Exposure-based interventions for trauma and psychosis: Exploring the experiences of their delivery and implementation.

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Table of Contents

List of Tables

Chapter 1: Systematic review

List of Figures

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Chapter 1: Systematic Review

Implementing exposure-based psychological interventions for transdiagnostic threat-related processes drawing on key stakeholder's experiences: A meta synthesis.

Prepared in accordance with the author requirements for Clinical Psychology Review

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Abstract

Title: Implementing exposure-based psychological interventions for transdiagnostic threat-related processes drawing on key stakeholder's experiences: A meta synthesis.

Aims: The relationship between post-traumatic stress disorder (PTSD) and psychosis is robust and evidence supporting exposure-based interventions targeting threat-related processes across presentations is well-established. Despite this, implementation rates are limited. This review aimed to identify and meta-synthesise qualitative literature exploring key-stakeholders' (clinicians and service-users) experiences of exposure-based interventions for PTSD and psychosis to better understand potential implementation barriers and facilitators.

Method: A systematic literature search of articles published up until May 2024 was conducted using Embase, PsychINFO and MEDLINE. Methodological quality of included papers was assessed using The Critical Appraisal Skills Programme (CASP) qualitative studies checklist.

Results: A thematic synthesis generated four overarching analytic themes related to stakeholders' perspectives on different aspects of exposure-based interventions: engagement factors, therapist attunement, working with distress and systemic challenges**.**

Conclusion: Findings highlight individual and systemic challenges to implementing exposure-based therapies for PTSD and psychosis. Flexibility to therapeutic models and commitment to engagement-building in treatment helped overcome barriers and facilitate engagement. Implications and recommendations for implementation are made.

Introduction

Threat-related processes in PTSD and psychosis

Psychosis is a mental health condition that affects seven in 1000 adults in the UK, with onset typically occurring in adolescence [National Institute of Clinical Excellence [NICE], 2014). Psychosis is characterised by experiences that cause individuals to lose their sense of reality through, for example, hearing things others do not (auditory hallucinations, or voices) or believing things others find strange (delusions) [Cooke & Brett., 2020]. Psychosis can impact memory and motivation alongside sensory perceptual disturbances, which can cause profound impact on a person's quality of life and daily functioning (Izquierdo et al., 2021; Degnan et al., 2021). Psychosis disproportionately impacts marginalised groups, and higher prevalence rates amongst ethnic minorities, particularly black ethnic minorities, has been consistently demonstrated in the UK (Qassem et al., 2015).

The relationship between trauma and psychosis is robust and well-established (Hardy et al., 2024) with many people diagnosed with psychosis also meeting criteria for PTSD (Zammit et al., 2018). This relationship can be viewed as bi-directional, whereby traumatic experiences play a causal and maintaining role on the development and phenomenology of psychotic experiences (Mason et al., 2023) and the traumatic impact of experiencing psychosis can itself develop into PSTD (Morrison, Frame, & Larkin, 2003). Research from the service-user perspective supports this, with 65% of participants in Martin et al.'s (2023) study attributing their psychotic experiences to traumatic events, and 82% of these expressing a preference for trauma-focused therapy.

Threat-related processes can be conceptualised as the affective, behavioural, cognitive and physiological responses to perceived threating stimuli (Denefrio et al., 2018) and are an inherent part of the human condition (Gray, 1990). In PTSD and psychosis, threat-related processes dominate in the form of memories and sensory-perceptual disturbances (Hardy et al., 2024). The resulting cognitive, behavioural and interpersonal safety-seeking responses are key to maintaining a current sense of threat and

consequently, associated distress (Reininghaus et al., 2016.). Survivors of trauma may relive past events through intrusive memories or flashbacks when faced with reminders of the event(s) (Bar-Haim et al., 2021), causing marked hyperarousal and distress, resulting in avoidance of internal (thoughts, memories, sensations) and external (places, people) reminders of the trauma. This can dramatically reduce a person's quality of life, leading to increased social isolation, impaired social relationships and functioning and over-reliance on healthcare services (Frueh et al., 2009).

Heightened perception of, or sensitivity to, threat is also a common maintaining mechanism in psychosis (Freeman & Garety, 2014). Persecutory delusions, for example, are recognised as inaccurate threat beliefs where an individual feels intensely vulnerable to harm from others in the absence of evidence (Freeman, 2024). This is further compounded by reasoning biases and use of safety-seeking strategies such as avoidance and social isolation, which limit access to disconformity evidence (Freeman, 2016; Freeman, 2024). Additionally, auditory hallucinations often manifest as hostile and threatening, with voice-hearers commonly appraising their voices as omnipotent and malevolent and themselves as powerless (Garety et al., 2021). Given the robust link between psychosis and trauma, it is unsurprising that negative voice-content often reflects an association with early traumatic experiences (Larøi et al., 2019). For example, Reiff et al. (2012), found 76% of people made links between the content of their hallucinations and historic child abuse. In such cases, a continued sense of threat following trauma promotes heightened hypervigilance, where the voice-hearer is more likely to scan for threats in their environment, resulting in auditory 'false positives', or voices (Dodgson & Gordon, 2009; Larøi et al., 2019). Here, the perception of the voice (Deamer & Wilkinson, 2015) as malevolent maintains a heightened sense of threat, associated hypervigilance and distress.

Psychological interventions

Trauma-focused therapies, such as eye movement desensitisation and reprocessing (EMDR), trauma-focussed cognitive behavioural therapy (TF-CBT), prolonged exposure (PE) and narrative exposure therapy (NET), involve exposure as a core change mechanism for reducing distressing symptomology. This is achieved through targeting

avoidance and facilitating habituation to distressing trauma memories through imaginal and in-vivo exposure to internal and external stimuli related to the trauma (Foa et al., 2007). Exposure-based interventions have been shown to improve quality of life and reduce distressing PTSD symptomology, with effects being maintained at 6-month follow up (McLean et al., 2022). Trauma-focused therapies have also been shown to be safe, acceptable and efficacious for psychosis (Van den Berg et al., 2016), despite some temporary symptom exacerbation seen during the active (exposure-based) components of treatment (Burger et al., 2023). For example, one study demonstrated how both PE and EMDR generated statistical associations with less severe paranoid thoughts post-treatment (de Bont et al., 2016), indicating a change in threat perception.

Within psychosis research, there has been a shift away from traditional viewpoints that psychological interventions are not warranted and instead, talking therapies have been found to be safe, efficacious and favoured by service-users (Freeman, 2024). For distressing voices, this shift has given rise to more trauma-informed, relational interventions incorporating principles of exposure to actively address the voice-hearing relationship. For example, AVATAR therapy (Craig et al., 2018) utilizes digital software to create a visual representation, or 'avatar', of someone's most distressing voice. The person is then exposed to their malevolent voice and encouraged to build their sense of power and control through assertive dialogues. Similarly, Talking with Voices (TwV) (Longden et al., 2022) a user-informed, relational approach, incorporates direct, experiential dialogues to help mediate and improve dynamics in the voice-hearing relationship. Relating Therapy (Hayward et al., 2017), exposes voice-hearers to their malevolent voice by bringing it into the room using empty-chair work and experiential role-plays intended to recalibrate the power-imbalance. Common across relational approaches is that they adopt elements of exposure as a core change mechanism by encouraging the person to engage in dialogue with the threatening stimuli, the voice. In terms of delusions, evidence also supports the use of exposure-based approaches. For example, a notable RCT found that testing predictions of threat in persecutory delusions using virtual reality software led to significant reduction in delusional conviction and distress (Freeman et al., 2016).

Implementation gaps

Despite efficacy estimates of exposure-based interventions for PTSD and psychosis, or both, in research settings, implementation rates in clinical practice are variable, with some estimates as low as 5%–19% (Reid et al., 2017). Barriers to implementation have been identified at multiple levels, from those receiving interventions, the clinicians delivering them and the systems within which they are implemented.

On a service-user level, anticipatory anxiety and not feeling emotionally ready to engage in treatment (Gjerstad et al., 2024), negative beliefs about exposure and previous negative help-seeking experiences (Smith et al., 2020) all impact engagement in treatment. On a system level, limited training opportunities in evidence-based interventions impede implementation (Harned et al., 2011). Additionally, insufficient screening and assessment of PTSD in psychosis (van den Berg et al., 2020), and reliance on more inflexible, manualised approaches (Finch et al., 2020) due to financial constraints all contribute to the gap between research and practice.

Amongst clinicians, research suggests negative beliefs about credibility of exposure (Pittig et al., 2019), heightened anxiety and limited confidence (Reid et al., 2017; Trivasse et al., 2020) negatively impact implementation. A recent review on trauma-focused therapies for psychosis identified how fear of potential iatrogenic harm from reprocessing emotionally-laden trauma memories was an obstacle to implementation (Hardy et al., 2024). Though existing research into clinician-related barriers has useful implications, evidence is largely confined to survey-based research with weak methodology (Langthorne et al., 2023), and more in-depth investigation is required.

Current review and aims

Given the gap between research and clinical practice, there is a need to understand barriers and facilitators to implementing exposure-based interventions targeting threat-related processes in PTSD and psychosis, or both. As two main stakeholders in exposure-based interventions, the perspectives of service-users and clinicians are central to improving this understanding. To the authors' knowledge, no existing meta-

synthesis of qualitative studies exploring service-users and clinicians experiences of exposure-based interventions for psychosis and PTSD have been completed. As such, this review set out to answer two key questions:

1. What are stakeholders' experiences of delivering/receiving exposure-based psychological interventions for PTSD and psychosis, or both?
2. What are the barriers and facilitators to implementing exposure-based interventions?

Methods

Search strategy

This review followed Cochrane guidance for qualitative systematic reviews, using the ENTREQ checklist (Tong et al., 2012) to ensure transparent reporting (Appendix 1.1). The lead researcher registered the review protocol on PROSPERO (CRD 42024513448). A systematic search of three databases, Embase, PsychINFO and MEDLINE, was conducted for literature published up to May 2024.

Search terms

Consultation was sought from a subject librarian to develop the specific search strategy used. The lead researcher followed a PRISMA process (Page et al., 2021) (Figure 1), and abstracts and titles were searched using key words, subject headings and adjacency operators listed below. Boolean operators (AND, OR) were used to combine search strings. Search strategies can be found in Appendix 1.2.

1. Qualitative Research/

AND

2. psychologist* or psychotherap* or health care or healthcare adj3(professional* or clinician*

OR

3. Patients/ or service user* or client* or inpatient* or outpatient* or lived experience* or first hand or first person or participant*

AND

4. Implosive Therapy/ or exposure adj2 therap* or Narrative Exposure Therap* or NET.mp. or Narrative Therapy

AND

5. Psychotic Disorders/ or hallucinat* or delusion* or paranoi* or voice*

OR

6. Stress Disorders, Post-Traumatic/ or trauma* or posttraumatic or post-traumatic or PTSD

Inclusion criteria

- Full or partly qualitative methodology (including example quotes).
- Explored participants' experiences of receiving or delivering exposure-based psychological interventions in PTSD or psychosis, or both.
- Participants were over the age of 16 (chosen to be representative of populations experiencing first episode of psychosis).
- Written in English with full text available.

Exclusion criteria

- Quantitative or mixed method studies with insufficient qualitative data (e.g. Survey design, no quotes or limited elaboration on themes).
- Psychological intervention was not explicitly exposure-based (e.g., exploring experiences of generic CBT-p or psychoeducation on trauma); or there was insufficient data on the intervention to determine exposure element.
- Grey literature, systematic reviews, literature reviews.
- Not focused on psychosis or PTSD.

An operationalisation of exposure-based interventions for threat-related processes was agreed. This was defined as treatments that exposed service-users to a feared stimulus or experience (internal or external) that may cause some initial distress. This involves approaches to working with voices or delusions that involve directly targeting a distressing, often avoided, experience rather than broadly targeting maintaining mechanisms (for example thought challenging in CBTp).

Assessment of study quality

Methodological quality of papers included in this review was assessed using the Critical Appraisals Skills Programme (CASP) checklist (Appendix 1.3) endorsed by the Cochrane Qualitative and Implementation Methods Group. The CASP checklist utilises 10 questions to assess rigour, validity and relevance of primary research. This focuses on research aims, methodology, research design, recruitment strategies, data collection methods, reflexivity of researchers, ethical issues, data analysis, presentation of

findings and contribution to the evidence base. The CASP checklist rates papers as meeting, not meeting, or unclear whether it has met individual criteria and is not recommended for use as a scoring system due to potential for scores to be misleading (CASP, 2017).

All studies were appraised by the lead researcher and a random sample of four were appraised by an independent rater (NM) and agreement was unanimous. See Appendix 1.4 for an overview of CASP ratings.

Data synthesis

The current review employed a thematic synthesis approach, originally proposed by Thomas & Harden (2008), which generated meaningful configuration of findings across qualitative research through three distinct, transparent stages (Gough, Thomas & Oliver, 2012). All text under 'results' sections of included studies were extracted and inputted into Microsoft Word by the lead researcher (NH). Data extraction took an inclusive approach where all eligible data, including direct participant quotes and authors' interpretations, were extracted to ensure findings of potential value were not omitted from the synthesis, as recommended for exploratory reviews (Noyes & Lewin, 2011). First, line-by-line coding of text was completed by the lead researcher. Codes were discussed and further analysed by the research team, leading to the inductive development of descriptive themes and finally the generation of analytical themes (Appendix 1.5 for an example). Thematic synthesis suited the aims of the current review by allowing authors to go beyond primary data (Thomas & Harden, 2008) and generate interpretive explanations on barriers and facilitators to implementation.

Reflexivity

The lead researcher is a white, female trainee clinical psychologist who, at the time of writing this systematic review, was conducting a qualitative study exploring perspectives of therapists delivering AVATAR therapy. AVATAR therapy integrates exposure-based elements, whereby the patient directly interacts with their hostile, abusive voice through a trialogue facilitated by the therapist. As such, there is potential for the researcher's familiarity with this data to influence the interpretation of themes

from the selected studies in this review. The lead researcher is passionate about empowering people from marginalised communities through improving access to psychological interventions and consequently, the author's professional values may have influenced interpretation of data. To honour reflexivity, codes purposely remained closely linked to direct quotes and interpretations of the data were discussed in regular research supervision as well as within the lead researcher's own reflective log.

