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Integrating choice points into mindfulness training for the dissociative subtype of PTSD: A case report

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Abstract

Approximately 15–30 % of individuals diagnosed with PTSD experience high levels of dissociation, a condition categorized in the DSM-V as a dissociative subtype of PTSD (PTSD-D). Despite the rising number of studies supporting mindfulness-based interventions (MBIs) for the treatment of PTSD, literature on mindfulness and dissociation remains scarce and discording. While best practices for offering mindfulness for dissociative patients remain unclear, integrating choice points into MBIs may be aligned with trauma-informed principles and effective in countering loss of self-agency associated with trauma. In this article, we present a case study from a larger randomized controlled trial of an individual with PTSD-D who successfully completed an 8-week MBI while displaying active dissociation symptoms throughout the group. Follow-up interviews with stakeholders in the patient's care as well as pre-and post-intervention assessments indicate that the patient had a positive experience with the mindfulness training and improved self-regulation. Analysis of the case study suggests that the mindfulness training may have been safe and effective for this patient due to the integration of choice points throughout the mindfulness training and promotion of structural safety. We expand on this by further discussing six influencing factors that contributed to the outcome of the case study and can serve as a reference for clinicians, researchers, and instructors who wish to offer MBIs safely to patients with PTSD-D.

Keywords

Choice points; Dissociation; Mindfulness; PTSD; Trauma-informed; Safety

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Compliance with ethical standards

This study had a NIH-approved data safety monitoring plan with an independent monitor and was approved by the CHA Institutional Review Board. Procedures followed all provisions of the Declaration of Helsinki.

CRediT authorship contribution statement

My Ngoc To: Writing – review & editing, Writing – original draft, Project administration, Formal analysis, Conceptualization. **Zev Schuman-Olivier:** Writing – review & editing, Supervision, Resources, Project administration, Methodology, Investigation, Funding acquisition.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

1. Introduction

Dissociation describes psychological disconnection from present-moment experience through positive symptoms (depersonalization, derealization, intrusions to awareness and behavior) or negative symptoms (amnesia, paralysis, aphonia) (Spiegel et al., 2013). Approximately 15–30 % of individuals with PTSD have a dissociative subtype of PTSD (PTSD-D) with high levels of dissociative symptoms (Lanius et al., 2012; Schiavone et al., 2018) that interfere with traditional PTSD treatments, causing poor treatment outcomes after completing traditional PTSD treatments, such as Cognitive Processing Therapy and Prolonged Exposure Therapy (Bae et al., 2016; Banks et al., 2015; Boyd et al., 2017; Price et al., 2014; Schiavone et al., 2018). Mindfulness may be able to uniquely target dissociative mechanisms through increasing awareness of somatic sensations, raising tolerance of aversive internal experience, and cultivating connection to self and others (Boyd et al., 2018; Forner, 2019; Zerubavel and Messman-Moore, 2015). Trauma-informed mindfulness, as a supplement or alternative to traditional PTSD treatments, has demonstrated low attrition rates with medium to large effect sizes (Banks et al., 2015; Boyd et al., 2017; Hopwood and Schutte, 2017; Kim et al., 2013; Lang, 2017; Thompson et al., 2011).

Literature on mindfulness and dissociation is emergent and conflicting; some studies indicate negative associations between dissociative symptoms and mindfulness among clinical populations (Escudero-Pérez et al., 2016; Perona-Garcelán et al., 2014; Sharma et al., 2016), while others find positive correlations between depersonalization and nonreactivity, a fundamental mindfulness trait (Levin et al., 2022). The research gap stems from clinical concerns for contraindications when offering mindfulness to those with PTSD-D (Forner, 2019; Zerubavel and Messman-Moore, 2015). As mindfulness processes such as interoception and decentering can become negative after a certain degree of exposure (Britton, 2019), mindfulness meditation can lead to adverse experiences such as depersonalization, derealization, and alterations in sense of self, time, space, and body (Berkovich-Ohana et al., 2013; Kohls et al., 2019; Lindahl et al., 2017; Pickering, 2019). Lack of discussion around dissociation in common mindfulness teachings have further resulted in some mindfulness trainings that push patients outside their window of tolerance (Siegel, 2012; Treleaven and Britton, 2018).

