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Managing dissociation in imagery rescripting for voice hearers with trauma: Lessons from a case series

Short Title: Dissociation During Imagery Rescripting

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Abstract

Trauma, voice hearing and dissociation tend to be closely linked. Cognitive models of voice hearing largely agree that traumatic events may predispose people to voice hearing via dissociative processes. While treating trauma in voice hearers may help to reduce voice distress and frequency, dissociation may be a barrier to this therapeutic work. This case series reports on the dissociative experiences of a sub-sample of voice hearing clients who reported dissociation during Imagery Rescripting (ImRs) for trauma ($N=6$, 50% of original sample) in the case series study reported on previously (Paulik, Steel & Arntz, 2019). The aims in the current paper were to explore the impact of dissociation on outcomes, the type of dissociative experiences encountered, where in the ImRs protocol they occurred, and the use of therapeutic techniques to address them. We found that clients who dissociated during therapy showed reductions in their trauma intrusions and voice-related distress and frequency. However, when compared to non-dissociators, these benefits took more sessions to achieve. The most common types of dissociation were flashbacks, losing control over the image, emotional detachment and trance/absorbed state. These were most likely to occur at points during the therapy where negative affect was heightened. Grounding and soothing techniques, as well as strategies to reduce the level of negative affect were reported effective by participants in preventing or interrupting dissociation. We recommend that dissociation should not be a barrier to implementing imagery rescripting with this group.

Key Words: Auditory Hallucinations; Voices; Dissociation; Trauma; Imagery Rescripting

Although hearing voices (auditory verbal hallucinations) is commonly associated with psychosis, the experience can also appear in people with other mental health disorders, including posttraumatic stress disorder (PTSD), dissociative identity disorder, mood disorders, personality disorders, or in people with no disorder at all (Aleman & Laroi, 2008). One of the strongest risk factors for hearing voices is a history of trauma, and childhood sexual abuse in particular (McCarthy-Jones & Longden, 2015). In line with this association, high levels of dissociation are reported by people who hear voices (see Pilton, Varese, Berry & Bucci, 2015, for a review). Dissociation is an umbrella term used to describe a range of experiences which are regarded as psychological reactions to trauma or other forms of extreme stress, leading the individual to emotionally and often mentally detach from events that are experienced as too distressing to endure or process (Dalenberg et al., 2012; van der Hart, Nijenhuis, & Steele, 2006). A number of psychological models attempt to understand how trauma may cause or predispose people to hearing voices. These include conceptualising voices as a dissociative process (i.e., Longden, Madill & Waterman, 2012), highlighting dissociation as a mediator between trauma and voice hearing (i.e., Berry, Varese & Bucci, 2017; Pearce, Simpson, Berry, Bucci, Moskowitz, & Varese, 2017), and models which draw more directly on information processing accounts of trauma and dissociation (i.e., Hardy, 2017; Steel, Fowler & Holmes, 2005).

Longden et al. (2012) propose that voices, including those experienced by people with a psychotic illness, are “most appropriately understood as dissociated or disowned components of the self (or self–other relationships) that result from trauma, loss, or other interpersonal stressors” (p. 28). Similarly, in their ‘cognitive attachment model of voices’ Berry et al. (2017) postulate that dissociation mediates the relationship between trauma and voices, and that the propensity to dissociate may be driven or exacerbated by an early insecure attachment style. Hardy (2017) has attempted to describe mechanisms by which voices are associated with trauma, and in doing so separates voices that have a direct link to trauma (those that are similar to a PTSD flashback, such as hearing the voice of the perpetrator saying the same or similar things as the perpetrator had said) from those that have an indirect link to trauma (i.e. are thematically or emotionally linked only). Hardy postulates that hyperarousal (occurring during fight or flight activation, which is typically elevated in people with PTSD) or conversely dissociation (occurring especially in instances where fighting or escaping is not possible) can have a “detrimental impact on the integration of sensory-perceptual processes, and so may result in intrusions into consciousness” (p. 7). This ‘detrimental impact’ at the time of the trauma may be responsible for the erroneous encoding

of contextual information that often occurs during a traumatic event, which can lead to the unintentional recall (or “trigger”) of fragments of the traumatic memory later on (Steel et al., 2005). These fragments may be experienced as ‘flashbacks’ if attributed accurately to memory, or as hallucinations (voices with a ‘direct’ link to trauma) if not. Specific to indirect voice-trauma experiences, Hardy (2017) describes how inner speech and thus voice content (McCarthy-Jones et al., 2014) is shaped by autobiographical representations of the self and the world, which in turn have been shaped by traumatic experiences.

The common theme in all of these accounts is that the same mechanisms which underlie the development of trauma-related intrusions, may also be those associated with hearing voices. This is supported by evidence that dissociation mediates the relationship between early adversity and hallucination proneness in non-clinical groups (Cole et al, 2016). Trauma processing would therefore seem a worthwhile treatment target for individuals who have suffered a trauma and experience distressing voices. However, although no randomized controlled trials (RCT) of trauma-focused therapy specifically for voice hearers have been conducted, RCTs of trauma-focused therapies in clients with psychosis have *not* shown a reduction in voice activity (see Brand, McEnery, Rossell, Bendall & Thomas, 2019). This may be because the interventions used in these studies have not directly targeted traumatic events thematically linked to the voices, and/or that the key underlying psychological processes were not targeted.