Results

Screening and selection

The search yielded 1703 references in total, and 545 duplicates were removed in the first instance. The lead researcher completed title-abstract screening with the remaining 1158 references using the eligibility criteria, which excluded a further 1134 records. The remaining 24 studies were read in full against eligibility criteria, resulting in the final 12 studies included in the qualitative synthesis. See Figure 1 for an overview of the screening and selection process. An independent co-screener (NM) screened a selection of 5 papers at full-text screening stage and agreement was 100%. The study characteristics of all 12 studies can be found in table 1. Supplementary study details can be found in Appendix 1.6.

Figure 1

PRISMA flow diagram

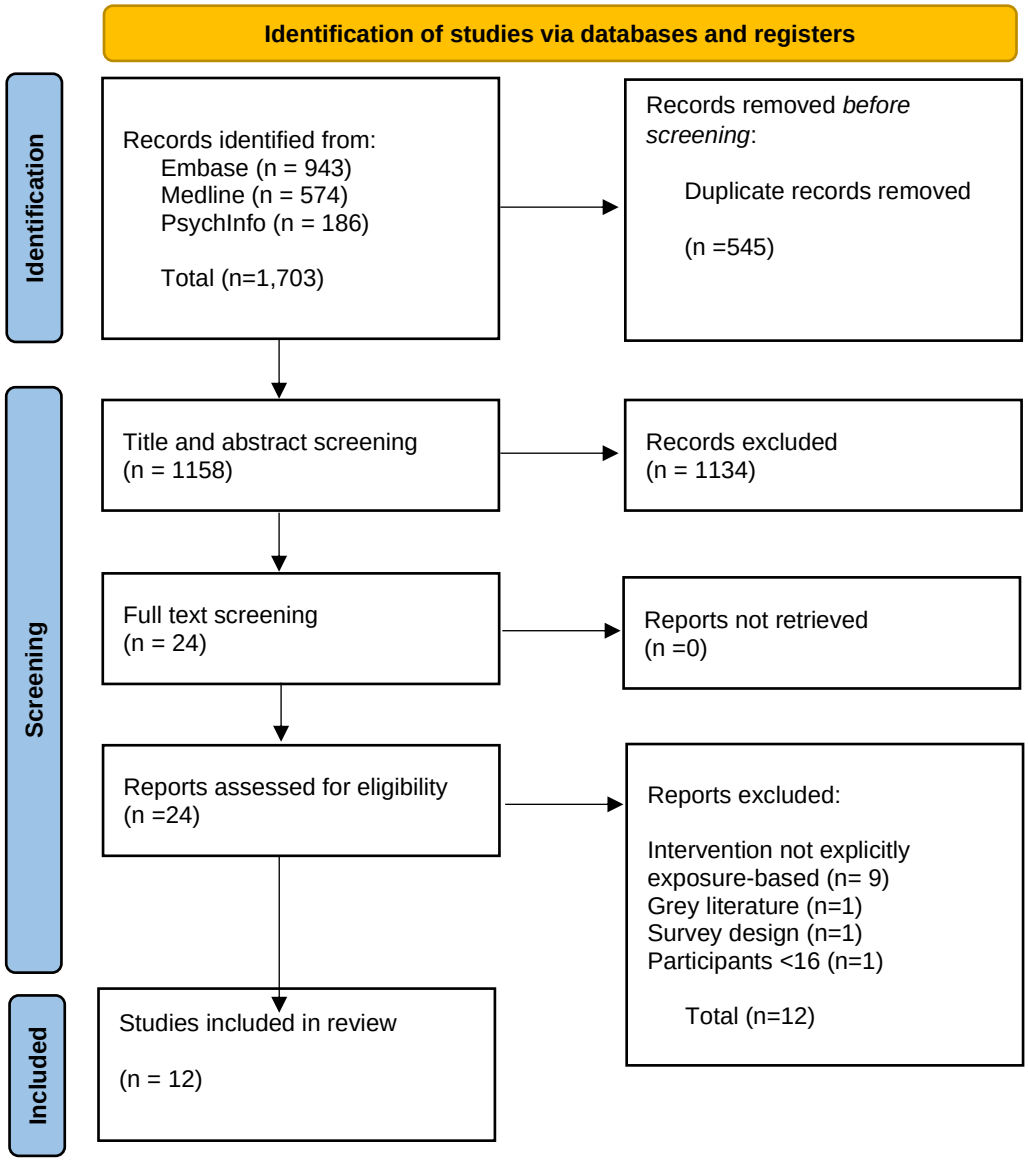

Table 1

Study characteristics of included studies

Author(s)	Intervention	Data Collection and analysis	Sample size and characteristics	Setting and context
1. **Andrews et al.,2022**	Written Exposure Therapy (WET)	Mixed method interviews "open thematic coding"	20 immigrants with PTSD Male: N=2, Female N=18 Mean age: 39.95 Latinx: N=20	America Participants recruited from primary care clinics and cultural centres.
2. **Bond et al.,2022**	Feeling Safe Programme	Semi structured interviews Interpretive phenomenological analysis of 2 cases and template analysis of 6 interviews	6 participants with psychosis Male: N=4, Female: N=2 Mean age= 41 White: N=4, Indian: N=1; Black African: N=1	UK Participants recruited from Feeling Safe RCT – therapy completers.
3. **Chadwick & Billings, 2021**	Trauma-focused interventions for psychosis	Semi structured interviews Constructivist grounded theory methodology	18 clinicians working with people with psychosis Gender: Not reported Age range = 33-58 Ethnicity not reported	UK Participants from multiple disciplines. Recruited from clinical services across Greater London.
4. **Feary et al., 2022**	Trauma-focused imaginal exposure for voices	Semi structured interviews Thematic analysis	10 voice hearers (trauma-related voices) Male: N=4, Female: N=6 Mean age= not reported Caucasian: N= 8, Hispanic: N=1 Other: N=1	Australia Study nested in case-series study which recruited voice-hearers from a specialist voices clinic or from research registry.
5. **Hardy et al., 2022**	Trauma-focused CBTp	Interviews Inductive thematic analysis	6 service users with PTSD and psychosis Male: N=2, Female: N=4 Age range = 20-59	UK Participants recruited from specialist post-traumatic stress in psychosis clinic – referred into clinic by community teams.

			Black African: N= 1, Black Caribbean: N=2, Dual heritage (Asian and European): N=1, White British: N=2	
6. **Longden et al., 2022**	Talking With Voices	Semi structured interviews and focus group Inductive thematic analysis	5 therapists working with psychosis Female: N=5 Mean age= 37 Ethnicity not reported	UK Recruited therapists from pilot single-site, single-blind RCT for TwV
7. **Longden et al., 2023**	Talking With Voices	Semi-structured interviews Inductive thematic analysis	13 service-users with psychosis Male: N=4, Female: N=9 Mean age= 40 White: N=6, Asian: N=4, Black: N=2 Mixed heritage: N=1	UK Recruited participants from pilot single-site, single-blind RCT for TwV.
8. **Rus-Calafell et al., 2022**	AVATAR therapy	Semi-structured interviews Thematic analysis	14 AVATAR therapy completers, 1 therapy non-completer Male: N=10, Female: N=4 Mean age= 41.93 White British: N=6, Black British: N=1 Black Caribbean: N=2, Black African: N=3, Other: N=2	UK Qualitative study nested in AVATAR1 RCT Participants had received intervention as part of the trial.
9. **Said et al., 2021**	NET	Semi structured interviews Interpretive phenomenological analysis	4 unaccompanied minors with PTSD Male: N=3, Female: N=1 Age range = 16-17 Country of origin: Sudan: N=2, Vietnam: N=1 Albania: N=1	UK Participants recruited from specialist CAMHs service for refugees.
10. **Shearing et al., 2011**	Reliving in TF-CBT	Semi structured interviews Interpretive phenomenological analysis	7 service users with PTSD Male: N=1, Female: N=6 Age range = 20-50 White British: N=4, Afro-Caribbean British: N=3	UK Participants recruited from 2 specialist trauma services in South-East England.

11. **Tong et al., 2017**	TF treatment for PTSD in FEP	Semi structured interviews Interpretive phenomenological analysis	8 Young people with PTSD and psychosis Male: N=1, Female: N=7Age range= 18-27 Ethnicity not reported	Australia Participants recruited from pilot trial of intervention for trauma in FEP held in a publicly funded mental health programme providing intensive outpatient treatment for YP.
12. **Vincent et al., 2013**	TF-CBT	Semi structured interviews Interpretive phenomenological analysis	7 asylum seekers with PTSD Male: N=4, Female: N=3 Age range: 19-42 Country of origin: Sudan: N=2, Zimbabwe: N=1 Afghanistan: N=1, Burundi: N=2 Iraq: N=1	UK Participants recruited from three outpatient services offering specialist treatment for PTSD and one primary care setting

Quality Appraisal

Overall, all twelve studies met a minimum of 7 out of the 10 criteria from the CASP checklist. All studies demonstrated a clear statement of aims appropriate for investigation using qualitative methods. All studies described appropriate recruitment strategies, detailing how and why participants were selected. The item least frequently met related to reflexivity and specifically, whether the researcher considered the relationship between themselves and participants. Only four papers fully met this criterion (Feary et al., 2022; Rus-calafell et al., 2022; Said et al., 2021; Tong et al., 2017), with the remaining eight papers partly meeting, though would have benefited from more critical examination of potential sources of bias. Only two studies (Andrews et al.,2022; Shearing et al., 2011) provided insufficient details on ethical considerations, with no mention of informed consent processes.

Thematic synthesis

The synthesis resulted in four overarching analytic themes and eight subthemes. The four overarching themes were 1) engagement factors 2) therapist attunement 3) working with distress 4) systemic challenges.

1) Engagement factors

All studies, with the exception of Tong et al (2017), contributed to this theme relating to factors that motivated service-users and clinicians to engage in exposure-based work as well as the importance of flexibility and pacing in therapy to ensure engagement was maintained.

Motivation to engage in treatment

There was a shared sense across studies that exposure-based work required a degree of readiness. This was a key factor determining service-users' decision to seek-out and engage in emotionally challenging therapies.

> *"Rebecca similarly noted the importance of 'readiness', in that clients had to feel 'safe enough' to explore links between their voices and prior adversity."*
>
> ***Longden et al., 2022,p304, Author quote***

Specifically, readiness appeared to generate from reaching a point of desperation due to the impact that their difficulties were having on daily life and functioning.

> *"I'd got to a point that I was so desperate for something to work, or to feel better in some way, that, you know, they could have said we'll try burning joss sticks and chanting for half an hour and I probably would have had a go."* ***Shearing et al., 2011,p461, Participant quote***

This desperation for effective treatments was similarly reflected on by therapists, who particularly denoted the importance of choice for vulnerable populations:

> *"it felt like it was really important on a kind of societal level as well that we really work to develop interventions so people have choices about, maybe, what interventions they have that can really address some of the consequences of trauma."* ***Longden et al., 2022,p298, Participant quote***

Flexibility/the importance of pacing

Across studies, interventions required thoughtful pacing to enable service-users to feel well-equipped to manage the more active (exposure-based) components of treatment. This could mean addressing other concerns or treatment targets in the first instance to ensure a good therapeutic foundation:

> *"I thought we shouldn't start with the trauma, and that we should do some work on the social anxiety first."* ***Chadwick & Billings, 2022,p554, Participant quote***

This meant equipping service-users with skills to withstand emotional distress that may accompany exposure-work.

> *"A similar point was also made by Don, who noted the groundwork provided in therapy for navigating emotional pain could help guide subsequent recovery."* ***Hardy et al., 2022,p12, Author quote***

Clinicians were able to prioritise appropriate pacing, even when they recognised the want to move service-users through therapy, knowing exposure-based work could facilitate change:

> *"I've felt myself sort of wanting to – because I know it would be beneficial – to be sort of pushing it, but she's absolutely not able to do that at the moment, so; you know, respecting that, that's totally fine and there's other things we can do around that."* ***Longden et al., 2022,p304, Participant quote***

When clinicians successfully balanced progressing through stages of therapy and ensuring readiness to engage in active treatment components, this appeared to be well-received by service-users:

> *"I didn't feel like I was pushed into it and I was given lots of warning, and umm, I was given enough time to talk about all my fears. But they also didn't allow me to procrastinate."* ***Shearing et al., 2011,p463, Participant quote***

This pacing enabled service-users to withstand the discomfort that came with exposure-based techniques:

> *"… I think it was quite cleverly done, the way the avatar was backing off as I was getting stronger, kind of thing. So (…), I didn't feel like I was under danger or under threat really."* ***Rus-Calafell et al., 2022,p9, Participant quote***

For therapists, it was also important to pace their own delivery of exposure-based therapies. Particularly, ensuring they themselves had an adequate foundational understanding of the model prior to embarking on delivery.

> *"A really good understanding' of the theory before getting into the logistics of how you deliver the therapy."* ***Longden et al., 2022,p301, Participant quote***

This could be achieved through *"experiential training in the form of role-plays, case vignettes, access to a detailed therapy manual, and instruction that balanced theoretical knowledge with practical skills."* ***Longden et al., 2022,p301, Author quote***

2) Therapist attunement

All twelve studies contributed to this second theme**,** which is comprised of two subthemes relating to the sense of attunement between service-user and therapist**.** The first subtheme focuses on participants' perspectives on the therapeutic relationship as

an essential part of treatment and the second subtheme relates to experiences of adapting therapy to meet service-users' needs.

Therapeutic relationship as essential

Across all studies, a strong therapeutic relationship was cited as an essential factor to successful therapy. From the service-user perspective, it appeared particularly important that therapists demonstrated personal qualities of a safe, kind person that could be trusted when embarking on a challenging therapeutic journey:

> *"For all participants, the relationship with the therapist was central to the intervention. People described the therapist(s) as 'friendly', 'helpful', with some commenting on the 'comfortable' atmosphere they established. Participants who were initially sceptical said that developing this relationship was key to gaining trust."* ***Bond et al., 2022,p1115, Author quote***

This was particularly important for service-users with experience of interpersonal trauma and building trust was difficult for them:

> "*He forced me to trust him, whereas I am a person who doesn't trust people and I was telling him everything."* ***Vincent et al., 2013,p586, Participant quote***

The kindness and care demonstrated by therapists often contrasted with service-users' previous experiences with mental health services:

> *"[Therapist] would respond in a different way […] [from] what most people do. […] [S]he was like 'well I hope the voices haven't been offended by anything I've said today' and stuff like that"* ***Longden et al., 2023,p374, Participant quote.***

Beyond these personal qualities of "*empathy, courtesy, patience, kindness, perseverance, responsiveness"* ***Hardy et al., 2022,pg9, author quote****,* it was important that therapists had the necessary skills and experience to provide good quality care:

> *"Participants understood their therapists to be trained and experienced, and this facilitated "trust in the therapist's professional expertise", which appeared to aid engagement."* ***Vincent et al., 2013,pg585, Author quote***

There was recognition that this was not a universal skill and there were individual differences in clinicians' ability to engage in such work:

> *"There are some people who within the team, who just have um, more of an acute sensitivity to people's experiences and some who don't, some who are able to um, ask enough, and not necessarily, over and unpack at an assessment point um, and um, some who don't."* ***Chadwick & Billings, 2022,pg548, Participant quote***

Adapting therapy to meet service-user needs

Across studies, there was evidence of therapists being well-attuned to service-users' needs and making adaptations to meet them, particularly when distress levels were high.

