This is a repository copy of *Imagery-focused therapy for visual hallucinations: a case series*.

White Rose Research Online URL for this paper:
https://eprints.whiterose.ac.uk/212483/

Version: Published Version

Article:

WILEY

| RESEARCH ARTICLE | OPEN ACCESS |

Imagery-Focused Therapy for Visual Hallucinations: A Case Series

Georgie Paulik[1,2,3] ⬥ | Christopher D. J. Taylor[4,5]

[1]Translational Research Division, Perth Voices Clinic, Murdoch, Australia | [2]School of Psychology, Murdoch University, Murdoch, Australia | [3]School of Psychology, Curtin University, Curtin, Australia | [4]Department of Psychology, Faculty of Science, The University of Sheffield, Sheffield, UK | [5]Community Mental Health Team, Pennine Care National Health Service (NHS) Foundation Trust, Manchester, UK

Correspondence: Georgie Paulik (georgiepaulik@perthvoicesclinic.com.au)

ABSTRACT

Introduction: Visual hallucinations (VH) are more common than previously thought and are linked to higher levels of distress and disability in people with a psychotic illness. Despite this, scant attention has been given to VHs in the clinical literature, and the few therapy case series of cognitive behavioural therapy (CBT) published to date have not demonstrated reliable change. In other areas of clinical research, problematic mental imagery has been found to be more strongly related to negative affect in psychological disorders than negative linguistic thinking, and imagery focused techniques have commonly been found to improve the outcomes in CBT trials. Given VHs have many similarities with visual mental imagery and many of the distressing beliefs associated with VHs targeted in CBT are maintained by accompanying mental imagery (i.e., imaging a hallucinated figure attacking them), it seems plausible that an imagery-focused approach to treating VHs may be most effective.

Methods: The current study is a multiple baseline case series ($N = 11$) of a 10-session imagery-focused therapy for VH in a transdiagnostic sample.

Results: The study had good attendance and feedback, no adverse events and only one [seemly unrelated] drop-out, suggesting good feasibility, safety and acceptability. The majority of clients reported reduction on both full-scale measures (administered at 3 baselines, midtherapy, posttherapy and 3-month follow-up) and weekly measures of VH severity and distress, ranging from medium to large effect sizes.

Conclusions: The case series suggests that an imagery-focused approach to treating VHs may be beneficial, with a recommendation for more rigorous clinical trials to follow.

1 | Introduction

Visual hallucinations (VHs, or commonly referred to as 'visions' by those who experience them) are the perception of visual entities in the absence of corresponding external stimuli. These are common in psychotic disorders, other mental health disorders and the general population. Approximately 27% of people with schizophrenia (Dudley et al. 2013; Waters et al. 2014), 81% of transdiagnostic help-seeking voice hearers (Badcock et al. 2021) and 17% of the healthy population (with 85% reporting some anomalous visual experiences; Aynsworth et al. 2023; Collerton and Dudley 2004) report having experienced VHs. The content of VHs is fairly consistent across different diagnostic groups, with complex human figures (shadowy or fully formed), faces and animals most commonly reported (Dudley et al. 2013; Larøi and Van Der Linden 2005; Lindal, Stefansson, and Stefansson 1994;

Summary

- Distress associated with visual hallucinations and accompanying mental imagery can potentially be reduced in psychological therapy by directly targeting these cognitive experiences using imagery-modifying techniques.

Linszen et al. 2022; Manford and Andermann 1998; van Ommen et al. 2019). In psychosis, the presence of VHs is associated with higher distress, disability, suicidality, hospital admissions and overall worse global severity of illness (Chouinard et al. 2019; Mueser, Bellack, and Brady 1990; Oorschot et al. 2012). Despite the commonality of these distressing experiences and their detrimental impact on overall wellbeing, compared with voice hearing ('auditory verbal hallucinations'), relatively scant clinical research has been conducted on VHs, with psychological treatment research limited to a small number of case studies (Callcott et al. 2010; Hutton, Morrison, and Taylor 2012) and case series (Thomson et al. 2017; Wilson et al. 2016). Although there are limited intervention studies, there is some agreement that symptom-specific interventions for psychotic-like experiences such as hallucinations may be more effective than cognitive behavioural therapy for psychosis (CBTp) more broadly (Wilson et al. 2016). Furthermore, clinical trials delivering CBT targeting distressing voices have generally reported larger effect sizes with regard to reductions in voice-related distress than those in reported in CBTp trials (e.g., Hayward et al. 2021; Paulik et al. 2019).

The cognitive behavioural model that has guided CBT as the treatment of choice in the three main case series to date was developed upon the evidence that the distress associated with VHs is more strongly linked to the person's appraisals of the VH, rather than the content per se (Dudley et al. 2012; Gauntlett-Gilbert and Kuipers 2005). For most people who report these experiences, the content is rather mundane, a shadowy human figure or face. However, those who may believe the VH is an imminent safety threat (i.e., will attack them), an omen for pending threat, or perhaps a sign of 'madness' (and associated negative beliefs, of being hospitalised), the resulting distress is high. Furthermore, 'safety seeking behaviours', such as avoiding or escaping the perceived stimuli, prevent the person from testing out and disconfirming these negative appraisals (Dudley et al. 2012; Gauntlett-Gilbert and Kuipers 2005). Thus, traditional CBT strategies, such as psychoeducation, normalisation, thought challenging, behavioural exposure and experiments, have been utilised in the two CBT for VHs case series conducted to date (i.e., Thomson et al. 2017; Wilson et al. 2016). However, the outcomes with regard to VH severity have been varied, and where improvements were reported, these were modest effect sizes. This suggests that the mechanisms being targeted by the therapy or the strategies/techniques being utilised to achieve change in therapy require revision or refinement. Over the past two decades, the study of the role of mental imagery in the development and maintenance of mental health difficulties has received growing attention.

Mental imagery is 'characterised by a subjective resemblance to sensory impressions, as if "seeing with the mind's eye" or "hearing with the mind's ear"' (Ng et al. 2015). Problematic mental imagery has been found to be more strongly related to negative affect in psychological disorders than negative linguistic thinking (Holmes and Mathews 2010). Most commonly, problematic imagery can take the form of excessive negative imagery. However, an absence of positive imagery (such as in depression), or the presence of dysfunctional positive imagery (such as in self-harm/suicide), can also be problematic (Paulik et al. 2024). There has been recent clinical research into almost all psychological disorders looking at the prevalence, phenomenology and effects of mental imagery on illness severity. Subsequently, researchers have incorporated imagery-focused strategies into psychological therapies (predominantly within a broad CBT framework) as either the primary driver of change (e.g., through mentally rescripting flashback memories of trauma in PTSD) or to amplify the effectiveness of other cognitive behavioural-based strategies (see Ji et al. 2016; Pearson et al. 2015; Schwarz et al. 2020). Examples of the use of mental imagery in CBT include the following: imagery-enhanced thought records (i.e., McEvoy et al. 2018), where mental negative images and associated beliefs or predictions are recorded by the client and become the target in cognitive and behavioural interventions; safe place imagery (Hackmann, Bennett-Levy, and Holmes 2011), in which clients build a sense of safety by developing a safe place in their imagination; compassionate imagery (Gilbert 2009), which is an emotion-regulation technique involving visualisation of a person, animal or object offering one compassion; attachment—of 'felt security'—imagery (Newman-Taylor, McSherry, and Stopa 2019), where the client visualises connecting with and receiving emotional support from a safe other, to generate feelings of safety and connectedness; and imagery rescripting (Holmes, Arntz, and Smucker 2007), which works to reduce the frequency and distress of intrusive cognitions (such as flashbacks or imaginings of future events) by mentally connecting with the original image and then changing the ending to evoke safer associated beliefs and emotions.

Imagery-focused interventions have been used in psychosis populations and to target psychosis-like experiences in transdiagnostic samples. Three case series and an open trial have shown that imagery rescripting applied to traumatic memories related to distressing voices (auditory verbal hallucinations) leads to a meaningful and reliable reduction in PTSD symptomatology (such as flashbacks) and voice distress and severity (Clarke, Kelly, and Hardy 2022; Ison et al. 2014; Paulik, Steel, and Arntz 2019; Strachan et al., forthcoming). In another case series, Taylor et al. (2019) and Taylor, Bee, et al. (2020) targeted mental imagery associated with paranoia in people with psychosis ('iMAgery focused therapy for Psychosis'; iMAPS). The iMAPS approach adapted an existing imagery model (Hales et al. 2015), adding a focus on the role of schemas (Taylor and Harper 2017; Taylor, Haddock, et al. 2020), a wider longitudinal case formulation, and bringing together a range of imagery focused techniques in one protocol, which was acceptable in terms of uptake, attendance and so forth. Another recent case series found that attachment-focused imagery techniques (e.g., establishing a sense of safety through 'felt security' imagery; Newman-Taylor 2020; Sood, Carnelley, and Newman-Taylor 2021) are acceptable (Airey, Berry, and Taylor 2023).