Imagery rescripting (ImRs) is an intervention that can either be integrated into a broad therapy approach, such as schema therapy or CBT, or be used as a standalone treatment. ImRs has not only been found to effectively reduce PTSD symptoms, but has been used to reduce a number of different types of intrusive cognitions (i.e., flashbacks, thoughts, images, and nightmares) in numerous mental health disorders, such PTSD, personality disorders, phobias, depression, obsessive compulsive disorder, body dysmorphic disorder, and eating disorders (for literature review and meta-analysis, see Arntz, 2012; Morina, Lancee, & Arntz, 2017). There are several potential problems with traditional exposure-based approaches for people with complex trauma histories, common in voice hearers, - as we will subsequently describe - ImRs may overcome. Firstly, exposure-based trauma-focused interventions may not be endured by voice hearers, and indeed the high dropout rates during prolonged exposure in psychosis have been linked to the fear and avoidance of reliving the most emotionally intense parts of traumatic memories (Keen, Hunter & Peters, 2017). Second, exposure-based interventions may not target all aspects of trauma in voice hearers, such as guilt and shame associated with the events. Third, although trauma rates are high in

people who hear voices, not all voice hearers have a diagnosis of PTSD, which exposure-based interventions have been primarily developed to treat. Finally, exposure-based interventions typically do not generalize well from one memory to another, which is needed for people with multiple or repeat traumas, which is typically the case with voice hearers (Whitfield, Dube, Felitti, & Anda, 2005).

Unlike exposure-based interventions, ImRs does not entail the (prolonged) reliving of the highly distressing elements of traumatic memories (Arntz & Weertman, 1999), and has a lower dropout rate compared with exposure therapy (Arntz, Sofi, & van Breukelen, 2013). The approach enables the individual to modify the emotions (including secondary emotions such as shame and guilt) attached to the memory (and thus reduces unwanted intrusions) and the meaning of the trauma (Arntz, 2012) by prompting the individual first to imagine the start of the memory and then imaginably to rewrite a new, safer ending, where all their physical and emotional needs are met. Another advantage of ImRs is that reprocessing one key traumatic memory may have an impact on other related trauma memories which were not directly targeted, if the memories contain the same meaning. There have only been two studies that have examined the impact of treating trauma in voice hearers specifically, and both used ImRs as their intervention. Ison et al. (2014) conducted a small case series ($N=4$) of a one-off session of ImRs in voice hearers and found reductions in voice-related distress and negative affect. Paulik, Steel and Arntz (2019) conducted a case series ($N=12$) of ImRs over 10 therapy sessions (including seven rescripting sessions), and also found reductions in voice frequency and distress, as well as reductions in PTSD intrusions. Both studies found that the intervention was well tolerated by the clients. Both studies prioritized rescripting memories that were either directly or indirectly (ie thematically) related to the voices.

Given the prevalence of dissociation in voice hearers (Pilton, et al., 2015), and the fact that dissociation-prone individuals are most likely to experience episodes of dissociation during periods of stress or when reminded of traumatic memories, dissociation-prone voice hearers will be vulnerable to dissociation during trauma-focused therapies (Newman-Taylor & Sambrook, 2013), including ImRs. It is likely that the experience of dissociation during ImRs may reduce the effectiveness of therapy by either (1) not allowing a sufficient level of distress to be initially elicited for the rescripting to be effective, in the case of emotional detachment or trance states, or (2) interfering with the ability to attain a sufficient level of calm or self-soothing by the end of the rescript, in the case of flashbacks or other distressing intrusive images. However, no studies have examined dissociative experiences during ImRs,

or the therapeutic techniques that could be used to reduce or eliminate dissociation during ImRs, and thereby facilitate effective reprocessing.

On close inspection of clinical case notes collected from our recent case series of ImRs with voice hearers (Paulik et al., 2019), we noted that several participants struggled with dissociation during the reprocessing. The primary outcomes for the study were trauma intrusions and voice frequency and distress, and so we did not report on levels of dissociation. In this paper, we aim to examine (1) the experience of dissociation during ImRs in clients who hear voices (namely, the impact on outcomes, type of dissociative experiences, and the patterns of occurrence), and (2) the use of grounding and other therapeutic techniques to both prevent and cease dissociation during ImRs. The paper will also make recommendations for clinicians using ImRs with dissociation-prone voice hearing clients. This case series reports on the sub-sample of clients who reported dissociation during ImRs (N = 6, 50% of original sample) in the single arm open trial, case-series reported on previously by our research group (Paulik et al., 2019).

Method

Participants

Participants were recruited from the Perth Voices Clinic (PVC), a psychological assessment, treatment and research clinic for people with auditory and other hallucinatory experiences. All participants gave written informed consent, in line with ethical approval for service evaluation, granted by the Murdoch University Human Research Ethics Committee (Reference 2016/089).

Twelve participants were recruited to the original case series (see Paulik et al., 2019, for full details). Eligibility criteria included current voice hearing and past trauma thematically or emotionally linked to the voices (as jointly assessed by the client and therapist). Participants were excluded if in the acute phase of psychosis or were unable to engage in therapy due to delusions or thought disorder. This paper reports on the 6 (50%) participants who dissociated during the rescripting procedure.