> *"Approaches used to make therapy as tolerable as possible included the use of in-session breaks, compartmentalizing session content from everyday life, planning and getting support for getting to and from therapy sessions and a gradual implementation of techniques and change strategies."* ***Hardy et al., 2022,pg9, Author quote***

Practical, environmental considerations were especially important to service-users during active components of therapy, for example during trauma reliving:

> *"Prepare a good environment, you know, when you are talking maybe it's good to have a nice room. Something to eat or drink; water or juice. For example, it's too hot, maybe just turn the air condition on. You know, sometimes when you're talking about the past and you feel too hot, it affects the emotions, it can drive you crazy."* ***Said et al., 2021,pg12, Participant quote***

In some cases, it was possible to see how the thoughtful, personalised adaptations helped service-users feel held in mind which positively impacted engagement:

> *"[O]ne week she was doing this visualisation thing, and she made me a little keyring […] and she said to me, 'what would you visualise?' and I said [describes image]. […] So she did that for me [created keyring containing image] […]. So, I always have that in me bag."* ***Longden et al., 2023,pg974, Participant quote***

Sometimes, this meant focusing on other goals and treatment targets important to service-users beyond the focus of psychological therapy:

> *"As expected, he and the therapist worked on visiting places he perceived as unsafe, but the therapist also helped with life skills, such as driving and revision techniques (which he appreciated)."* ***Bond et al., 2022,pg1119, Author quote***

3) Working with distress

The next theme captures the emotive nature of exposure-based interventions, which can generate high levels of distress for both service-users and therapists, serving as a potential barrier to therapy. The theme is made up of two subthemes: challenging avoidance and benefits of perseverance. All twelve studies contributed to this theme.

Challenging avoidance

Across all studies, there was recognition that engaging in exposure-based work required service-users and therapists to overcome a level of anticipatory anxiety and challenge their own avoidance. Often, for service-users, this could be exacerbated by perceived stigma, which could pose as a major barrier to seeking help.

> *"Sometimes it makes you ashamed when you experience a rape. You stay quiet and don't talk about it with family and the education you get is 'it's not talked about'. You don't tell anyone. You have to keep it inside."* ***Andrews et al., 2022,pg655, Participant quote.***

This could lead to service-users perceiving *"themselves as weak or unwell"* ***Vincent et al., 2013,pg588, Author quote,*** in turn serving as a barrier to seeking treatment. This was particularly pertinent for participants from non-Western cultures where negative stereotypes surrounding their experiences were prevalent:

> *"Some participants explained that with few or no mental health services in their countries of origin, strong negative cultural stereotypes about people accessing such services prevailed."* ***Vincent et al., 2013,pg588, Participant quote***

Across studies, the resilience and bravery of service-users was reflected in their accounts of challenging their own desire to avoid threatening stimuli and meet the demands of exposure-based interventions head on:

> *"sometimes I felt like I shouldn't be doing this […] I'm not sure if I'm making it worse[…]. I wanted to get better, [but] I didn't wanna talk with the voices at the same time. I'd rather they went away, and me having to repeat it […] can be so personal and, you know, like can be hard really."* ***Longden et al., 2023,pg973, Participant quote***

This internal challenge had a strong emotional toll on service-users, sometimes resulting in a temporary exacerbation of distress:

> *"when we was talking about my [abuser] [. . .] I didn't find that helpful at all [. . .] I felt really bad, because that night time I heard the bleeding voices and I had the visions as well. Then I had a fit, then I had two panic attacks."* ***Hardy et al., 2022,pg11, Participant quote***

In some cases, this could threaten engagement in therapy:

> "*It made me think (of) what happened to me and I was thinking maybe I might not come again because of what happened and because the session made me remember what happened to me before."* ***Rus-Calafell et al., 2022,pg7, Participant quote***

Similarly, it was noted amongst therapists that a certain persistence was required to overcome their anticipatory anxiety about therapy delivery; *"I think there is a fear there. The fear of the unknown*" ***Longden et al., 2022,pg300, Participant quote***. Specifically, within therapists' accounts there were concerns therapy may exacerbate distress and cause iatrogenic harm, which was a barrier to implementation:

> *"Participants also spoke about widespread narratives that talking about traumatic experiences would exacerbate distress. As such, participants acknowledged that clinicians and service-users may view the re-living of traumatic experiences as counter-intuitive."* ***Chadwick & Billings, 2022,pg549, Author quote***

Additionally, clinicians' displayed a lack of confidence in delivering unfamiliar interventions skilfully. This was particularly pertinent when the intervention differed from existing therapeutic modalities therapists were trained in, and therapists were concerned about the potential reactions to a new, innovative way of working:

> *"[...] I think the worry is that they will, sort of, dismiss me. Because they might think that it's off the wall."* ***Longden et al., 2022,pg303, Participant quote***

Therapists cited supervision as an important space to consider any concerns or anxieties they had, providing a "*source of encouragement and reassurance"* ***Longden et al., 2022,pg299, Author quote***

Benefits of perseverance

Universally, there was a sense that challenging the impulse to avoid threatening stimuli and persevere with exposure-based interventions had notable benefits. Namely, on the reduction of distressing symptomology and the improvements in service-users' quality of life:

> *"It was really great, really really helpful. Because ever since I started the avatar and even when I stopped seeing my therapist, the avatar has really helped me in the way of talking back (to my voice)."* ***Rus-Calafell et al., 2022,pg8, Participant quote***

Beyond a reduction in distressing symptomology, service-users reported an increased sense of agency and self-efficacy in managing their distress:

> *"It doesn't disappear, it can put its head up from time to time, but if you have got the tools to put it back in then it goes back in. So that's what the psychology did [. . .] they give you the tools to deal with the thing."* ***Hardy et al., 2022,pg10, Participant quote***

This often reflected an increased sense of compassion for themselves and their experiences:

> *"being able to look at the content and stuff and think oh my God, you're doing really well, given what happened."* ***Feary et al., 2022,pg282, Participant quote***

It was also noted that, amongst therapists, persevering with exposure-based techniques and overcoming their anticipatory anxiety led to increased self-efficacy and satisfaction:

> *"However, having completed their therapy caseloads, this perspective notably shifted towards a greater sense of competence and conviction."* ***Longden et al., 2022,pg300, Author quote***

4) *Systemic challenges*

Eight studies (Andrews et al., Chadwick & Bilings., 2022; Hardy et al., Longden et al., 2022; Longden et al., 2023; Said et al. 2021, Vincent et al.,2013; Tong et al.,2012) contributed to this theme focusing on the systemic barriers to implementing exposure-based interventions for PTSD and psychosis. The two subthemes cover difficulties implementing therapy within existing inflexible, often medicalised, systems and diminished resources that impacted implementation on multiple levels.

Existing inflexible systems

There was evidence that implementing exposure-based, psychological interventions for psychosis and PTSD often conflicted with the priorities of the systems clinicians and service-users were part of. These systems were typically viewed as rigidly dominated by

the medical model of mental health, which could pose a barrier for therapists to overcome:

> *"The overwhelming presence of the medical model, the overwhelming presence and the overwhelming faith to chemistry."* ***Chadwick & Billings, 2022,pg548, Participant quote***

It was possible to see how service-users had also been exposed this dominant explanatory model to distress:

> *"I don't believe that, you know, there's some kind of very rare brain disorder or anything. I know it's because of my childhood."* ***Hardy et al., 2022,pg9, Participant quote***

Multi-level resource constraints

Beyond the ideological inflexibility of healthcare systems, papers including in this synthesis reported on inadequate personal and professional resources as a key barrier to implementation. On an individual level, this could be reflected in the lack of financial resource for service-users which interfered with therapy:

> *"[client's] financial distress meant therapeutic work became disrupted by factors beyond either of their control."* ***Longden et al., 2022, pg306, Author quote***

This could also manifest as practical-level barriers, such as an inability to travel to appointments:

> "*Time, many people work...not knowing how to drive, not having transportation."* ***Andrews et al., 2022,pg655, Participant quote***

There were also barriers specific to asylum-seeking populations, who recognised the UK asylum system and their ongoing asylum claim as a barrier to engaging in therapy due to very understandable concerns they may be returned to their country of origin:

> *"So there wouldn't be a point to this if I'm just going to be sent back home again."* ***Vincent et al., 2013,pg586, Participant quote***

Additionally, the limited resources for providing psychological therapy within health-care systems, particularly the NHS, were reflected on *"Alice expressed frustration at the limited resources for conducting therapy within the NHS"* ***Longden et al., 2022,pg306****,* ***Author quote****.* Limited organisational resource often meant an over-reliance on time-limited, structured therapies which may not be suitable for populations experiencing psychosis or PTSD, or both, and the complexity this typically brings:

> *"I think pretty much everywhere now you have to have a discrete, you offer people discrete therapy contracts that are far too short for what they actually need because that's the NHS context."* ***Chadwick & Billings, 2022,pg548, Participant quote***

Discussion

Short summary

This systematic review set out to address the gap between research supporting exposure-based interventions targeting threat-related processes in PTSD and psychosis and poor routine implementation (Reid et al., 2017). This was achieved through conducting a thematic synthesis of relevant qualitative literature exploring the perspectives of two key stakeholders: service-users and clinicians, generating four analytic themes. Engagement-building was highly important in implementing exposure-based interventions and findings demonstrate how engagement was enhanced through a high-quality therapeutic relationship whereby clinicians flexibly adapt to service-users' needs. Exposure-based interventions generated heightened anticipatory anxiety and distress for service-users and clinicians, requiring both parties to challenge their own avoidance and persevere with therapy, which was found to have notable benefits. Existing systemic barriers to implementation were highlighted, resulting namely from the limited time and resource allocated to psychological interventions within stretched, often highly medicalised, healthcare systems.

Methodological strengths and weaknesses

It is important to consider this review's findings within the context its strengths and limitations. Qualitative synthesis interprets data from research underpinned by different theoretical positions, approaches to data collection and analysis (Barnett-Page & Thomas, 2009), which some suggest may de-contextualise findings (Britten et al., 2002). However, a benefit of qualitative synthesis is that it identifies interrelated themes across a diversity of settings and perspectives, promoting richer understanding of experiences (Thomas & Harden, 2008). Consequently, by including both recipients and providers of exposure-based interventions, we sought a more complete understanding of the therapeutic process and related barriers and facilitators.

There were, however, only two papers exploring the perspectives of clinicians and so results may be more representative of service-user perspectives. Additionally, this review did not include families and carers as crucial stakeholders due to the scope of the project. The research team recognises that the voices of families and carers are often under-represented in research and as such, further synthesis would benefit from including their important insights (Onwumere, Shiers & Chew-Graham., 2016).

Lastly, findings in this review reflect three distinctive layers of interpretation; participants' interpretations of their experiences, authors' interpretations of resulting accounts and the present authors' interpretations of both. This deepens interpretation by moving away from an individual lens (Montague et al., 2020) which suited the aims of this review by allowing authors to move beyond interpretation of experiences and consider how they may relate to implementation. However, it is also important to consider how adding layers of interpretation may also weaken results by taking analysis away from the original, lived experience accounts.

Studies included in this review were conducted in high-income countries. Though there was some representation of immigrant and asylum-seeking communities (Andrews et al.,2022; Said et al., 2021; Vincent et el., 2013), findings still reflect Western settings and as such, should be cautiously applied to settings with alternate mental healthcare systems. All studies explored the perspectives of individuals who had completed exposure-based therapy, both as a recipient or provider, except for Rus-calafel et al.

(2022), who included one therapy non-completer. Consequently, further research may benefit from exploring perspectives of those that chose to opt-out or discontinue treatment to better understand determinants of non-completion.

This review utilised the CASP tool to appraise the quality of the papers being synthesised, which was considered most appropriate based on guidance endorsing its use in health and social care qualitative research (Noyes et al., 2018) and its' suitability for novice qualitative researchers. There is, however, ongoing debate about whether the quality appraisal of studies included in qualitative evidence synthesis is possible, appropriate, and defensible and little guidance exists on how to apply to tool within the meta-synthesis process (Long et al., 2020). One key criticism of the CASP tool is that it assesses study quality based on details included in the writeup of the paper and as such, appraisal of quality of study conduct may be conflated with quality of reporting, which could impact the meta-synthesis process. Lastly, the CASP tool could be improved by explicitly considering primary research's underlying ontology and epistemology as this is considered good practice in qualitative research and at present, no question included in the checklist appraises authors' approach to inquiry and the resulting impact on analysis.

Implications

Increasingly, literature recognises the robust link between trauma and psychosis (Hardy et al., 2024). This review adds to this growing evidence-base considering presentations as interconnected rather than dichotomous. This is important considering the under-representation of individuals with psychosis from participation in trauma research which negatively impacts clinical practice (Cragin et al., 2017). Exposure-based interventions for PTSD and psychosis are effective at reducing distressing symptomology (Reid et al., 2024) and are well-tolerated by service-users (Swan et al., 2017). Findings in this review support this, strengthening the position that exposure-based interventions should not be withheld from those who could benefit (Reid et al., 2024), which has important clinical implications.

Service-users and clinicians alike experience anticipatory anxiety for exposure, including concerns of iatrogenic harm. This accords with beliefs among clinicians that exposure

may exacerbate symptoms (Cragin et al., 2017), which research suggests may lead to avoidance of exposure-based therapies (Scherr et al., 2015). Additionally, therapist factors such as confidence and age have been shown to influence the choice of exposure-based therapies (Langthorne et al., 2023). For example, a recent review found that clinicians' negative beliefs about exposure-based interventions for anxiety disorders negatively impacted implementation (Racz et al., 2024). Consequently, it is important that any anxieties be addressed explicitly in supervision and training materials to maximise implementation efforts.