VHs are often accompanied by distressing mental imagery (e.g., Morrison et al. 2002), which may also drive the

negative beliefs and distress associated with the experience. For instance, a hallucinated figure may be accompanied by the mental image of this figure attacking them. However, associated mental imagery has been omitted from previous cognitive behavioural models of VHs and existing therapy approaches. Therefore, we anticipate working with associated mental imagery in CBT for VHs may improve outcomes. In addition, VHs share many characteristics with visual mental imagery such as overlapping neurological underpinnings (Waters, Barnby, and Blom 2021), and so targeting the VHs themselves using imagery-focused strategies may also be effective in modifying the associated beliefs, or indeed the VH itself. For example, in a metacognitive exercise, a therapist could guide a client to image putting the VH on a TV screen and using a 'magical' remote control to modify the VH in a humorous or neutralising way (e.g., having the hallucinated figure dance, go ice skating and shrink). These imagery techniques applied to VH could give the client a sense of control over the image, while also helping to associate the image with safe beliefs and emotions, such as 'the figure is safe' and humour/laughter. When exploring VHs using an adapted imagery-enhanced CBT formulation, in addition to using imagery-focused strategies to increase a sense of control over the VH, certain traumatic events that may be directly (e.g., seeing the face of an abuser) or indirectly related to the VH can be addressed using imagery rescripting (Morina, Lancee, and Arntz 2017).

The current study describes a multiple baseline, naturalistic case series evaluating an imagery-focused intervention for distressing VHs in a transdiagnostic, help seeking group of patients. The primary aim was to determine the feasibility, safety and acceptability, with a secondary aim to explore preliminary clinical outcomes.

2 | Method

2.1 | Design

A single-arm, multiple baseline, open trial study, case-series design, was used with weekly assessments (administered at baselines 1, 2 [the week between assessment and Session 1] and 3/Session 1, Sessions 2–8, postintervention and at 3-month follow-up) for a set of brief measures and 4 assessment points for longer measures (preintervention, midintervention, postintervention and 3-month follow-up).

2.2 | Service Setting

The clinical data reported here are taken from participants attending Perth Voices Clinic (PVC) for therapy to work on distressing VHs. PVC is a transdiagnostic psychological assessment, treatment and research clinic for people who have distressing hallucinatory experiences. Ethical approval for use of outcome data from Perth Voices Clinic for service evaluation was obtained by the Murdoch University Human Research Ethics Committee (Reference 2016/089). All participants gave written informed consent for their de-identified clinical data to be utilised.

2.3 | Participants

Participants were referred to the PVC and offered the opportunity to take part in the evaluation and receive the therapy. Participants were considered eligible if they (a) presented at PVC and were currently experiencing distressing VHs and (b) provide informed participant consent. Exclusion criteria for PVC includes being in an acute phase of psychosis or having residual delusions or thought disorder impairing their ability to engage in therapy (as indicated by a score of 5 or above on either the Unusual Thought Content or Conceptual Disorganization items of the Brief Psychiatric Rating Scale; Ventura et al. 1993).

2.4 | Feasibility, Safety and Acceptability

Feasibility was assessed by recording rates of session attendance. We set a criteria of attending at least 6 of the 10 sessions as reflecting a reasonable attendance.

Safety was assessed through monitoring adverse events for severity, relatedness to study procedures and expectancy (Grant et al. 2018). Examples of serious adverse events include formal complaints about therapy, crisis referrals, hospital admissions, violence incidence initiated by participant, suicide attempts and deaths. The therapist and clinical supervisor determined the event severity and if it was deemed related to therapy (based on the participant's reflections and temporal relationship with therapy related activity and whether the event was unexpected given the participant's current and past context).

Acceptability was based on verbal feedback from participant on their level of satisfaction at the end of therapy.

2.5 | Measures

We did not specify a primary outcome, as one of the aims of the study was to identify a suitable primary outcome for a larger study (Lancaster, Dodd, and Williamson 2004). The recorded diagnosis was provided by the referring doctor (either general practitioner or psychiatrist).

2.5.1 | VH Frequency and Distress

Two single items on visions were obtained weekly (Baseline 1/ after the assessment session, Baseline 2/week between assessment and Session 1 and Baseline 3/during Session 1 and weekly at Sessions 2–8, posttherapy and at 3-month follow-up): (1) frequency (0–6, 0 = 'not present', 6 = 'continuous') and (2) average voice-related distress (0–100, where 100 is the maximum distress). As there are no comprehensive measures of VH severity developed, the Hamilton Program for Schizophrenia Voices Questionnaire (HPSVQ) for voices (Kim et al. 2010) was adapted for the assessment of VHs, with the word 'visions' replacing the word 'voices' for each item, and the wording of response options modified to fit visual rather than auditory experiences (see the supporting information and HPSVQ below). This measure was administered along with secondary outcome measures at pretherapy, midtherapy, posttherapy and 3-month follow-up.

The Hamilton Visions questionnaire Cronbach's alpha at initial assessment was 0.722, which is acceptable.

2.5.2 | PTSD Symptoms

The Posttraumatic Diagnostic Scale for DSM-5 (PDS-5) comprises 22-items with a 5-point scale ranging from 0 (*not at all*) to 4 (*6 or more times a week/severe*; Foa et al. 2016). The PDS-5 total score was used to assess PTSD symptom severity, which has strong internal consistency ($\alpha = 0.95$) and 1-month test–retest reliability ($r = 0.90$) in trauma-affected samples (Foa et al. 2016).

2.5.3 | Voice Severity

The HPSVQ was used to measure voice severity (Kim et al. 2010; Van Lieshout and Goldberg 2007). The HPSVQ is a 13-item measure with a 5-point rating scale ranging from 0 (*least severe/impairing*) to 4 (*most severe/causes the largest amount of disruption*), with the addition of scores on items 1–9 forming the total severity score. The HPSVQ has strong internal consistency ($\alpha = 0.83$–0.94), concurrent validity and 1-week test–retest reliability (ICC $= 0.84$) in voices hearing samples with schizophrenia (Kim et al. 2010).

Depression Anxiety and Stress Scale-21 (DASS; Lovibond and Lovibond 1995) is a 21-item self-report questionnaire assessing affect and distress, providing a score for depression, anxiety and stress. Each item is rated on a 0–3 scale (0 = *do not apply to me at all*, 3 = *applied to me very much/most of the time, over the past week*). The DASS-21 has demonstrated excellent internal consistency and concurrent validity (Antony et al. 1998) and adequate construct validity (Henry and Crawford 2005).

Imagery Characteristics (Visual Analogue Scale) is a 5-item self-report measure (Holmes et al. 2016) of the visual characteristics of a mental image identified in assessment to be related to VHs, such as how compelling, how vivid, how real and so forth. Items are rated on a scale from 1 (*not at all*) to 10 (*extremely*).

The Brief Core Schema Scales (BCSS; Fowler et al. 2006) were used measure and assess if there was a shift in negative or positive beliefs about self and others from pretherapy to posttherapy, as such beliefs are often targeted in imagery-rescripting of related memories.

Distress related to VH/associated mental image was rated before and immediately after the imagery exercise (pre and post) was completed each session (0%–100%, 0 = *no distress*, 100 = *maximum distress*). We calculated the difference in distress for each session.

2.6 | Additional Measures

2.6.1 | Socio-Demographic Questionnaire

A brief self-report demographic questionnaire was administered at baseline only.

2.6.2 | Plymouth Sensory Imagery Questionnaire (Psi-Q; Andrade et al. 2014)

The Psi-Q is a self-report measure of the clarity of mental images. Each item is answered on an 11-point Likert scale, ranging from *no mental image* to *clear and alive, like in real life*. We only included the five questions pertaining to the visual modality, at baseline, and used to help understand each participant's strength of visual mental imagery.

2.7 | Procedure and Intervention

Participants were given the full-scales measures at 6 different time points as part of the routine outcome assessments for the clinic: (1) Baseline 1 (given at the assessment session), (2) Baseline 2 (1 week after Baseline 1), (3) Baseline 3 (1 week after Baseline 2, given at the first therapy session), (4) midtherapy (completed during the 5th therapy session), (5) posttherapy (completed at Session 10) and (6) at 3-month follow-up.

The number of therapy sessions included in this case series was chosen based on the national funding model for clinical psychology in private practice in Australia (Medicare), which funds 10 sessions per year, which used for assessment (1), therapy (8) and wrap up (1). Two participants completed an additional therapy session because therapy targets identified in the clinical formulation had not yet been met. At baseline, participants underwent a psychological assessment of their current and previous mental health (focusing primarily on their experience of visions, associated mental imagery and other unusual perceptual experiences) and of their developmental history, aiming to obtain information on their related trauma history. There were eight active therapy sessions. Each session began with the weekly items. The first session included the following: (1) developing a collaborative formulation with the participant using the formulation template (see Figure 1), using the participants results from the 'The Brief Core Schema Scales' to help guide discussions around underlying/associated beliefs where helpful; (2) setting therapy goals (example goals: [a] a better understanding of VH, [b] increased sense of control over VH, [c] reducing distress associated with VH and [d] working with meaning of image/hallucination and underlying negative belief); (3) giving psychoeducation on what imagery-focused therapy for visions is and how it works.

