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The Healing Power of Active Imagination on Posttraumatic Stress Disorder Symptoms and Wellbeing: A Mixed-method Exploratory Study

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Despite many treatments for posttraumatic stress disorder (PTSD), recovery is often moderate at best, and symptoms often persist after treatment. This mixed-method study explored whether an active imagination protocol could serve as an effective low-cost, drug-free intervention for complex PTSD or persisting symptoms after a traumatic event. Seventeen participants were assessed using the Posttraumatic Diagnostic Scale (PDS), Multiscale Dissociation Inventory (MDI), and the Ryff Scales of Psychological Wellbeing (PWB) before and after a four-session, one-to-one active imagination intervention. On average, all quantitative scores significantly improved from baseline, and every subscale improved. For the sample average, PTSD symptoms decreased by 32%, dissociation decreased by 29%, and wellbeing increased by 15%. A thematic analysis of follow-up interviews produced five themes: general reflections on the active imagination process, general benefits, effect on PTSD symptoms, attitudes about different parts of active imagination, and states of mind during active imagination. The major qualitative findings are of positive change with occasional radical improvement and personal transformation.

Keywords: *Posttraumatic stress disorder, active imagination, Posttraumatic Diagnostic Scale, Multiscale Dissociation Inventory, Ryff Scales of Psychological Wellbeing*

Posttraumatic stress disorder (PTSD) is the development of characteristic debilitating symptoms following an extremely traumatic stressor or event that can have lasting negative effects on the psyche. PTSD affects 7–8% of the general public (National Center for PTSD, 2015, para. 1). The probability that PTSD will develop after exposure to traumatic stress varies by demographics and the type of trauma (Shalev et al., 2017; Watson, 2019), with sexual violence associated with the greatest risk of PTSD. Although an estimated 25–40% of PTSD cases may remit in a year, most people require much longer to recover (Bromet et al., 2018), with symptoms lasting an average of 6 years across trauma types and combat-related PTSD symptoms having a mean duration of over 13 years. Considering the immense cost of PTSD on individual lives and society (e.g., Watson, 2019), all treatment options should be thoroughly explored (Schottenbauer et al., 2008).

The diagnostic criteria for PTSD have changed significantly over time (cf. American

Psychiatric Association [APA], 1980, 1987, 1994, 2000, 2010, 2013; Trimble, 1985). Having a traumatic trigger as diagnostic criterion for PTSD is unique among diagnoses throughout all editions of the *Diagnostic and Statistical Manual (DSM)*. PTSD symptoms include intrusive thoughts or flashbacks of the traumatic event; avoidance of thoughts, places, and other reminders of the event; negative alterations in mood and cognition; and hyperarousal, hypervigilance, and reactivity (e.g., Duek, et al., 2019). These symptoms are often comorbid with sleep disruptions, social isolation, cognitive dysfunction, psychosocial dysfunction, and substance use disorders (e.g., Marmar, et al., 2015; Pietrzak, et al., 2014; Rodriguez, et al., 2012). The *DSM-5* includes diverse events and even indirect traumatic experience as diagnostic criteria for PTSD (APA, 2013). The reclassification of PTSD is pertinent because PTSD can manifest with primarily non-anxiety symptoms, such as dissociative experiences, emotional or angry outbursts, depressed moods, and self-destructive behavior. Particularly with complex

PTSD, anxiety is often one of many symptoms and no longer necessarily considered the primary agent of disruption and disorder in PTSD (APA, 2013).

The specifics of the subjective nature of traumatic experience are not yet understood. A traumatic experience is registered in the autonomic nervous system (ANS; e.g., Barry et al., 2006; Packard et al., 2014). Trauma can impair self-regulation, communication, and integration between the lower brain centers and the executive functions that control conscious thoughts, abstract thinking, and explicit memory, characterized by a conscious act of recollection in relation to a sense of self (van der Kolk, 2002). During a traumatic event the ANS overwhelms higher brain functions and activates a dissociative state as a natural coping mechanism that protects the psyche from suffering (van der Kolk, 2002). PTSD can be considered a “disorder of recovery” from trauma, specifically a disorder of emotional memory processing that includes deficits in extinction of conditioned fear (Sullivan et al., 2021, p. 1). In PTSD, dissociation becomes an unconscious and rigid habitual avoidance of integrating the trauma to the degree that it no longer constitutes an attempt towards self-healing. Rather, dissociation expresses a biologically driven traumatic compulsion (Shalev, 1997) that perpetuates many traumatic symptoms (Siegel, 1996; van der Kolk, 2002). When dissociation severs a person from their ability to consciously integrate an experience or understand the source of emotional arousal, it becomes traumatic dissociation (van der Kolk, 2002).

PTSD treatment has evolved a myriad of different methods, both psychological and pharmaceutical. Cognitive-behavioral therapies include prolonged exposure (PE), narrative and written exposure therapy, cognitive processing therapy, and eye movement desensitization and reprocessing (EMDR); and psychopharmacological interventions include prescription drugs, mostly selective serotonin reuptake inhibitors (SSRIs), such as sertraline (Zoloft), paroxetine (Paxil), fluoxetine (Prozac), and venlafaxine (Effexor; Bernardy, et al., 2017; Watson, 2019). The most widely accepted treatment is prolonged PE (Cahill, & Foa, 2007; Committee on Treatment of Posttraumatic Stress

Disorder, Board on Population Health and Public Health Practice, Institute of Medicine, 2008), which typically involves closing the eyes and imagining the traumatic event happening in the present while vividly describing aloud those recollections, including all important sensory responses, thoughts, and emotions. Narrating these memories occurs multiple times in session, and recordings of the narrations may be given the patient to listen to as homework. A meta-analysis of PE therapies for PTSD (McLean et al., 2022) showed large effects compared to waitlist and regular talk therapy, but only a small effect relative to non-trauma-focused methods and a negligible effect compared to other trauma-focused treatments or medication. Many people find exposure therapies intolerable or ineffective (Cahill, & Foa, 2007; Shalev, et al., 2017). The APA (2017) published treatment guidelines adopted as policy “recommending” cognitive behavioral therapy, cognitive processing therapy, and PE, and “suggesting” brief eclectic psychotherapy, EMDR, and narrative exposure therapy (p. ii).

Standard pharmaceutical treatments tend to address symptoms, such as negative mood and sleep disturbances (e.g., Sullivan, et al., 2021), which can significantly improve quality of life but without necessarily resolving the root of the problem. Drugs, such as fluoxetine, paroxetine, sertraline, and topiramate, are usually combined with the talk therapies above (APA, 2017). A meta-analysis of the efficacy of mostly talk therapy randomized controlled trials, with a few involving pharmaceuticals (Kline et al., 2018), showed some long-term efficacy for all treatments, but attrition and the analytic methods significantly influenced effect sizes. Moreover, both psychotherapeutic and psychopharmacologic treatments have remission rates ranging from 40–70% and attrition rates up to 50% (Duek, et al., 2019, p. 1). Indeed, half of patients do not respond to traditional therapies (Riaz, et al., 2023).

A more promising avenue of treatment involves psychedelic-assisted therapies, notably with \pm 3,4-methylenedioxymethamphetamine (MDMA; e.g., Amoroso, & Workman, 2016; Hoskins, et al., 2021; Ilingworth, et al., 2021; Kelmendi, et al., 2016; Parker Singleton, et al., 2023; Riaz, et al., 2023; van

der Kolk, 2021) and ketamine (e.g., Collins, et al., 2020; Feder, et al., 2014; Sicignano, et al., 2023). However, legal access to such drugs for clinicians remains highly restricted.

Active Imagination

Active imagination is a method developed by Carl Gustav Jung (1916/1958) to access unconscious fantasy material while in a waking state as part the process of integration leading to individuation. Active imagination involves consciously entering into a dialogue with the unconscious in order to trigger the *transcendent function*, the psyche's natural ability to bring unconscious opposing aspects of the self into awareness in order to, if reconciled, promote positive transformation (Jung, 1937). As first presented by Jung (1916/1958), it was less a specific technique and more a philosophy of best practices. Later theorists (e.g., Fordham, 1956, 1967; Hillman, 1975); Johnson, 1986; von Franz, 1974/1995, 1993) shaped active imagination into a definitive method by which the transcendent function could be consciously engaged.