This synthesis highlighted how taking time building trust and engagement in therapy, remining flexible to the model and fostering strong therapeutic relationships mediated anticipatory anxiety. These factors often contrasted with existing therapy provision in healthcare systems which emphasise more manualised pieces of work that do not consider individual treatment preferences (Finch et al., 2020; Morrison et al., 2012). Consequently, we would recommend investment in flexible adaptations when working with complex populations experiencing PTSD, psychosis, or both, emphasising relationship building and engagement as well as adequate training and supervision.

Our findings offer perspectives from two key stakeholders in therapy implementation. As such, we would strongly recommend involvement from service-users and clinicians in the design and delivery of services to ensure implementation plans are closely grounded in the experiences of those delivering and receiving interventions. Similarly, given the limited qualitative literature exploring therapists' perspectives specifically, we would recommend further research in this area through, for example nested qualitative studies within wider-scale RCTs.

Conclusion

To our knowledge, this is the first qualitative meta-synthesis of research exploring the perspectives of service-users and clinicians as key stakeholders in the implementation of exposure-based interventions for psychosis and PTSD. Our synthesis produced four overarching themes that showcased the heightened distress accompanying active,

exposure-based interventions for service-users and clinicians alike. Key to overcoming this and persevering with therapy was appropriate pacing of interventions, with emphasis being placed on building strong, trusting therapeutic relationships prior to active treatment components. Key systemic challenges were highlighted whereby organisational priorities (often dominated by medical explanatory models of distress) interact with limited individual and organisational resource and funding for psychological interventions. Further research would benefit from including the perspectives of stakeholders that opt out of interventions as well as families and carers to add to the richness of understanding of key implementation barriers.

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Chapter 2: Major Research Project

Exploring the implementation of AVATAR therapy: A study using mixed qualitative methods

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A note on language

Throughout this report, the term service-user is used to identify individuals with voice-hearing experiences receiving AVATAR therapy. This term was chosen as it reflects the current population of participants who were clinicians working with individuals under the care of NHS mental health services. The research team understands the term service-user may not adequately capture all voice-hearing identities.

Plain language summary

Title: Exploring the implementation of AVATAR therapy: A study using mixed qualitative methods.

Background: AVATAR therapy is a novel, digital therapy designed to help people who hear distressing voices by building their sense of power and control. Exploring the experiences of therapists delivering psychological interventions is important for understanding facilitators and barriers to implementing therapies in clinical practice. Normalisation Process Theory (NPT) is a theory that identifies processes that increase the likelihood of successful implementation.

Aims: 1) To explore the perspectives of some of the first AVATAR therapists in the UK and 2) To see whether NPT can improve understanding of processes that, from therapists' experiences, inform future implementation.

Methods: 8 AVATAR therapists from across the UK took part in individual interviews about their experiences of therapy training and delivery in their routine practice. Interviews were recorded, transcribed and analysed using reflexive thematic analysis. Themes were then mapped onto the NPT framework using a framework analysis approach.

Findings: Four main themes were generated from the data. Themes centred around AVATAR therapists' personal and professional values, the importance of relationships in AVATAR therapy, the added challenges of delivering a digital intervention and the increased confidence and trust therapists had in the AVATAR model with more experience. Analysis using the NPT framework suggested therapists' values and positive experiences of therapy would facilitate future implementation. Technological and logistic challenges, as well as worries about dialoguing abusive voice content, could be potential barriers.

Conclusions: Despite challenges, therapists experienced personal and professional gains from AVATAR therapy which outweighed initial anxieties. Key logistical challenges, such as technological obstacles were identified and would need to be carefully considered for future implementation.

Abstract

Objectives: Clinicians are crucial stakeholders in psychological interventions for distressing voices, though evidence exploring their perspectives is limited and existing research identifies important clinician-related barriers to implementation. AVATAR therapy is a novel digital intervention for distressing voices and to date, no study has explored perspectives of AVATAR therapists. This study, alongside research exploring service-users' perspectives, will help produce an implementation plan grounded in key stakeholders' experiences.

Methods: AVATAR therapists (N=8) participated in semi-structured interviews which were inductively analysed using reflexive thematic analysis. Secondary, deductive analysis used a framework approach to conceptualise themes as barriers and facilitators to implementation using the Normalisation Process Theory (NPT) framework.

Results: Findings were organised into four main themes and associated subthemes: 1) Values underpinning therapy *(professional values promote engagement, professional opportunities/rewards),* 2) Relationships in AVATAR therapy *(relating to the voice, crucial supervision relationships)* 3) "It felt like spinning plates" *(therapy requires high cognitive load, logistic considerations*), 4) "The proof was in the pudding" *(AVATAR as more direct/experiential, trust in the model mitigates anxieties).* All eight subthemes were mapped onto the four constructs of the NPT framework, identifying key barriers and facilitators.

Conclusions: Participants were committed to providing interventions for distressing voices, though demonstrated a level of anticipatory anxiety to working closely with derogatory voice-content. AVATAR therapy was positively regarded as an experiential, relational approach to voicework which demonstrated notable clinical improvements for service-users. Obstacles specific to digitalised therapies were identified and would need to be carefully considered for future implementation. Future training materials should consider and address anticipatory anxiety and concerns.

Introduction

Psychological interventions for voices

Psychosis is a mental health condition that affects seven in 1000 adults in the UK, with onset typically occurring in adolescence [National Institute of Clinical Excellence [NICE], 2014). Psychosis is characterised by experiences that cause individuals to lose their sense of reality through, for example, hearing things others do not (auditory hallucinations, or voices) or believing things others find strange (delusions) (Cooke & Brett., 2020). Psychosis can impact memory and motivation alongside sensory perceptual disturbances, which can cause profound impact on a person's quality of life and daily functioning (Izquierdo et al., 2021; Degnan et al., 2021). Psychosis disproportionately impacts marginalised groups, and higher prevalence rates amongst ethnic minorities, particularly black ethnic minorities, has been consistently demonstrated in the UK (Qassem et al., 2015).

Auditory hallucinations, or hearing voices, is a common phenomenon experienced by up to 70% of people with psychosis (Morrison et al., 2002) and can be the cause of significant distress, with profound impacts on wellbeing (Close & Garety, 1998). Oral antipsychotic medication is recommended in treatment of psychosis (National Institute of Clinical Excellence [NICE], 2014) and can be highly effective in managing some of the most impairing symptoms (Van der Heijden et al., 2005). However, effectiveness of medication alone is variable, with estimates of as high as 50% of voice-hearers experiencing little improvement (Howes et al., 2017).

Alongside pharmacological treatment, cognitive behavioural therapy for psychosis (CBTp) and family interventions are recognised as gold-standard psychological interventions in the UK (NICE, 2014; Scottish Intercollegiate Guidelines Network [SIGN], 2013). Meta-analyses support use of CBTp for voices (Van der Gaag, Valmaggia & Smit, 2014), though true effectiveness has been questioned due to variability in methodological rigour of RCTs and failure to consider the heterogeneity of the voice-hearing experiences (Smailes et al., 2015). Additionally, implementation of CBTp in the NHS has been poor due to barriers such as the lengthy nature of treatment, insufficient

resources and professionals' perceptions (Haddock et al., 2014). Consequently, there is a need for novel interventions specifically targeting psychotic experiences maintaining distress, i.e. hearing voices, that may overcome barriers to implementation and improve access to appropriate treatment (Garety et al., 2021). Increasingly, there has been a rise in relational therapies for voices recognising the heterogenous, personal voice(s)/voice-hearer relationship. Often, this relationship is categorised by the voice as a benevolent, powerful entity and the voice-hearer as powerless and inferior, which may reflect wider social dynamics or views of the self (Paulik, 2012). Relational therapies provide voice-hearers the opportunity to develop a more constructive relationship with their voice through direct voice dialogue (Corstens, Longden, & May, 2012), promoting increased power and control (Ward et al., 2020), with a recent systematic review suggesting they may be efficacious beyond the existing gold-standard CBTp (Dellazizzo et al., 2022).

AVATAR therapy is a relational treatment targeted at reducing voice frequency and distress (Craig et al., 2018). AVATAR therapy uses technology to create digital avatars matching the voice and image associated with the most distressing voice a person hears. During therapy, voice-hearers dialogue with the avatar through computer software to try to increase their sense of power and control, with the initially omnipotent, malevolent voice becoming less hostile and more conciliatory as sessions progress (Ward et al., 2020). The initial AVATAR RCT (Craig et al., 2018) showed promising results, concluding AVATAR therapy significantly reduced frequency and severity of voices compared to supportive counselling with a large between-group effect size of 0.8. The successive AVATAR2 RCT (Garety et al., 2021) has further investigated therapy efficacy and cost-effectiveness, whilst also exploring implementation by training clinicians from additional NHS sites across the UK to deliver AVATAR therapy. This wider focus on implementation and optimising therapy is a key rationale for the current study which addresses the gap between research and routine clinical care contexts.

Barriers to implementation

Though therapists are crucial stakeholders in psychological interventions for psychosis, evidence exploring their perspectives is limited and mainly reliant on survey-based research (Hazell et al., 2017) with weak methodology (Langthorne et al., 2023).

Clinician-related barriers to implementation, such as scepticism towards therapy efficacy (Hazell et al., 2017), negative attitudes (Ince et al., 2016) and low levels of staff knowledge and confidence (Prytys et al., 2011) have been identified. Qualitative exploration of therapists' accounts provide rich insight into facilitators and obstacles to therapy delivery, such as the professional and personal impacts of working with trauma narratives during relational voice-work (Longden et al., 2022). There is a considerable need to build on existing literature with more in-depth exploration of the perspectives of therapists as key stakeholders to better understand factors facilitating and inhibiting implementation. To date, no study has focussed on the experiences of AVATAR therapists. The current study helps to fill this gap and, alongside research exploring service-users' experiences of AVATAR therapy (Rus-Calafell et al., 2022), will inform implementation efforts.

Implementation frameworks have made important contributions to research by examining the individual and group processes through which evidence-based interventions come to be routinely implemented. Normalisation Process Theory (NPT; May et al., 2009) is one framework particularly suited to understanding how complex health interventions are implemented and normalised. Since its' original application to evaluating e-health interventions, NPT has been employed to assess a variety of different interventions across a range of healthcare settings (Hazell et al., 2017). NPT identifies four main components of the implementation process (Finch et al., 2012). The first component, *coherence*, is concerned with whether stakeholders in an intervention (i.e., clinicians in a service), have a clear and mutual understanding of the purpose of that intervention and whether they can differentiate this from their existing practice. *Cognitive participation* refers to stakeholders' perceptions of potential benefits of the intervention and the resulting support they give that intervention. *Collective action* considers service-level factors in successfully enacting a new intervention as well as stakeholders' attitudes towards changing current practice. Finally, r*eflexive monitoring* refers to the agreed assessment and evaluation plan for the new intervention.

A key strength of NPT is that it considers individual as well as collective behaviour, beliefs and practices in the processes of change and allows the dynamics of human agency to be connected to context (Ong et al., 2020). Additionally, it can be applied

flexibly at one or more points in qualitative research (May et al., 2009). NPT also considers what further work is needed for adoption and integration of new interventions, making it particularly suitable for the current project, the results of which will help inform an implementation strategy grounded in therapists' experiences.

Aims and Research Questions

The main aim of this study was to explore perspectives of AVATAR therapists working in a variety of mental health-care settings across the UK. A second aim was to explore themes through the lens of the NPT framework to interpret potential barriers and facilitators to implementation.

As such, the study set out to answer two main research questions.

Question 1: What are the perspectives and experiences of AVATAR therapists delivering AVATAR therapy in NHS mental health care settings across the UK?

Question 2: Can perspectives of AVATAR therapists be interpreted and understood within the NPT implementation framework?

Methods

Design

This study employed a qualitative methodology to gain in-depth insight into the perspectives and experiences of AVATAR therapists. The study forms part of a body of qualitative research nested within the AVATAR2 RCT, a multi-site parallel group trial, where trial participants were randomised into one of three treatment arms, receiving AVATAR-brief (6 sessions), AVATAR-extended (12 sessions), or Treatment as Usual (TAU) alone (Garety et al., 2021). Participants randomised into the TAU arm were also offered therapy at the end of their involvement in the trial. The four research sites (South London, North London, Manchester and Glasgow) were attached to two additional local NHS sites (Garety at al., 2021). Clinicians from the additional NHS sites were recruited and trained to deliver AVATAR therapy in their routine clinical practice as part of the RCT. The current study collected data through 1:1 semi-structured

interviews with additional site therapists (N=8). Trial therapists from the main research sites were not included in the current study as the aim was to gain insight into the experience of delivering AVATAR therapy in routine clinical care rather than in the trial context, and additional site therapists were considered best placed to provide these insights.

Interviews were conducted by the lead researcher (NH) using a topic guide (Appendix 2.1) of open-ended questions to prompt discussion whilst remaining flexible. The topic guide was generated and a consultation group was held with the lead researcher and the Patient and Public Involvement (PPI) representatives working on the AVATAR2 RCT. Following adaptations resulting from the consultation workshop, a second draft was circulated to therapy co-ordinators from the RCT who did not participate in the current study for comments, resulting in the final topic guide used in interviews (Appendix 2.1) Given participants were based in different localities, interviews were conducted remotely via Microsoft Teams and recorded and transcribed verbatim.

Research was conducted through the lens of critical realism. Critical realism postulates that there are different perspectives on, or interpretations of, a singular reality, mediated by the author's own experiences, beliefs, culture, and language (Braun & Clarke, 2021). This allowed authors to centre participants' perspectives whilst still recognising the "inescapable subjectivity of data interpretation" (Braun & Clarke, 2022, p37).

Ethical considerations

Participants were provided with the study information sheet generated by the lead researcher (NH) (Appendix 2.2) prior to obtaining written informed consent (Appendix 2.3) via Qualtrics, which is University of Glasgow approved and GDPR compliant. The lead researcher made clear to participants that they were able to withdraw from the study at any time. Interview data were fully anonymised and stored on a secure University of Glasgow OneDrive account. Ethical approval for this study was granted by the University of Glasgow College of Medical, Veterinary and Life Sciences (Application no: 200220155) (Appendix 2.4).

Procedure

A study leaflet was circulated via the AVATAR2 therapy co-ordinators responsible for supervising additional site therapists. Therapists that expressed interest in participating were contacted by the lead researcher (NH) and provided with the study information sheet and given the opportunity to ask any questions prior to providing written informed consent.