The next seven sessions entailed one to two imagery focused exercises/rescripts per session (details of imagery exercises in Table 1; therapy protocol available on request), and they were asked to rate their distress relating to the VH/associated mental image both before and after completing the imagery-related exercise.

Participants were encouraged to practise the imagery exercise done in session as homework (unless it was an imagery rescript of an associated trauma memory, and then no homework was set) and given a homework sheet (including predistress and postdistress ratings and reflections on what the exercise taught them about their VHs). To assist with homework, participants were given the option to audio record the guided imagery exercise with their therapist in session to be able to listen again. Therapy ended with a wrap up session, with final assessment measures completion
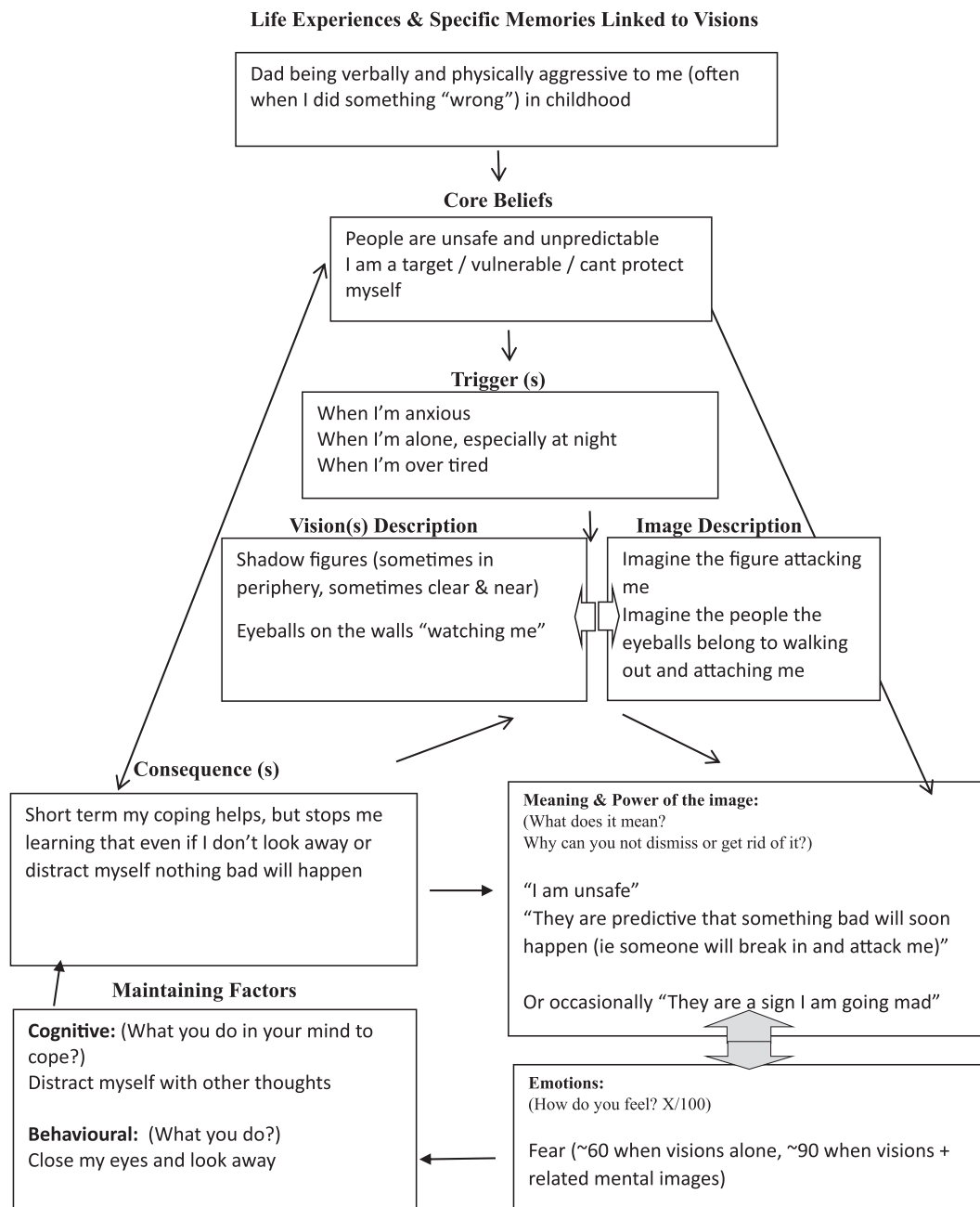
Life Experiences & Specific Memories Linked to Visions

Dad being verbally and physically aggressive to me (often when I did something "wrong") in childhood

Core Beliefs

People are unsafe and unpredictable
I am a target / vulnerable / cant protect myself

Trigger (s)

When I'm anxious
When I'm alone, especially at night
When I'm over tired

Vision(s) Description

Shadow figures (sometimes in periphery, sometimes clear & near)

Eyeballs on the walls "watching me"

Image Description

Imagine the figure attacking me
Imagine the people the eyeballs belong to walking out and attaching me

Consequence (s)

Short term my coping helps, but stops me learning that even if I don't look away or distract myself nothing bad will happen

Meaning & Power of the image:
(What does it mean?
Why can you not dismiss or get rid of it?)

"I am unsafe"
"They are predictive that something bad will soon happen (ie someone will break in and attack me)"

Or occasionally "They are a sign I am going mad"

Maintaining Factors

Cognitive: (What you do in your mind to cope?)
Distract myself with other thoughts

Behavioural: (What you do?)
Close my eyes and look away

Emotions:
(How do you feel? X/100)

Fear (~60 when visions alone, ~90 when visions + related mental images)

FIGURE 1 | Clinical formulation template (with participant example) for imagery-focused therapy for visual hallucinations.

(questionnaires completed prior in the waiting area), feedback and a discussion about relapse prevention and future goals.

3 | Statistical Analysis

The study evaluation focused on feasibility, through assessing the number of therapy sessions attended, number of dropouts and any adverse effects of therapy reported. Descriptive statistics for the outcome measures are reported. Key variables are presented in the figures, with visual inspection utilised to establish if the beginning of therapy sessions also coincided with improvements in measured variables. Following guidance for pilot studies (Lancaster, Dodd, and Williamson 2004), the study analysis did not include the reporting of p values and focuses on descriptive statistics. Cohen's d was calculated by dividing the mean change in individual scores

(from baseline to 3-month follow-up) by the standard deviation of the change scores Cohen (1977). This was calculated as Cohen's $d = (M_{pre} - M_{post})/SD (M_{pre} - M_{post})$ where 'pre' is the initial assessment scores and 'post' is the end of therapy scores. This was also repeated for the 3-month end of therapy follow-up scores. The effect sizes interpretation is as follows: small effect ($d = 0.2$), medium ($d = 0.5$) and large ($d = 0.8$).

4 | Results

4.1 | Feasibility of Recruitment

Eleven participants commenced therapy at PVC between May 2021 and January 2023, with 10 completing. Demographic information for participants is presented in Table 2. Individuals

TABLE 1 | Description of imagery-focused therapy for visual hallucinations.

Phase of treatment	Main approach
Assessment, goals, psychoeducation	Interview Imagery measures Spontaneous Use of Imagery Scale (SUIS), assessing different types of imagery, assessment of negative and positive beliefs about self and others
Formulation and case conceptualisation	Shared psychological formulation (see Figure 1)
Imagery CT approaches	
Safe place image	A real or imagined safe place, described in detail, across each of the senses that gives a strong sense of safety and happiness.
Metacognitive manipulation of images	To show images are only a mental event Improve sense of control Test any beliefs or appraisals regarding an image meaning such as 'I am going mad' or 'images of omens for pending danger' Example: Participant has a VH of a man, and associated mental image of this man attacking them and feels the VH and image is 'unsafe'. The metacognitive manipulation may involve putting the man on a TV screen and changing the channel to make him dance, shrink or grow, go roller skating, play with a puppy, etc.
Imagery rescripting of VH/ images	To change the meaning of the VH/image See Arntz and Weertman (1999) for more details of procedure. Example: Participant sees a face watching them, which they believe is being critical and judgemental of them. In the rescript, the face instead of judging them now changes to give them the thumbs up, smiles and saying something encouraging.
Imagery rescripting–related memories	Transformation To change the meaning of their past experiences and to help shift negative beliefs about self or others feeding into the content of meaning made of VH/images Updating aspects of the image Emotional bridge to past (also use as diagnostic imagery exercise—can identify key life events that link to core beliefs, current images and psychotic symptoms). Example: Participant has a VH of a dog in the room and mental images of this dog attacking her and has the belief that 'dogs are unsafe and thus I am unsafe when the image of the dog is present'. They have a clear memory of being attacked by the neighbour's dog at age 4. In the rescript of this related memory, the therapist guides the participant to connect to the first part of the memory and relives it up until the dog lunges at her. At this stage in the rescript, the therapist enters the image and helps keen to child safe by restraining the dog and telling off the owner for not taking care of the dog sufficiently and also reprimanding her mum for not watching her daughter more closely. The therapist explains to the child that the dog is not trained properly and likely feels threatened by the child which is why it attacked. I then slowly introduce the child to my own dog, who in the image is very friendly and the child plays happily with the dog under her mum's supervision. Once the child feels safe and happy, with all their needs met, the rescript concludes.
Creating positive imagery	Deliberately generating positive images of the future to directly challenge any beliefs relating to their experience of VH/imagery (i.e., if the participant believes their VHs are a sign that they are 'going mad' and that their future will therefore be bleak and spent mostly in psychiatric facilities).

who presented for therapy targeting distressing visions at PVC were assessed for suitability (inclusion and exclusion criteria outlined above) through a brief triage call and subsequently during their assessment session by their treating clinician (author: GP). There was only one participant referred specifically for the treatment of VHs who was not deemed suitable based on the exclusion criteria of being in an acute phase of psychosis.

