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Perspective

Suggesting internal family systems-informed eye movement desensitisation and reprocessing as a treatment for personality structural dissociation

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Abstract

Personality structural dissociation (PSD) describes how traumatisation can structurally alter innate psychobiological system organisation and give rise to dissociative parts of one's personality. Acute, complex and severe trauma-related psychopathologies are described and, the presentations are heterogeneous. Eye movement desensitisation and reprocessing (EMDR) targets traumatic memories through alternating bilateral stimulation and integrates them within adaptive memory networks. Internal family systems (IFS) is a systemic ego-state modality that can promote positive cognitive interweaves and facilitate trauma processing through attunement, visualisation and self-compassion. Integration of IFS with EMDR (IFS-EMDR) may be more suitable for resourced and titrated trauma-processing with complex and severe PSD. This paper seeks to explore the manifestation of innate psychic multiplicity within trauma-related psychopathologies as described by PSD. The effectiveness of IFS-EMDR is also proposed as a potential treatment approach. We outline a theoretical framework for the co-existence of dissociative and IFS parts and describe how prominent symptomatology can be addressed through a phase-oriented protocol, comprising stabilisation, trauma processing and reintegration. Insights offered in this paper can help psychotherapists support individuals living with PSD to navigate paced trauma-processing and subsequent personality integration.

Keywords Psychological trauma \cdot Theory of structural dissociation of the personality \cdot EMDR \cdot IFS \cdot Phase-oriented treatment \cdot Trauma-processing phase

1 Introduction

1.1 Conceptualisation of acute, complex and severe trauma

Post-traumatic symptomatology has been posited to result from a fundamental division within the personality structure [1]. This comprises the dynamic organisation of evolutionary-prepared psychobiological operating systems [2–4], also termed action or motivational systems [5]. Action systems are thought to characterise cognitive, affective and behavioural actions, and survival in the face of threat [6]. The Theory of Structural Dissociation of the Personality (TSDP) [1] suggests that traumatic experiences induce structural alterations to action systems' organisation and give rise to structurally

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dissociative parts of the personality, that possess first-person perspective and their own sense of self [7]. Typically the greater the intensity and length of the traumatisation, the greater the complexity and autonomy of dissociative parts. Psychobiological evidence supporting TSDP has emerged surrounding distinct personality states, i.e., dissociative parts, within dissociative identity disorder (DID) [8–16].

Action systems influence the protective agenda of dissociative parts [3], and can be divided into two broad categories; (i) systems dedicated to survival of the species and daily life functioning through caretaking, attachment, reproduction, sociability, play and exploration, and (ii) a mammalian defensive action system composed of multiple subsystems, focused on survival in the face of threat [1]. Two prototypical parts of the personality have been coined, the apparently normal part (ANP) and the emotional part (EP), which are understood to comprise daily life functioning and mammalian defence, respectively [1]. ANP functions to maintain a resemblance of normalcy whilst significantly detached and avoidant of EP, with a degree of amnesia of the trauma. EP comprises traumatic memories and cognitions alongside associated affect and behaviours, and is re-experiencing the trauma in a state of hypermnesia.

TSDP proposes a dimensional construct with three prototypical degrees of personality structural dissociation (PSD) [1, 17–20]. Primary PSD comprises acute trauma, giving rise to a single ANP and EP, associated with post-traumatic stress disorder (PTSD). Prolonged traumatic experiences are conceptualised as secondary PSD and comprise a single ANP, with division among defensive responses held within at least two EPs. Complex PTSD (CPTSD) [21, 22], trauma-related personality disorder (PD) such as borderline (BPD) [23, 24] and dissociative disorder not otherwise specified (DDNOS) [19] are forms of secondary PSD. Tertiary PSD is limited to DID [1]; severe early traumatisation may prevent the integration of daily life action systems leading to the emergence of ANP alongside EP division [18, 20], with significant amnesia between dissociative parts [1].

1.2 Eye movement desensitisation and reprocessing therapy

Eye movement desensitisation and reprocessing (EMDR) therapy accesses traumatic memories through alternating bilateral stimulation (BLS) for neural integration via the information processing system [25-29]. The adaptive information processing (AIP) model proposes that the brain innately processes incoming sensory perceptions to complete integration within associated memory networks [30]. Particularly distressing experiences overwhelm innate processing capacity and become encoded within an isolated neural network in a raw, state-specific, and excitatory form. Maladaptively stored information is highly susceptible to external stimuli and associations with current perceptions; resultant disruptive cognitive, affective and behavioural responses may lead to psychopathology. The EMDR protocol stimulates transmutation of target memory traits as novel associations form and the target is integrated within adaptive memory networks; resolution of psychopathological symptoms is proposed to occur following integration. Studies have been conducted to understand the healing neurophysiological effects of EMDR [28, 29, 31–35], however further research is required to understand the underlying mechanisms.