Though optimal ways to apply mindfulness for therapeutic change are still unknown (Lang, 2017), it remains imperative to explore trauma-informed ways of delivering mindfulness that can prevent adverse effects of dissociation. It may be possible to find a “middle way” (Britton, 2019) that calls for neither incautious implementation nor complete disconnection. One route may be emphasizing choice flexibility because it fosters self-compassion, agency (Harris, 2019), and emotion regulation (Alkoby et al., 2019), counteracting the disruption to self-agency caused by trauma (Kolk, 2015). Drawn from Acceptance and Commitment therapy, choice points can be naturally integrated into mindfulness teachings because they encourage present-moment awareness of opportunities to act in alignment with one’s values, skills, and strengths rather than reacting to unpleasant stimuli (Harris, 2019). In this paper, we present a case study of a patient with active dissociation who successfully completed Mindfulness Training in Primary Care (MTPC), an 8-week mindfulness-based

intervention (MBI) (Cullen, 2011; Demarzo et al., 2015). MTPC uses a warm mindfulness training approach (Gawande et al., 2023) based on the trauma-informed Mindful Behavior Change curriculum (Schuman-Olivier et al., 2020) to help primary-care patients make health changes and manage chronic health conditions (Gawande et al., 2019a). Though choice points were not explicitly incorporated in MTPC training, they were consistently applied in response to this patient's dissociative symptoms. Through this case study, we hope to identify factors that supported this patient and further explore the potential benefits of MBIs for patients with dissociative symptoms.

2. Methods

2.1. Participants

This case study draws data from MINDFUL-PC, a three-phase randomized controlled effectiveness trial ($N = 287$) which repeatedly demonstrated MTPC to be effective in improving emotion-regulation, enhancing interoceptive awareness, and helping catalyze health behavior change, especially among people with diagnosed PTSD (Datko et al., 2022; Gawande et al., 2023; Gawande et al., 2019a, 2019b). The study received Institutional Review Board approval from the Cambridge Health Alliance (CHA-IRB-1002/08/14). All participants completed informed consent, which included future permission to publish data in an anonymized format and acknowledgement of the risks and benefits of mindfulness practice. Those randomized to the intervention participated in MTPC with weekly 2-hour sessions and a day of silent practice. Groups were co-led by two MTPC-trained group leaders (GLs).

2.2. Measures

Participants completed assessments at baseline, 8-weeks, and 24-weeks, including the Difficulties in Emotional Regulation Scale (DERS) (Gratz and Roemer, 2004), with lower scores indicating fewer difficulties in emotion regulation; the Multidimensional Assessment of Interoceptive Awareness (MAIA) (Mehling et al., 2012), with higher scores indicating higher levels of interoceptive awareness; the Five-Facet Mindfulness Questionnaire (FFMQ) (Baer et al., 2006), with higher scores indicating greater experiences of mindfulness; and the Self-Compassion Scale-Short Form (SCS-SF) (Raes et al., 2011) with higher scores indicating greater experiences of self-compassion. To highlight a singular case of dissociation within the trial, we conducted three in-depth audio and video-conferencing interviews with the patient's primary healthcare providers (referring therapist and one MTPC GL) and present this case after modifying key, identifying details including the patient's name to ensure confidentiality.

2.3. Ethical considerations

Given the potential for mindfulness training to have adverse effects, ethical considerations were made to minimize rebound effects of MTPC. All GLs had weekly clinical supervision with a clinical director knowledgeable about mindfulness and trauma, which helped better manage meditation-related difficulties (Banks et al., 2015). The program was recommended to this patient largely due to the patient's keen interest in learning mindfulness and not in lieu of other trauma-focused offerings at the community hospital. Last, an individualized

safety plan was established with the patient's therapist prior to their enrollment in the program, which is further described in the subsequent section.