According to Jung (1921/1990), active imagination requires two stages. The first, "letting the unconscious come up," is the mindful, nonjudgmental, receptivity to the symbolic manifestation of the unconscious in the conscious mind. The goal is simply to access unconscious content until it gains an imaginal form. This stage is accomplished when imagery is present that was not created by the conscious mind, the ego, when the "images can be felt to have an autonomous or objective character when they emerge into the field of consciousness" (Fordham, 1967, p. 51). The second stage of active imagination is when consciousness takes the lead. As the affects and images of the unconscious enter conscious awareness, the ego enters actively into the experience, and insight and evaluation can be brought to bear on the imagery. Jung (1921/1990) considered this the more important stage because it involves questions of meaning and ethics. This is when insight must be forged into an ethical obligation, a coming-to-terms drive to create change in daily life.

In active imagination the images of the *archetypes*—primordial images and dynamics of the unconscious mind that shape human behavior—can

be formed and transformed by bringing the *ego*, the subject of consciousness often referred to as "I," into relationship with the inner-world experience of such images (Fordham, 1956). Active imagination differs from spontaneous fantasy products, such as dreaming or the imaginative play of children, because these activities have little, if any, active induction of the imagination into the ego. According to Fordham (1967), two conditions must be met:

1. For active imagination to occur the subject's conscious attitude must be such that the archetypal images can be felt to have an autonomous or objective character when they emerge into the field of consciousness.
2. The ego must then react so that the images become a valued experience which can lead to creative work. (p. 51)

Fordham posited that the feeling of autonomous otherness is the ego perceiving a lack of integration of the self, and the valued experience, which can lead to creative work, is a necessary step in order to foster an ongoing process that contributes to individuation and allows unmanageable imaginings to be converted into more manageable thought.

Many traumatic and dissociative symptoms come with a feeling of autonomous otherness, depersonalization, disconnection, confusion, and disorientation (Wing Lun, 2008). For a traumatized individual, the difficulty is not in experiencing powerful images and sensations but in acknowledging their reality in a manner that does not cause the person to reexperience the trauma and perpetuate dissociation (van der Kolk et al., 1996). Such a process requires experiencing the implicit, unconscious, traumatic memories in a manner akin to the explicit, conscious, egoic memories of everyday experience (van der Kolk et al., 1996). This notion is addressed in Fordham's (1967) first point above, the feeling of an autonomous or objective character, because this feeling of otherness objectifies the content of the image. The otherness creates a psychic distance, which allows an individual to develop a relationship with the image without being overwhelmed by its contents. By focusing on the relationship with the image, mindful attention can be cultivated explicitly, but safely, to

engage the dissociated, other elements of the psyche (Rothschild, 2000). The objectified image, and the person's relationship to it, can be mindfully focused on even by a disintegrated or dissociative individual (Fordham, 1967). Further, when an image with the feeling of otherness is mindfully conceived, the resulting experience, whether it is mystery, wonder, awe, or horror, can be seen as part of the person's creative process; and when the ego reacts in a manner that results in a creative work, the process is active imagination.

The play, tension, and process of reconciling the two stages are the heart of active imagination. Active imagination is a state of serious play and meditation with the symbolic communication of a person's unconscious, which allows a person to gain fluency in the symbolic language of the unconscious. By learning to work with the unconscious a person accesses deep sources of strength, renewal, growth, intelligence, and wisdom inside themselves (Fordham, 1956).

If implicit traumatic memories, and the resulting traumatic dissociation (Rothschild, 2000; van der Kolk, 2002), are experienced through the unconscious language of symbols, then they can be engaged through an explicit imaginal process (Jung, 1937), which allows the opportunity for mindful reinterpretation and possible reintegration. Essentially, active imagination is accomplished by cultivating a mindful relationship with a person's inner world, becoming safely engaged with the resulting symbolic imagery, and creatively integrating what is learned into daily life (Fordham, 1967). This relationship with imagery allows the executive brain to consciously modify, transform, and reconstruct the context of implicit traumatic memories into an explicitly meaningful narrative (van der Kolk et al., 1996) that can be mindfully integrated into a new, more global and self-actualized, self-concept that results in greater wellbeing (Siegel, 1999).

In addition to being a valuable tool with dissociation, active imagination has been effective at decreasing the frequency and intensity of reoccurring thoughts and dreams (Cwik, 2011), working through personal crisis (Jung, 1937), and raising negative affect (Colman, 2006), which are persistent aspects of PTSD (Bremner & Brett, 1997; Shalev, 1997).

The essence of active imagination is the transformation of experience into a synthetic relationship between the conscious and unconscious, in which sensory information, emotions, knowledge, and memories come together in a more multimodal and holistic manner. Traumatic dissociation, prevalent in PTSD, makes developing such a relationship difficult. The use of an image with a feeling of otherness is designed to provide a safe imaginal distance in which to engage painful or repressed aspects of the psyche that have been overwhelmed with experiences that embody fear and danger. The first stage (Fordham, 1967) gives a person the opportunity to find their window of tolerance (the optimal zone of physiological and emotional arousal) which allows for the proper integration of information from the internal and external environment necessary for effective trauma processing (Ogden et al., 2006; Rothschild, 2000; Siegel, 1999; van der Kolk, 2002, 2006). The window is between the extremes of hyper- and hypo-arousal; oscillation between too much and too little arousal is common in trauma-related disorders (Ogden & Fisher, 2014). Once this window of tolerance is reached, mindful attention may allow small challenges to be introduced that expand the window while promoting safety and pacing. The result is increased skill in regulating emotional arousal supported by a curiosity toward the experience in contrast to dissociative regression to repetitive reactions and narratives (Briere & Scott, 2006; Ogden & Fisher, 2014; Rothschild, 2000; Siegel, 1999; van der Kolk, 2002, 2006).

The study of active imagination in a therapeutic setting is still in its infancy, but practices that utilize similar methods in treating PTSD (e.g., Bradshaw et al., 2011; Coalson, 1995; Gendlin, 1981; Hudek, 2004; Jain et al., 2012; Libby et al., 2012; Odell, 2011; Schottelkorb et al., 2012; Staples et al., 2011) suggest that active imagination may be worth exploring. This study examines whether active imagination can lead to positive change for people with PTSD.

Method

The question guiding this research was, what is the impact of an active imagination intervention

on wellbeing, dissociation, and persistent symptoms of PTSD? This exploratory study used a mixed-method design to see whether the therapeutic use of an active imagination intervention would reduce symptomatology and increase wellbeing among people suffering from persistent PTSD symptoms. Baseline data from measures of PTSD symptoms, dissociation, and wellbeing were collected prior to a four-session series of active imagination exercises and again approximately one week post-intervention. After the post-intervention assessment data were collected, participants were interviewed about their experience of the protocol and its effectiveness.

Based on the hypothesis that active imagination would positively affect participants, three subhypotheses were developed:

1. After a four-session active imagination intervention, participants would report reduced PTSD symptom severity, symptom intensity and timeframe of symptoms, and a decreased effect of symptoms on daily functioning.
2. After a four-session active imagination intervention, participants would report decreased dissociative tendencies.
3. After a four-session active imagination intervention, participants would report increased wellbeing.

This study also explored the mediating relationship between PTSD, dissociation, and wellbeing, with the following four hypotheses:

1. A negative correlation would exist between PTSD and wellbeing; that is, higher PTSD symptom severity would be correlated with lower wellbeing scores.
2. PTSD and dissociative tendencies would be directly, positively correlated.
3. Dissociative tendencies would be negatively correlated with wellbeing.
4. Frequency of dissociation would at least partially mediate the relationship between PTSD symptom severity and wellbeing; specifically, a reduction in dissociation would correlate with a reduction in PTSD symptoms and an increase in wellbeing.

Participants

The original design called for a sample of 20 adults, aged 23–67 years based on the ages studied by the three assessments used, in order to make finding most applicable. Although two separate power analyses for a single sample, two-sided, paired test with .5 effect size, .05 significance level and .8 power yielded a projected sample size of 32–34 participants, since no previous research had been found of this nature, it was deemed prudent to do a preliminary exploratory sample even with the sample size as low as 20.