Average age of participants was 42 years (range 29-60, SD 12.60), 3 (50%) were female, and the average duration of hearing voices was 22.33 years (range 5-42, SD 13.68). Three participants had a diagnosis of schizophrenia spectrum disorder and three had comorbid PTSD and major depressive disorder. All used prescribed medication (see Table 1 for more details, with demographic details of non-dissociators available on request, though preliminary inspection of the data showed no group differences).

{Insert Table 1 here}

Measures

Types and patterns of dissociation. Types of dissociation (e.g. detachment or compartmentalization; Allen, 2001; Holmes et al., 2005) and patterns in relation to the rescripting procedure were gathered from detailed contemporaneous clinical notes.

Types and application of grounding techniques. Types of grounding (e.g. use of imagery, sensory tools, paced breathing) to prevent and cease dissociation before and during the rescripting procedure were gathered from detailed contemporaneous clinical notes.

Trauma re-experiencing. The number of trauma intrusions (i.e. flashbacks and nightmares) experienced “over the past week” were recorded weekly and at 3-month follow-up. The Posttraumatic Symptom Scale (PSS; Foa, Riggs, Dancu, & Rothbaum, 1993) was also used to assess PTSD symptoms, and was administered at baseline, mid-therapy and post-therapy. Frequency of symptoms are rated on a 5-point scale (0 = not at all, 4 = five or more times per week/almost always). The PSS has good construct validity, internal consistency, and test-retest reliability (Cronbach’s $\alpha = .91$; Foa et al., 1993). We report the total scores and the *re-experiencing* sub-scale for the purpose of this study.

Voice frequency and distress. Voice frequency and distress was measured by single items administered weekly and at 3-month follow-up, and using the frequency and distress subscales of the Psychotic Symptom Rating Scales – Auditory Hallucinations (PSYRATS-AH; Haddock et al., 1999), which was administered at baseline, mid-therapy and post-therapy. On the single items, frequency was rated on a 0-6 point scale (0 = not present, 6 = continuous), and distress was rated on a 10-point scale (where 10 is the maximum distress). The PSYRATS-AH is an 11-item semi-structured interview of voice hearing. Woodward et al. (2014) report good to excellent intraclass correlation coefficients (0.93 for distress and 0.87 for frequency subscales).

Procedure

Participants completed the single-item, weekly measures prior to therapy sessions, and at 3-month follow-up (by telephone), and the full measures were administered prior to therapy sessions at baseline, mid-therapy and the final wrap-up session. Measures were administered by the therapist (first author, GP). Participants received 10 sessions of therapy, in line with the national funding model for clinical psychology in Australia (Medicare). The initial assessment focused primarily on participants’ voice hearing and trauma history. A

preparatory therapy session incorporated psychoeducation, preparation for ImRs (agreeing which memories to rescript and in which order, a practice re-script, and a self-soothing visualization set as weekly homework). This was followed by seven ImRs sessions. The final session focused on relapse prevention. For full details of the rescripting procedure, see Paulik et al. (2019) (open access).

Results & Discussion

Preliminary observations

Half (6/12) of the original sample (from Paulik et al., 2019) dissociated on at least one occasion during imagery rescripting. For those who dissociated, the mean number of dissociative episodes experienced during the rescripting procedure over the course of therapy (not including the general emotional numbing reported by client 4, as described in more detail below) was 3.33 (SD = 3.61, range 1-10). We inspected the means of primary outcomes variables and treatment gains (calculated by subtracting each of the post-therapy measures from the pre-therapy measures for the final outcomes, and by subtracting each of the mid-therapy measures from the pre-therapy measures for the mid-therapy outcomes) for both groups (see Tables 2 and 3). The sample was deemed too small to conduct statistical analyses. The dissociators appear slightly more distressed by their voices at baseline than the non-dissociators, although their change scores are similar at mid and post therapy. Despite experiencing episodes of dissociation during the rescripting procedure, most clients who dissociated made improvements in PTSD-related intrusions, voice frequency and voice distress on completion of therapy, as seen from the data reported in Tables 2 and 3 and Figure 1. However, as seen in Table 1, this dissociation group reported gains later in the course of treatment than non-dissociators, with Figure 1 indicating that some voice-hearers may have experienced a level of symptom exacerbation before obtaining benefit. There were no clear differences between the two groups on voice frequency or distress.

[Insert Table 2, Table 3, Figure 1 here]

Types of Dissociation Experienced by Clients During Imagery Rescripting: *What?*

Whether dissociative processes are best represented in terms of categories or a continuum is the focus of ongoing debate. The latter position (also call the “unitary model”) posits that all dissociative processes are qualitatively alike, with severity being the primary

differentiating factor (i.e., Bernstein & Putnam, 1986). The model puts more severe experiences, such as DID, somatization disorder, and dissociative amnesia on one end of the continuum, and less severe experiences, such as absorbed states and transient depersonalization on the other. Conversely, dissociative processes have also been argued to be qualitatively different and that they can be separated into two distinct categories: compartmentalization and detachment (Allen, 2001; Brown, 2006; Holmes et al., 2005). *Compartmentalization* is said to be characterized by “functional or perceived ‘separation’ of certain elements of one’s current experience and mental functioning” (Berry et al., 2017, p. 3) purportedly caused by reversible processing deficits. They include experiences such as unexplained neurological symptoms (common to conversion and somatization disorders), hypnotic phenomena, “made” actions (actions the individual feels they are not in control of), multiple identities, and amnesia due to retrieval deficits (Brown, 2006). *Detachment* is characterized by a sense of detachment from parts of everyday experience, and includes experiences such as emotional numbing, trance or absorbed states, depersonalization, derealization, trauma flashbacks and amnesia due to encoding deficits (Brown, 2006; Holmes et al., 2005). The six clients in our study who reported dissociation during the rescripting procedure all had experiences that would be classified as “detachment”.