All interviews were conducted by the lead researcher (NH) remotely and recorded. Transcription took place simultaneously to interviews and a reflective log was kept throughout. Participants were aware that research would form part of the lead researcher's Doctoral thesis.

Participants

8 AVATAR therapists delivering therapy within their routine NHS practice across three geographical regions (North London, South London and Glasgow) participated in the current study. Additional-site therapists with experience of a minimum of one AVATAR therapy case were invited to participate and 7 consented, with 1 declining due to time constraints. Part way through recruitment, an additional pool of therapists from the TAU arm of the trial began therapy delivery and the research team submitted a protocol amendment to enable recruitment to be extended to the TAU therapists, which was approved (Appendix 2.5). One TAU therapist consented, and the final sample consisted of clinical psychologists (n=4), counselling psychologists (n=1) and psychiatrists (n=3). N=6 were female and N=2 were male. Additional demographic data are not reported to ensure anonymity of participants given they are sample of a small pool of clinicians working within the context of the AVATAR2 RCT which could make them easily identifiable. Individual interviews lasted between 42 to 68 minutes. Participants were not paid for their involvement in the current study.

The notion of having an adequate sample size to reach data saturation is in contrast with the values of reflexive thematic analysis whereby samples are selected to provide richly textured insights into a particular phenomenon (Vasileiou et al., 2018). Instead, participants unique insights and experiences were best placed to answer the research question.

Data Analyses

Data analyses followed two stages. First, utilising a six-phase reflexive thematic analysis (TA) (Braun & Clarke, 2022) approach which suited the critical realist stance underpinning the current study. This inductive, data-driven approach allowed analysis to remain rooted in participants' own accounts whilst recognising the inescapable influence of the authors' own experiences, beliefs, culture and language on interpretation.

Within reflexive TA, the six analytic phases are not considered linear and rather, flexible movement through phases is encouraged (Braun & Clarke, 2021). Through data *familiarisation*, interview data were transcribed verbatim by the lead researcher and thoughtfully read through, resulting in areas of analytic interest and early reflections on potential trends in the data. *Coding* data involved applying code labels, both latent and semantic, to data points relevant to the research question ensuring eventual themes were closely linked to the data. The lead researcher initially generated 240 overlapping codes which reflected subtle differences in the data and through code clustering (completed by the wider research team), was reduced to a feasible number for continued analysis. Code clusters reflected broad patterns of shared meaning, leading to the generation of *initial themes and subthemes*. These early themes were presented visually in a thematic map by the lead researcher and *reviewed and developed* by the research team. This process helped *refine* and *define* the final 4 themes and related subthemes. See Appendix 2.6 for an example of the coding process.

The second stage of analysis sought to deductively explore whether the themes generated could be understood as potential barriers and facilitators to implementation through the NPT framework using a framework approach (Ritchie & Spencer, 1994). To do this, a list of all subthemes was created and mapped against the pre-determined constructs of NPT using an NPT framework checklist (Murray et al., 2010), which can be found in Appendix 2.7. This approach had been successfully used in research employing mixed qualitative methods (MacFarlane & O'Reilly-de Brún, 2012; Xanidis & Gumley, 2020).

Reflexivity

The lead researcher is a white, female trainee clinical psychologist with experience delivering psychological interventions for people with psychosis and was previously employed as a research assistant on the AVATAR2 trial, though had no prior contact or relationship with the current participants. The lead researcher consequently held an insider perspective and familiarity with AVATAR therapy and other interventions, such as CBTp, as well as a critical awareness around issues surrounding delivery and implementation. Additionally, the lead researcher is passionate about empowering people from marginalised communities, including those experiencing psychosis, through improving access to psychological interventions. AVATAR therapy aims to correct power imbalances within relationships in people's lives and as such, the author's own values are closely aligned to the approach which may have impacted interpretation whereby data were viewed favourably. Consequently, to honour reflexivity and critical awareness, codes purposely remained closely linked to direct quotes. A reflective log was kept throughout the project and interpretations of data were regularly reflected on in research supervision.

Results

Four themes were generated through reflexive thematic analysis: *1) Values underpinning therapy, 2) Relationships in AVATAR therapy 3) "It felt like spinning plates", 4) "The proof was in the pudding*". Themes and their related subthemes are explored below, illustrated by participant quotations presented in italics. Participant number and profession are denoted alongside quotations.

1) Values underpinning therapy

This theme captured participants' personal and professional values which drew them to partake in the AVATAR2 trial as well as the professional rewards they received from their involvement.

i) Professional values promote engagement

Participants reflected on the current lack of provision of psychological therapies for voices, and a professional desire to fill treatment gaps.

> ***"****It's such a positive, because otherwise we have nothing else for voices. We have Hearing Voices Groups, we have CBT-P and if we have AVATAR (…) It's been just amazing having that." (****P1,Psychologist)***

A similar point was made by P2, who reflected on valuing the opportunity to provide psychological interventions for voices amongst wider systemic pressures in the NHS.

> *"I'm really keen to increase access to psychological therapies for people presenting with psychosis because they are an underrepresented population in our referrals [to psychology]. So, I felt like [AVATAR] was offering a unique opportunity and was a way for me as a clinician, to be able advertise [therapy] within the climate of pressures and waiting lists."(****P2,Psychologist).***

Participants reflected on unequitable access to psychological therapies within their current practice. In contrast, AVATAR was recognised as an inclusive approach for often excluded populations:

> *"having the opportunity with this person because, you know, if they were to come to see me in our service they are probably somebody that you would think 'they're not psychologically minded' or 'they're not going to engage well', so to be able to do something that gives them a sense of feeling valued and empowered."* (***P3,Psychologist***)

ii) Professional opportunities/rewards

Participants conveyed how their involvement in the trial meant they could build on their existing skills and knowledge "*it's another tool to add to our arsenal"* ***(P5,Psychiatrist)*** which promoted professional satisfaction.

> *"I thought it sounded like an innovative approach and also, just not really being satisfied with my role as a psychiatrist, feeling really quite pessimistic about our role and what we can achieve with medication alone and actually thinking that*

*we do quite a bit of harm with the medications we provide as well." **(P5,Psychiatrist)***

Participants particularly valued the opportunities provided to explore service-users' nuanced relationships with their voice(s), which differed from their existing practice. These relational principles of AVATAR were something participants continued to implement after their involvement in the trial:

*"What was different was just how in-depth you are with exploring their personal experience of the voices (…) that's something I've taken on now, when I talk to all patients with voices, I notice myself doing a bit a bit more of that, taking more of an interest in it." **(P7,Psychiatrist)***

2) Relationships in AVATAR therapy

The second theme reflected participants' views on the nature of relationships within AVATAR therapy, both between them, the service-user, and their voice but also professional, supervision relationships which were considered integral to therapy delivery.

i) Relating to the voice

The trialogue between therapist, service-user and their voice required therapists to embody the voice and speak directly as the AVATAR: *"you know I was thinking, what would the AVATAR say at this point? Just putting myself into the shoes of the avatar." **(P6,Psychologist)*** Prior to therapy delivery, this could feel daunting and unusual, and participants denoted their worries and anxieties about how this would feel as a clinician.

*"Voices can be really nasty and trying to channel that, I remember talking to, [supervisor] and saying how could you say those things to a patient! As a therapist, it was just beyond my comprehension". **(P1,Psychologist)***

For participants, relating to the voice was particularly challenging when voice content contrasted their own beliefs and values.

"[The AVATAR] would be saying really horrible things about them being to blame for the abuse and of course, that's not at all what I would believe about

*someone. So that stuff can be tricky, to get into the mind of a person like that who doesn't fit your values." (**P8,Psychologist)***

Related to this, some participants recognised their desire to avoid particularly derogatory content due to this discomfort:

"*The stuff that you know is really distressing for them, I think that's difficult, I can see why unconsciously you sort of avoid doing that." (**P7,Psychiatrist)***

On occasions where participants did avoid using derogatory content, this was recognised by service-users as an inaccurate portrayal of their voice, allowing the opportunity to provide such feedback:

*"He gave me the feedback of, you know, the avatar looks like my voice and sounds like my voice but he's the perfect gentleman [laughs]. He was like, the real voice swears, and he's really horrible and nasty. So that was good from a training point of view to get that feedback from him."(**P7,Psychiatrist)***

Therapists spoke about the desire to make their embodiment of the voice authentic and realistic for service-users, particularly in the conciliatory phase of dialogue.

*"You're trying to think about how would this character be, what would they be like, are they suddenly going to be really contrite or are they are they just going to kind of step back a bit or kind of appear more frustrated? So there was something about trying to work out what would feel most realistic rather than just kind of formulaic." (**P2,Psychologist)***

The relational, experiential nature of therapy generated a strong sense of voice presence for service-users, which fostered increased insight for therapists into adverse impacts of hearing voices:

*"he would just suddenly go silent you could see just how frightened he was. I think that took me by surprise to see just how frightening it can be for people (…) being faced with it like that…it helped me to remember just how difficult it can be for people." (**P6,Psychologist)***

AVATAR therapy provided service-users the opportunity to alter the relationship with their voice through dialogues, building on their own sense of power and control, which was seen as a particular strength of the approach by therapists:

> *"She was incredibly anxious at the beginning but then she did manage to come back really strongly against the avatar and it seemed through, just leaving things to run a little bit longer, letting the anxiety plateau and then come down, she was able to come back really strongly and had this quite powerful monologue against the avatar and just playing that back to her I think it's a good way of showing her, you know, to improve self-esteem." (**P4,Psychiatrist)***

ii) Crucial supervision relationships

The trial utilised a group supervision model, which was facilitated by an experienced AVATAR therapist and had two participants to a group. Group supervision was regarded as high quality, offering a supportive space that allowed for learning and skill consolidation. (*"excellent" **P2;** "amazing", **P5;** "really helpful", **P8**; "personalised", **P4;** "Very helpful and accommodating", **P1**)*

Participants credited supervision as a key factor in increasing confidence in therapy delivery, which was particularly important when working an unfamiliar model *"that was crucial. I couldn't have done AVATAR therapy without regular supervision. I just wouldn't have felt confident enough." **(P5,Psychiatrist)***

Similarly, supervisors' expertise was reassuring for participants, particularly when normalising concerns over working with difficult, derogatory voice content.

> *"I had the supervision pretty much right after. I think that was quite useful as almost a bit of a debrief about how the case was going, particularly given it could be quite distressing." (**P4,Psychiatrist)***

Beyond the relationship participants had with supervisors, the relationships with colleagues also undertaking AVATAR training and delivery were seen as pivotal to learning.

*"It just normalises some of the anxieties and worries you have about trying this new approach because you've got a colleague there who's going through the same thing and you'll both have similar questions. So yeah, it was, it was really helpful thing to be honest." (**P7,Psychiatrist)***

3) "It felt like spinning plates"

This theme focused around participants' reflections on delivering a novel, digital therapy they had no prior experience of and some of the adaptations and challenges this generated in everyday practice.

i) Therapy requires high cognitive load

Participants regularly reflected on the various things they were required to hold in mind during therapy sessions: *"You're asking quite a lot from the therapist in terms of not just the technical stuff and then not just like developing the therapeutic relationship, but also voicing their voices*" (***P4,Psychiatrist)***. This was initially more difficult when therapists had little experience of the model and their anxiety was heightened:

"I think there is a lot to kind of get your head around with AVATAR so I think sometimes you don't have a lot of space to think about It, it can feel quite anxiety provoking at the beginning, like with anything new." (***P8,Psychologist***)

Similarly, participants highlighted how there were added mental tasks with using digital software that formed part of the therapy process:

"It certainly felt like spinning plates as I was learning…there's a lot of task switching, having to remember whether you're speaking as the avatar or the therapist, you know." (***P6,Psychologist)***

ii) Logistic considerations

AVATAR therapy requires separate laptops to enable therapists to provide real-time communication through the therapy trialogue, requiring therapist and service-user to be in two different rooms. Participants reflected how this could be a challenge in their busy NHS services, where there were existing pressures on room space.

> *"That was a bit of a challenge 'cause there is pressure on rooms in the building that we're working in, which isn't uncommon is it I guess across the NHS" (**P7,Psychiatrist)***

Participants noted how having senior staff members advocating for the use of AVATAR in the service helped overcome some of these pressures *"it is difficult with the equipment and rooms, but if you have support of the senior management, you get the rooms"* (***P1,Psychologist***).

Additionally, participants reflected how working with technology meant there were *"a lot of elements that could go wrong"* ***(P4, Psychiatrist)*** in therapy, which was anxiety-inducing initially:

> *"That was definitely one of my big anxieties to begin with, getting things set up properly and sometimes you would have issues with the voice, you know, it wouldn't sound right or wouldn't pick up [on the microphone]." (**P3,Psychologist**)*

Participants did recognise that the impact of technological disruptions was less than they initially feared and that the therapeutic relationship they had made with the service-user was protective against obstacles.

> *"There was an error in the tech for some reason and the avatar ended up coming through in my own voice and I was really worried about it afterwards, but the patient actually didn't seem to have noticed."* (***P8,Psychologist)***

4) "The proof was in the pudding"

This theme captures the shift within participants, from being unfamiliar and occasionally sceptical about the impact AVATAR could have on service-users, to feeling committed to the approach with more exposure to the model "*I think the proof was in the pudding really, he got a lot out of it."* (***P7,Psychiatrist)***

i) AVATAR as more direct/experiential

One factor regularly referenced by participants was the experiential nature of AVATAR therapy compared to other modalities they were trained in, and how this facilitated change processes.

> ***"****If you were working on power and control, you might be doing that more as behavioural experiments or evidence for and against rather than actually developing that experientially in session. So, there was something about the change happening in the room (…) rather than hoping it will happen in between sessions." (****P2,Psychologist)***

Participants were often surprised by the quick progress they witnessed in therapy, particularly in cases where the person had been living with voices for several years.