To qualify, participants had to have a history of at least one *DSM-5* criterion A trauma, defined as exposure to death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence in one (or more) of the following ways:

1. Directly experiencing the traumatic event(s)
2. Witnessing, in person, the event(s) as it occurred to others.
3. Indirectly, by learning that a close relative or close friend was exposed to trauma. If the event involved actual or threatened death, it must have been violent or accidental.
4. Repeated or extreme indirect exposure to aversive details of the event(s), usually in the course of professional duties (e.g., first responders, collecting body parts; professionals repeatedly exposed to details of child abuse). *Note:* Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related. (APA, 2013, p. 271)

This criterion A stressor included a minimum of one month of distress from at least one PTSD symptom in a category of *DSM-5* criterion B, C, D, or E:

- B. Intrusive recollection or reexperiencing, such as intrusive memories, flashbacks, or nightmares, or psychological and physical reactivity to reminders of the traumatic event(s).
- C. Avoidance, such as avoiding thoughts, feelings, or situations connected to the traumatic event(s).

- D. Negative alterations in mood or cognitions, such as negative thoughts or beliefs about oneself or feelings of detachment or isolation from others, a distorted sense of blame or severe emotions related to the trauma (e.g., horror, shame, sadness), memory problems exclusive to the event(s), or a severely reduced interest in pre-trauma activities.
- E. Hyper-arousal, such as irritability or hypervigilance and difficulty concentrating or falling or staying asleep. (APA, 2013, pp. 271–273)

A current diagnosis of PTSD was not required so as not to limit the sample to individuals with current health coverage and possibly receiving other treatment. Participants could have been involved in previous PTSD treatment and were allowed to continue with non-PTSD-focused treatment, such as regular therapy or support groups, but must not have been in a current PTSD treatment program to avoid confounding data. Any level of self-identified traumatic symptoms qualified, including those with chronic or complex trauma exposure, as long as the symptoms had lasted longer than one month, with at least minor symptoms within the last month that impaired daily functioning, but were not severe enough to require immediate attention.

Fluency in English was required for the assessments and intervention. Since trauma is pervasive across demographics (Wang et al., 2009), only age was used as a selection criterion for the reasons stated.

Participants must have had a willingness and ability to look at their own psyche. Active imagination is a powerful tool for exploring the unconscious, and ego stability is needed in order to manage imagery that could trigger latent psychoses (von Franz, 1993). Due to the capacity for insight and stable self-reflection required for active imagination, participants who reported a previous or present psychotic disorder, episode of major depression, or severe bipolar disorder within the past two years were excluded. Participants on medications that significantly influence psychological reactions (e.g., antipsychotics, mood stabilizers, benzodiazepines, or tranquilizers) were

also excluded, while medications that increase stability (e.g., antidepressant drugs involved with regulation of serotonin, norepinephrine, and dopamine) were allowed. People who had not had medication changes within the last month were included. Medical conditions permitted included non-drug treated depression and anxiety and primarily physical conditions (e.g., chronic fatigue syndrome, arthritis, or cystic fibrosis).

Recruitment

Participants were recruited through a flyer posted in community bulletins, colleges, and local businesses in the San Francisco area, including recommended organizations, such as local shelters and counseling centers. A word-of-mouth or email message allowed referrals through local social and psychological service providers. A website, phone number, and email address were provided for respondents to contact the primary researcher to set up a screening. Screening involved candidates answering an online questionnaire, participating in a short meeting or phone interview to confirm eligibility and collect contact and demographic information.

Instruments

The Posttraumatic Diagnostic Scale (PDS; Foa, 1996) is a 49-item self-report measure recommended by the National Center for PTSD for clinical or research settings to measure the severity of PTSD symptoms associated with a specific event. It measures all of the *DSM-IV* criteria for PTSD, symptom severity, intensity and timeframe of symptoms as well as the effect of symptoms on daily functioning. Section 1 is a trauma checklist that explores the breadth of traumatic experience. In Section 2, respondents indicate aspects of their most upsetting traumatic event by selecting items from a list of *DSM-IV* criteria for PTSD. Section 3 rates the severity of the 17 *DSM-IV* PTSD symptom criteria from 0 (*not at all or only one time*) to 3 (*5 or more times a week / almost always*). Section 4 examines which areas of life (e.g., work, sex) have been affected by their symptoms in the last month to assess daily functioning. In the PDS, respondents answer Yes/No if any listed symptoms interfered with their life in the previous month, but for this study respondents rated the same items for frequency ranging from 0 (*not at all or only one time*) to 3 (*5*

or more times a week / almost always) to get a more nuanced indication of impairment.

Complex PTSD, traumatic symptoms caused from chronic trauma, was added to the International Classification of Diseases (ICD; World Health Organization [WHO], 2021) as its own condition in 2019. The *DSM-5* does not recognize complex PTSD as a distinct condition, but its dissociative subtype encompasses many symptoms of complex PTSD (APA, 2013). In order to capture some of the nuance in this evolving area, this study added questions to Section 2 of the PDS on the number of traumas, length of time in the past that the traumas took place, as well as the length of time over which the trauma persisted.

The PDS yields a total symptom severity score ranging from 0 for no symptoms to 51 for the maximum reportable severity of symptoms, and a separate rating for the degree of impairment to daily functioning, ranging from 0 for no areas of life impaired to 9 for the maximum reportable areas of life impaired. According to Orsillo (2001), the PDS is very reliable with strong overall internal consistency ($\alpha = .92$) and for the symptom subscales ($\alpha = .78-.84$; p. 280). The PDS has high-moderate validity when tested for agreement with structured clinical interviews ($\kappa = .65$, 82% agreement; p. 280).

The Multiscale Dissociation Inventory (MDI; Briere, 2002) is a 30-item self-report, sum score measure of dissociative symptomatology. Each item is rated for frequency of occurrence over the prior month, ranging from 1 (*never*) to 5 (*very often*). It was standardized and normed on 52 trauma-exposed individuals in the southern United States and 386 trauma-exposed individuals from a general U.S. sample. The six subscales of the MDI are disengagement ($\alpha = .83$), depersonalization ($\alpha = .90$), derealization ($\alpha = .91$), emotional constriction/numbing ($\alpha = .94$), memory disturbance ($\alpha = .74$), identity dissociation ($\alpha = .75$), and a final total dissociation score ($\alpha = .96$; p. 2). Data from 1,323 clinical and nonclinical individuals indicated that the MDI measures independent, only moderately connected types of dissociative response (mean $r = .39$; Briere, et al., 2005b, p. 221). This scale was chosen to measure not only dissociative symptomatology but also allow

measurement of the types of dissociation affected by PTSD and active imagination.

The Ryff Scales of Psychological Wellbeing (PWB; Ryff, 1989) is a self-report, sum score assessment consisting of a series of statements designed to measure six aspects of psychological wellbeing—autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance—on a six-point Likert scale of agreement. A high score suggests the respondent has mastery of that aspect of their life while a low score indicates that the respondent may struggle or feel inadequate within that particular aspect. Long (84-item), medium (54-item), and short (18-item) versions of the PWB exist (Ryff & Keyes, 1995). The internal consistency of the short version is low ($\alpha = .33-.56$) within the six subscales, but much higher on the medium and long versions ($\alpha = .83-.93$; p. 719). For a combination of reliability and brevity, the 54-question version was used for this study.

The PWB is an appropriate tool for measuring aspects of personal wellbeing at a general level (Ryff & Keyes, 1995), and it measures distinct but related aspects of wellbeing (Keyes et al., 2002), but demographic characteristics may influence the structural validity of the PWB scales and limit replication across broad sample populations (Burns & Machin, 2009). Also, the six PWB subscales have been shown to adequately measure average and lower levels of wellbeing but have lower precision at higher levels (Abbott et al., 2010). However, considering that a qualifier of this study was to be experiencing distressing symptoms, it was presumed that participants' wellbeing scores would tend to be in the average to lower levels, so a lack of precision measuring higher levels of wellbeing would not be a significant limitation.

Procedure

Qualified candidates were invited via email or phone to four active imagination sessions that would take place over approximately four weeks (Appendix A) at a mutually agreeable time and place and given a hard copy or link to the Informed Consent Form. Participants completed the baseline assessments through a confidential website in the order of most general and innocuous to the most

specific and possibly distressing (PWB, MDI, and PDS, respectively). At any time throughout the entire conduct of the study, if participants exhibited or reported distress, they were referred to services, if appropriate, and informed that they could not be included in the study.