The most common type of dissociative experience was the experience of flashbacks, where they would temporarily depart from the imaginal instructions to involuntarily experience part or all of the traumatic memory being rescripted, or a different but related traumatic memory. Clients 2, 6, 7, and 9 (33% of the original sample) reported having a flashback during at least one of their rescripts. An example of this was on the 6th rescript of client 6. This rescript was particularly challenging because the memory commenced when the client (then aged 7) awoke to her abuser already having sexual intercourse with her and thus we could not completely prevent the hot part of the trauma from being re-experienced, despite our attempts to rescript very quickly into the memory. The result was that the client had a flashback to the sexual act just prior to the therapist entering the image.

Two clients (clients 4 and 5; 16.7% of the original sample) had dissociative experiences where they lost control of the imagery and the image then started to take on a life of its own. Client 5 had a very vivid imagination and enjoyed using magic in his rescripts. However, at times when the emotional intensity would increase during the rescript, the imagery would often depart from what was being guided (by himself or by therapist). In the second phase of his fourth rescript (when he watched his adult self enter the image from his child self’s perspective), the image of his father started to change in size – he started growing

larger and larger until his head burst through the ceiling. The client reported feeling as though he had no control over this image at first, although when prompted to regain control of the image, the image of his father started shrinking until he was small enough to sit in his pocket.

Client 4 reported ‘emotional numbing’ in most of his rescripts, finding it difficult to emotionally connect with the memory (though this was somewhat reduced in the final 2 rescripts, see the *How?* section below on the strategies that helped). He reported that this emotional detachment was in most part intentional, as he was fearful that the voices would harass him about his traumas and potentially hurt him if he was emotionally vulnerable during the rescripts. It is understood that the client must connect to the emotions tied to their trauma in the initial phase of the rescripting procedure to be effective (Dibbets & Arntz, 2016). It is thus not surprising that this client did not benefit with regards to the primary outcome measures.

One client (client 2) also reported having several brief episodes (lasting between ~5-20 seconds) where she would go into a dissociative trance or ‘absorbed state’, in which she would emotionally and mentally disconnect from the image altogether and lose awareness of her immediate surroundings. As this client was highly prone to dissociation, the therapist and client would each hold one end of a scarf to keep her grounded and enable physical communication if needed. During these trance episodes, the client appeared startled when the therapist tugged on their end of the scarf and was able to be guided back to the rescript without needing to open her eyes or recommence from the beginning.

Although the types of dissociative experienced varied, they were all in the classification of “detachment”. Patterns also arose with regards to where in the rescript they occurred.

Patterns of Dissociation During Imagery Rescripting: *When?*

Discrete episodes of dissociation typically occur following ‘fight or flight’ threat activation (the action of the sympathetic nervous system). Schauer and Elbert (2010) describe how for individuals who learnt to cope with repeat trauma early in life by dissociating (or having “a parasympathetically dominated shutdown”), “comparable dissociative responses may dominate responding to subsequently experienced threat and may also reappear when the traumatic memory is reactivated” (p. 109). It follows that clients will be prone to dissociate during trauma-focused therapies more generally, and especially at the point at which threat activation is at its peak. This is exactly what we observed. Dissociative episodes were most common: (1) when the memory was playing out just prior to the rescript; (2) when the

perpetrator was being reprimanded; (3) when the caregiver was being reprimanded (even if they were not the primary perpetrator); (4) when the client entered the image as their adult self.

The most common time for people to dissociate was in the period before the rescripting commenced, most typically in the form of flashbacks (4 out of 6 of the clients). This is the period in the rescript where emotion – predominantly anxiety or fear – starts to rise and may peak, prior to the client getting their needs met in the rescript. Clients seemed to be most prone to flashbacks if they spent too long in the memory before the therapist entered the image, or if the image went too far into the trauma. The latter was difficult to avoid when the onset of the traumatic event was sudden, for example in the case of unexpected violence. An example of this was on the third rescript for client 7. This was the first time she had rescripted the repeated sexual abuse by her step-brother. The memory was of the first time he had sexually assaulted her, so we needed to take the memory a little further before commencing the rescript, as her 10 year old self did not yet know that she was unsafe so did not start feeling scared until he started to touch her stomach. The client's anxiety rose rapidly as soon as he touched her, and she began instantly having a flashback to the sexual abuse following this.

Similarly, client 4, who experienced emotional numbing across the rescripting procedure, described this being especially prominent in the initial phase when the real memory was being played out prior to the rescript. He said he felt safer being emotionally vulnerable in the rescripting phase of the image and thus his emotional numbing could be somewhat reduced.

Flashbacks (clients 2 and 9), losing control over the imagery (client 4 and 5) and dissociative traces (client 2) also occurred for some clients when the perpetrator was being reprimanded in the rescript. An example of this was during the first rescript for client 9. The rescript was of a memory at age 6 when his mother yelled and beat him. When the therapist first entered, they started to tell the mother off, at which point the client started having a flashback to the continued beating. In this instance, the mistake was likely that the therapist did not reassure the boy that he was safe and had done nothing wrong *before* telling off the mother.

