best relationship in the world uhm and being able to do it in my own terms." (P6, 144)
Reconnecting with self	Reduction in anxiety	• Associating feelings with anxiety • I have stopped escalating now • I would bottle to explode	P1, P3, P4, P6, P7	"all of a sudden, I just felt the anxiety go, which was incredible." (P1, 56)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
		• Emotional labour before EMDR • Emotional dysregulation was a feature in relationships		"I think some of that passivity that I was talking about previously is a sort of I mustn't stir the water, I must conform … I must say people do whatever they want, and everything so that sensing myself, it sounds corny, but feeling slightly just a bit, it's quite shaky, but feeling this sort of shaky sense of self-empowerment." (P3, 162-164)
	Balanced self-appraisal	• Confidence in my opinion • Realising I am not awful • I am a fighter/survivor • I am not a bad person • I am resilient • I am the same as others	All	"I would often say I'm a monster and then he would say he, he, would help me realise that I wasn't you know".(P7, 200)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				"think I feel more confident in my opinion or of myself" (P2, 114) "So I've done very well getting through those breakdowns and I'm still here, so I, I must be strong." (P3, 33) "Because in the EMDR you had a chart of 1 to 10, like how much do you blame yourself for, how much do you feel this, this statement to be true? Like um I hate myself and things like that um so working over that and

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				building confidence up while, we were doing the EMDR has certainly helped." (P6, 52)
	Integrating processed trauma into self-concept	• Accepting voices might stay • Allowed to acknowledge my own sadness • I don't need to run or hide anymore • Manifesting positivity by reflecting on journey • Childhood trauma root of all • Connections between everything • Part of me • Psychosis echoes from my past	All	"I've got this part of me that I didn't know really existed, or had acknowledged, or been allowed to ac, been allowed to acknowledge before. So I've got like a sad part of me, but like, but I understand it's part of me now" (P5, 148).

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
		• My way of coping		"so the EMDR has enabled me to just be myself. Or to find myself because I don't think I ever have been myself." (P1, 167) "I think that all helped build, you know, a foundation that made me realize well I wasn't as bad as I thought, you know, everybody else can see it, why can't I!" (P2, 118)

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
	Enhanced emotion regulation	• Emotion regulation better now • Learning emotion regulation • Managing stress and grief • Useful coping mechanisms • Connected with emotions • Identifying emotions now	P1, P3, P4, P5, P6, P7	"And it [Internal nurturer] tells me what I do need to worry about. What I don't need to worry about, and if I am processing a thought that's overwhelming me, it will unpick it. Um, it's kind of like my internal processor really." (P1, 133) "They, say I have traits of EUPD and, and, I, I, say, well, you know, where's the evidence about, you know, at the moment, you know, it's not, it's a historic thing … it's just so much better than it was than it was before" (P7,112)

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
Reconnecting with others	Articulating self	• Easier to talk with partner • Tools to communicate for myself • New language to connect • I can speak about it generally now • Assertiveness with tact	P2, P3, P4, P5, P7	"I rely on other people at the moment for any strong emotions or things like that." (P6, 134) "but as far as communicating, I ask better questions I suppose that kind of get to the root of things." (P4, 234) "Uh, I think I explain myself better. I, I'm, yeah, I think I's not a great communicator, but I think now I can, I, I try to sit back and say, think about the situation beforehand and then sit with it to see if I'll be comfortable or not,

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				and then when I, if I'm not, I'm able to tell him" (P2, 34)
	Updating interaction strategies	• Being more assertive • Eye contact • I am more tolerant • I am less passive • I don't lose my temper anymore • I don't have to put up with people	P1, P2, P3, P4, P6, P7	"I don't beat around the bush anymore, if that makes sense. Yeah, I, I ,mean, I mean obviously you have got like tact and everything like that" (P4, 234) "I'm not being as passive" (P3, 68)
	Choosing who to connect and share with	• Choosing friends with similar views • Not pursuing friends that dismiss me • Preferring female friends • Want a partner who is good in a crisis • Working out who is a bad match now	P1, P2, P4, P5, P6, P7	"as far as er potential partners concerned, it's somebody who is not gonna get hung up on it, who's not going to… Someone who's not gonna get into like I do not need somebody to micromanage me and like, you know, remind