Sessions lasted 30–60 minutes each, consisting of one in-person active imagination session each week. The first session began with an explanation of the active imagination process (Appendix A). The room contained a chair, table, and art materials. The active imagination was conducted primarily in silence, with the option for the lights to be dimmed. Participants were prompted to get comfortable and enter a relaxed state in order to become relatively free from the flow of thoughts. After two minutes of silent relaxed mindfulness, participants were invited to “let an image arise in the mind” and “when ready, interact with the image as a separate, living, entity.” The image need not be a naturally occurring thought or image and could be a chosen image, such as from a dream or fantasy, but should not be actual living people if possible. After 10 minutes, participants were invited to give the image form through their choice of art or expression (e.g., writing, painting, sculpting, composing music, or movement), and to apply what was learned to their daily life. Art materials were provided, but participants could bring their own, with permission. According to Jung (1997), outside stimulus could interfere with active imagination, and its creative expression must be produced in a “vacuum of consciousness” (p. 50), so refused supplies included anything mechanical or technological, such as music players or computers. After 30 minutes or when the participant indicated they were finished, they were asked to reflect on what they had learned and how it could be applied to daily life. Ten minutes before the session ended, check-in and debriefing began by asking how the participant was feeling. At the end of the session, participants were thanked, and the next session was scheduled. Participants were recommended to keep their creative work and journal about how the active imagination process affected their daily life since revisiting the work and reflecting on it are important for change to occur (Fordham, 1967).

In subsequent sessions the participant could use a previous image if they felt there was more work to do on it, but they were prompted to first release it during the relaxed mindfulness and when invited to “let an image arise in the mind” to allow it to return, be changed, or be something completely new.

After the final session, participants were reminded to complete the post-intervention assessments and an interview form that would be sent to them in a week. The one-week interval allowed time for reflection and focus on continuing effects rather than temporary changes that may have arisen from the sessions. The interview protocol consisted of semistructured questions (Appendix B) about the active imagination intervention. Reminders were sent weekly through email or phone for up to a month, at which time they would be removed from the study.

Treatment of Data

All physical records pertaining to participants were transported in a locked carrying case to which only the researcher had the combination. Physical records were scanned and encrypted onto a personal hard drive with a password known only to the researcher and locked in a personal safe to which only the researcher held the key. All paper copies were shredded after being scanned; after confirming that all the records were accurate, the virtual scans on the personal computer were cleared using software so no record could be extracted from it. Electronic records were stored as password-protected documents on a private, password-protected computer. Assessment data were collected on a secure, password-protected, website to which only the researcher had access. The website was only accessed from a private, password-protected computer, and data transferred to a password-protected document; after confirming that all records were accurate, the website data were irrecoverably deleted. Pseudonyms were used for all participants, and the index linking identities with the assigned codes was stored as a physical copy in a locked, private location to which only the researcher had access.

The quantitative data were analyzed using SPSS and reviewed by a third-party statistician. Statistical analyses included examining correlations

between the assessments and demographic factors. Baseline score summaries were computed from the three measures. Simple descriptive data trends were computed for the pre- and post- total scores of the three measures. Predictive relationships were examined between PTSD symptom severity and functioning impairment, dissociation, and wellbeing. More specifically, three linear regression models were used to test whether improvements in PTSD symptom severity predicted improvements in functioning impairment, dissociation, and wellbeing. Paired *t*-tests compared baseline with post-assessments to discover possible within-subject changes. Subscales were analyzed to look for more specific or subtle changes.

The qualitative data were analyzed using inductive thematic analysis (e.g., Boyatzis, 1998; Patton, 2015; Percy et al., 2015), a data-driven approach in which the identified themes are strongly linked to the data (instead of theoretical or deductive thematic analysis, which is driven by a clear framework or analytic interest of the researcher). The themes emerged through a careful and iterative manual process divided into six steps (e.g., Braun & Clarke, 2006): 1) become familiar with the data through transcription, reading and rereading, and noting initial ideas; 2) systematically generate initial codes from interesting features in the data; 3) collate codes into potential themes and gather relevant data for each potential theme; 4) review the themes, checking for their relationship to the codes and entire data set, and produce a thematic map of the analysis; 5) define and name the themes; 6) produce the report of final analysis. Thematic analysis began with the eight participants showing the highest mean positive change between from baseline to post-intervention and continued until all interviews were analyzed.

Results

Rolling recruitment started March 2017 and ended February 2020 when the COVID-19 pandemic terminated in-person protocols. Some candidates made it through screening but did not respond once accepted to the study, but everyone who completed the first active imagination session finished the entire set of four sessions and the pre- and post-tests.

The final sample consisted of 17 adults, 10 female (59%) and 7 male (41%), aged 28–61 years ($M = 42$; $SD = 11$). Eleven (65%) described themselves as White/Caucasian, 4 (24%) as Asian/Pacific Islander, and 1 each (6%) as Hispanic/Latino and Mixed.

Quantitative findings.

The PDS symptom severity scores ranged from 8 to 49, with the average for all participants 23.8 ($SD = 10.9$), considered moderate to severe. Functioning impairment scores ranged from 0 to 27, with an average of 13.9 ($SD = 8.6$). Women and men had similar scores for symptom severity and functioning impairment at baseline; no trends were observable by race.

Participants were asked about the type of trauma they had experienced (Table 1), and all marked more than a single type of trauma. The most commonly experienced were “Non-sexual assault by a family member or someone you know” or “Other traumatic event.” Men were more likely to have been non-sexually assaulted by strangers and to describe witnessing or close proximity to other people’s trauma. Women were more likely to report verbal and emotional abuse, most often as a child, and women, particularly Asian women, were more likely to have been sexually assaulted by a family member or someone they knew; in nearly all cases sexual contact began before the age of 18 with someone 5 or more years older.

Participants who marked Yes to “Other traumatic event” described those as ranging from witnessing pets being killed; exposure to violence, drugs, and pornography at a young age; racial discrimination; witnessing suicide attempts; and being belittled by family about having been raped. If reporting more than one traumatic event, participants indicated which one bothered them the most and were asked to use this trauma as reference for other questions, such as timeframe and specifics about their trauma. Primary traumas tended to involve sexual and nonsexual assault by a family member or someone known and the “Other” traumatic events noted. Women, particularly Asian women, were most likely to list sexual assault by a family member or someone they knew as the primary trauma.

Each participant indicated the timeframe of

the primary trauma. All had occurred more than three years prior to this intervention, and most happened over years of duration. White male participants were more likely to indicate a single event, with White females and non-White participants more likely to indicate a trauma that started more than 5 years ago and continued for more than 5 years. Other information gathered about the primary trauma included whether they or another were involved and how they felt. All felt helpless, and all but one felt terrified; most believed their life was in danger or were physically injured during the primary trauma.

On the MDI, higher scores indicate more frequent or intense dissociation, with possible subscale scores ranging from 2–25, and the total possible score ranging from 30–150. Total baseline scores averaged 63, with category thresholds varying by subscale: one standard deviation above the mean for mild dissociation, two indicating moderate dissociation, and three indicating dissociation of clinical significance. Most had mild to moderate dissociation at baseline ($M = 63$; $SD = 18.1$), with a few scoring near or exceeding levels of clinical significance. Participants tended to score highest on Disengagement ($M = 14$) and Emotional

constriction/numbing ($M = 12$) and lowest on Identity dissociation ($M = 7$), with no significant differences by sex or race.

The participants were asked “How long have you been experiencing the problems that you reported?” using a three-point Likert scale from 1 (*Less than 1 month*) to 3 (*More than 3 months*) and also “How long after the traumatic event did these problems begin?” with the choice of either *Less than 6 months* or *6 or more months*. All reported the duration of their dissociation as more than 3 months, with approximately half indicating a delay of 6 or more months before the dissociation began, with no significant differences based on sex or race.

The PWB version used in this study has a total possible score ranging from 54–324. The average total score for this sample was 214, ranging from 124 to 284. Men and women tended to score similarly across all aspects of psychological wellbeing, with the highest scores on the personal growth dimension ($M = 45$; $SD = 6.5$).