One participant completed only two sessions and then withdrew from therapy stating her reason for this as 'I cannot commit to doing this work while caring full time for my elderly, high-needs grandparents'. There was potentially also some avoidance around addressing related trauma, which was identified during the shared clinical formulation session. We have classified this participant as a treatment 'dropout'. Participant number 3 concluded therapy after eight sessions. This decision was made by

TABLE 2 | Baseline demographic and clinical data.

	Study sample (*n* = 10)
Age (M (SD), *n* =)	30.90 (13.45)
Gender, *n* (%)	
Female	5.00 (50.00)
Male	5.00 (50.00)
Highest level of education, *n* (%)	
Left school before or at 16	3.0 (30.00)
Completing/completed year 12	4.0 (40.00)
Completing/completed further vocational qualification (TAFE)	1.0 (10.00)
Completing/completed undergraduate degree	2.0 (20.00)
Employment status, *n* (%)	
Unemployed (no financial benefits/aid)	1.0 (10.00)
Unemployed (in receipt of benefits/aid)	4.0 (40.00)
Employed (fulltime)	1.0 (10.00)
Student	3.0 (30.00)
Student and employed part time	1.0 (10.00)
Marital status, *n* (%)	
Single	5.0 (50.00)
Married/cohabiting/long-term relationship	2.0 (20.00)
Separated/divorced	3.0 (30.00)
Diagnosis on referral letter, *n* (%)	
Psychotic disorder	2.0 (20.00)
Multiple, including psychotic disorder	1.0 (10.00)
Nonpsychotic disorder	2.0 (20.00)
Multiple, no psychotic disorder	4.0 (40.00)
No diagnosis	1.0 (10.00)
Current medication, *n* (%)	
Anti-psychotic medication only	2.0 (20.00)
Other psychotropic medication only	2.0 (20.00)
Combination (antipsychotic and other)	5.0 (50.00)
None	1.0 (10.00)
Plymouth Sensory Imagery Questionnaire	27.9 (17.68)

Abbreviations: M = mean, n = number, SD = standard deviation.

both participant and therapist because the participant's trauma history and severity of complex PTSD was too severe to be treated in 2–3 imagery rescripts (as outlined in IFCT-VH protocols). The participant completed their posttherapy questionnaires and subsequently referred to access further treatment. Two other participants extended the protocols for an additional session to allow enough sessions to rescripts related traumatic memories. A description of each of the 10 participants and their visual hallucinatory experiences is listed in Table 3. The participants scored an average of 29.9 out of a possible 55 on the visual subscale of the Plymouth Sensory Imagery Questionnaire, suggesting a high level of visual imagery vividness at initial assessment.

4.2 | Feasibility, Safety and Acceptability

4.2.1 | Feasibility

Regularity of session attendance was good. The mean length of treatment (from pretreatment assessment to posttreatment assessment) was 13.14 weeks ($SD = 3.75$, range 9–20). Each session lasted 45 to 60 min.

4.2.2 | Safety

There were no serious adverse events. There were also no adverse events reported.

4.2.3 | Acceptability

Verbal feedback was obtained from participants at their final session. All reported the therapy was acceptable to them and all felt they had made progress on their overall goals pertaining to VHs. Only one client gave some negative feedback, saying that he would have 'liked more coping strategies', though it is of note that the VHs targeted in therapy for this client stopped altogether. The high uptake of sessions also suggests the therapy was acceptable to participants, with eight participants reaching the end of therapy session.

4.3 | Descriptive Statistics

The descriptive statistics for measures completed at baseline, midtherapy, end of therapy and 3-month follow-up are reported in Table 4. On initial assessment, the VHs' frequency and distress were high, and the reported imagery characteristics were also high. The presence of posttraumatic stress disorder severity was also highlighted by the PDS5-B. Figures 2–4 display means and standard error for visions frequency (rated 0–6), visions distress (rated from 0 to 100) and Hamilton's Visions total scores (and figures showing each participants' scores on these measures can be found in the supporting information). There is a clear reduction in the majority of these variables for most of the outcome measures for most (but not all) participants. The Cohen's *d* suggests between a medium and large effect size reduction for the majority of measures reported. The exception is negative-other schematic belief (as measured by the BCSS). This seems to have increased at end of therapy and 3-month follow-up.

4.3.1 | Visions Frequency and Distress

Visions occurrence reduced from an average of 2.9 (visions occur up to eight times a day) to 1 at end of therapy (visions occur at least once a week) (see Figure 2). Visions distress reduced from an average of 61.5/100 to 37.67/100 (see Figure 3).

4.3.2 | Hamilton Visions

Participants reported on the Hamilton visions measure a reduction from an average of 18.6–12.00 (see Figure 4).

TABLE 3 | Description of each participant's visual hallucinations (VH) and associated mental images, beliefs relating to VH and related mental images, imagery-focused techniques used and shifts reported in hallucinations.

Participant number	VH	Related mental images	Beliefs relating to VH and related mental images	Imagery techniques used	Changes to imagery posttherapy[a]
1	Faces of friends; letters and words; dots; snake	None identified	The letters and words have prophetic meaning; I have to get a message to my friend or they will die (VH face)	Metacognitive imagery of faces and words/letters; competing positive imagery of faces; ImRs of VH snake	VH of faces and snakes stopped; he had more control over the movement of letters/words and the belief they had prophetic meaning much reduced; client's feedback was that he would have liked more 'coping strategies'
2	Shadow figure; animal (stag); spiders	Figure attacking; figure staring 'judgmentally'	I am going 'mad'; they are real/ghosts and may hurt me; they are prophetic of bad things to come; I am being judged.	Meta-cognitive imagery around figure; ImRs of VH figure	Limited change in frequency, but less distress as no longer believed they were signs of bad things to come
3	Eye balls in wall; faces in glass; blood on walls; prior abuser; centipede under skin; faceless figure; bunnies	Faceless figure attacking him; VH of perpetrator followed by flashbacks of abuse	I am being watched; omen of bad things happening to loved ones (blood on walls specific); someone is going to hurt me	Metacognitive imagery of figure and blood; ImRs of figure; too complex trauma history to address adequately so ImRs left to next phase of therapy	Some reductions in frequency and distress associated with the 2 VHs targeted (figure and blood)
4	Human figures (connected to voices); children; animals	Figures judging him	I am being watched and judged	Metacognitive imagery of figures & animals; ImRs of VH figures and children; compassionate imagery to inner child; positive mental imagery; ImRs of memory linked to judgement	VH of children and animals stopped; VH of figures less distressing as belief they are judging him decreased
5[b]	Eyeballs; shadow figure; children (soothing)	Eyeballs emerge as people coming out of wardrobe to hurt her; figure attacking or sexually assaulting her	I am unsafe; people are coming to hurt me; eyeballs also 'judging me'	Metacognitive imagery of figure; ImRs of VH eyeballs; ImRs of past trauma memories linked to being unsafe and judged.	Reductions in frequency and distress of VHs; PTSD symptoms reduced but still some link to content and meaning of VHs.