> ***"****Change is very dramatic and very quick which is really surprising in the sense that you wouldn't expect, with such a long-term enduring mental health problem, for change to come so quickly."* (***P1,Psychologist)***

This appeared to be superior to outcomes seen by therapists in other modalities they were trained in:

> *"There's things that you could do in one session that you might spend kind of four or five sessions doing in kind of traditional CBTp."* ***(P2,Psycholoigst)***

ii) Trust in the model mitigates anxieties

Participants appeared to take somewhat of a leap of faith to overcome their initial anxieties, specifically with embodying the voice and using derogatory voice content. This reflected a parallel process for service-users, who were also required to take a leap of faith in trusting the therapist and the model:

> *"I made a bit of joke in supervision about how both me and the patient got through our anxiety towards the end, like we both had this exposure to the experience of the therapy [laughs]."* (***P8,Psychologist)***

Witnessing service-users' progress seemed to generate more trust and buy-in to AVATAR as approach and worked to mitigate some of the initial worries.

> *"I learned that It's not me saying those things. I'm just using the verbatim that is already there anyway (…) yeah, it definitely helped seeing patients get better, seeing that actually it has so much therapeutic value that is almost worth it." (**P1,Psychologist).***

Participants often referenced feeling moved by service-users' bravery and resilience in challenging their voices and recalibrating the power imbalance between them, as facilitated by the dialogues.

> *"I think it's just a really moving thing to do with people. There're certain things you witness that you probably wouldn't ever see in any other therapy. For example, it was someone who the voice ended up being the voice of her abusive uncle and having an opportunity for her to say something directly to that uncle helped her process some grief and stuff. It just, being able to witness that like felt so, so moving and it just feels like she wouldn't have had an opportunity to do that in a way that feels so direct in any other kind of therapy. So, I think AVATAR really provides the opportunities to really see those sorts of moments and like, it's really lovely." (**P8,Psychologist)***

Deductive analysis

All 8 subthemes were mapped onto the four key constructs of NPT. NPT recognises that constructs are inter-linked and changes within one construct may result in changes in another (Murray et al., 2010). As such, a continuous cycle was chosen to visually represent the deductive analysis (See Figure 2).

Participants' perceptions of AVATAR as adding something different to their therapeutic repertoire, specifically being more direct and experiential that other modalities they are trained in, can be considered a facilitator through the *coherence* construct. Similarly, the professional opportunities and rewards participants experienced with AVATAR

therapy can also be captured through this construct as facilitative for future implementation.

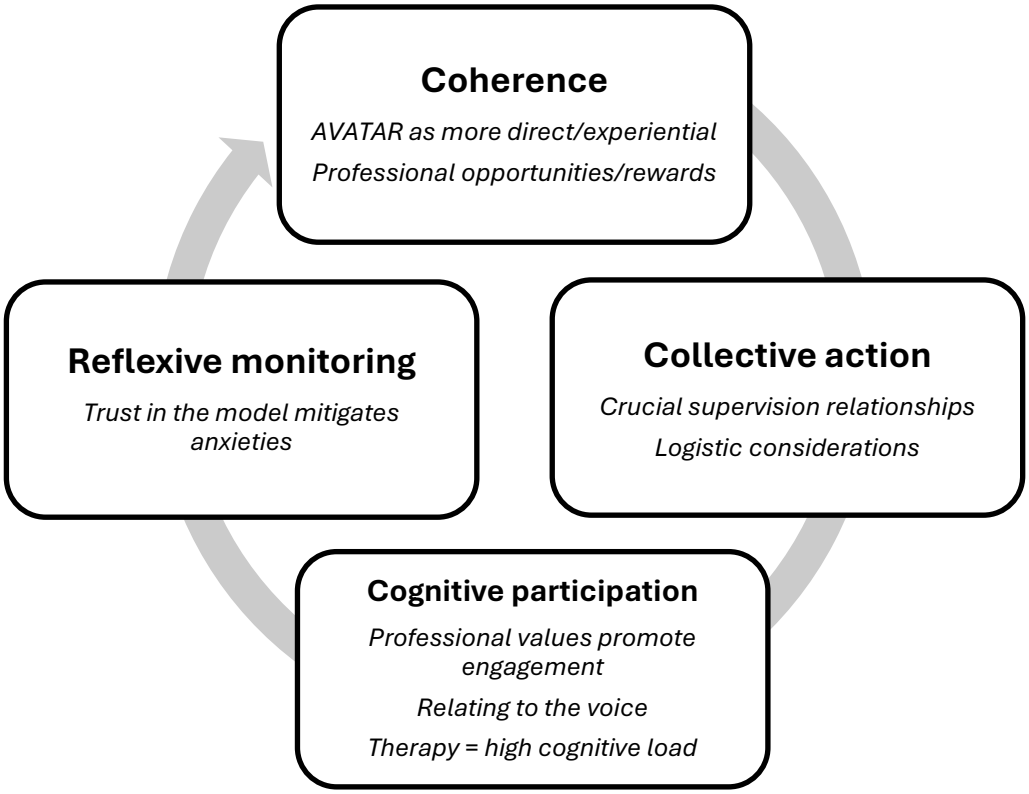
Through the lens of *collective action*, it is possible to see how high-quality supervision, which was perceived by current participants as a crucial space for learning and normalising therapy-related difficulties, would be integral to facilitating future implementation efforts. Additionally, logistic considerations with AVATAR therapy, namely working with technology and requiring additional clinical space for dialogues, could be interpreted as a potential barrier in busy, resource limited NHS services with pressures on room space.

The *cognitive participation* construct focuses on stakeholders' engagement with and commitment to an intervention. In the current study, participants' professional values surrounding improving access to psychological therapies and working relationally with voices motivated their involvement in the trial. This could be understood through this construct as a facilitator of future implementation, whereby therapists were committed to taking time to learn and deliver a new approach. Additionally, it is possible to view therapists' anticipatory anxiety and discomfort voicing derogatory content that contrasted their own values as a potential barrier to future implementation, particularly in services where clinicians may have less professional interest in working relationally with voices. Lastly, AVATAR therapy could be cognitively demanding for therapists, requiring increased energy and task-switching within therapy. This may be a barrier for future implementation, particularly if clinicians are not comfortable with digital interventions.

Finally, the leap of faith professionals took when delivering AVATAR, as captured by the 'trust in the model mitigates anxiety' subtheme mapped onto the *reflexive monitoring* construct. This suggested that AVATAR is likely to be perceived as advantageous for staff and service-users in the future.

Figure 2

Deductive analysis of subthemes using the NPT framework core constructs



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Discussion

Short summary

This study is the first to investigate the implementation of AVATAR therapy in routine NHS care by qualitatively exploring AVATAR therapists' experiences. Semi-structured interviews were conducted and initially inductively analysed using reflexive thematic analysis (Braun & Clarke, 2022). Secondly, themes were deductively analysed using a framework approach with the four core constructs of the NPT framework to ascertain potential barriers and facilitators to therapy that may help inform future implementation efforts grounded in therapists' experiences.

Main findings

Participants reflected on the additional components, and occasional challenges, of delivering a novel, digital intervention for voices. Prior to delivery, therapists reported low levels of confidence and high levels of anticipatory anxiety around voicing derogatory content, especially when content conflicted with personal and professional values. This mirrors previous research findings highlighting the emotional impact of using exposure-based techniques, which can pose a barrier to implementation (Schumacher et al., 2015). Therapists' anticipatory anxiety can be viewed as a parallel process to that experienced by voice-hearers during active dialogues in AVATAR therapy (Ward et al., 2020), denoting a strong sense of voice-presence (Rus-Calafell et al.,2022). Through dialogue, therapists were able to support service-users to become more assertive towards their abusive voice, generating an increased sense of power and control and improved self-esteem for service-users. This is in line with a previous study (O'Brien et al., 2021), where voice-hearers were supported to reach therapeutic targets and make sense of their experiences through voice dialogues.

Using digital software and working relationally with voices appeared to generate a high-cognitive load for therapists. These cognitive demands appear to also be experienced by voice-hearers during AVATAR therapy, as denoted in Rus-Calafell et al. (2022). Key to AVATAR therapy is its' use of digital software, requiring additional clinical space for the dialoguing portion of sessions. Participants accounts would suggest this may be potential service-level obstacle in NHS services whereby room availability is limited. Despite this, the therapeutic progress witnessed when delivering AVATAR therapy appeared to outweigh the additional challenges that accompany a digital therapy.

AVATAR therapy was regarded highly by therapists, who seemed to particularly value its inclusive nature and emphasis on the core principle of empowering clients. Familiarity with the model and witnessing therapeutic progress first-hand appeared to mediate therapists' initial anxieties around dialoguing derogatory content. This may indicate a process of habituation for therapists, similar to processes experienced by service-users-hearers during AVATAR therapy (Ward et al., 2020; Rus-Calafell et al., 2020). Participants' engagement with and commitment to therapy appeared to be underpinned by core professional values, such as a desire to provide equitable access

to evidence-based interventions for voices. Similar findings have been reported in the literature, where therapeutic values were central to therapists' delivery of another relational approach to voices (Longden et al., 2022). Evidence suggests that having access to high-quality supervision is important for clinicians working with people with psychosis (Hamm et al., 2023). This holds similarities to reflections from AVATAR therapists, who described supervision as integral to learning and confidence building, providing a normalising, protective space, particularly when embodying a derogatory voice.

Utilising the NPT framework provided a useful lens through which to view participants' experiences. Subthemes relating to participants' positive regard for therapy (*AVATAR as more direct/experiential and professional opportunities/rewards)* mapped onto the *coherence* construct. Participants' clear understanding of the relational aspect of AVATAR therapy and the sense they made of how this approach can benefit service-users would indicate a facilitator of future implementation whereby the objective and benefits of the intervention are clearly understood. The *collective action* construct encompassed subthemes capturing participants' perspectives on supervision as crucial to therapy delivery, which would need to be prioritised in future implementation efforts. Additionally, the logistic considerations and high cognitive load accompanying AVATAR therapy could be understood through this construct as potential challenges within busy NHS services where resources are likely limited. Through *cognitive participation*, it is possible to see how therapists' anxieties about embodying the derogatory voice may be a barrier for future clinicians and clear treatment rationale and high-quality training would need to be provided to help mediate these worries. Professional and personal values underpinning therapists' commitment to AVATAR can also be seen as a mediating factor to anxieties and viewed as a facilitator through the lens of cognitive participation. Therapists in the current study described a process of increased trust in the model and reduced anxiety with the more exposure they had to therapy. This is relevant to the *reflexive monitoring* construct as it would indicate that AVATAR therapy is likely to be perceived as advantageous for staff and clients when utilised in future.

Research implications

Therapists are key stakeholders in implementing psychological interventions for psychosis though there is limited qualitative research focused on their perspectives. The evidence that is available is generally limited to survey-based research with weak methodology (Langthorne et al., 2023). This study, alongside other recent qualitative research (Longden et al., 2022), begins to address this gap in the literature, providing key, in-depth insights from a unique sample of some of the first AVATAR-trained therapists in the UK. Therapists reported that AVATAR therapy was efficacious and reflected on their personal experiences of how experientially challenging disempowering voice content resulted in significant, observable improvements for service-users, often ahead of progress they had seen in other modalities they are trained in, such as CBTp. This supports findings from a recent systematic review (Dellazizzo et al., 2022) which highlights that the benefits seen in dialogical, relational approaches for voices may supersede those seen in CBTp.

AVATAR therapists experienced anticipatory anxiety around using derogatory content and the potential impact active, exposure-based components of therapy may have on service-users. This accords with clinicians' beliefs about potential for iatrogenic harm in exposure therapies (Hardy et al., 2024), which could lead to professionals avoiding such interventions (Scherr et al., 2015). What appeared to differ here was participants' commitment to the model underpinned by personal and professional values that suited a relational intervention designed to empower service-users to alter the voice/voice-hearer relationship. Not all exposure-based therapies include a relational element and as such, future research may benefit from exploring the differences between relational and non-relational exposure-based interventions.

Clinical implications

In the current study, the group supervision model was highly regarded as a crucial space for learning as well as getting reassurance and normalisation on the emotive impact of working with abusive voice content. Consequently, we would recommend that this model continue to be utilised for future roll-out. Group supervision has additional benefits at a service level, requiring less of supervisors' time compared to individual

supervision. Additionally, challenges participants had finding additional rooms for dialoguing may have implications clinically. Specifically, given that AVATAR therapy is also set up to enable remote delivery, it may be that this option be promoted and trialled in more services to mitigate some of the difficulties with room space. Additionally, future software updates might focus on developing a more user-friendly interface to address the high cognitive load experienced by therapists.

Therapists' accounts added valuable insights into the anticipatory anxiety surrounding dialoguing abusive, derogatory content. These findings can be used to implement clear training materials that address some of these anxieties, as well as providing opportunities for more therapy role plays and perhaps consultation with PPI members who have had experience of AVATAR therapy to address concerns. Professional values were intrinsic to therapists' commitment to delivery, mitigating some of the additional anxieties and challenges that accompany delivering a digital, dialogical therapy. As such, it may be important to focus on professional values within supervision as a way of addressing any concerns or hesitations surrounding delivery. Finally, it will be important to include voices-specific outcome measures to appraise progress and impact of therapy in wider implementation to support reflexive monitoring.

Methodological strengths

This study is the first exploration of the perspectives of AVATAR therapists, complimenting literature exploring the perspectives of voice-hearers who have undergone AVATAR therapy (Ward et al., 2020). Using both findings in conjunction provides the best chance of developing an implementation plan closely grounded in experiences of two of the main stakeholders in therapy.

The current study recruited across four UK sites, representing both the Scottish and English context. This, in turn, reflected a variety of mental health services serving both urban and more rural populations, increasing generalisability beyond a singular clinical service or locality.

Employing two stages of analysis promoted in-depth understanding of the relationship between themes inductively generated and an existing, evidence-based implementation framework. Following a reflexive thematic analysis approach guided by

a critical realist epistemology in the first instance allowed themes to be identified without the influence of the NPT framework as best as possible. To strengthen the applicability of this study, the research team utilised an evidence-based implementation framework to analyse themes and ensure future implementation efforts are grounded in the experiences of key stakeholders on the frontline of delivery.

The research team sought consultation on the interview topic guide from PPI members and trial therapists who would not make up the final pool of participants. Consultation is recognised as a methodological strength in qualitative research (Muller et al., 2019), and provided valuable alternative opinions and views to that of the research team alone in the current study.

Limitations

It is important to consider limitations of the current study. Firstly, it has been recommended that participants representing different levels of seniority be utilised for research implementing the NPT framework, as this gives better insight into service-level factors typically relevant to the collective action construct (Hazell et al., 2017). The current sample consists of only psychologists and psychiatrists and as such, there are some underrepresented professions, such as nurses and service leads, which may have impacted interpretation of data in the context of the current study. . Additionally, the study recruited participants who were already working with the AVATAR2 RCT, likely representing clinicians that think more favourably upon digital, relational approaches to working with voices. This is important to consider with regards to implementation in more generic mental health care where clinicians may have less of a special interest in working with voices in this way.