Clients also reported high levels of emotion and subsequent dissociation when the caregiver was being reprimanded. An example of this was for client 2. When her mother was being reprimanded for not protecting her daughter against the step-father sexually abusing her, she reported increasing levels of emotion, and would lose touch of the image and her

surroundings, entering a trance-like state. The likely mistake here was that the “telling off” of her mother took too long, especially in the initial rescripts where she was unaccustomed to this.

For the first five clients who went through the ImRs intervention stream at Perth Voices Clinic, the full Arntz and Weertman (1999) protocol was adhered to. This included in the last few sessions having the client’s adult self enter and guide the rescript rather than the therapist, and then repeating the rescript from the perspective of the child self. For subsequent clients, these stages were omitted from our study protocol because (1) clients seemed more prone to dissociation during this second phase of therapy, (2) the complexity of most of our clients’ trauma histories meant that they would likely need more sessions where what they needed as a child was modelled for them by the therapist and we were limited in the number of sessions due to funding; and (3) the process took longer than the allocated 50-60 minutes. The first two reasons are probably linked. As people are more likely to dissociate when they are scared or overwhelmed, it follows that dissociation is triggered when the client is put into a position where they feel out of their depth and incapable of executing effective change. An example of this was in the 6th rescript for client 4. In this rescript he was 6 years old and attending his brother’s funeral. For the first few steps of the rescript the client was able to stay with the image as his adult self when being given clear guidance on how to intervene, however once the therapist started to ask “what does little you need?... Ok, make that happen”, the client started to describe an image that was departing from the intended action. For instance, at one point his adult self was going to have stern words with his father about being more available to his child self. During this discussion the client kept changing perspective between child and adult self, started talking to his father about his relationship with him now (rather than as a child), and the father started walking away. Client 5 had a similar experience (as described in the previous section) and client 2 had an increase in flashbacks and trances during this second part of the protocol.

Although there were several points in the rescript where clients dissociated, the common link was that they occurred when the client felt more vulnerable or emotional. Several strategies were put in place to prevent or cease dissociation, which clients reported finding beneficial, which will be presented in the *How?* section.

Clinical Recommendations to address Dissociation during Imagery Rescripting: *How?*

On the basis of our examination of the types and patterns of dissociation during ImRs, we make recommendations regarding adaptations to the treatment protocol and assessment,

as well as means of preventing, managing and monitoring dissociation when this occurs (see Table 4).

[Insert Table 4 here]

Conclusions

This case series was comprised of a sub-sample of voice hearing clients who reported dissociation during Imagery Rescripting for trauma (N = 6, 50% of original sample) in the case-series reported on previously (Paulik et al., 2019). The aims were to explore the impact of dissociation on outcomes, the type of dissociative experiences encountered, where in the ImRs protocol they most commonly occurred, and the use of therapeutic techniques to prevent or manage them.

Clients who dissociated reported reductions in trauma intrusions and voice distress and frequency, although this gain required more sessions than for the non-dissociating group. All clients reported detachment type dissociation, including flashbacks, loss of control over the image, emotional numbing, and trance / absorbed states. Clients typically dissociated when they experienced heightened negative affect, including immediately before the rescript, and when the perpetrator or primary care giver was admonished. Some clients also dissociated in the second phase of the ImRs protocol when their adult-self enters the image to help get their child-self's needs met (which led to the removal of this phase of therapy from our protocol early on in the case series). The strategies that were most beneficial to both prevent and cease dissociation were grounding and self-soothing/relaxation techniques and taking measures to reduce the intensity of negative affect experienced during the rescript. In contrast, for the client who experienced emotional numbing, strategies were put in place to increase the intensity of emotions experienced during the rescript with some success.

This paper offers clinical reflections based on a small case series, which may not be generalizable beyond the sample. We recommend examination of the patterns of dissociation with a larger sample, statistical comparisons with non-dissociators, and use of more robust and frequent measures of dissociation. We argue that dissociation should not be a barrier to the implementation of imagery rescripting for this group. For clinicians employing Imagery Rescripting, we recommend assessing dissociation early on to minimize impact on progress and outcomes.

Glossary

Compartmentalization – dissociative processes such as “dissociative amnesia and other symptoms that allegedly result from reversible disruptions in normal processes for the monitoring and control of mental experiences, resulting in the functional or perceived “separation” of certain elements of one’s current experience and mental functioning” (Berry, et al., 2017).

Detachment – dissociative processes “characterized by a sense of separation or detachment from aspects of everyday experience”, such as depersonalization and derealization (Berry et al., 2017)

Dissociation – “lack of normal integration of thoughts, feelings and experiences into the stream of consciousness and memory” (Bernstein & Putnam, 1986, p. 727).

Derealization – “experiences of unreality or detachment with respect to surroundings” (Diagnostic and Statistical Manual of Mental Disorders-V (DSM-V), American Psychiatric Association (APA), 2013).

Depersonalization – “experiences of unreality, detachment, or being an outside observer with respect to one’s thoughts, feelings, sensations, body or actions” (DSM-V, APA, 2013).

Dissociative trance (also referred to as ‘absorbed state’) – “an acute narrowing or complete loss of awareness of immediate surroundings that manifests as profound unresponsiveness or insensitivity to environmental stimuli” (DSM-V, APA, 2013).