An ANOVA test for mean differences found no age, sex, or ethnicity differences at baseline.

Comparing the baseline results to the post-test scores showed significant, primarily positive changes across nearly every aspect measured. On the PDS, average symptom severity scores fell from 24 to 18; functioning impairment scores, from 14 to 8; and total PDS scores decreased from 38 to 26. The *t*-test revealed a significant reduction in symptom severity and functioning impairment ($t[16] = 3.65$, $p < .01$). The PDS subscale measures showed similar improvement, with no trends for sex or race.

The MDI scores showed a significant reduction in dissociation from baseline, going from a mean of 63 ($SD = 18.1$) to 53 ($SD = 15.1$; $t[16] = 3.62$, $p < .01$). The paired *t*-tests for the subscales showed more specific within-subject changes: disengagement, depersonalization, derealization, memory disturbance, and identity dissociation decreased similarly and significantly, while the emotional constriction/numbing subscale also decreased but not significantly, with no specific changes based on sex or race.

The Wellbeing PWB post-test scores ($M = 237$, $SD = 38.7$) were significantly higher than baseline test scores ($M = 214$, $SD = 40.4$), ($t[16] =$

Type of Trauma	Male	Female	Total
Serious accident, fire, or explosion	5	6	11
Natural disaster	6	5	11
Nonsexual assault by a family member or someone you know	6	7	13
Nonsexual assault by a stranger	6	0	6
Sexual assault by a family member or someone you know	2	8	10
Sexual assault by a stranger	3	4	7
Military combat or war zone	1	0	1
Imprisonment	1	1	2
Torture	1	0	1
Life-threatening illness	4	2	6

Table 1. Type of Trauma Experienced by Sex ($N = 17$)

-2.85, $p < .05$), indicating significant improvements. All wellness subscales showed similar significant improvements, with no specific changes based on sex or race.

Thus the primary hypothesis that the therapeutic use of an active imagination intervention would reduce PTSD symptomatology and dissociative tendencies and increase of wellbeing was supported.

To explore the mediating relationship between PTSD, dissociation, and wellbeing, three linear regression models were run to test whether improvements in PTSD symptom severity predicted improvements in PTSD functioning impairment, dissociation, and wellbeing. It was hypothesized that a negative correlation would exist between PTSD and wellbeing. The linear regression models found the PTSD symptom severity scores at post-test predicted (with a small but positive and significant effect) the PTSD functioning impairment scores ($p = 0.705$), the MDI dissociation scores, and PWB scores. Higher PTSD symptom severity predicted higher impairment, and lower severity predicted lower functioning impairment; higher PTSD symptom severity predicted higher dissociation, and lower symptom severity predicted lower dissociation. Additionally, higher PTSD symptom severity predicted lower psychological wellbeing, while lower severity predicted higher wellbeing, confirming the primary hypothesis and verifying the expected association between the variables.

It was hypothesized that dissociative tendencies would be negatively correlated with wellbeing, and, further, that frequency of dissociation would at least partially mediate the relationship between PTSD symptom severity and wellbeing; specifically, a reduction in dissociation would correlate with a reduction in PTSD symptoms and an increase in wellbeing. The frequency of dissociation was examined as a possible mediator of the relationship between PTSD symptom severity and wellbeing. When compared to the pre-test PTSD scores, no significant correlation was found with the PWB, but all the post-test measures were significantly correlated with PWB and dissociation. All post-test measures were used for mediation analyses. The mediation model found that PTSD predicts dissociation (mediator), and PTSD predicts

Wellbeing (outcome). However, after controlling for PTSD, dissociation does not predict wellbeing.

In order to compare meaningful relative change between pre- and post-tests, the scores for the three assessments were given equal weight by converting the total score for each assessment into a percentile of the total possible score (0 for lowest possible score and 100 for highest possible score). Since lower scores indicate improvement on the PDS and MDI, they were reverse-scored, then averaged with the PWB. Paired t -tests showed significant improvements post-test (Table 2).

With the PDS, 15 of the scores declined, and two increased. Of the latter, both showed a change of 13, one score going from 42 to 55 and the other from 23 to 36, indicating a 30% and 56% increase in PTSD symptomology, respectively. The two most decreased scores (both a change of 50 points) indicated a 91% and 85% decrease in PTSD symptomology, respectively. On average PTSD symptoms decreased by 32%.

With the MDI, 13 scores showed a decrease in dissociation from pre- to post-test, and 4 scores increased. The two most increased scores, both a change of 3 points, indicated a 40% and 17%

	Pre-test		Post-test		Difference			
	M	SD	M	SD	M	SD	Min	Max
PDS	48	21.3	33	24.0	-15	17.6	-50	13
MDI	27	15.1	20	13.2	-7	8.9	-28	3
PWB	59	15.7	68	15.3	9	12.5	-10	46
Total positive change					31	28.3	-16	91

Table 2. Amount of Change between Pre-Test and Post-Test Percentile Scores ($N = 17$)

increase in dissociation, respectively. The most improved changed 28 points, indicating a 72% decrease in dissociation. On average dissociation decreased by 29%.

With the PWB, 3 scores declined from pre- to post-test, and 14 increased (wellbeing increased). The most decreased score was a change of -10, indicating a 14% decrease in wellbeing. The most increased score was a change of 46 points, indicating a 113% increase in wellbeing. On average wellbeing increased by 15%.

The average percentile of the three pre-test scores produced a descriptive total baseline score, and comparing this to the average percentile of the post-test scores produced a descriptive total amount of positive change score. Paired *t*-tests found significant improvement. The most decreased score showed a change of -16: PDS went from 23 to 36 for -13 positive change (55% increase in PTSD symptoms), MDI from 13 to 6 for 7 positive change (56% reduction in dissociation), and PWB from 75 to 65 for -10 positive change (14% decrease in wellbeing), indicating a 9% decrease in average positive change. The most increased score showed a total positive change of 90, a PDS score from 59 to 9 for 50 positive change (85% decrease in PTSD symptoms), MDI from 39 to 11 for 28 positive change (72% reduction in dissociation), and PWB from 66 to 78 for 12 positive change (18% increase in wellbeing), altogether a 58% increase in average positive change for this participant. On average the total positive change scores increased by 25%.

On average, all scores significantly improved, and every subscale significantly improved except for the MDI emotional constriction/numbing subscale—which also improved but not significantly—with no obvious changes based on race. Females had the highest score of total positive change as well as the lowest scores, but while women make up the very edges of the sample, the distributions are not conspicuously different based on sex.

Qualitative findings

One participant did not complete the interview questions, resulting in a qualitative sample of 16. Thematic analysis produced five main themes: *general reflections on the active imagination process*, *general benefits*, *effect on PTSD symptoms*, *attitudes about active imagination*, and *states of mind during active imagination*.

General reflections on the active imagination process, defined as broad descriptions about the complete active imagine process, were positive (14, 88%; 9F, 5M).

It is a great experience and I would suggest it to anyone who has experienced trauma. (Steven)

Overall I thought it was really positive. ... I wasn't really sure what to expect, and I was pleasantly surprised. (Monica)

It was a good experience overall. (Ariel)

Eight (50%, 4F, 4M) said it was more than just a positive experience, emphasizing its mysterious power. "It has been a very surprising, valuable, and mysterious experience" (Melissa). "Rewarding, joyful, illuminating, empowering, mysterious, and therapeutic" (Devon, 2018).

Five (31%, 2 F, 3 M) said that they currently are continuing or intend to continue the process in the future:

It's been, I think a couple of weeks now since I went to my last one. To think about it, I haven't done any active imagining since and I almost kind of missed it. I want to try to find a way to maybe make it part of at least my weekly life, if not like even a daily practice. I struggle with that enough already, making things a daily practice, but maybe taking ... some time on a day out of my week to maybe participate in an active imagination session on my own I think would probably be beneficial to me so I would like to hopefully continue that. (Monica)

I will pursue it as the main avenue of my ongoing work in therapy. (Steven)

However, three women said that they did not improve: "As far as images from childhood or other crappy memories those have not changed" (Mallory), and "My symptoms are still here" (Sydney). Of the two who described no improvement, one had a low but improved total positive change score on the quantitative instruments and the other had a negative total positive change score. The latter had had a close family member commit suicide between the first and second active imagination sessions and also unexpectedly changed medication during the process. Interestingly, the lowest scoring participant described numerous ways in which it helped her:

I would use it when I have bad feelings, emotional feelings, PTSD traumas, flashbacks, Murphy's Law or whatever life throws at you.