3. Case presentation

3.1. Case background

Carina Ferreira is a 36-year-old female diagnosed with PTSD-D with disturbance of self-organization (Shevlin et al., 2018). Carina had early childhood trauma from physical and emotional abuse, with active dissociative symptoms featuring amnesia since adolescence. After receiving trauma-centered psychotherapy for two years, she transferred to an outpatient therapist extensively trained in working with survivors of violence and using trauma-focused therapy. The therapist noted Carina as hardworking, earnest, wise, and well supported by her partner. Carina learned about the MINDFUL-PC trial offered through the community hospital setting through her therapist. After Carina expressed strong interest in learning mindfulness, high motivation to enroll in MINDFUL-PC, and clear intentions to use mindfulness to work with her dissociative symptoms, her therapist referred her to the program. Carina was determined eligible for MINDFUL-PC after extensive clinical review of her diagnosis, electronic health record, her therapist's assessment that she could tolerate MTPC mindfulness practices and participate in a group therapeutic setting, and advocacy from her therapist who ensured consistent follow up with the patient during and after the mindfulness program. Carina attended an orientation session where she provided informed consent to enroll and received a one-hour introduction to mindfulness by a trained MTPC leader. She was then randomized to the MTPC intervention group offered at a participating patient-centered medical home site.

3.2. Intervention course

Throughout the group Carina reported experiencing dissociative symptoms (detachment, absorption) and displayed dissociative signs (blinking eyes, sighing, standing up and down, shaking hands in lap while sitting, and seeming unresponsive during group discussion). Specifics of her symptoms during the MTPC group and her GL responses are detailed below. Despite her dissociative symptoms, Carina reported that MTPC was a highly positive and beneficial experience for her and demonstrated enhanced abilities to respond to her symptoms. Her individual survey assessments similarly indicated pre-post improvements in mindfulness, interoception, emotional regulation, and self-compassion (See Table 1). Carina further endorsed not feeling ostracized by any other group members, and aside from later concern from other group members about her suicidality during one discussion, the GLs did not receive any significant concerns regarding Carina's dissociative symptoms. During the mindfulness training, Carina was supported by her partner, who drove her to every session and waited in the hallway to be of support. She continued to meet regularly with her prescriber and therapist. Outside of the group, Carina expanded her connection to nature, returned to making art, and reviewed her group experience and mindfulness practice with her therapist during individual sessions. The therapist noted that Carina was very emotive, but not dissociative, during their sessions. If Carina was activated in therapy sessions, she used mindfulness practices to return to the present.

3.2.1. Sessions 1–2—During Session 1, Carina experienced dissociative symptoms activated by the body scan and became tearful. A GL met with her afterwards to discuss grounding technique (keeping the eyes open, mindful walking, and focusing on her feet). The GLs notified Carina's therapist and encouraged her to check-in by phone with them at the end of the week. Carina was activated by the body scan again during Session 2 and responded by temporarily leaving the room to mindfully walk with a GL in the hallway. The GL discussed choice points with Carina and offered her permission to sit out on practices. Carina rejoined the group and chose to not participate in the autopilot exercise with clear support from both GLs. Afterwards, the GLs adapted their guidance to normalize her behaviors, saying, "Do you what you need to take care of yourself, even if that means leaving the room for a moment."

3.2.2. Sessions 3–4—Carina practiced self-care throughout Session 3 but by the end of group was tearful and reporting sensations of paralysis. The GLs followed up with Carina after the group to offer support, which Carina declined, choosing instead to meet her partner in the hallway. With Carina's consent, the GLs notified her therapist about her symptoms in advance of their upcoming session. During Session 4, Carina left the group temporarily. One GL checked-in with her in the hallway by inquiring about her current experience, asking what she needed, and offering choice on next steps. Carina decided to practice mindful walking with the GL before rejoining the group. During one group discussion, she shared briefly about having suicidal thoughts. Other members expressed mild concern, although Carina maintained calm, denied suicidal intent or plan, and continued to participate fully for the remaining time.

3.2.3. Sessions 5–7—Carina actively participated in Sessions 5 through 7 without taking breaks or requiring assistance. Although she was initially hesitant to join the all-day session, she attended with much encouragement from her therapist and afterwards reported that it was very helpful.

3.2.4. Session 8—Carina attended the first half of Session 8 before explaining to one GL that she had been having a very difficult week and was unable to participate further. The GL discussed possible options with Carina, offering her a choice to stay or leave the group. Carina eventually left 45 min early, asking the GL to send gratitude to the other group members. The therapist noted that around this time Carina had just received upsetting personal news before group.