The research team initially set out to run a response validation focus group where participants could engage with and discuss themes to ensure data had been accurately interpreted. The lead researcher made two attempts to set up this focus group though, due to time constraints of busy clinical staff, it was not possible. A written copy of the findings was circulated to participants.

Previous research has found that factors such as large caseloads and a lack of protected time and resources are commonly cited barriers to implementing evidence-based

interventions for psychosis, such as CBTp (Xanidis & Gumley, 2020; Ince et al., 2016). This is important to consider in relation to the current study, where it is recognised that therapists had relatively small AVATAR caseloads and more protected time and resource (for example having access to a taxi budget for service-users) due to being part of the wider RCT. This, in turn, could be considered less representative of staff working in mental health services where resources may be more constrained.

This study utilised the NPT framework for deductive analysis, which was considered most appropriate due to its utility is assessing the implementation of complex, digital health interventions (Murray et al., 2010). Employing a framework approach aided the integration of themes and increased transferability of findings beyond this study's unique context. However, it is important to consider that NPT primarily assesses the agency of professionals and professional systems which may impact its transferability to understanding the experiences of service-users or other key stakeholders in implementation. Lastly, a limitation of the current study is that did not undergo any consensus or reliability checks during the NPT mapping exercise and consequently, interpretation on themes may be limited to the lead researcher's individual lens. In future exploration, the mapping exercise could have been enhanced by including consensus checks with an independent researcher also familiar with NPT.

Conclusion

To our knowledge, this is the first study exploring the perspectives of AVATAR therapists. Participants were committed to providing interventions for voices, recognising AVATAR as a unique opportunity that was inclusive of populations often deemed unsuitable for psychological interventions. The benefits of such an experiential, dialogical approach appeared to outweigh therapists' initial anxieties and generated high levels of professional satisfaction. Therapists saw a clear role for AVATAR therapy in their services and for service-users. Key logistical challenges, namely technological obstacles, and constraints on room space were identified and would need to be carefully considered for future implementation.

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Appendices

Appendix 1.1: ENTREQ checklist

Item	Guide and description	Reported on page #
Aim	State the research question the synthesis addresses	12-13
Synthesis methodology	Identify the synthesis methodology or theoretical framework which underpins the synthesis, and describe the rationale for choice of methodology (e.g. metaethnography, thematic synthesis, critical interpretive synthesis, grounded theory synthesis, realist synthesis, meta-aggregation, meta-study, framework synthesis).	17
Approach to searching	Indicate whether the search was pre-planned (comprehensive search strategies to seek all available studies) or iterative (to seek all available concepts until theoretical saturation is achieved)	16
Inclusion criteria	Specify the inclusion/exclusion criteria (e.g. in terms of population, language, year limits, type of publication, study type)	15
Data sources	Describe the information sources used (e.g. electronic databases (MEDLINE, EMBASE, CINAHL, psychINFO, Econlit), grey literature databases (digital thesis, policy reports), relevant organisational websites, experts, information specialists, generic web searches (Google Scholar), hand searching, reference lists) and when the searches were conducted; provide the rationale for using the data sources.	14
Electronic search strategy	Describe the literature search (e.g. provide electronic search strategies with population terms, clinical or health topic terms, experiential or social phenomena related terms, filters for qualitative research and search limits).	14 83-85
Study screening methods	Describe the process of study screening and sifting (e.g. title, abstract and full text review, number of independent reviewers who screened studies)	17-18
Study characteristics	Present the characteristics of the included studies (e.g. year of publication, country, population, number of participants, data collection, methodology, analysis, research questions).	19-23 87-88
Study selection results	Identify the number of studies screened and provide reasons for study exclusion (e.g. for comprehensive searching, provide numbers of studies screened and reasons for exclusion indicated in a figure/flowchart; for iterative searching describe reasons for study exclusion and inclusion based on modifications t the research question and/or contribution to theory development).	18
Rationale for appraisal	Describe the rationale and approach used to appraise the included studies or selected findings (e.g. assessment of conduct (validity and robustness), assessment of reporting (transparency), assessment of content and utility of the findings).	22

Appraisal items	State the tools, frameworks and criteria used to appraise the studies or selected findings (e.g. Existing tools: CASP, QARI, COREQ, Mays and Pope [25]; reviewer developed tools; describe the domains assessed: research team, study design, data analysis and interpretations, reporting).	16 & 22
Appraisal process	Indicate whether the appraisal was conducted independently by more than one reviewer and if consensus was required	16
Appraisal results	Present results of the quality assessment and indicate which articles, if any, were weighted/excluded based on the assessment and give the rationale.	22 87
Data extraction	Indicate which sections of the primary studies were analysed and how were the data extracted from the primary studies? (e.g. all text under the headings “results /conclusions” were extracted electronically and entered into a computer software).	16
Software	State the computer software used, if any.	16
Number of reviewers	Identify who was involved in coding and analysis.	16
Coding	Describe the process for coding of data (e.g. line by line coding to search for concepts).	16
Study comparison	Describe how were comparisons made within and across studies (e.g. subsequent studies were coded into pre-existing concepts, and new concepts were created when deemed necessary).	16
Derivation of themes	Explain whether the process of deriving the themes or constructs was inductive or deductive.	16
Quotations	Provide quotations from the primary studies to illustrate themes/constructs, and identify whether the quotations were participant quotations or the author’s interpretation	22-32
Synthesis output	Present rich, compelling and useful results that go beyond a summary of the primary studies (e.g. new interpretation, models of evidence, conceptual models, analytical framework, development of a new theory or construct).	22-32 32-35

Appendix 1.2: Systematic Review search terms

Database: EMBASE

Searched via: OVID

943 Results

1	Qualitative Research/ or Questionnaires/ or exp Attitude/ or Focus Groups/ or discourse analysis.mp. or content analysis.mp. or ethnographic research.mp. or ethnological research.mp. or purposive sample.mp. or observational method$.mp. or field stud$.mp. or theoretical sampl$.mp. or phenomenology/ or phenomenological research.mp. or life experience$.mp. or cluster sampl$.mp.
2	grounded theory.mp. or (grounded adj (theor$ or study or studies or research or analys?s)).af.
3	(theme$ or thematic).mp. or thematic analysis.af. or content analysis.af. or discourse analys?s.af.
4	1 or 2 or 3
5	((psychologist* or psychotherap* or health care or healthcare) adj3 (professional* or clinician*)).mp.
6	Implosive Therapy/ or (exposure adj2 therap*).mp. or Narrative Exposure Therap*.mp. or NET.mp. or Narrative Therapy/
7	(((Imaginal reliving or in vivo) adj2 exposure) or prolong* exposure).mp.
8	Cognitive Behavioral Therapy/ or CBT.mp.
9	Psychotic Disorders/ or hallucinat*.mp. or delusion*.mp. or paranoi*.mp. or voice hear*.mp. or hear* voices.mp.
10	Stress Disorders, Post-Traumatic/ or trauma*.mp. or posttraumatic.mp. or post-traumatic.mp. or PTSD.mp.
11	6 or 7 or 8
12	9 or 10
13	Patients/ or service user*.mp. or client*.mp. or inpatient*.mp. or outpatient*.mp. or lived experience*.mp. or first hand.mp. or first person.mp. or participant*.mp.
14	5 or 13
15	4 and 11 and 12 and 14

Database: MEDLINE

Searched via: OVID

574 Results

1	Qualitative Research/ or Questionnaires/ or exp Attitude/ or Focus Groups/ or discourse analysis.mp. or content analysis.mp. or ethnographic research.mp. or ethnological research.mp. or purposive sample.mp. or observational method$.mp. or field stud$.mp. or theoretical sampl$.mp. or phenomenology/ or phenomenological research.mp. or life experience$.mp. or cluster sampl$.mp.
2	grounded theory.mp. or (grounded adj (theor$ or study or studies or research or analys?s)).af.
3	(theme$ or thematic).mp. or thematic analysis.af. or content analysis.af. or discourse analys?s.af.
4	1 or 2 or 3
5	((psychologist* or psychotherap* or health care or healthcare) adj3 (professional* or clinician*)).mp.
6	Implosive Therapy/ or (exposure adj2 therap*).mp. or Narrative Exposure Therap*.mp. or NET.mp. or Narrative Therapy/
7	(((Imaginal reliving or in vivo) adj2 exposure) or prolong* exposure).mp.
8	Cognitive Behavioral Therapy/ or CBT.mp.
9	Psychotic Disorders/ or hallucinat*.mp. or delusion*.mp. or paranoi*.mp. or voice hear*.mp. or hear* voices.mp.
10	Stress Disorders, Post-Traumatic/ or trauma*.mp. or posttraumatic.mp. or post-traumatic.mp. or PTSD.mp.
11	6 or 7 or 8
12	9 or 10
13	Patients/ or service user*.mp. or client*.mp. or inpatient*.mp. or outpatient*.mp. or lived experience*.mp. or first hand.mp. or first person.mp. or participant*.mp.
14	5 or 13
15	4 and 11 and 12 and 14

Database: PsychINFO

Searched via: OVID (accessed via Knowledge Network)

186 Results

1	Qualitative Methods/ or Attitudes/ or Focus Group/ or Focus Group Interview/ or Discourse Analysis/ or Content Analysis/ or Semi-Structured Interview/ or Phenomenol*.mp. or "Experiences (Events)"/ or Grounded Theory/ or theme*.mp. or thematic.mp. or thematic analysis.mp
2	Psychologists/ or (Psychologist Attitudes/ or Clinical Psychologists/ or Counseling Psychologists/) or Psychotherapists/ or health care.mp.
3	Clients/ or Service User*.mp. or Patient Attitudes/ or Patients/ or inpatient*.mp. or Outpatient*.mp. or Lived experience*.mp. or first hand*.mp. or first person*.mp.or Participant*.mp.
4	Implosive Therapy/ or Exposure n3 therap*.mp. or Narrative Exposure Therap*.mp. or NET.mp. or Narrative Therapy/
5	Imaginal Exposure/ or imaginal reliving.mp. or In Vivo Exposure/ or Prolong* exposure.mp.
6	Trauma-Focused Cognitive Behavior Therapy/ or Cognitive Behavior Therapy/ or CBT.mp.
7	Psychotic Disorders/ or hallucinat*.mp. or delusion*.mp. or paranoi*.mp. or voice hear*.mp. or hear* voices.mp.
8	Post Traumatic Stress Disorder.mp. or PTSD/ or Trauma/ or posttraumatic.mp. or Post-traumatic.mp.
9	2 or 3
10	4 or 5 or 6
11	7 or 8
12	1 and 9 and 10 and 11

Appendix 1.3: CASP checklist

https://casp-uk.net/checklists/casp-qualitative-studies-checklist-fillable.pdf

Appendix 1.4: CASP ratings

	[Y=domain met, ?=can't tell, N=domain not met] ***Section A:*** Are the results valid?						***Section B:*** What are the results?			***Section C:*** Will results help locally?
Authors	1. Clear statement of research aims?	2.Qual methods appropriate?	3.Design appropriate to address aims?	4.Recruitment strategy appropriate to aims?	5.Data collected in a way that addressed research issue?	6.Researcher / participant relationship considered?	7.Ethical issues considered?	8.Data analysis sufficiently rigorous?	9.Clear statement of findings?	10.How valuable is the research?
Andrews et al., 2022	Y	Y	Y	Y	Y	?	N	?	Y	Y
Bond et al., 2022	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Chadwick & Billings, 2022	Y	Y	Y	Y	Y	?	?	Y	Y	Y
Feary et al., 2022	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Hardy et al., 2022	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Longden et al., 2022	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Longden et al., 2023	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Rus-Calafell et al., 2022	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Said et al., 2021	Y	Y	Y	Y	Y	Y	?	Y	Y	Y
Shearing et al., 2011	Y	Y	Y	Y	Y	?	N	Y	Y	Y

Tong et al., 2017	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Vincent et al., 2013	Y	Y	Y	Y	Y	?	?	Y	Y	Y

Appendix 1.5: Coding Example

Initial code label	Initial descriptive themes	Subtheme	Analytic Theme
Learning from therapists' knowledge	Personal qualities important Relationship = foundation to change processes	Therapeutic relationship essential	Therapist attunement
Feeling cared for			
Therapist as kind and safe			
Impact of trauma on trust-building			
Taking a 'leap of faith' with therapists' help			
Structure of therapy acceptable for SU	Flexibility to therapy model Not a 'one size fits all' approach	Adapting therapy to meet service-users' needs	
Culturally competent therapy delivery			
Setting up a therapeutic environment			
Accounting for treatment goals			

Appendix 1.6: Supplementary study information

Study	Main findings/themes	Additional notes related to findings
Andrews et al., 2022	Structural barriers; Psychosocial barriers; Concerns related to exposure/trauma focus; Longing/needing for recovery; Perceived utility; Wanting to write or directly address traumatic event; No perceived barriers to treatment	Barrier-related themes similar to other PTSD treatments, particularly exposure components. Results suggest that WET may reduce PTSD symptoms in Latinx immigrants 2 interviews – one pre-treatment regarding perceptions of treatment, one post 5 sessions of WET. Interviews not conducted by clinician delivering intervention, nor recorded, transcribed during by RA. Post-treatment interviews were within one week of completing intervention. Themes very closely related to questions using "checklist" asked – surface level analysis? – eg "having to write"- themes more of a summary of the questions asked rather that interpretative meaning; was TA best choice?
Bond et al., 2022	Engaging with everyday life; Openness, engagement and personal responsibility; Professional Friend; New knowledge and alternative perspectives;;The right place Flexibility and fitting;	Findings presented in two sections: firstly cross-case analysis of all 6 interviews (template analysis), secondly detailed case-studies of 2 participants using IPA. Two IPA accounts chosen as they "provided most detail" (p1120)– does this have implications for how representative findings are of the entire sample?
Chadwick & Billings, 2021	Coherent understanding; Structural support; Safe space	Interview schedule evolved through data collection, in line with GT methodology. Traumatic experiences/ PTSD frequently neglected in assessments and treatment planning. Disclosure of traumatic experiences key to treatment and assessment.
Feary et al., 2022	Positive changes since the therapy; Changes in relationship to the outside world; Therapy intense with benefits later;	Interview schedule informed by "client change interview". All participants found discomfort associated with intervention tolerable enough to complete therapy.