Although EMDR is an evidence-based treatment for PTSD [36-41], the therapy is not currently empirically supported for complex and severe trauma-related psychopathology. Treatment of CPTSD [42-47] and BPD [48-55] have been explored, however further validation is needed.

Complex and severe trauma require phase-oriented treatment, which should be titrated and multi-modal [19, 42, 56–59]. Division among mammalian defence presents greater intrapsychic disruptions and difficulties with self-regulation, suggesting the standard EMDR procedure is likely unsuitable [2, 60, 61]. Thorough preparation and stabilisation must precede processing of traumatic memories, including extended resourcing, an understanding of maladaptive cognitions, exploration of the intrapsychic relationships between dissociative parts and the dissociative phobias maintaining PSD [2, 60]. Utilising resource development and installation (RDI) [42, 62] alongside relational adaptations may well be more suited to secondary and tertiary PSD. RDI has been incorporated within attachment-focused EMDR [63], as well as more experimental approaches integrating Gestalt and ego state therapy [64], and TSDP [65] with EMDR.

1.3 Internal family systems therapy

Integrating the systemic ego-state modality Internal Family Systems (IFS) with EMDR may be particularly useful for individuals living with secondary or tertiary PSD [66, 67]. IFS embraces psychic multiplicity as an innate, fundamental and non-pathologic characteristic of the human psyche [68, 69], inherently differentiating IFS parts from dissociative parts which arise following traumatisation. The model emphasises the importance of intrapsychic relationships and dynamics, with parts possessing a sense of self and first-person perspective. Overwhelming or traumatic experiences push parts out



of their innately functional roles as they become stuck with the affective, cognitive and behavioural actions associated with the experience, termed burdens, and enter extreme roles [68]. Two broad types of parts that can become burdened and enter extreme roles have been coined: exiles and protectors. Exiles carry the majority of the injury and are pushed below consciousness. Proactive protectors manage the environment to prevent the exile's pain from arising; reactive protectors disarm triggers through compulsive, comfort-seeking or ritualistic behaviours. Intrapsychic relationships between parts are termed "clusters", and these often involve protectors with opposing agendas to prevent the exile's pain from overwhelming the internal system. When a part(s) in an extreme role assumes executive control and the client feels that the part's thoughts, beliefs and feelings are their own, this is termed "blending". Healing can occur through contact with "Self-energy", a different type of part that is stated to exist within everyone [69, 70]. Characterised by mindful awareness, connectedness, curiosity, courage, compassion, wisdom, acceptance and forgiveness, Self-energy is termed the agent of healing in IFS. Unblending occurs when parts in extreme roles are able to step back, release executive control and allow Self-energy to arise. Facilitated by witnessing from Self-energy, trauma processing through unburdening can occur and parts can assume their innate role. Whilst burdened protectors in extreme roles may otherwise be viewed as pathological, IFS recognises that parts are in these roles to protect the psyche from unprocessed trauma; psychological health is associated with Self-leadership of the internal system [71–74] IFS has been explored within trauma treatments [75–78], and incorporation with other therapies, including EMDR, has been discussed [66, 67, 79–83].

1.4 Internal family systems-informed eye movement desensitisation and reprocessing therapy as a treatment for personality structural dissociation

TSDP states that the processes of synthesis and realisation must occur for PSD resolution and personality integration [1, 2, 60, 61, 84]. Synthesis describes the binding and differentiation of mental actions and sense of self comprising an experience. Realisation describes the ability to feel that one has experienced traumatic events, followed by the ability to fully be and act in the present moment from the integration of such events in the past. The ability to formulate a stable sense of self across a narrative life history characterises realisation [1]. Trauma-related phobias, intertwined with an avoidance of synthesis and phobia of realisation, must be overcome through facilitated cooperation and collaboration between dissociative parts [2, 60]. Such phobias include attachment and attachment loss, dissociative parts of the personality and their repertoire of actions, traumatic memories, intimacy, normal life, and healthy risk taking and change. We propose a synthesis of the TSDP and IFS models [1, 68], suggesting that ANP(s) comprise clusters of burdened protectors with polarised proactive and reactive protectors, and that EP(s) comprise exiles with a prevailing self-schema.