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				me to eat and remind me to…that would actually drive me insane" (P4, 156) "so to, to, try and make new friends using that, and I've met, met up with two of them and um, and you know they're both, I'm more, more interested in making female friends at the moment because in my mind, I think female friends are likely to be more er empathetic and understanding." (P7, 50)

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
	Repairing relationships	• Rebuilt relationship with mum • Reconciling with father • Mum's mind opened up • Holding on to love for mum now • I accept my dad as he is	P2, P4, P5, P6, P7	"And I think seeing my father in person and I having a actual good memory created was part of my healing, so when I came back from Trinidad, my my depression and all that was even quicker to, you know, feel better."(P2, 30) "she knows that I'm probably talking about that because, it's a big deal, but um I don't have the, I almost don't have the heart to speak to her about it, like, I don't really want to bring that up because then that's going to

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				sever quite a positive relationship I have with her now," (P5, 56) "Well, uhm as you can imagine, the, the, symptoms of PTSD uhm I pushed people away and er, yeah, I wanted to be by myself a lot. Since them, symptoms have gone. I've accepted more people in I, I, I've had a problem of asking people for help when I was ill, or if I needed help, and I'd find it asked for that help but I've been able to do that a lot better now. I've been able to trust people because of the intrusive thoughts and feelings

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				I had towards people that they might hurt me or anything like that, that seems to been taken away quite a bit" (P6, 23)
	Actively seeking connection	• Planning social life • Talking with new people • I widened my social circle • Making eye contact to make friends • Reaching out online	P1, P2, P2, P4, P6, P7	"something I've been hoping for, I've uhm embarked upon some new friendships very recently actually, over the summer holidays, which has been really nice" (P1, 46) "So the sort of like further outside circles, I'm much more in touch with. And yes, it's superficial and it's like birthdays and things

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
				like that, and, and, like, just checking in, but I make more of an effort because I have more bandwidth to be able to deal with that" (P4, 132)
	Building secure attachments	• Being able to open up to sister • Able to work through conflict with sister • Balanced friendship • Bonding over music • Been through a lot together with partner	All	"the lightness that I'm able to have with like my brother and my, my, bestie is kind of I'm able to have that similar sort of like, lightness, kind of get back to that with, like my other friends, so I, yeah, don't, I'm just not as withdrawn as I was because." (P4, 134) "my relationship with my sister is very influential in my life and I think the fact that

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				we're managing to work through the areas which where there's conflict now we tend to be able to talk about things" (P3, 205-207) "Um but she yeah, she's quite similar to me in that, like, worries about everybody else and so she's messaged me today going, I think I need to go to doctor's cos I got burnout. And I'm like the teacher. I'm like, yeah, totally get it you should. I'm dishing her the advice that I never take, and she dishes me advice that I never take. So we've got that relationship that's really great." (P5, 227)

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
Recovery	Personal growth	• Learning to live in the community • Now I can do anything • Finding things easier • Learning to function well • Self advocation • Wow moments in self learning	P2, P5, P6, P7	"Yeah. Yes, I have two jobs. I have uhm, I work in a garden centre as a barista. Making cuppacino, and then I also work in an animal sanctuary on a Saturday." (P6, 118-120) "it's been about combination of, of therapy and um just growth and self, you know self-understanding." (P7, 70)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				"I'm lose pieces of me, you know. And so, so I, you know, to be able to think that that's part of my past is, is a big thing " (P7, 57) "And I'm thinking, well, that's a major step forward and I think it was in a sense me turning towards me in a stronger way, so that that was very powerful uhm and very surprising, extremely surprising." (P3, 199)
	Sense of support and connection	• Best friend helping me to process • Being heard by best friend • I knew I had support • Friends stood by me • Knowing people are there • Felt comforted and safe	All	"She didn't judge me, she never criticised me. She never put me down. She listened relentlessly." (P1, 232)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				“support was there, but it was through the early intervention and their support is what got me through it.” (P2, 188) “the way that they've supported me since then and the way that they've, we just get together and go to art galleries, that could be really supportive.” (P3, 251) “But like I've been through that with him and now he's been through my mental health with me. So we have a really good relationship