4. Discussion

Exploring the relationship between mindfulness and dissociation warrants discussion around research safety, particularly regarding screening procedures and clinical implementation protocols (Lustyk et al., 2009). Through analyzing Carina's case, we outline six major influencing factors centered around integrating choice points and promoting structural safety that contributed to Carina's success in the program. While strategies from a single case cannot be extrapolated into practice implications for all individuals with dissociation, we hope that they can be a useful reference for future offerings of MBIs to individuals with dissociation (See Table 2).

Both the MTPC curriculum and Carina's GLs were trauma-informed and conducive to integrating choice points, supporting individual autonomy, and developing skillful responses to trauma-related symptoms (Schuman-Olivier et al., 2020; Treleaven and Britton, 2018). The MTPC curriculum's variety of informal and formal practices, combined with its consistency of regular home practice and repetition of core practices across weeks, helps individuals understand how practice-related difficulties, such as the ones Carina experienced in Weeks 3 and 4, are transient in nature (Lindahl et al., 2017) and choose which practices work best for them. The GLs further raised choice point awareness by following a person-centered approach; they collaborated with Carina to assess her needs, understand her present-moment experience, and respect her decisions (Lindahl et al., 2019; Rashed, 2010).

Carina's dissociative symptoms during Sessions 3 and 4 matched common GL observations that those sessions are generally the most difficult for MTPC participants given the focus on encountering unpleasant experiences to decrease experiential avoidance. Over time, the group leaders learned to tolerate and trust that Carina had a sense of her own limits, noting that "the key was realizing that we don't have to prescribe every moment." During the group, Carina experienced for herself how meditation-related challenges can be less averse when people learn to observe them rather than react to them (Lindahl et al., 2019). As this insight developed, she could redefine safety and progress by choosing the meaning she gained from her symptoms, perhaps learning over time that wellness is not an absence of symptoms but an absence of struggle with the symptoms (Lang, 2017).

Alongside choice points, several structural factors contributed to Carina's safety in the group. First, strengths-based approaches to screening and eligibility identified factors that influenced her success in MTPC at multiple levels: individual (personality, resourcefulness, motivation, previous exposure to trauma-focused therapy) and social (strong support from partner and ongoing care from clinical team) (Lindahl et al., 2017). Structural safety was promoted through having broader clinical support systems of regular GL supervision from the MINDFUL-PC clinical director and strong communication lines between care providers within the same community hospital network which enabled Carina to synchronously discuss group events with her therapist.

The group format also enhanced structural safety: having two GLs enabled one to remain with the group if the other needed to speak with Carina individually; having at least one skilled assistant who could manage logistics and provide ad-hoc patient support allowed the GLs to focus their attention on the group; and having just one group member with known active dissociation avoided situations when GLs would be unable to have one person respond to multiple instances of dissociation. The welcoming and supportive group may have also served as a container for Carina as she dissociated at times during guided exercises. Given these influencing factors, future MBIs for patients with dissociation would best be offered as part of a multimodal treatment approach, alongside evidence-based trauma-focused therapies such as EMDR and trauma-focused therapy.

4.1. Limitations and future directions

This case's generalizability is limited considering Carina's unique internal attributes (i.e., personality, motivation, and previous trauma-therapy background) and external conditions

(i.e., support of partner, clinical support, and immigration stressors) which majorly influenced her wellbeing throughout her MTPC training. Furthermore, Carina was not interviewed based on her therapist's recommendation that initiating contact might be harmful given the lapse since treatment ended, so we cannot ascertain specifics about her relationship with other group members, her symptom severity, or her motives when leaving the room (driven by a dissociative state, not wanting to disturb others, or another reason). Along with the lack of dissociation measures, absence of her 24-week assessment also limits estimation of the long-term effects of MTPC. Future research might implement MTPC following the safety guidelines presented above while incorporating measures for dissociation (Briere et al., 2005) to see whether similar results can be attained and maintained long-term. Additional research can also explore the relationship between self-compassion and degree of functional impairment from dissociative symptoms. Moving forward, we must remember that progress will look different for all individuals, and therefore remain open to using different metrics for psychological change in each case (Lang, 2017) to meaningfully follow person-centered and trauma-informed practice,

5. Conclusion

Mindfulness-based interventions, when offered through multimodal treatment approaches alongside other trauma-focused therapies, can be positive and effective for individuals with dissociative symptoms if there are appropriate conditions in place to promote safety. Our case analysis identified six factors which promoted safety and success throughout mindfulness training for an individual with active dissociation; these influencing factors may be a useful reference when offering MBIs to future patients with dissociative disorders. Overall, integrating a choice point model and promoting structural safety within MBI adaptation processes and development can offer a framework to provide person-centered, trauma-informed guidance without the need to ascribe what safety and progress should look like for each individual.