Flashbacks – where an “individual feels or acts as if the traumatic event(s) were recurring” (DSM-V, APA, 2013).

Auditory hallucinations (or “voices”) – auditory sensory experiences that occur in the absence of external stimuli that is perceived by the individual as a true perception, that is of non-self origin, and beyond the individual’s control (Gelder, Gath, & Mayou, 1993).

Imagery Rescripting – an experiential therapeutic technique used to reduce unwanted, intrusive cognitions (such as flashbacks and nightmares of traumatic memories) by changing the image/memory/cognition using imagery to be less distressing.

Highlights

- Trauma (and PTSD), auditory hallucinations and dissociation are strongly linked.
- Cognitive models propose that trauma may predispose people to voice hearing via dissociation.
- Imagery Rescripting can reduce traumatic intrusions and voice in voice hearers.
- Voice hearers who dissociate during treatment may require more therapy sessions.
- Adaptations to therapy protocols are indicated for people prone to dissociation.

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Table 1

Participant Demographic and Clinical Information

Participant number ¹ & diagnosis ²	Gender	Age	Age of voice onset ²	Medications ²	Trauma-voice association
2 Major Depressive Disorder; PTSD	F	30	19	Quetiapine 300mg (antipsychotic)	Indirect. Trauma – severe prolonged childhood sexual abuse by step-father. Two male voices threatening her and telling her to kill herself.
4 Schizophrenia	M	60	18	Zuclopenthixol 5mg (antipsychotic)	Indirect. Trauma – complex childhood trauma with large range of childhood traumas, including victim of violence, neglect, sexual abuse, and witnessing several loved ones die. His voices continually threatened him and his family's safety, telling him they were coming to get him/them.
5 Schizophrenia; Major Depressive Disorder	M	40	17	Apiprazole 5mg (antipsychotoic), lamotrigine 200mg (anticonvulsant), sertraline 300mg (antidepressant), melatonin	Indirect. Trauma – physical and emotional abuse by father. His voices threaten him and criticize him.
6 Major Depressive Disorder; PTSD	F	29	24	Desvenlafaxine 100mg (antidepressant)	Direct. Trauma – repeat childhood sexual abuse by three different perpetrators. Additional traumas of car accident and finding a friend dead. She hears the voice of one of the perpetrators, who say the same grooming-related words to her, and she can feel his breath on her neck.
7 Schizophrenia; PTSD	F	54	21	Sodium valproate (mood stabiliser) 200mg, 500mg; venlafaxine (antidepressant) 150mg; aripiprazole	Direct & indirect. Trauma – childhood neglect and sexual abuse. The identity of the voice is the abuser, but the content is indirectly related to her traumas, with the voice commanding her to hurt or

				(antipsychotic) 20mg; mirtazapine (antidepressant) 30mg; quetiapine (antipsychotic) 150mg	kill herself.
9	M	39	19	Aripiprazole (antipsychotic) 15mg, clozapine 400mg (antipsychotic), escitalopram 20mg (antidepressant), lamotrigine 100mg (anticonvulsant)	Direct & indirect. Trauma – physical, emotional and sexual abuse at home during childhood. His voice is of his perpetrator, although it also says things both directly and indirectly related to his trauma history.

¹ Participant number has been kept consistent with that reported in Paulik et al. (2019). ² As reported by client.

Table adapted from: Paulik, G., Steel, C., & Arntz, A. (2019). Imagery rescripting for the treatment of trauma in voice hearers: A case series. *Behavioural and Cognitive Psychotherapy*, 1-7. Doi. 10.1017/S1352465819000237

Table 2

Means (M) and Standard Deviations (SD) on Clinical Assessment Measures Pre-therapy (T1), Mid-therapy (T2, session 5), Post-therapy (T3), and Mid-Therapy and Post-Therapy Change Scores for Clients Who Did Not Dissociate (N = 6) and Clients Dissociated (N = 6)

	Group	Pre-Therapy		Mid-Therapy		Post-Therapy	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
PSS Total	Non-dissociators	28.17	12.66	16.67	10.23	12.30	5.05
	Dissociators	30.00	13.25	30.50	13.50	21.92	11.68
PSS Re-experiencing	Non-dissociators	8.33	4.84	5.17	4.45	2.20	1.48
	Dissociators	7.33	4.03	8.67	5.32	5.67	4.93
PSYRATS-AH Distress	Non-dissociators	14.50	4.75	10.50	5.93	10.40	5.95
	Dissociators	17.17	1.57	14.92	1.96	12.75	4.64
PSYRATS-AH Frequency	Non-dissociators	9.00	1.45	7.25	1.94	6.90	1.52
	Dissociators	8.08	2.04	6.50	1.84	5.67	2.11
<u>Mid-Therapy change T1-T2</u>							
PSS Total	Non-dissociators			11.50	7.69		
	Dissociators			-.50	7.17		
PSS Re-experiencing	Non-dissociators			3.17	2.40		
	Dissociators			-1.33	2.34		
PSYRATS-AH Distress	Non-dissociators			4.00	3.70		
	Dissociators			2.25	2.32		
PSYRATS-AH Frequency	Non-dissociators			1.75	1.50		
	Dissociators			1.58	0.66		
<u>Post-Therapy change T1-T3</u>							
PSS Total	Non-dissociators					14.30	13.12
	Dissociators					8.08	9.84
PSS Re-experiencing	Non-dissociators					5.80	5.89
	Dissociators					1.67	2.50
PSYRATS-AH Distress	Non-dissociators					3.60	2.38
	Dissociators					4.42	5.34
PSYRATS-AH Frequency	Non-dissociators					2.40	1.29
	Dissociators					2.42	1.28