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				because suppose we're both broken souls " (P5, 90) "even my husband is one to say no, no, everything will be alright. Just, you, whatever uhm, but now if I do tell him no I'm not comfortable with that. I think he now takes heed. Whereas he would brush things off and then it will overwhelm me so".(P2, 52)
	Supporting others	• Sharing story with peers • Taken up mentoring • Understanding peer's journey • I cheer others up • Help each other out	P2, P5, P6	"And I think the EMDR was, as I said, I don't understand it, but it, it worked. I have a friend in Dubai that was using it and she was not sure about it, I said stick with it, just be

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				honest, be open, stick with it, it'll work" (P2, 198) "So I am the person that they come to, to tell me how they are feeling, and I am the one that gives the advice" (p5, 122) "I'm a bit childish sometimes so, er er playing jokes on people and stuff, all very. I wouldn't do anything nasty and not jokes like that, but I'm. I'm very, I'm if somebody's down or feeling blue then I'd try and cheer them up" (P6, 112-114)

Categories	**Higher order concepts**	**Code examples**	**Participants contributing to concepts**	**Example extracts**
	Distance from trauma response	• I'm ok now • EMDR made me feel more sane • EMDR new perspective • Not consumed by trauma • Given space in my brain • Removes the raw nerve	All	"So with the EMDR, I've been able to process all those traumas, file them away, and um and heal." (P1, 54) "I think I do feel better now than I did before this psychosis because I've dealt, dealt with those traumas properly." (P2, 50) "I think the memories are still there, but they just don't have as much weight and they don't have as much hold on, on, me as they did

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				before. So I think about stuff without getting upset." (P4, 48)
	Return to normal day to day activities	• Couldn't go to grocery store before • Having a quality of life • Managing daily activities • Rediscovering adventure • Basic self-care • Not expecting mountain top experience	All	"I struggled with every single thing and now I can do everything I'm, I mean, multitasking with having to cook, see about my son, go on play dates. I didn't take him out as much, I didn't wanna see people. I mean today, because I have this and then we're not doing much today, but he, I, on my days off, we definitely do fun stuff, but I still get, manage the ironing, doing the house clean, cooking." (P2, 230)

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				"I think it's learning to function well and function the way where I can have a quality of life alongside the voices and the other stuff." (P3, 265)
	Psychosis reduced or ceased	• Coming back to reality • Psychosis stopped • 'symptoms' much better • Weight lifted • Paranoia gone • Voices gone	P1, P2, P4, P5, P6, P7	"the voices have gone. Um, it's a much calmer place to be, so when something does come up, I ca... I have got the headspace to process it." (P1, 143) "I did the EMDR and I got stabilised on the depo injection uhm that I've been pretty much symptom free of the schizophrenia, so I don't

Categories	Higher order concepts	Code examples	Participants contributing to concepts	Example extracts
				have them intrusive thoughts and paranoia" (P6, 50)

Appendix L: Research Diary Extract

1st March 2023: I met with the research ethics panel today which felt a less formal than anticipated. There were six panel members from different backgrounds who raised some thought-provoking questions about the study and how I might ensure participants were fully supported through the process. I am expecting amendments to include a protocol for managing distress in the interview.

7th September 2023: I have just carried out my first interview today for Trust 1 which felt like a relief given the ongoing difficulties and massive delays the other Trust's Research and Development processes. The interview went well and I am looking forward to transcribing and starting analysis. I had some useful feedback from the participant about the interview process and how she experienced the questions that were asked. She spoke about the sense of being in control in the EMDR process and that this set the EMDR aside from other therapies she had experienced (and hated). She also spoke about the interview process and that the sense of being in control was not there as she felt she needed to answer questions. On reflection, I have made a note in my interview set up checklist to let participants know that they do not have to answer any questions that they are not comfortable with and to contract with them in the set-up meeting how they might let me know if questions feel too probing. I regret not being able to get hold of *** (EBE) to finalise our discussions on how to set up the initial meeting with participants as this might have been useful to iron out how to approach the set up (the plan was to do a mock interview set up to see how she experienced it).

18th December 2023. I am now starting to panic as have lost the 4 participants identified in *** (Trust 2), who had already expressed interest in taking part in Trust research but that had since moved on from services. Local collaboration for this trust had to be handed over next

as my initial contact has gone on maternity leave. The new collaborator is not able to help with recruitment. I recently got the go ahead to approach participants, albeit they are still to set me up on their systems with an email and onedrive account so that Teams can be used securely, and I cannot imagine this will happen until after Christmas now. Capability and Capacity checks will take nearly a year to complete for this Trust which I am worried now puts me in a predicament for submitting in July. Delays for both trusts included sending me off to get lengthily forms (research passport) and legal documents (data security agreement) re/written and signed off (6-month cumulative delay) to then be told, despite my repeated questioning, that I did not need them. This has been frustrating. I have only managed to interview two participants, and my supervisor has had to reach out to her EMDR network to find local collaborators who might have participants.