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Data availability

The data presented here are not publicly available due to privacy or ethical restrictions.

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Table 1

Individual level change on primary mechanistic outcomes.

Scale	Mean (SD)*	Pre	Post	% Difference
FFMQ Total	–	**99**	**140**	**+41 %**
Observing	24.11 (5.65)	26	35	+35 %
Describing	26.03 (6.79)	17	28	+65 %
Awareness	24.10 (5.44)	23	26	+13 %
Nonjudging	24.94 (6.62)	16	25	+56 %
Nonreactivity	19.66 (4.80)	17	26	+53 %
MAIA Average	–	**1.90**	**3.75**	**+98 %**
Noticing	3.94 (0.59)	3.25	5.0	+54 %
Not-distracting	3.20 (0.87)	1.67	4.67	+180 %
Not-worrying	4.27 (0.84)	2.0	2.33	+17 %
Attention regulation	3.79 (0.64)	1.57	3.42	+118 %
Emotional awareness	4.16 (0.64)	3.6	5.0	+39 %
Self-regulation	3.86 (0.74)	0.75	2.25	+200 %
Body listening	3.50 (0.87)	1.33	4.33	+226 %
Body trusting	4.13 (0.74)	1.0	3.0	+200 %
DERS Total	**77.99 (20.72)**	**104**	**53**	**−49 %**
Non-acceptance	11.65 (4.62)	16	1	−94 %
Goals	14.41 (4.95)	14	15	+7 %
Impulse	10.82 (4.41)	15	8	−47 %
Awareness	14.34 (4.60)	23	14	−39 %
Strategies	16.16 (6.19)	25	8	−68 %
Clarity	10.61 (3.80)	11	7	−36 %
SCS-SF Total	**36.00 (7.33)**	**20**	**42**	**+110 %**

*Mean and standard deviation data derive from validation data for each instrument: FFMQ, a 39-item, 5- point Likert scale validated by Williams et al. (2014) on a clinical sample of adults enrolled in a trail of Mindfulness-based Cognitive Therapy for recurrent depression; MAIA, a 32-item, 6-point Likert scale validated by from Mehling et al. (2012) on a sample of adults with at least 20 h of exposure to body awareness therapies; DERS, a 36-item, 5-point Likert scale by Gratz and Roemer (2004 from their sample of female undergraduates; and the SCS-SF, a 12-item, 5-point Likert scale by Raes et al. (2011) from their sample of English-speaking undergraduates.

Table 2

Influencing safety factors for offering mindfulness to people with dissociation.

Promoting choice points	1. Stay Trauma Informed	Attain training in trauma-informed practices and follow trauma-informed mindfulness curriculums that prioritize choice, autonomy, and skillful response to symptoms
	2. Center the Person	Adopt a person-centered approach by working with the person to interpret experiences and identify the best course of action
	3. Redefine Safety and Progress	Redefine safety and progress by contextualizing the person's experience and considering wellness as an absence of struggle with symptoms, not an absence of symptoms
Promoting structural safety	4. Screen for Strengths	Follow a strengths-based approach to account for the person's individual, social, and cultural strengths during clinical eligibility screening
	5. Secure Clinical Supports	Secure regular group leader supervision from a clinician knowledgeable about mindfulness and trauma[a] and maintain strong communication with other stakeholders in the person's care
	6. Build a 2:1 Group	Structure the mindfulness group to have 2 group leaders and no more than 1 patient with active dissociation to best promote group safety

[a]If a clinician knowledgeable about mindfulness and trauma is unavailable, then a trained non-clinical mindfulness instructor would suffice if at least one of the GLs is also a MBI-trained clinician experienced with providing trauma-informed care.