Clients living with secondary and tertiary PSD are recommended to undergo phase-oriented treatment, comprising stabilisation and skill building, processing of traumatic memories and personality rehabilitation [19, 56]. Thorough history taking should occur to ensure that the therapist has an understanding of the complexity and degree of PSD [26, 42, 60, 85]. As the complexity of PSD increases, the phases are less likely to be applied linearly; resources and skills are frequently reactivated as recurring themes and challenges arise [1, 42, 60, 61]. Stabilisation and resourcing aim to improve the client's ability to safely manage daily life, develop affect regulation, self-soothing and interpersonal skills [1, 19, 25, 26, 42, 60, 85–92], reflective functioning [93], orient parts to the present moment [94], improve integrative capacity, internal cooperation, and widen the window of tolerance [60]. Gradual synthesis and realisation are recommended to ensure sufficient energy and integrative capacity, and to prevent premature traumatic memory exposure, which can result in severe deterioration in worst cases [2, 85, 95].

Integration of IFS with EMDR may improve the effectiveness of both treatments and promote an environment where ANP(s), EP(s), and IFS parts are affirmed and appreciated by Self-energy [66, 67, 83]. IFS informs EMDR with parts' agendas, supports fluid movement between treatment phases, and navigating blockages that may arise during processing. Through experiencing the safety, wisdom and forgiveness of Self-energy, IFS parts begin to build trust and understand how an internal system of Self-leadership can allow for them to be valued and authentically express themselves, without needing to carry the burdens of past traumas [66, 69, 83]. Protectors that are avoidant of synthesis and phobic of realisation can be communicated with to understand what they are afraid would happen if synthesis and realisation occurred, allowing client and therapist to understand their fears surrounding trauma-related phobias [67]. Alternating BLS can be utilised to process traumatic memories for integration within adaptive memory networks [26, 67]. Once synthesis and realisation have occurred, traumatic memories are integrated into the client's autobiography, resulting in the simultaneous fusion of ANP(s) and EP(s) [61, 84]. Whilst dissociative parts dissolve, the IFS parts of protectors and exiles release their burdens and enter into functional roles such as advocacy, mentorship and self-soothing, as they are no longer polarised with other parts or engaged in destructive or harmful actions [69].



2 Main body

2.1 Treating primary structural dissociation with IFS-EMDR

PTSD is the most prevalent psychiatric diagnosis constituting primary PSD [1], and the core symptomatology of avoidance, re-experiencing and a sense of threat can be conceptualised through the lenses of TSDP and IFS (Fig. 1) [1, 68, 96]. ANP's phobia of EP primarily presents as avoidance of traumatic memories and associated people, places and cognitions; behavioural actions such as substance abuse and self-harm may be utilised to dampen emotional pain and intrusive symptomatology. Extreme protector polarisation (Fig. 1) and subsequent complex avoidance strategies can manifest as comorbid psychiatric conditions such as substance misuse [97, 98], eating disorders [99, 100], and depression [101]. Self-criticism, numbing and shame may be utilised within protector polarisations to detach from emotional and physical feelings and awareness [1, 69, 102]. Intrusive symptomatology highlights the imperfect nature of PSD, as EP's actions intrude on the ANP as fragments in the form of flashbacks and nightmares.

The standard EMDR protocol may be suitable for some clients living with PTSD depending on the number of exiles within the EP and the subsequent repertoire of actions [61], as well as the level of protector polarisation within the ANP [69]. History taking should produce an understanding of the dynamic relationship between dissociative parts, prominent protector polarisation(s) causing distress and dysfunction in the client's life, and recurring negative cognitions as potential targets for EMDR processing [66, 83]. RDI can be supported by the client's Self-energy [67] and alternating BLS [103] to integrate adaptive internal resources [42, 62]. Protectors and exiles are provided with tools to support basic energy management, self-regulation, distress tolerance, somatic awareness, object constancy, experienced safety and proactive coping [60], with the objective of promoting the client's ability to cope between sessions, tolerate distressing affect and cognitions and safely navigate daily life [60, 66]. Specific resourcing procedures such as safe place installation [62, 85] and time orientation [60, 94] can be used to create a supportive internal space for dissociative and IFS parts, and to navigate parts toward the present moment, respectively. IFS terminology creates a supportive environment for protectors and exiles to arise, share aspects of their story, and enables a connection to be built with the therapist's Self-energy [69]. Cultivation of the client's Self-energy supports gradual acceptance and acknowledgement that ANP and EP are part of the same personality, and that each part is responsible for the other [60].