(Continues)

TABLE 3 | (Continued)

Participant number	VH	Related mental images	Beliefs relating to VH and related mental images	Imagery techniques used	Changes to imagery posttherapy[a]
6[b]	Shadow figures; eyeballs; bugs; dots	Figures attacking; eyeballs watching; bugs burrowing in skin	I am unsafe/someone will hurt me; I am being watched and judged; I am going 'mad'	Metacognitive exercise around figure and eyeballs; ImRs of childhood trauma memories related to being attacked and judged	Had a psychosis relapse in final week of therapy relating to family stress. Prior to relapse some reductions in targeted VHs.
7[b]	Shadow figure; girl on floor with 'guts spilling out'	Shadow figure comes into clear view and is male and will not leave and is judging me	I am being watched and judged; I am going 'mad'	Metacognitive imagery of shadow figure; ImRs of past VH; ImRs of trauma memories relating to being judged/criticised	VHs not experienced at end of therapy; voices also reduced.
8	Dog (sometimes snarls); rabbit	Dog attacking her, others, or rabbit	I am going 'mad'; the dog may be a premonition of me being unsafe/attacked	Metacognitive imagery of dog; imagery rescripting of memories relating to dog attacks and being unsafe	VH still present, but associated image of dog attacking stopped. When VH present 'they are less attention grabbing and upsetting'.
9	Herself at different ages (children); male figures	Herself at those ages being hurt/alone; figure attacking her	I am going 'crazy'; I am vulnerable, unsafe and scared (the figure is a premonition of bad things to come)	Compassionate imagery with vulnerable child self; metacognitive imagery of figure; imagery rescripting of memories relating to childhood abuse and being attacked by man on subway	All VHs reduced in frequency; child VHs now easily soothed and leave; male figure no longer imagined to attack her when present.
10	Shadow figure; spiders;	Imagine figure is a man attacking her; spiders biting her	Omens that someone is going to hurt her/break in; 'I am unsafe'	Meta-cognitive exercises around figure and spiders but then stopped therapy due to family reasons	Felt she had more control over the images, but otherwise no major changes before stopping.
11	Friends who had died; attackers; tiger; mother, wife and children (soothing)	Flashbacks to attack/friends' deaths; attackers hurting him; tiger growling and attacking	Omens that something bad will happen; I am unsafe; I have let my friends down; I am going 'mad'	Metacognitive imagery of tiger and attackers; ImRs of trauma memory (the attack) and around associated grief	Positive VHs more frequent than negative VHs; trauma flashbacks and associated VHs much reduced in frequency and distress (though not absent)

Abbreviation: ImRs = imagery rescripting.

[a]As reported by participant in therapy.

[b]Participants had 11 sessions total.

TABLE 4 | Outcome data and Cohen's *d* effect sizes.

	Initial ax M (SD) (n = 10)	Midtherapy M (SD) (n = 10)	End of treatment M (SD) (n = 8)	Three-month follow-up M (SD) (n = 5)	Cohen's *d* Initial ax to end of therapy score	Cohen's *d* Initial ax and 3-month follow-up score
Visual hallucination frequency	2.90 (1.52)	2.10 (1.20)	1.00 (1.00)	2.14 (1.68)	2.31	0.58
Visual hallucination distress (0–100)	61.50 (12.03)	34.00 (18.53)	20.00 (26.46)	37.67 (27.70)	1.82	1.82
Hamilton visions measure	18.60 (5.34)	15.90 (4.53)	13.50 (6.90)	12.00 (6.48)	0.70	1.04
Hamilton voices measure (HPSVQ)	16.20 (11.14)	14.50 (9.69)	14.00 (9.35)	7.10 (10.45)	0.48	0.99
PDS-5 B total	40.30 (25.30)	34.10 (23.2)	24.50 (20.51)	16.30 (20.62)	0.83	1.24
PDS 5 B intrusions	7.40 (5.25)	6.60 (5.01)	5.40 (4.27)	3.40 (4.81)	0.49	0.63
PDS 5 B avoidance	4.50 (2.92)	3.60 (2.63)	2.500 (2.23)	1.90 (2.18)	0.77	1.23
PDS 5 B hyperarousal	10.70 (6.91)	9.30 (5.81)	6.30 (5.87)	6.00 (7.78)	0.93	0.71
DASS 21–depression	22.00 (12.89)	20.00 (11.6)	12.60 (9.10)	13.14 (8.24)	1.06	0.62
DASS 21–anxiety	15.50 (10.43)	16.80 (8.12)	12.50 (7.08)	16.29 (6.97)	0.40	−0.14
DASS 21–stress	19.10 (10.59)	21.30 (9.91)	17.67 (8.34)	16.86 (5.14)	−0.23	0.37
Imagery VAS total	28.38 (15.32)	18.60 (16.87)	16.80 (15.44)	10.00 (16.34)	0.68	1.12
BCSS-NS	9.33 (5.00)	9.33 (7.52)	6.67 (5.59)	6.50 (5.79)	0.97	2.26
BCSS-PS[a]	5.67 (5.87)	5.75 (4.59)	7.56 (6.75)	10.83 (5.19)	−0.52	−0.44
BCSS-NO	6.67 (6.29)	8.38 (7.35)	6.22 (5.78)	10.50 (4.04)	0.10	−0.78
BCSS-PO[a]	5.11 (4.40)	6.38 (4.66)	4.56 (3.91)	6.67 (5.85)	0.14	−0.75

Abbreviations: ax = assessment session; M = mean, SD = standard deviation.
[a]Higher scores reflect more positive beliefs, thus a negative value at *d* is expected if improvements are seen from baseline to post-therapy/follow-up.
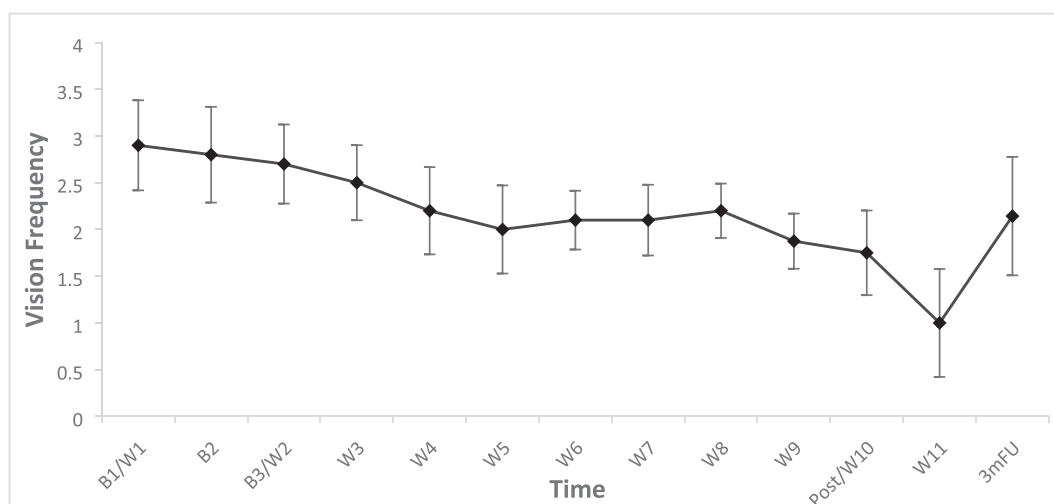
FIGURE 2 | Mean visions frequency and standard error bars for all participants ($N = 10$) across Baselines 1, 2 and 3 and at Weeks 3–9, Posttherapy/Week 10, Week 11 ($N = 2$) and 3-month follow-up ($N = 6$).

4.3.3 | Hamilton Voices

On the Hamilton voices measure, the participants reported a baseline score of 16.2 (moderate range), which reduced to 7.10 (on the cusp of 'absent' to 'mild' range) at follow-up.

4.3.4 | Imagery Characteristics (Visual Analogue Scale)

With regard to the overall imagery characteristics of related mental images, measured on a visual imagery analogue scale, there was a reduction from average 28/50 at baseline to 10/50 at following up, suggesting the images were less compelling, less vivid, less real and so forth.

4.3.5 | Distress Related to Mental Image Worked on In Session

Table 5 presents in session ratings of distress related to target image. This was rated both before the intervention (pre) and after the imagery intervention (post). The mean ratings reduce for all on average postimagery intervention, and a paired samples *t*-test supports this.

5 | Discussion

Imagery-focused therapy for VHs (IFT-VH) aimed to work with distressing visual hallucinatory experiences, using an adapted formulation model and a range of imagery focused techniques. IFT-VH was favourably received by those who participated in this case series evaluation. This case series is the first study of an imagery focused therapy for individuals experiencing distressing visual hallucinatory experiences. This is demonstrated by the high uptake of sessions, low dropout, absence of adverse events and largely positive feedback from participants. In most of the cases, there were positive changes on the outcomes measures of VH severity and distress as well as most of the secondary measures of the severity of associated intrusive mental imagery,

negative affect, voice severity, PTSD symptoms and beliefs about self and others, with the effect sizes ranging from medium to large effects.

In terms of engagement, people with visual hallucinatory experiences were willing to talk about these very distressing visual experiences and engage in imagery exercises around the VHs and associated mental imagery both in session and at home (as part of set weekly homework). Engagement was aided with psychoeducation around the power of visions and mental imagery, to help justify the rationale for the intervention. Participant feedback was almost all positive, with the exception of one participant (who actually stopped having the visions) who had said they would have liked more 'coping strategies'.

Half of the participants (including the two who extended for an additional session) still had additional trauma memories linked to their VHs of associated visual mental imagery that could have been rescripted, which, however, were not due to prespecified planned protocol length. The therapist's intuition was that the intervention with additional sessions focusing on trauma related issues would have been more effective if all parts of the formulation could have been addressed. There was a reduction in negative-self beliefs on average from 9 to 6, demonstrating the potential impact of imagery therapy on changing schemas, which was maintained at follow-up. This is encouraging but the large effect size at follow-up may have slightly been skewed by the smaller numbers of participants completing the 3-month follow-up.