Table 3

Means (M) and Standard Deviations (SD) on The Weekly Single Item Measures, Administered Weekly and at 3-Month Follow-Up for Clients Who Did Not Dissociate (N = 6) and Clients Who Dissociated (N = 6)

	PTSD Intrusions		Voice Distress		Voice Frequency	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Non-Dissociators						
Session 1	19.17	28.54	6.33	2.64	5.25	1.17
Session 2	13.50	16.23	5.83	2.58	4.83	1.33
Session 3	4.33	6.95	4.75	2.68	4.33	1.51
Session 4	6.17	10.08	4.92	2.73	4.00	1.67
Session 5	5.00	5.29	3.92	1.11	4.08	1.86
Session 6	1.00	1.00	4.70	2.77	4.50	1.50
Session 7	2.00	2.83	4.00	2.24	4.80	1.30
Session 8	0.50	1.00	3.75	2.63	4.75	1.50
Session 9	0.00	0.00	2.33	2.52	3.83	1.89
3-Month Follow-Up	0.67	1.21	4.25	2.82	3.75	1.78
Dissociators						
Session 1	19.17	32.41	6.17	1.83	4.00	1.70
Session 2	19.33	32.07	5.92	2.11	3.92	1.74
Session 3	21.00	25.53	5.00	1.90	3.92	1.36
Session 4	14.33	15.27	5.00	1.10	3.92	1.63
Session 5	20.50	28.17	5.00	2.59	3.42	1.69
Session 6	10.67	12.71	4.92	1.02	3.50	1.22
Session 7	7.67	4.72	4.50	2.07	3.75	1.12
Session 8	5.17	3.25	4.92	1.86	3.50	1.26
Session 9	4.17	2.79	4.00	2.00	3.33	1.54
3-Month Follow-Up	3.00	2.97	4.83	3.30	3.33	2.07

Table 4

Clinical Recommendations to Help Prevent and Cease Dissociation During Imagery Rescripting in Trauma Affected Voice Hearers

<p>1. Assessment</p> <p>a. Assess dissociation – Consider a dissociation questionnaire and brief psycho-educational material. Discuss the types of dissociative experiences clients have, the frequency and triggers – these details will enable you to agree suitable modifications to the rescripting protocol.</p> <p>b. Discuss ways to prevent / manage dissociation – During the first therapy session, discuss ways to prevent dissociation and agree on how the therapist will respond if the client dissociates. Agree whether the client feels it would be safe for the therapist to touch them (e.g. a gentle squeeze of the arm) if they cannot be brought back with words alone. Consider specific suggestions described below.</p>
<p>2. Adaptation to ImRs protocol to preventing dissociation during ImRs</p> <p>Consider a revised protocol for clients who are prone to dissociation and struggle to remain grounded due to very high levels of emotion.</p> <p>a. Discuss rescripting steps prior to commencing the rescript – Discuss the rescript in detail before commencing (e.g. roughly when in the memory the therapist will enter, and what will happen in the first few steps of the rescript). This additional preparation may reduce unpredictability and uncertainty, and thus reduce risk of dissociation.</p> <p>b. Reduce anxiety prior to rescripting – Offer ~two minutes of slow breathing or guided safe place imagery prior to commencing the rescript to ensure affect is not elevated at baseline.</p> <p>c. Pace the rescript – To reduce the intensity of emotion initially evoked in the ImRs, guide the client through the memory more quickly than usual, and have the rescript commence earlier in the memory.</p> <p>d. Therapist role in initial stage of the rescript – To reduce client vulnerability during the rescript, the therapist can take the lead for much of the rescript, especially the first few rescripts and the first few steps in all rescripts. Ensure the client is present and actively engaged in the image by frequently asking them to describe what is happening</p>

(e.g. therapist: “the police are now forcing him to the ground. Describe to me what’s happening now...”).

e. Use of grounding techniques – Offer sensory items and grounding objects to hold during the rescript (our sensory basket contains a fidget cube, magnetic sand, hand moisturiser, tiger balm, essential oils, and a squeezable ball) (see Kennerley, 1996). A scarf can also be used, with the client and therapist each holding one end. This can be gently tugged to remind the client they are in the therapy room with the therapist and are safe.

f. Exclude (or delay) phase two of Artz & Weertman (1999) protocol (where they enter the rescript as their adult self) to reduce vulnerability, especially if therapy is time limited.