17th January 2024. I have prepared local information packs for Trusts 4, 5, 6, and 7 where clinicians from my supervisors EMDR network have identified potential participants from their caseloads. I followed up a contact in Trust 2 passed to me by someone in my training cohort, who thinks they might be able to help with recruitment. I received an email from this new clinician today stating she has (Potentially) two participants in mind. Only 2 participants have been interviewed so far and eager to get another 8 before write up in May.

16th March 2024. The new Trust 2 contact has come through with two participants who have agreed to participate. Somerset participant has a lapse in mental health so has fallen through and Trust 5 has identified four. No response from Trust 4 since my initial enquiry in January

5th June 2024 Trust 7 R and D team has declined due to increased research activity in psychosis. I only have four participants so have had to make the difficult decision to defer

submission of my MRP until December. Analysis has started and the data is rich so I am remaining hopeful that I can make up the numbers. The numbers so far:

- Trust 1 – 2 participants interviewed
- Trust 2 – 2 participants interviewed
- Trust 4 – has only just responded but the participant identified has fallen through as they are no longer in the service, potentially one more that could be interested
- Trust 5 – two to four participants identified
- Trust 6– 1 participant who initially fell through has a six-month period of feeling better and wants to participate

Trust 5 Capability and Capacity checks underway but this requires a major amendment as recruiting from a forensic secure. Preparing participant documents. Potentially four participants here

30th September 2024, seven participants recruited and interviewed. I am starting to feel a sense of relief and eager to find one more. I have emailed all the Trust contacts again to see if there are any more that can be identified. I extended recruitment in Trust 2 as one more participant was identified and agreed to participate but she changed her mind before the consent form was signed. On reflection, if I was to carry out similar research in the future, I would widen my search from the start to ensure adequate participant numbers were found.

Appendix M: Research Ethics Committee end of study notification

NHS
Health Research Authority

Declaration of the end of a study

(For all studies except Clinical Trials of Investigational Medicinal Products)

To be completed in typescript by the Chief Investigator or sponsor representative and submitted to the Research Ethics Committee (REC) that gave a favourable opinion of the research within 90 days of the conclusion of the study or within 15 days of early termination

For questions with Yes/No options please indicate answer in bold type.

1. Details of Chief Investigator

Name:	Roberta Cramp
Address:	Salomons Institute for Applied Psychology 1 Meadow Road Tunbridge Wells TN1 2YG
Telephone:	0333 011 7101
E-mail:	Bc359@canterbury.ac.uk

2. Details of study

Full title of study:	What are the processes in the interaction between attachment, EMDR for psychosis and recovery? A grounded theory.

IRAS ID:	321953
Name of REC:	HRA and Health and Care Research Wales (HCRW)
REC reference number:	23/WA/0068
Date of favourable ethical opinion:	22nd May 2023
Sponsor:	Salomons Institute for Applied Psychology, Canterbury Christ Church University

3. Study duration

Date study commenced:	**23rd May 2023**
Date study ended	**30th September 2024**
Did this study terminate prematurely?	**No** If yes, please complete sections 4, 5 & 6. If no, please complete section 4 and then go directly to section 7.

4. Recruitment

Number of participants recruited	**7**
Proposed number of participants to be recruited at the start of the study	**10**
If different, please state the reason or this	This is a hard to recruit from population and lengthily processes of gaining approvals through some research and development teams meant that participants that had been identified to approach for the study had left services. (one trust took 12 months)

5. Circumstances of early termination

What is the justification for this early termination?	NA

6. Potential implications for research participants

Are there any potential implications for research participants as a result of terminating the study prematurely? Please describe the steps taken to address them.	NA

7. Final report on the research

Have you submitted a Final Report?	**Yes** If no, please submit a Final Report within 12 months of the end of the study (or for paediatric CTIMPs, within 6 months). More information is available on the HRA website

8. Declaration

*Signature or Electronic Authorisation of Chief Investigator/sponsor representative: *Please print below or insert electronic signature	
Print name:	ROBERTA CRAMP
Date of submission:	22/11/2024

Appendix N: Study Summary uploaded to the Health Research Authority

NHS Health Research Authority

Search...