Unexpectedly, there was an increase in participant ratings of negative-other schematic beliefs. One possible reason for this is that the intervention may have been too short to adequately address underlying/related trauma, and that the inclusion of trauma rescripts may have triggered negative schemas rather than help modify them. Future studies may benefit from lengthening the number of sessions dedicated to rescripting related underlying traumatic memories. In line with this interpretation, 50% of the participants did not do rescripts of all traumatic memories related to their visions as identified in
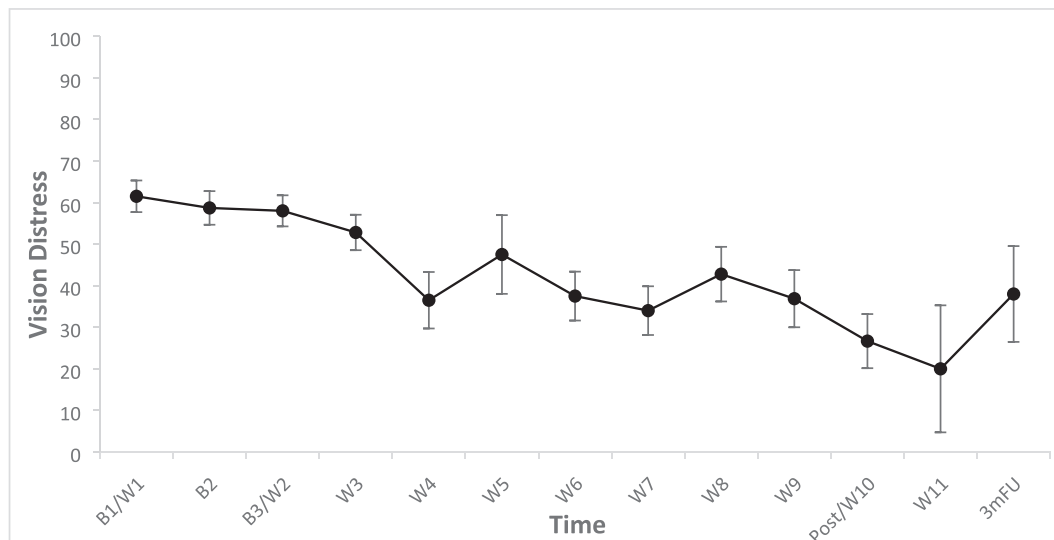
FIGURE 3 | Mean visions distress (0–100) and standard error bars for all participants (*N* = 10) across Baselines 1, 2 and 3 and at Weeks 3–9, Posttherapy/Week 10, Week 11 (*N* = 2) and 3-month follow-up (*N* = 6).
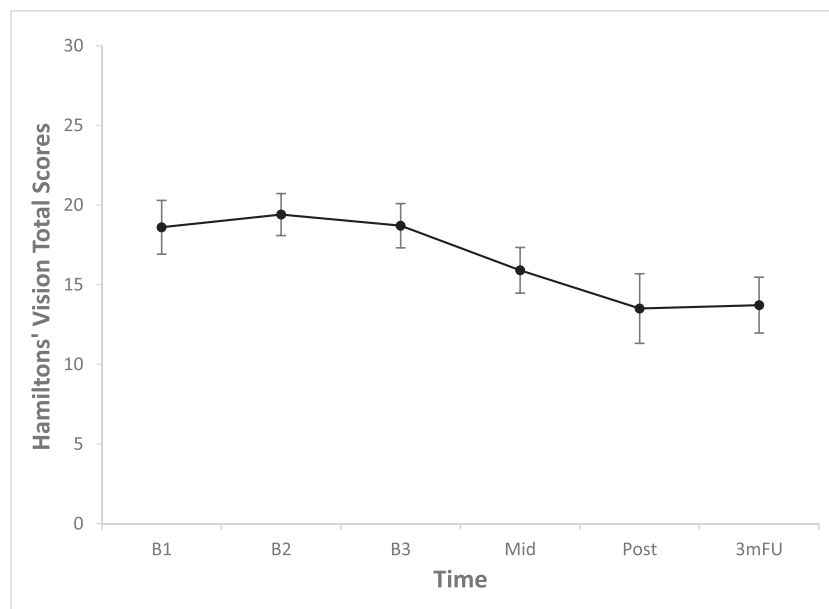

FIGURE 4 | Mean Hamilton visions total scores and standard error bars for all participants across Baselines 1, 2 and 3 and at midtherapy, posttherapy and 3-month follow-up.

their clinical formulation because of the limitations in number of sessions available (limiting participants to 10 sessions as planned). Also, with regard to therapy sessions available, there was not enough time in therapy to directly work on all VHs reported by each participant, with the participant and therapist together prioritising the 2–3 VHs that were most distressing and frequent to focus on. This was sufficient for the majority of clients; however, for three clients, there were VHs that remained untargeted. This meant that the measures in some cases were not capturing the magnitude of change for some clients (i.e., several clients completely stopped having the VH targeted, which, however, were still having more minor VHs most days, such as dots or letters in their peripheral vision).

We recommend future studies of IFT-VH monitor negative-other beliefs to see if the finding is replicated and to have a greater flexibility in session numbers.

Another unexpected finding was the improvement in voice severity from moderate to absent/mild (on the cusp) on the Hamilton's voice severity measure, which reported a large effect size (*d* = 1.04). Although voices were not targeted directly in this study, all clients reported hearing voices. This may be due to the related nature of the voices and visions, both with regard to the cooccurrence of the two perceptual experiences (i.e., several participants reported seeing and hearing from a hallucinated human figure in the room) and that in the clinical

TABLE 5 | Distress related to mental image—presession and postsession ratings.

	Pre-imagery exercise M (SD)	Postimagery exercise M (SD)	Mean difference estimate from a *t*-test	95% confidence interval for mean difference from a *t*-test	Cohen's *d*
S3 distress related to mental image	43.57 (25.61)	24.71 (18.81)	18.85	10.29, 27.42	2.04
S4 distress related to mental image	42.50 (21.25)	25.75 (21.02)	16.75	7.44, 26.06	1.29
S5 distress related to mental image	53.13 (19.45)	27.50 (13.09)	25.62	8.84, 42.41	1.23
S6 distress related to mental image	45.70 (19.56)	26.11 (13.87)	19.11	6.00, 32.22	1.12
S7 distress related to mental image	54.44 (23.91)	32.78 (20.48)	21.67	6.17, 37.16	1.08
S8 distress related to mental image	43.89 (23.42)	24.44 (17.22)	19.44	8.84, 30.05	1.41
S9 distress related to mental image	51.25 (33.03)	38.13 (27.90)	13.13	−4.32, 30.57	0.63
S10 distress related to mental image	57.00 (35.60)	35.00 (21.79)	22.00	−29.63, 73.63	1.06

formulations often the same traumas seemed to underlie the two perceptions (with regard to content of the perception, underlying core beliefs and beliefs about the perceptions). For instance, one participant reported having been in a violent relationship with an older man in their adolescence, which contributed to the development of the core beliefs 'I cannot trust men' and 'I am vulnerable/a target'. This participant also heard an abusive unknown male voice (around the same age as their abuser) and would see a male shadow figure in the room, which occurred sometimes simultaneously, sometimes separately. The distress associated with these perceptions was primarily related to their beliefs that the voice and vision may eventually hurt them physically or were omens of other pending physical dangers. The therapy for this participant targeted the VH of the shadowy figure, with several metacognitive imagery exercises (e.g., putting the figure on a TV screen and pressing different buttons on the remote to make it do funny and safe actions and also having the shadowy figure become clearer and that it was in fact the participants safe younger brother whom she then hugged and played video games with) and four imagery rescripts of trauma memories related to her abusive ex-partner. Although the male voice was not targeted explicitly, it is not entirely surprising that the distress and frequency items on the voices measure reduced also, given the overlaps between the voice and vision. This current study's findings are also in line with previous studies showing reductions in voices and PTSD symptoms following imagery rescripting of underlying traumatic memories in trauma-affected voice hearers (Clarke, Kelly, and Hardy 2022; Ison et al. 2014; Paulik, Steel, and Arntz 2019; Strachan et al., forthcoming).

We also assessed the in session distress related to VHs/associate with specific mental images (pre and post during the session). This showed that, as expected, the distress associated with the image (either the VH, an associated mental image, or a related memory) was reduced by the imagery exercises being used (see

Table 4). This helps strengthen the conjecture that the imagery exercises were doing what they were supposed to—help shift negative beliefs (though this needs being measured in future studies) and associated distress. There was a consistent reduction in predistress to postdistress, offering some support for our hypothesis that the imagery exercises were being effective at reducing distress.

5.1 | Limitations

This was an uncontrolled study, meaning that the improvements described could be a result of recovery with time. The absence of an active control group also means that we cannot be certain that the contact time with the therapist may have resulted in the improvement. The assessments were not assessor blinded, meaning there is an increased risk of bias, though all measures used were participant rated to help reduce this. While there was no control group, the multiple (three) baseline assessments showed that for the majority of participants there was no improvement in their visions over the initial 3 weeks prior before therapy commenced. Finally, there was only one therapist (GP), which may reduce the generalisability of the findings. There was a follow-up at 3 months posttherapy, demonstrating benefits for some participants appeared to be maintained. However, a number of participants chose not to attend the follow-up session, and so the attrition may have skewed the estimates at follow-up.