... Helping me to find a simple, better way of dealings with LIFE in general. ... I would use it when I need to wherever I am at ... to put me in a positive attitude. ...

It has actually helped me from having [PTSD symptom] reoccurrences, finding some healing feelings, not going into a full spiraling down the dark hole, where I don't want to live anymore. ... I feel safe, not fear of something, putting up boundaries. (Nancy)

The *general benefits* theme captured specific positive results or experiences not related to PTSD symptoms reported as a result of the intervention. Twelve (75%, 7F, 5M) mentioned deeper self-understanding:

The study has reinforced my trust in the wisdom of the unconscious, and it helped me have a visceral experience of my own wisdom/unconscious. (Melissa)

Other imagery that came up during the session is still being ruminated upon, and the way they were presented caused me to see facets of my trauma in different ways. (Ariel)

In each session, my state of mind shifted into a more childlike curiosity, and I felt my mind opening to the world of possibility that there was so much within me to discover about myself through engaging with images and bringing them to life. The process of bringing each image to life presented its own set of insights, and was like holding up a mirror to long-held self-limiting stories and beliefs about myself. (Devon)

More than half (10; 63%, 5F, 5M) felt empowered:

I still remember what each image meant to me, and if I get distracted, I can re-orient my actions and behaviors by simply recalling the corresponding image. For example, if I feel that I am buckling under pressure, or diminishing myself in any way, I think about the shining black pyramid obelisk in the desert from my first session, which made me feel strong and unshakeable, like it belongs there, taking up all

that space. And I feel attuned to that message, able to internalize it and adjust my behavior accordingly. (Devon)

It was a reminder of my own power and that I was not helpless. (Ariel)

I feel more confident, something I had lost. (Cindy)

Eight (50%, 5F, 3M) described a sense of space, ease, or increased relaxation:

I am much calmer, and I feel like I have more bandwidth to do the daily act of living life. (Cindy)

I have let myself lapse into that state of mind during other situations, such as riding the train or walking or just being at home. It allows me to calm myself down and process the day a little bit more. (Rebecca)

A feeling deep in my heart of a kind of silent weeping that comes from relief. (Steven)

Seven participants (44% 4F, 3M) described increased wellbeing, such as this example:

I've adopted a more abundant growth mindset which seems to create opportunity in every direction I look and think. Since this is a concept I've been aware of for a long time, it's hard to say if this is a result of active imagination—but I will say it seems to be sticking and penetrating more than before, and my actions reflect that. (Devon)

Another seven (44%, 5F, 2M) mentioned enhanced coping skills. "I have a key tool in shaping the life I want" (Lewis). "I am much more able to handle difficult situations without freaking out" (Cindy).

Eight (50%, 6F, 2M) described a transpersonal experience that occurred during the active imagination sessions. "I have met and drawn my spirit animal, and spirit guide" (Cindy). "The ladybug images...helped me believe that there truly is a higher power guiding me and helping me. I'm never alone" (Johanna). "I felt I had found a source of wisdom, power, and grace I was willing to begin to trust" (Steven).

Five (31%, 2F, 3M) said the process helped them heal: "I am becoming less attached to my wounds. This work helped with that" (Glen), and "I had a feeling I was 'getting somewhere' in the process of healing trauma in a way I had not ever experienced before" (Steven).

A quarter of the sample (4; 3F, 1M) noted increased focus or ability to be present: "I also seem to be much more present and less distracted and lost in that hazy, wraith-like world of the undead I have always felt" (Steven). An equal number (2 F, 2 M) experienced compassion, love, or joy: "I feel much more forgiving towards myself for what happened" (Rebecca), and "It was a reminder for me to keep spreading laughter in this world" (Johanna).

Participants were asked about the intervention's effect on their PTSD symptoms; 7 (44%, 5 F, 2 M) mentioned a generally positive shift:

I do feel like my understanding of my PTSD and being trapped in it so to speak are better. I feel like these sessions have been inherent in my healing. (Ariel)

It helped my PTSD symptoms just by knowing that I'm never alone. (Johanna)

Six people (38%, 3 F, 3 M) noted a reduction in dissociation or avoidance:

I have been feeling less dissociation symptoms. I used to lose track of reading, say things I didn't realize, and have a general sense of a disorganized mind. (Daniel)

I can now just handle [activating] actions with my own calm actions without freezing. (Cindy)

By giving myself the opportunity to just explore whatever came up from those moments I was able to discover that I had more in my mind than I thought I did about these things: more memories, more images, more emotions. (Glen)

Four participants (25%, 1F, 3M) experienced a reduction in negative mood or thoughts: "I am feeling more organized in my thought process and less paranoid that people don't want me around" (Daniel). "I've definitely noticed that I've stopped telling myself the stories about how I'm broken or

not good enough" (Devon). More specifically 5 (31%, 3 F, 2 M) said their anxiety had decreased: "It has alleviated much of my anxiety" (Cindy). "I would describe myself as having anxious attachment and have been feeling a little bit less clingy with people" (Daniel). Three (19%, 1F, 2M) reported a reduction in fear: "I have noticed a decline in the generalized feelings of dread, terror and numbness that have been a daily reality for me all of my life" (Steven).

Four people (25%, 3 F, 1 M) said intrusive recollection had gone down:

It's actually helped me from having reoccurrences. (Nancy)

I am more easily able to break out of the cycle of clinging to one memory and repeating it over and over again. In this way, my symptoms have gotten much better, as I have not spent nearly as much time punishing myself or comparing myself to other people. (Rebecca)

However, three women (19%) had intrusive recollections during the active imagination process:

It was very difficult to hold the image in my mind. I feel like my brain only lets me hold crappy images/shitty things in my head as those replay over and over. It's harder for me to think of nice images. (Mallory)

I would say that my issues around being hit by a car have been amplified and have worsened as they are being worked through. (Ariel)

Attitudes about active imagination involved feelings about parts of the active imagination process. When describing the early part of the process, 7 (44%, 6F, 1M) noted apprehension or negative judgments:

Getting started each session, I felt myself judging myself a lot throughout the process. Why can't you learn to meditate and be in the moment? You're wasting his [researcher's] time. An image won't come to you, or if one does it will have some obvious source. (Rebecca)

It was somewhat difficult to trust that I was doing the imagining correctly, although, it's not

unusual for me to struggle with open-ended activities. (Melissa)

I was in for another painful, disorienting, and failed therapeutic attempt to rid myself of the perpetual feelings of dread, terror, numbness, and profound confusion from childhood trauma. (Steven).

Three (19%, 2F, 1M) experienced intensity and difficulty, declaring that “working with what is there or unearthing what is stored in there is quite an intense process, as intense as working with the actual things that happened” (Ariel).

Four (25%, 3F, 1M) experienced difficulty in the relaxation part of the process:

I tried my best to fully surrender. To turn my monkey-mind off and let whatever wanted to show up to show up. It was difficult at first. (Johanna)

It was very tough to quiet my mind and let go of my self-judgments during the process. While meditating, it felt like I was dropping into a well, and all of my memories from the day/week—sights, sounds, emotions, were just whooshing by me, and I had to intentionally not grab onto and dwell on any of them. Once I got to the right place in my head, where things were still, I was able to let other images come up. (Rebecca)

Conversely, an equal number (25%, 3F, 1M) experienced early ease or calm. When finding an image, 9 (56%, 7F, 2M) described the process as easy or enjoyable:

My first experience was like looking at a scene drawn on a scroll, at first it was the edge of what looked like a lovely snow capped mountain. As the image rolled through my mind’s eye, it panned out to reveal an impact crater with smoke coming out of it. It really spoke to how I felt. (Cindy)

Incredibly sweet. Like a mini-vacation each time. Sort of a luxury to just give myself a moment to imagine. (Glen)

Six participants found this stage difficult, saying “I’m someone who feels like I’m in-between

worlds already due to trauma and my new age upbringing and to let that ‘god energy’ in was a bit much at times” (Ariel). and “I usually had physical sensations of pain, pressure on parts of my body and had images accompanying them” (Sydney). Four (25%, 3F, 1M) said engaging with the images was difficult or anxiety producing: “It was very difficult to interact with the images. I had questions I was asking them, but I didn’t get any answers. It was frustrating” (Mary), and “It was hard to think of an image and to stick with it” (Mallory).