Glossary

Home › Approvals and amendments › Managing your approval › Ending your project ›

Submit your Final Report

Submit your Final Report

Your Submission

Name of Chief Investigator

Roberta Cramp

Telephone Number of Chief Investigator

0333 011 7101

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Chief Investigator ORCID ID

https://orcid.org/0000-0001-9184-2411

Email address of person submitting the Final Report

bc359@canterbury.ac.uk

Full Study Title

What are the processes in the interaction between attachment, EMDR for psychosis and recovery? A grounded theory.

IRAS ID

IRAS ID

321953

Name of the Research Ethics Committee that issued a Favourable Opinion for the study

Wales REC 4

Sponsor Organisation Name

Canterbury Christ Church University

Study start date

2023-05-23

Study end date

2024-09-30

Funder's reference number

NA

Name of Registry

NA

Study Registration Number/Identifier

NA

Date of registration

NA

Is the study protocol publicly available?

No

Lay summary of study results

Disruptions in early attachment (infant relationship) experiences have been associated with greater risk for the development of psychosis. Eye movement desensitization and reprocessing (EMDR) trauma

therapy has been found effective in supporting individuals with psychosis to make sense of, and heal from adverse experience, while improving attachment security. This research approached psychosis as a response to early attachment trauma and sought to identify processes between attachment and EMDR, that might promote recovery from psychosis. Seven participants who had received EMDR for psychosis were recruited and completed two attachment screening measures before taking part in a semi structured interview. The interviews were analysed using Glaser and Strauss (1967) grounded theory

structured interview. The interviews were analysed using Glaser and Strauss (1967) grounded theory approach from a critical realist perspective, and a clear model emerged from the data. The model highlighted the role of relationships with therapists and wider supporting mental health team through the EMDR process that encouraged a reconnection with a sense of self and reconnection with others. EMDR processes and improvements in relationships contributed to a reduction in psychosis, greater sense of connection and felt support, personal growth and a sense of distance from trauma in recovery that allowed a return to normal day to day activities. Clinical implications, limitations and future research were considered.

Has the registry been updated to include summary results?

No

If no – why not?

I plan to publish the study results by end of 2025

Did you follow your dissemination plan submitted in the IRAS application form (Q A51)?

Pending

If pending, date when dissemination is expected

2025-12-31

Have participants been informed of the results of the study?

Pending

If pending, date when feedback is expected

2025-03-31

Have you enabled sharing of study data with others?

Yes

If yes, describe or provide URLs to how it has been shared

The data will be stored securely in the admin office at Salomons Institute, Canterbury Christ Church University and permission has been given by participants for this data to be shared with other doctoral students that wish to carry out similar research.

Have you enabled sharing of tissue samples and associated data with others?

No

If no, explain why

No tissue samples were used in this study

Final Summary for participants

Disruptions in early attachment (infant relationship) experiences have been associated with greater risk for the development of psychosis. Eye movement desensitization and reprocessing (EMDR) trauma therapy has been found effective in supporting individuals with psychosis to make sense of, and heal from adverse experience, while improving attachment security. This research approached psychosis as a response to early attachment trauma and sought to identify processes between attachment and EMDR that might promote recovery from psychosis. Seven participants who had received EMDR for psychosis were recruited and completed two attachment screening measures before taking part in a semi-structured interview. The interviews were analysed using Glaser and Strauss (1967) grounded theory approach and clear themes emerged from the data.

The model constructed through the analysis highlighted the vital role of relationships with therapists and wider supporting mental health teams through the EMDR process. Participants were able to recognise and regulate emotion through EMDR enabling them to develop a clear coherent narrative of their trauma. Having a clear understanding of their experiences enabled participants to reconnect with a sense of self, improve self-appraisal, and reconnect or repair relationships with others, potentially leading to increased attachment security for some. Gaining a sense of self and improving relationship interaction strategies through EMDR contributed to a greater sense of connection and felt support, personal growth, a sense of distance from trauma in recovery and a reduction in psychosis. These allowed a return to normal day to day activities. The processes identified are shown in the model diagram below:

Model of attachment processes in EMDR for psychosis