VHs are reported to frequently be distressing and even disabling, and thus an urgent need for effective therapies targeting these. Our results suggest that IFT for VHs is promising and should be evaluated further, in a larger Open Trial study or in a feasibility RCT to overcome methodological limitations. However, given the lack of existing psychological therapy approaches for working with distressing VHs, this study is a promising step forward.

References

Airey, N. D., K. Berry, and C. D. J. Taylor. 2023. "Attachment-Focused iMAgery Therapy for PSychosis (A-iMAPS): A Case Series Targeting Psychosis-Related Trauma." *British Journal of Clinical Psychology* 62, no. 3: 621–641. https://doi.org/10.1111/bjc.12433.

Andrade, J., J. May, C. Deeprose, S. J. Baugh, and G. Ganis. 2014. "Assessing Vividness of Mental Imagery: The Plymouth Sensory Imagery Questionnaire." *British Journal of Psychology* 105, no. 4: 547–563. https://doi.org/10.1111/bjop.12050.

Antony, M. M., P. J. Bieling, B. J. Cox, M. W. Enns, and R. P. Swinson. 1998. "Psychometric Properties of the 42-Item and 21-Item Versions of the Depression Anxiety Stress Scales in Clinical Groups and a Community Sample." *Psychological Assessment* 10, no. 2: 176–181.

Arntz, A., and A. Weertman. 1999. "Treatment of Childhood Memories: Theory and Practice." *Behaviour Research and Therapy* 37, no. 8: 715–740. https://doi.org/10.1016/s0005-7967(98)00173-9.

Aynsworth, C., J. Rolinson, M. Pervez, D. Collerton, and R. Dudley. 2023. "What Is the Frequency and Nature of Visual Hallucinations in Non-Clinical Participants?" *Psychology and Psychotherapy* 96, no. 2: 281–295. https://doi.org/10.1111/papt.12440.

Badcock, J. C., R. Brand, N. Thomas, M. Hayward, and G. Paulik. 2021. "Multimodal Versus Unimodal Auditory Hallucinations in Clinical Practice: Clinical Characteristics and Treatment Outcomes." *Psychiatry Research* 297: 113754.

Callcott, P., R. Dudley, S. Standardt, M. Freeston, and D. Turkington. 2010. "Treating Trauma in the Context of Psychosis: A Case Series." In *CBT for Psychosis: A Symptom Based Approach*, edited by R. Hagen, D. Turkington, T. Berge, and R. W. Grawe, 175–192. Routledge.

Chouinard, V.-A., A. K. Shinn, L. Valeri, et al. 2019. "Visual Hallucinations Associated With Multimodal Hallucinations, Suicide Attempts and Morbidity of Illness in Psychotic Disorders." *Schizophrenia Research* 208: 196–201. https://doi.org/10.1016/j.schres.2019.02.022.

Clarke, R., R. Kelly, and A. Hardy. 2022. "A Randomised Multiple Baseline Case Series of a Novel Imagery Rescripting Protocol for Intrusive Trauma Memories in People With Psychosis." *Journal of Behavior Therapy and Experimental Psychiatry* 75: 101699. https://doi.org/10.1016/j.jbtep.2021.101699.

Cohen, J. 1977. *Statistical Power Analysis for the Behavioral Sciences*. Academic Press. http://books.google.co.uk/books?id=AG1qAAAAMAAJ.

Collerton, D., and R. Dudley. 2004. "A Cognitive Behavioural Framework for the Treatment of Distressing Visual Hallucinations in Older People." *Behavioural and Cognitive Psychotherapy* 32: 443–455.

Dudley, R., D. Collerton, M. Nicholson, and U. Mosimann. 2013. "Clinical Characteristics of Disclosed Visual Hallucinations in Users of an Early Intervention in Psychosis Service." *Psychosis: Psychological, Social and Integrative Approaches* 5, no. 2: 127–133. https://doi.org/10.1080/17522439.2012.699543.

Dudley, R., M. Wood, H. Spencer, A. Brabban, U. P. Mosimann, and D. Collerton. 2012. "Identifying Specific Interpretations and Use of Safety Behaviours in People With Distressing Visual Hallucinations: An Exploratory Study." *Behavioural and Cognitive Psychotherapy* 40: 367–375.

Foa, E. B., C. P. McLean, Y. Zang, et al. 2016. "Psychometric Properties of the Posttraumatic Diagnostic Scale for DSM–5 (PDS–5)." *Psychological Assessment* 28: 1166–1171. https://doi.org/10.1037/pas0000258.

Fowler, D., D. Freeman, B. Smith, et al. 2006. "The Brief Core Schema Scales (BCSS): Psychometric Properties and Associations With Paranoia and Grandiosity in Non-Clinical and Psychosis Samples." *Psychological Medicine* 36, no. 6: 749–759. https://doi.org/10.1017/S0033291706007355.

Gauntlett-Gilbert, J., and E. Kuipers. 2005. "Visual Hallucinations in Psychiatric Conditions: Appraisals and Their Relationship to Distress." *The British Journal of Clinical Psychology* 44: 77–87.

Gilbert, P. 2009. *The Compassionate Mind*. London, England: Constable.

Grant, S., E. Mayo-Wilson, P. Montgomery, et al. 2018. "CONSORT-SPI 2018 Explanation and Elaboration: Guidance for Reporting Social and Psychological Intervention Trials." *Trials* 19, no. 1: 406. https://doi.org/10.1186/s13063-018-2735-z.

Hackmann, A., J. Bennett-Levy, and E. A. Holmes. 2011. *Oxford Guide to Imagery in Cognitive Therapy*. New York, NY: Oxford University Press.

Hales, S., S. E. Blackwell, M. Di Simplicio, L. Iyadurai, K. Young, and E. A. Holmes. 2015. "Imagery-Based Cognitive Behavioral Assessment." In *Assessment in Cognitive Therapy*, edited by G. P. Brown and D. A. Clarke, 69–93. New York, NY: Guilford Press.

Hayward, M., K. Berry, S. Bremner, et al. 2021. "Increasing Access to Cognitive–Behavioural Therapy for Patients With Psychosis by Evaluating the Feasibility of a Randomised Controlled Trial of Brief, Targeted Cognitive–Behavioural Therapy for Distressing Voices Delivered by Assistant Psychologists: The GiVE2 Trial." *BJPsych Open* 7, no. 5: e152.

Henry, J. D., and J. R. Crawford. 2005. "The Short-Form Version of the Depression Anxiety Stress Scales (DASS-21): Construct Validity and Normative Data in a Large Non-Clinical Sample." *The British Journal of Clinical Psychology* 44, no. Pt 2: 227–239.

Holmes, E. A., A. Arntz, and M. R. Smucker. 2007. "Imagery Rescripting in Cognitive Behaviour Therapy: Images, Treatment Techniques and Outcomes." *Journal of Behavior Therapy and Experimental Psychiatry* 38: 297–305. https://doi.org/10.1016/j.jbtep.2007.10.007.

Holmes, E. A., M. B. Bonsall, S. A. Hales, et al. 2016. "Applications of Time-Series Analysis to Mood Fluctuations in Bipolar Disorder to Promote Treatment Innovation: A Case Series." *Translational Psychiatry* 6: e720. https://doi.org/10.1038/tp.2015.207.

Holmes, E. A., and A. Mathews. 2010. "Mental Imagery in Emotion and Emotional Disorders." *Clinical Psychology Review* 30, no. 3: 349–362. https://doi.org/10.1016/j.cpr.2010.01.001.

Hutton, P., A. P. Morrison, and H. Taylor. 2012. "Brief Cognitive Behavioural Therapy for Hallucinations: Can It Help People Who Decide Not to Take Antipsychotic Medication? A Case Report." *Behavioural and Cognitive Psychotherapy* 40: 111–116. https://doi.org/10.1017/S135246581100035X.

Ison, R., L. Medoro, N. Keen, and E. Kuipers. 2014. "The Use of Rescripting Imagery for People With Psychosis Who Hear Voices." *Behavioural and Cognitive Psychotherapy* 42, no. 2: 129–142. https://doi.org/10.1017/s135246581300057x.

Ji, J. L., S. Burnett Heyes, C. MacLeod, and E. A. Holmes. 2016. "Emotional Mental Imagery as Simulation of Reality: Fear and Beyond—A Tribute to Peter Lang." *Behavior Therapy* 47: 702–719. https://doi.org/10.1016/j.beth.2015.11.004.

Kim, S. H., H. Y. Jung, S. S. Hwang, et al. 2010. "The Usefulness of a Self-Report Questionnaire Measuring Auditory Verbal Hallucinations." *Progress in Neuro-Psychopharmacology and Biological Psychiatry* 34, no. 6: 968–973. https://doi.org/10.1016/j.pnpbp.2010.05.005.

Lancaster, G. A., S. Dodd, and P. R. Williamson. 2004. "Design and Analysis of Pilot Studies: Recommendations for Good Practice." *Journal of Evaluation in Clinical Practice* 10: 307–312.