Regarding subsequent sessions, 9 (56%, 7F, 2M) described increasing ease, confidence, and depth:

The “conversation” became increasingly deep and complex, and I felt I had found a source of wisdom, power and grace I was willing to begin to trust. I noticed during the subsequent sessions the meeting place between my awareness and the images became more defined in texture, color, and feeling and seemed to grow more potent and expansive. (Steven)

While initially the concept seemed extremely vague and abstract, I found the process of engaging and interacting with the images much easier than expected once I did it once. (Devon)

It was difficult at first, but the more I surrendered to the experience the easier a visual came through. I liked interacting with the images. Each one seemed to have meaning. (Johanna)

Three (19%, 1F, 2M) found the creative expression part of the process enjoyable:

It made me realize how fun it is to draw and give things a picture. Definitely want more crayons in my life. :) (Keith)

I was able to bring each image home each week and post them in my living room side by side. It was a way of taking something generally buried and only mentioned in passing and really bringing it into my present day, really living with it. Somehow it felt liberating. I’m reminded of a form of psychotherapy where you only work on core beliefs and when you’ve got down to the most essential part, you write it down, hand

it to the client, ask them to put it somewhere prominent and say, "Come back to see me when it no longer has a hold on you." (Glen)

[After I got the image and would draw it] I was often surprised by the emotional nature of my reaction and how accurately it captured what had been going on with me. (Rebecca)

The theme *states of mind during active imagination* refers to important shifts in consciousness during the process. The most common was a broader or more holistic point of view (12; 75%, 6F, 6M):

It seemed to bypass my logical brain and satisfied a part of me that wanted to come up with a solution to a problem. There was no problem to be solved only a story to unfold. Strangely connecting and satisfying. (Daniel)

Each experience really connected to something deep in my soul and was clarifying and cathartic. (Cindy)

I wouldn't say my symptoms changed, but my mindset changed. For example, I could see how I was living in the past and kept telling myself the same story since 2017. (Johanna)

Nine participants (56%, 4F, 5M) described positive transformations of their experience, with most describing multiple occasions:

It feels like it has removed blockages that have held me back, and I can now move forward with my life. (Cindy)

I got a giant tattoo of an image that was important to me. I found that the active imagination process helped with some coping skills—such as when I was upset and returned back to the image of the large black snake and had her eat everything that bothered me. That showed me that there are ways to deal with stress that are positive (in opposition to things like having a drink or something detrimental to the body). (Ariel)

A week before our last session, I crossed paths with my rapist/abusive ex for the first time in years. It ended up being a positive experience, as seeing him did not stir any trauma or negative

feelings—it helped me realize that I am doing so well compared to back then, and that I am not afraid of him anymore. In that way, that experience combined with the active imagination sessions has helped to release some of the hold that these memories had over me. (Rebecca)

Summary

Both quantitative and qualitative findings generally show positive changes with occasional radical improvement. The latter is especially surprising, considering that traumatic experiences and symptoms, particularly after significant time, can be relatively resistance to treatment.

Discussion

The study design involved a number of limitations and delimitations, the most significant being the small sample size, which greatly limits generalizability. Although designed as a pilot with a deliberately low target sample, the reduction forced by the COVID-19 pandemic further limited the sample. Nevertheless, the consistent and strong positive results argue for pursuing this approach as a PTSD treatment. Recruiting in the San Francisco Bay Area, primarily at educational and therapeutic institutions, skewed the data towards the socioeconomically privileged. While it is unclear whether higher socioeconomic status results in less PTSD or simply that PTSD decreases productivity and economic performance, they are connected (Bromet et al., 2018).

Race did not predict improvement. There were no significant differences in rates of trauma based on race, probably a factor of the small sample, as this does not reflect the literature on PTSD. Epidemiological studies using probability samples show that people who identify as African American and Hispanic/Latino are exposed to traumatic events at a higher rate than those identifying as White, have a greater risk of developing PTSD, increased prevalence of PTSD, and more severe symptoms (Dohrenwend et al., 2008; Himle et al., 2009; Roberts et al., 2011; Ruglass et al., 2020).

Whereas men are more likely than women to experience trauma, PTSD is twice as likely in women (Kessler et al., 1995). Women experience

higher rates of rape and sexual assault (Lehavot et al., 2018; Wisco et al., 2014), reflected in this study. Women are also more likely to report assaults, particularly sexual assaults. On college campuses, about 33% of male survivors of sexual assault do not disclose the assault to anyone, compared to only 15% of women (Banyard et al. 2007, as cited in McGraw & Tyler, 2002, par. 5). Additionally, only about 18% of male survivors sought professional help, whereas women are more likely to utilize resources (Masho & Alvanzo, 2010), such as participating in this study. In this study, males' greater likelihood of physical assault and higher number of traumas reflect trends in the general population (Kessler et al., 1995; Tolin & Foa, 2006).

The age demographic surprisingly showed up on one subscale: older participants had significantly lower disengagement dissociation scores at baseline on the MDI, suggesting that dissociative disengagement may reduce naturally with age. This may partly explain why the active imagination process succeeds even long after the traumatic events: not only has time allowed a slow processing of the experience, but also time itself may reduce the tendency to disengage, thereby allowing a new opportunity to process in a deeper way not possible at an earlier age.

The design was further delimited in only assessing a four-session protocol; it is not known how many sessions might yield optimal results, so possibly more sessions might have provided better outcomes. With final assessment on average only two weeks after the intervention, it is impossible to know whether this method produces sustainable gains. Although the researcher followed as closely as possible the protocol script, individual session dynamics ethically sometimes required a brief departure when the participant needed more support or had questions, and social desirability bias and other researcher effects could have positively skewed the interview data in unknown ways. Follow-up studies should have a larger sample; utilize a 6–24 month follow-up interval to assess long-term efficacy; experiment with the number of sessions; and use comparison groups with different therapists using the standard protocol.

Statistical analysis found that, on average, scores on each of the three assessments improved by 25% from baseline. Even when examined on the level of the subscales, all significantly improved, with the only exception the MDI emotional constriction/numbing subscale, which improved, but not significantly.

After controlling for PTSD, dissociation did not predict wellbeing. This is not necessarily surprising, since dissociation is a large part of experience not just a product of trauma. This is supported by the fact that the *DSM-5* added a dissociative subtype to PTSD and recognizes that dissociation is a primary component to about one-third of PTSD—a significant proportion, but not ubiquitous (APA, 2013). Dissociation is a natural, everyday occurrence not directly related to general wellbeing, yet dissociation increases with PTSD symptoms; in other words, traumatic dissociation, not dissociation in general, is an important distinction in future research. Although dissociation decreased by 29% on average—quite a significant change—the results support the premise that dissociation is best described as not one specific metric but a spectrum of traits, symptoms, and coping mechanisms. Changes in dissociation, while correlated with PTSD symptoms, show significant individual variation. While the MDI measures relatively discrete dissociative factors, the specific mechanisms are still not adequately understood and do not always appear to be clearly positive or negative. The results of this research support the idea that an individual's dissociation may be adaptive at one part of the processing of PTSD, while maladaptive at another part, and that these adaptive or maladaptive dissociation coping mechanisms vary by person. Future research should focus on creating more discrete dissociation categories and finding the situations when each category is most helpful or detrimental for PTSD coping, future research should explore how age and dissociative disengagement affect these factors.

Looking at the aggregate change of the three assessments as an equally weighted total positive change score, 15 of 17 participants showed net improvement. The total positive change score, as an aggregate percentile change based on the weighted results of each of the assessments, tends

to amplify change from lower baseline scores and minimize change from participants with higher baseline scores. If a participant was already doing well, there was very little room for positive change, whereas results that started low and then ended up much higher represent a significant change, true for several people.