3. Managing intense emotions and dissociation during ImRs

a. Use of grounding and soothing techniques - As described above, a gentle tug on a scarf can be used if the therapist suspects the client is dissociating. The client is instructed to tug back if they are present. Prompt the client to use grounding and sensory items within the rescript (as above) and use slow breathing in the image. As an example, in the 5th rescript for client 2, she was finding it difficult to become soothed despite having all her physical needs met in the image, and started to go into a dissociative trance. The therapist picked up on this quickly and brought her back to the image using reassurance, and then in the image guiding her to sit on her grandmother’s lap (a safe figure) and synchronize their breathing, slowly. This allowed for the sympathetic nervous system to be shut off while also promoting emotional comfort and soothing.

b. Use of reassurance - In instances where the client is nonresponsive to the therapists questions/prompts in the rescript, calmly and firmly say to the client “you are safe with me here in the therapy room, this image cannot hurt you and there is no need to dissociate. Come back to the image now...”.

c. Reduce emotional numbing or disconnectedness – Seek to increase emotional connectedness by spending more time setting up the image, getting the memory to play out longer than usual before commencing the rescript, and asking more frequently what they felt and to describe where they felt these emotions in their body. Trust in the therapist and the process is also likely to help reduce feelings of vulnerability which may contribute to emotional numbing. Client 4 reported less emotional numbing towards the end of therapy when he reported deepened trust. His numbing was in part intentional due a fear that his voices would chastise him about past trauma if he was emotionally vulnerable when

recalling it; reassurance and thought challenging (namely, seeking evidence against this belief) were explored with some success.

4. Monitor the impact of ImRs - In this small sample, half the clients who dissociated had a modest increase in intrusions early on in therapy, before these reduced. It may be helpful to anticipate this with clients, and it is important to monitor changes in symptomatology on a weekly basis. As part of this discussion, agree specific activities following therapy sessions (namely, nothing too stressful), coping strategies they will use if this does eventuate, and what support they have in place.

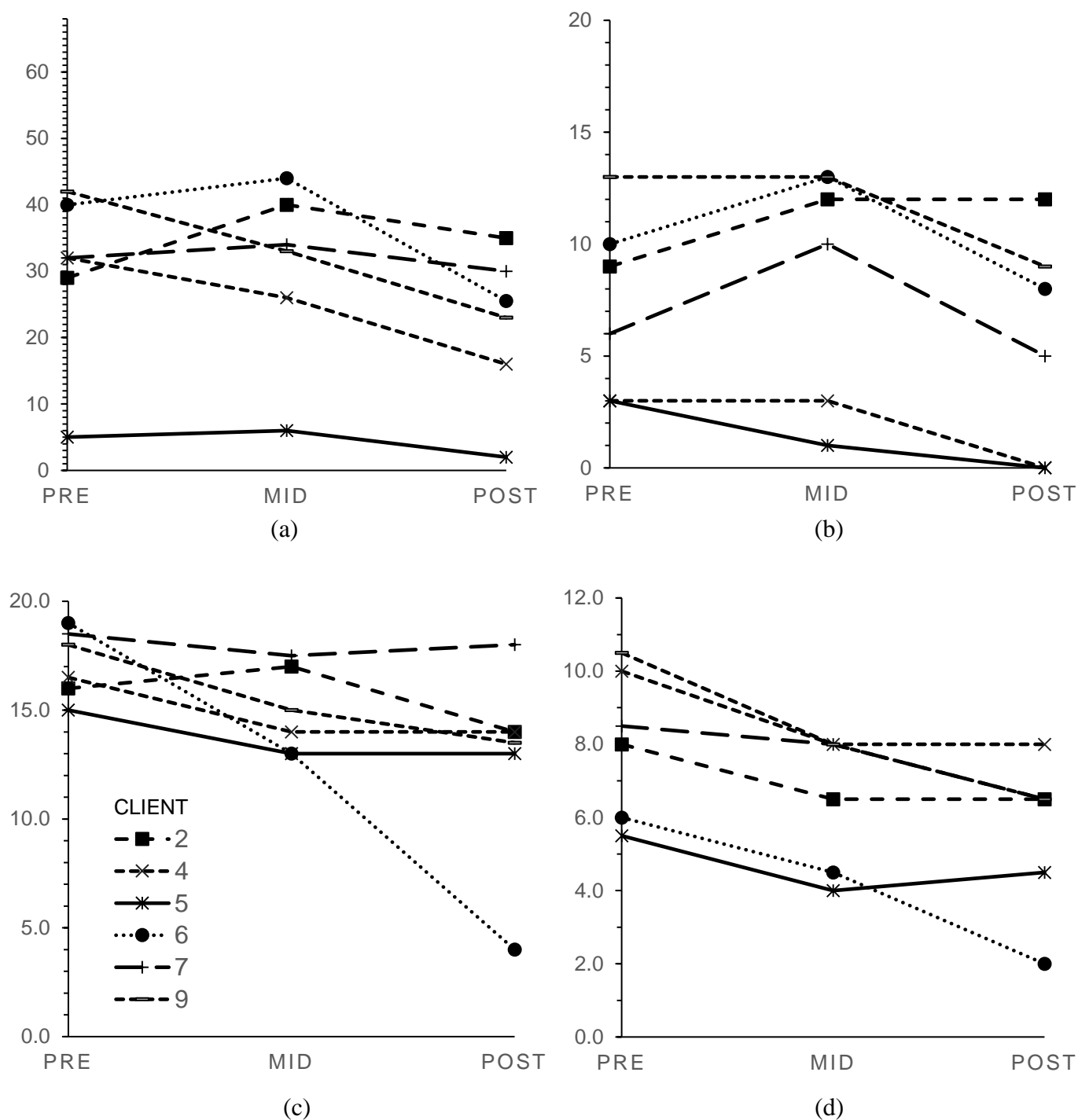


Figure 1. Assessment measures for each client administered pre-, mid- and post-therapy: (a) PSS total, (b) PSS re-experiencing subscale, (c) PSRYATS-AH distress subscale, and (d) PSRYATS-AH frequency subscale