	A different approach with positives and negatives	Discussion – both therapist and patient need to be "adequately prepared for trauma-focussed imaginal exposure"
Hardy et al., 2022	Perseverance; Establishing safety; The challenges of therapy; Rebuilding one's life after trauma	Three phases to treatment – phase 2 exposure based. Any type of memory-work (PE, EMDR, NET Imagery Rescripting, stimulus discrimination, Reliving and Restructuring) could be used – grounded in formulation.
Longden et al., 2022	Commitment to delivery; Communication and collaboration; Challenges of delivery	Two interviews conducted – first, after they had been trained but prior to therapy delivery, second after completion of therapy with their caseload. Given option for individual interview or focus group. 7 interviews individual, three using focus group. Does not distinguish which data are derived from FG or interview. Written response validation sought
Longden et al., 2023	A desire for suitable help; Engaging with voices; Contemplating the future	13 participants interviewed represented 54% of participants from pilot RCT (allocated to treatment arm) Participants appeared to make gains in face of therapy challenges Strong therapeutic relationships consistent throughout
Rus Calafell et al., 2022	AVATAR therapy set-up; Voice embodiment and associated emotions; Working in a safe place (supported by therapist); Learning new ways of relating to voices; Impact of therapy on everyday life	14 therapy completers (28% of full RCT sample) and 1 therapy non-completer – results over-representative of therapy completers. Treatment acceptable to participants, benefits seen for voice-hearers. Appeared to have impact on social relationships. High sense of voice-presence and realism
Said et al., 2021	Contemplating NET; Experiencing NET; Perceived outcomes of NET; Contextual challenges; Individual preferences	Interview guide constructed to explore specific features of NET, eg experiences of lifeline and narration, reaction to NET sessions Perceived outcomes of NET is a theme and perceived therapy outcomes mentioned as topic guide section - ?surface level analysis

Shearing et al., 2011	Overcoming ambivalence; Painful but achievable; Positive change	Focused on reliving as part of TF-CBT Ambivalence about reliving noted Therapeutic relationship appeared to prepare participants for reliving
Tong et al., 2017	Distress in session; Feeling relieved in and out of session; Symptom exacerbation	Timeline portion of treatment described as “covert exposure” Interviews took place after baseline assessment, intervention and end of treatment assessment Interview questions piloted on a YP external to study.
Vincent et al., 2013	Staying where you are versus engaging in therapy; Experiences encouraging engagement in therapy; Experiences impeding engagement in therapy; Importance of the therapeutic relationships; Losing oneself;Regaining life	Intervention included TF-CBT using imaginal reliving and/or adapted testimony within CBT framework. Clients were excluded if they were “actively psychotic”. Interviews lasted between 1-2hrs, conducted by main author. Includes areas covered in interview All participants noted ambivalence re: engaging in therapy

Appendix 2.1: Interview topic guide

https://osf.io/jx8km

Appendix 2.2: Participant Information Sheet

https://osf.io/ghvs9

Appendix 2.3: Participant Consent Form

https://osf.io/g8dx2

Appendix 2.4: Ethical approval letter

Professor Andrew Gumley

MVLS College Ethics Committee

Exploring the implementation of AVATAR therapy in NHS settings: A study using mixed qualitative methods 200220155

The College Ethics Committee has reviewed your application and has agreed that there is no objection on ethical grounds to the proposed study. We are happy therefore to approve the project, subject to the following conditions

- Project end date as stipulated in original application.
- Permissions from local NHS R&I and relevant line managers.
- Correcting typographic errors (consent) and providing final materials with no 'track changes'.
- The data should be held securely for a period of ten years after the completion of the research project, or for longer if specified by the research funder or sponsor, in accordance with the University's Code of Good Practice in Research: (http://www.gla.ac.uk/media/media_227599_en.pdf)
- The research should be carried out only on the sites, and/or groups defined in the application.
- Any proposed changes in the protocol should be submitted for reassessment, except when it is necessary to change the protocol to eliminate hazard to the subjects or where the change involves only the administrative aspects of the project. The Ethics Committee should be informed of any such changes.
- For projects requiring the use of an online questionnaire, the University has an Online Surveys account for research. To request access, see the University's application procedure at https://www.gla.ac.uk/research/strategy/ourpolicies/useofonlinesurveystoolforresearch/.
- You should submit a short end of study report within 3 months of completion.

Yours sincerely

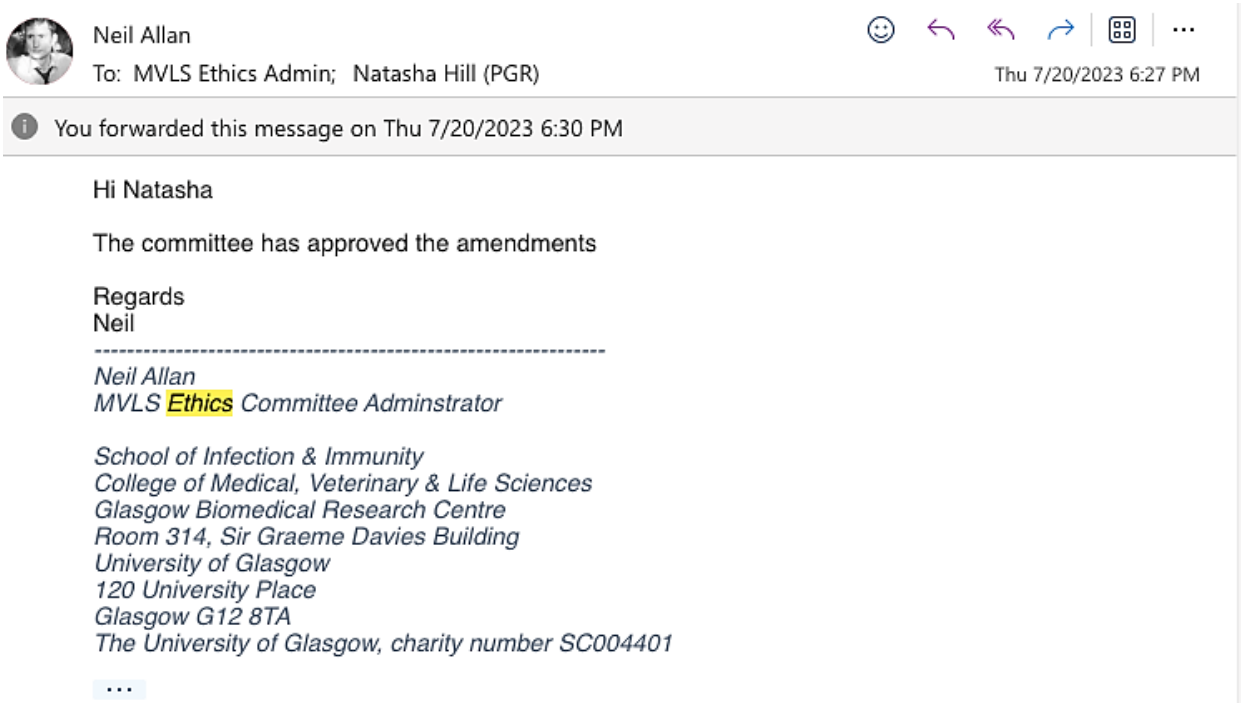
Dr Terry Quinn

FWSO, FESO, MD, FRCP, BSc (hons), MBChB (hons)
Reader / Honorary Consultant

College of Medicine, Veterinary & Life Sciences
School of Cardiovascular and Metabolic Health
terry.quinn@glasgow.gla.ac.uk

The University of Glasgow, charity number SC004401

Appendix 2.5: Minor ethic amendment confirmation email



Neil Allan
To: MVLS Ethics Admin; Natasha Hill (PGR)
Thu 7/20/2023 6:27 PM

You forwarded this message on Thu 7/20/2023 6:30 PM

Hi Natasha

The committee has approved the amendments

Regards
Neil

Neil Allan
MVLS Ethics Committee Adminstrator

School of Infection & Immunity
College of Medical, Veterinary & Life Sciences
Glasgow Biomedical Research Centre
Room 314, Sir Graeme Davies Building
University of Glasgow
120 University Place
Glasgow G12 8TA
The University of Glasgow, charity number SC004401

...

Appendix 2.6: Coding example

Initial code label	Code clusters	Subtheme	Theme
Therapeutic similarities with trauma work	Approach facilitates change Increased SU power and control	AVATAR as more direct/experiential	"The proof is in the pudding"
Faster progress that CBTp			
First therapy that had worked for SU			
Working with complex voices/presentations			
Intense emotional response to dialogues			
Lacking confidence in the beginning	Moving from fidelity to flexibility Being outside your comfort zone	Trust in the model mitigates anxieties	
AVATAR approach new for therapist			
AVATAR offering different therapeutic opportunities			
Reliance on the manual in early stages			
Building confidence in later sessions/'Riffing off' voice content			

Appendix 2.7: Normalisation Process Theory checklist

Taken from: Murray, E., Treweek, S., Pope, C., MacFarlane, A., Ballini, L., Dowrick, C., ... & May, C. (2010). Normalisation process theory: a framework for developing, evaluating and implementing complex interventions. *BMC medicine, 8*, 1-11

NPT Component	Questions to consider within NPT framework	NPT evaluation of AVATAR data/themes
Coherence *Meaning and sense making by participants*	Is the intervention easy to describe? Does it have a clear purpose for all relevant participants? Do participants have a shared sense of purpose? What benefits will the intervention bring and to whom? Are these benefits likely to be valued by potential participants? Will it fit with the overall goals and activity of the organisation?	Participants differentiated AVATAR to other existing treatments for psychosis - seen as more direct and experiential than other talking therapies. AVATAR was seen by participants as adding something useful and varied to their existing roles (Eg beyond medication and diagnosis) Participants recognised benefits of AVATAR for more complex and enduring MH presentations - a population often otherwise excluded from psychological interventions ***Subthemes:*** ***Professional opportunities and rewards*** ***AVATAR as more direct and experiential***
Cognitive Participation *Commitment and engagement by participants*	Will they see the point of the intervention easily? Will they be prepared to invest time, energy and work in it?	Participants saw AVATAR as something that could fill treatment gaps, perceived benefits of offering an additional intervention for voices. Clear sense of the point of AVATAR therapy Happy to do training, sometimes on their own time, used special interest time to be involved in trial

		Values facilitated investment, time and energy into approach – eg completing training on non-working day. High cognitive load of therapy – important to consider with clinicians less technologically comfortable. Anxieties around using derogatory content – participants in current study interested in working with voices, may not be the case for all community staff that don't value working with voices as much. ***Subthemes:*** ***Professional values promote engagement*** ***Relating to the voice*** ***Therapy = high cognitive load***
Collective Action *The work participants do to make the intervention function*	How will the intervention affect the work of user groups? Will it promote or impede their work? Will staff require extensive training before they can use it How compatible is it with existing work practices? What impact will it have on division of labour, resources, power, and responsibility between different professional groups?	Digital elements of the intervention added a level of complexity Promoted satisfaction and treatment outcomes for service-users. Some added extra elements needed for therapy sessions – preparing technology etc. Training was remote and could be completed in own time – therapists appreciated having materials to go back to Different MH clinicians have access to training, nursing staff, psychology staff, psychiatry staff – division of labour between disciplines

	Will it fit with the overall goals and activity of the organisation?	Quick therapeutic progress – potential to cut waiting times in current NHS pressures. Manualised approach suits organization goals AVATAR seen as suitable for severe and enduring presentations Supervision as protective – essential to normalising and building confidence ***Subthemes:*** ***Crucial supervision relationships*** ***Logistic considerations***
Reflexive Monitoring *Participants reflect on or appraise the intervention*	How are users likely to perceive the intervention once it has been in use for a while? Is it likely to be perceived as advantageous for patients or staff? Will it be clear what effects the intervention has had? Can users/staff contribute feedback about the intervention once it is in use? Can the intervention be adapted or improved on the basis of experience?	Therapists perceived benefits of AVATAR – filling treatment gaps, quick therapeutic progress – indicates facilitator. Remote and in person options for delivery – suits rural and urban locations. Trust in the model mitigates anxieties – more exposure to the model facilitated more buy-in; indicates facilitator. Therapy manual includes outcome measures for measuring progress ***Subthemes:*** ***Trust in the model mitigates anxieties***

Appendix 2.8: Consolidated criteria for reporting qualitative studies (COREQ) 32-item Checklist

No. Item	Guide questions/description	Reported on Page #
Domain 1: Research team and reflexivity		
Personal Characteristics		
1. Inter viewer/facilitator	Which author/s conducted the interview or focus group?	55
2. Credentials	What were the researcher's credentials? E.g. PhD, MD	58
3. Occupation	What was their occupation at the time of the study?	58
4. Gender	Was the researcher male or female?	58
5. Experience and training	What experience or training did the researcher have?	58
Relationship with participants		
6. Relationship established	Was a relationship established prior to study commencement?	**58**
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	56
8. Interviewer characteristics	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	58
Domain 2: study design		
Theoretical framework		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	55
Participant selection		
10. Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball	56
11. Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email	56

12. Sample size	How many participants were in the study?	56
13. Non-participation	How many people refused to participate or dropped out? Reasons?	56
Setting		
14. Setting of data collection	Where was the data collected? e.g. home, clinic, workplace	55
15. Presence of non-participants	Was anyone else present besides the participants and researchers?	n/a
16. Description of sample	What are the important characteristics of the sample? e.g. demographic data, date	55
Data collection		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	55
18. Repeat interviews	Were repeat inter views carried out? If yes, how many?	n/a
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	55
20. Field notes	Were field notes made during and/or after the interview or focus group?	58
21. Duration	What was the duration of the inter views or focus group?	56
22. Data saturation	Was data saturation discussed?	56
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	73
Domain 3: analysis and findings		
Data analysis		
24. Number of data coders	How many data coders coded the data?	57
25. Description of the coding tree	Did authors provide a description of the coding tree?	99
26. Derivation of themes	Were themes identified in advance or derived from the data?	57
27. Software	What software, if applicable, was used to manage the data?	n/a
28. Participant checking	Did participants provide feedback on the findings?	73
Reporting		

29. Quotations presented	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	58-67
30. Data and findings consistent	Was there consistency between the data presented and the findings?	58-68
31. Clarity of major themes	Were major themes clearly presented in the findings?	58-67
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	58-67

Appendix 2.9: MRP Proposal

https://osf.io/8myf6