On average, PTSD scores decreased by 32%, whether participants had a higher or lower baseline of PTSD symptoms. This is a radical degree of change, and this finding alone means active imagination should be studied further as either a primary or adjunctive process of working with traumatic symptoms. Compared to the change in PTSD symptoms, wellbeing was relatively resistant to change, only increasing by 15%, and this increase was largely affected by the few people who had radical positive shifts and pulled up the average. These results suggest that, while a reduction of PTSD symptoms can increase wellbeing, wellbeing may be more resistant to quick positive shifts, and future research would benefit from longitudinal analysis to see whether these larger shifts in PTSD symptoms are integrated into the complicated psychic infrastructure of wellbeing.

The two most increased participant results showed a total positive change score of 91 and 84, far above the next highest total positive change score of 53. The data were reanalyzed with these two scores removed, reducing average PTSD scores by 32% (no change from complete sample) and dissociation by 25% (compared to 29%), and increasing wellbeing by only 9% (compared to 15%), with a total positive change of 19% (compared to 25%). Since the reduction of PTSD symptoms remained unchanged without the most positively changed participants' data, it may be a consistent shift throughout the sample, strengthening the results.

The qualitative data suggest that the most positive results happen when active imagination is made into a regular behavior, and thus supplemental therapy may help integrate any positive results into everyday life. While the quantitative data are generally positive, the qualitative data described further encompassing positive results, including 75% of participants who experienced broader and more holistic points of view and over half

(56%) describing positive transformation. The results support a transpersonal perspective in that it is directly aimed at reconciling the relationship between the conscious ego and all that extends beyond—that is, the transpersonal dimensions of experience. Active imagination stands out as a quintessential transpersonal intervention, one that has the primary benefit of fostering an increasingly intimate relationship with the innate intelligence of the deep psyche and the myriad and diverse forms of transpersonal phenomena.

The findings suggest that conventional therapy may benefit from being supported by active imagination as either a primary or supplemental intervention. In turn, the processes of transformation induced by active imagination may be greatly supported by conventional therapy, especially in the process of integrating the insights derived from active imagination into the client's daily life and behaviors.

A primary premise of Jungian psychology reinforced by this study is that everyone has a capacity to generate images of their experience that, when recognized and related to consciously, lead to a decrease in psychological symptoms rooted in trauma, increased capacities for self-awareness and emotional regulation, and a sense of fulfillment. With trauma and dissociation, the psyche is reconfigured in such a way that this very capacity to form images works against the self, as a protective measure from further traumatization, skewing psychic reality towards constant and compulsive assessment of threat and efforts toward avoidance and seeking safety. Greater perspectival possibilities are continually lost in favor of the constant need to stabilize the volatility of the traumatized psyche. This study supports the prospect that active imagination is helpful because dissociation and powerful imagery are not inherently the problem; rather the problem is the rigidity of traumatic dissociation. These dissociative barriers people make in themselves, likely once necessary and adaptive, do not necessarily even need to fall, for they are perhaps still necessary and adaptive. People can build walls around the most vulnerable parts of themselves to protect the parts they hold most dear at any cost. Traumatic dissociation is perhaps so rigid because it intends to protect, forever. But nothing is

forever. Active imagination is a technique of staring into the abyss until it stares back, and building a relationship with what is found. The results of this admittedly small study overall are so consistently positive that active imagination warrants further exploration as a safe, cost-effective, and perhaps more therapeutically effective treatment for PTSD because it works with the transcendent function of the self for self-healing.

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Appendix A: Active Imagination Prompts

1. (If Session 1—Introduction) “Do you have any questions about the Informed Consent Form or Bill of Rights?” (Address questions or concerns). “The active imagination sessions will be comprised of four general steps. First, you will relax for a few minutes in order to prepare yourself for the process. Secondly, you will allow an image to arise and solidify in your mind. Thirdly, you will engage this image in a physical/creative way, such as writing, drawing, or sculpting. Finally, you will journal about the process and how it may be applied to your daily life. I will indicate suggested transition points after set times during the process, but you may indicate at any time that you are ready and would like to move on. If at any time you have questions or concerns feel free to ask.”
2. “How are you feeling?” (Brief, minute or two at most, for a check-in. Researcher will simply reflect in order to clarify their state is not significantly distressed).
3. “Do you have any questions or concerns before we begin?” (Address questions or concerns).

4. (Session minute 1) "Please take a couple minutes to get comfortable and relax, let your thoughts become relatively quiet." (If possible, add "I can dim the lights if you wish.")
 - If questioned or difficulty observed — "How are you feeling" (Reflect and assess for distress) "Try focusing simply on taking deep breaths. One technique is to breath slowly, making the exhale longer than the inhale, pause in-between, and focus on the stillness after the exhale."
 - If significant distress described—"Would you like a glass of water?" "This study does not appear to be a proper fit; I have information on resources that may be more appropriate" (discontinue study and refer to appropriate resources).
 - If the participant falls asleep—(Gently awaken them by saying their name) "I noticed you fell asleep, please take a few moments to wake up before we continue."
1. After 2 minutes of silent relaxation (session minute 3)—"Let an image arise in the mind and become the focus of your attention. Allow it to develop as if the image is a separate, living, entity."
 - If questioned—"The image need not be a naturally occurring thought or image; it may be a chosen figure such as from a memory or dream but try to avoid actual living people if possible. Contemplate it and carefully observe how the image begins to unfold or to change. Don't try to make it into something, just do nothing but observe what its spontaneous changes are."
 - If difficulty persists, restart at (3)
1. After 2 minutes or participant indicates they are ready (session minute 5)—"When ready, interact with the image in a way that leads to a creative expression, perhaps writing it a question and writing its response, or drawing or sculpting the image, or movement; whatever feels most appropriate."
 - If creative expression is non-physical (movement/dance) indicate that it should be recorded/remembered in such a way that it can be repeated and revisited later.
1. After 10 minutes; if the participant has not started a creative work (session minute 15)—"I invite you to give the image form through your choice of creative expression, such as writing, drawing, sculpting, or movement; whatever feels most appropriate."
2. When 25 minutes pass (session minute 35)—"Please find a stopping point in the next five minutes, your work does not need to be finished, just find an appropriate place to pause."
3. When 5 minutes pass or the participant indicates they are finished (session minute 40)—"Please reflect on the process, perhaps about what you may have learned or experienced and how it may be placed in the context of your daily life."
4. When 10 minutes remain in the session or participant indicates they are finished (session minute 50)—"Please find a stopping point in the next five minutes, you do not need to be finished, just find an appropriate place to pause."
5. When 5 minutes remain in the session (session minute 55)—"How are you feeling?" (reflect)
 - For the first session, if anything other than significant distress is indicated —"I encourage you to keep your creative works and continue your creative expression and journaling between the active imagination sessions. A new creative work will be started each session so you do not need to bring your works back each time. Although, I suggest making them a part of your life in some way, and possibly saving them as a talking point for the interview if it feels appropriate. Also, if a section of the journaling indicated some action or reflection, I recommend an appropriate amount of time be set aside."
1. Session end—"Thank you (insert participant's name)."
 - If there are more sessions—"Does the same time next week work for you?" (set up the next appointment time). "I suggest inviting the process to continue to inform your daily life, perhaps continuing to journal, create works, or reflect on the process, as feels appropriate."
 - After final session—"The last step, the *final assessments and* interview, will be a reflection on both your process during

the active imagination sessions and on any possible lasting changes. An opportunity will be given to talk about the aspects you found important, both positive and negative; and bringing back partial or complete writings and art in order to express what you would like to share is encouraged. Again, thank you. I look forward to hearing about your journey.”

Appendix B: Interview Questions

1. Describe the experience of active imagination.
 - Describe what you were feeling.
 - Describe what was going through your mind.
 - Describe what you were doing.
2. Describe any essential changes of experience during the active imagination.
3. Describe the experience of your own imagining through the active imagination process.
4. Describe how active imagination was used in your life?
 - Has your life changed, and in what way, from when you began?
5. Has the active imagination process affected your PTSD symptoms and, if so, how?
6. Is there anything else you would like to say about the active imagination process?
7. Is there anything else you would like me to know?
8. What has the experience of this study been like for you?

Thank you for giving me the opportunity to explore your experience.

About the Authors

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About the Journal

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