Larøi, F., and M. Van Der Linden. 2005. "Nonclinical Participants' Reports of Hallucinatory Experiences." *Canadian Journal of Behavioural Science* 37, no. 1: 33–43. https://doi.org/10.1037/h0087243.

Lindal, E., J. G. Stefansson, and S. B. Stefansson. 1994. "The Qualitative Difference of Visions and Visual Hallucinations: A Comparison of a General-Population and Clinical Sample." *Comprehensive Psychiatry* 35, no. 5: 405–408. https://doi.org/10.1016/0010-440X(94)90282-8.

Linszen, M. M. J., J. de Boer, M. J. L. Schutte, et al. 2022. "Occurrence and Phenomenology of Hallucinations in the General Population: A Large Online Survey." *Schizophrenia* 8, no. 1: 41. https://doi.org/10.1038/s41537-022-00229-9.

Lovibond, S. H., and P. F. Lovibond. 1995. *Manual for the Depression Anxiety Stress Scales*. 2nd ed. Sydney, Australia: Psychology Foundation of Australia.

Manford, M., and F. Andermann. 1998. "Complex Visual Hallucinations. Clinical and Neurobiological Insights." *Brain Communications* 121: 1819–1840.

McEvoy, P. M., D. M. Erceg-Hurn, K. C. Barber, J. R. Dupasquier, and D. A. Moscovitch. 2018. "Transportability of Imagery-Enhanced CBT for Social Anxiety Disorder." *Behaviour Research and Therapy* 106: 86–94. https://doi.org/10.1016/j.brat.2018.05.007.

Morina, N., J. Lancee, and A. Arntz. 2017. "Imagery Rescripting as a Clinical Intervention for Aversive Memories: A Meta-Analysis." *Journal of Behavior Therapy and Experimental Psychiatry* 55: 6–15.

Morrison, A. P., A. T. Beck, D. Glentworth, et al. 2002. "Imagery and Psychotic Symptoms: A Preliminary Investigation." *Behaviour Research and Therapy* 40, no. 9: 1053–1062. https://doi.org/10.1016/S0005-7967(01)00128-0.

Mueser, K. T., A. S. Bellack, and E. U. Brady. 1990. "Hallucinations in Schizophrenia." *Acta Psychiatrica Scandinavia* 82: 26–29.

Newman-Taylor, K. 2020. "'Felt Security' as a Means of Facilitating Imagery Rescripting in Psychosis: A Clinical Protocol and Illustrative Case Study." *The Cognitive Behaviour Therapist* 13: E24. https://doi.org/10.1017/S1754470X20000288.

Newman-Taylor, K., P. McSherry, and L. Stopa. 2019. "Imagery Rescripting in Non-Clinical Paranoia: A Pilot Study of the Impact on Key Cognitive and Affective Processes." *Behavioural and Cognitive Psychotherapy* 48: 1–13. https://doi.org/10.1017/S1352465819000419.

Ng, R., S. Heyes, F. McManus, H. Kennerley, and E. Holmes. 2015. "Bipolar Risk and Mental Imagery Susceptibility in a Representative Sample of Chinese Adults Residing in the Community." *The*

International Journal of Social Psychiatry* 62: 94–102. https://doi.org/10.1177/0020764015597951.

Oorschot, M., T. Lataster, V. Thewissen, R. Bentall, P. Delespaul, and I. Myin-Germeys. 2012. "Temporal Dynamics of Visual and Auditory Hallucinations in Psychosis." *Schizophrenia Research* 140, no. 1–3: 77–82. https://doi.org/10.1016/j.schres.2012.06.010.

Paulik, G., M. Hayward, A. M. Jones, and J. C. Badcock. 2019. "Evaluating the "C" and "B" in Brief CBT for Distressing Voices in Routine Clinical Practice in an Uncontrolled Study." *Clinical Psychology & Psychotherapy* 26: 734–742. https://doi.org/10.1002/cpp.2395.

Paulik, G., C. Steel, and A. Arntz. 2019. "Imagery Rescripting for the Treatment of Trauma in Voice Hearers: A Case Series." *Behavioural and Cognitive Psychotherapy* 47: 1–7. https://doi.org/10.1017/S1352465819000237.

Paulik, G., L. S. van Velzen, C. W. Lee, et al. 2024. "Urgent Call for Research Into Imagery Rescripting to Reduce Suicidal Mental Imagery: Clinical Research Considerations." *Australian Psychologist* 59: 15–23. https://doi.org/10.1080/00050067.2023.2241608.

Pearson, J., T. Naselaris, E. A. Holmes, and S. M. Kosslyn. 2015. "Mental Imagery: Functional Mechanisms and Clinical Applications." *Trends in Cognitive Sciences* 19: 590–602. https://doi.org/10.1016/j.tics.2015.08.003.

Schwarz, S., D. Grasmann, F. Schreiber, and U. Stangier. 2020. "Mental Imagery and Its Relevance for Psychopathology and Psychological Treatment in Children and Adolescents: A Systematic Review." *International Journal of Cognitive Therapy* 13, no. 4: 303–327. https://doi.org/10.1007/s41811-020-00092-5.

Sood, M., K. Carnelley, and K. Newman-Taylor. 2021. "How Does Attachment Imagery for Paranoia Work? Cognitive Fusion and Beliefs About Self and Others Mediate the Impact on Paranoia and Anxiety." *Psychology and Psychotherapy: Theory, Research and Practice* 94, no. 4: 973–993.

Strachan, L. P., P. M. McEvoy, A. Arntz, C. Steel, and G. Paulik. Forthcoming. "Effectiveness and Change Mechanisms of Imagery Rescripting for Trauma-Affected Voice Hearers: An Open Trial." [Manuscript Submitted for Publication], School of Psychology, Curtin University.

Taylor, C. D. J., P. E. Bee, J. Kelly, R. Emsley, and G. Haddock. 2020. "iMAgery Focused Psychological Therapy for Persecutory Delusions in PSychosis (iMAPS): A Multiple Baseline Experimental Case Series." *Behavioural and Cognitive Psychotherapy* 48, no. 5: 530–545. https://doi.org/10.1017/S1352465820000168.

Taylor, C. D. J., P. E. Bee, J. Kelly, and G. Haddock. 2019. "iMAgery-Focused Psychological Therapy for Persecutory Delusions in PSychosis (iMAPS): A Novel Treatment Approach." *Cognitive and Behavioral Practice* 26, no. 3: 575–588. https://doi.org/10.1016/j.cbpra.2018.10.002.

Taylor, C. D. J., G. Haddock, S. Speer, and P. E. Bee. 2020. "Characterizing Core Beliefs in Psychosis: A Qualitative Study." *Behavioural and Cognitive Psychotherapy* 48: 67–81.

Taylor, C. D. J., and S. F. Harper. 2017. "Early Maladaptive Schema, Social Functioning and Distress in Psychosis: A Preliminary Investigation." *Clinical Psychologist* 21: 135–142.

Thomson, C., R. Wilson, D. Collerton, M. Freeston, and R. Dudley. 2017. "Cognitive Behavioural Therapy for Visual Hallucinations: An Investigation Using a Single-Case Experimental Design." *The Cognitive Behaviour Therapist* 10: e10. https://doi.org/10.1017/S1754470X17000174.

Van Lieshout, R. J., and J. O. Goldberg. 2007. "Quantifying Self-Reports of Auditory Verbal Hallucinations in Persons With Psychosis." *Canadian Journal of Behavioural Science* 39, no. 1: 73–77. https://doi.org/10.1037/cjbs2007006.

van Ommen, M. M., T. van Laar, F. W. Cornelissen, and R. Bruggeman. 2019. "Visual Hallucinations in Psychosis." *Psychiatry Research* 280, no. 11: 112517. https://doi.org/10.1016/j.psychres.2019.112517.

Ventura, M. A., M. F. Green, A. Shaner, and R. P. Liberman. 1993. "Training and Quality Assurance With the Brief Psychiatric Rating Scale: "The Drift Buster"." *International Journal of Methods in Psychiatric Research* 3: 221–244.

Waters, F., J. M. Barnby, and J. D. Blom. 2021. "Hallucination, Imagery, Dreaming: Reassembling Stimulus-Independent Perceptions Based on Edmund Parish's Classic Misperception Framework." *Philosophical Transactions of the Royal Society, B: Biological Sciences* 376, no. 1817: 20190701. https://doi.org/10.1098/rstb.2019.0701.

Waters, F., D. Collerton, D. H. Ffytche, et al. 2014. "Visual Hallucinations in the Psychosis Spectrum and Comparative Information From Neurodegenerative Disorders and Eye Disease." *Schizophrenia Bulletin* 40, no. Suppl_4: S233–S245.

Wilson, R., D. Collerton, M. Freeston, T. Christodoulides, and R. Dudley. 2016. "Is Seeing Believing? The Process of Change During Cognitive-Behavioural Therapy for Distressing Visual Hallucinations." *Clinical Psychology & Psychotherapy* 23, no. 4: 285–297. https://doi.org/10.1002/cpp.1962.

Supporting Information

Additional supporting information can be found online in the Supporting Information section.