Utilising parts work through the IFS model aims to cultivate a compassionate and accepting core sense of self to facilitate trauma processing [68]. Depending on the client's presentation and difficulties, psychotherapy can focus on a target protector polarisation and/or a target protector part, prior to working with exiles and processing their burdens. The therapist can communicate with the client's internal system and build trust from a place of Self-energy; as parts arise, they are welcomed and provided with space to share their needs and experiences. Client's negative feelings towards the target can be attributed to concerned parts, who are welcomed and provided space to share their feelings. The therapist validates their concerns, whilst gently asking if they would be willing to step back and make space for the target part. Emergence of curiosity following unblending suggests that Self-energy is present in the client; as the client's mass of Self-energy increases, they are able to hold, hear and see burdened parts, allowing them to tell their stories and slowly begin the unburdening process. Internal resource states can be utilised for positive cognitive interweaves during resistance or blockages surrounding parts work [66]. As protectors build trust and a sense of safety, the therapist can ask what they would be afraid would happen if they did not have their role, gently encouraging the part to face one of the dissociative phobias maintaining polarisation and PSD [60, 69]. Using short sets of BLS, exiles and polarised protectors can be supported with differentiating the past and the present moment, understanding that the danger is over and that they are safe [60].

Ensuring that the client's internal system is supported and ready for engaging with EMDR processing can be facilitated by IFS [66, 67, 83]. Once trust has been built, protector parts are likely to give permission to access and work with exiles; gaining protector's permission prior to processing exiles' burdens is essential and not doing so may lead to blockages or reactive actions from protectors [66, 70, 104]. If the client is particularly blended and little Self-energy is present, the therapist can communicate with the internal system from their own Self-energy [69, 70]. Once the target memory and associated central negative cognition have been determined, permission to process the target received and protectors have stepped aside, alternating BLS is utilised to transmute the memory and exile's burden [25, 67]. Subjective units of distress (SUDs) can be used prior to and during processing to determine how much unburdening occurred and how much remains to be processed; IFS-informed resourcing can be utilised throughout for the client to navigate a core self,



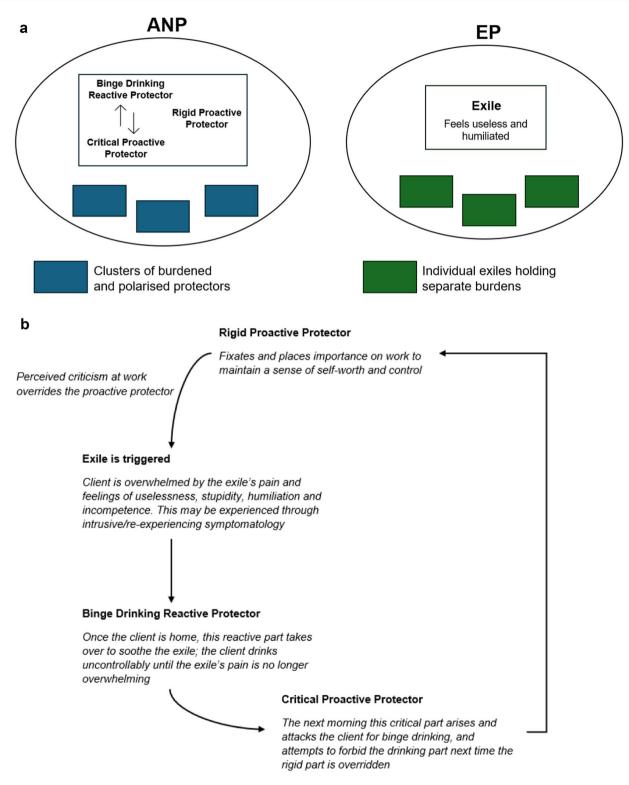


Fig. 1 a Synthesis of TSDP and IFS parts in primary structural dissociation. In this example, the cluster of parts comprises polarised binge drinking and critical protectors alongside a rigid protector within ANP. The corresponding exile feels useless, stupid, humiliated and incompetent, and is stuck re-experiencing the trauma. **b** A cluster of IFS parts within primary structural dissociation. Protectors within this cluster assumed their burdens to protect the client from the 'useless' exile's burden and associated memories, affect, beliefs, cognitions and sensory information. As the critical protector attempts to ostracise the binge drinking protector, when the rigid protector is next overridden, each protector will escalate in their efforts of reactive alcohol misuse and self-criticism. Comorbidities are frequently seen in clients living with primary structural dissociation, and this example demonstrates the underpinning motivations behind a complex avoidance strategy such as substance misuse. Therapeutic work with this cluster of IFS parts can support a reduction in substance misuse



promote resilience, reaffirm and stabilise the internal system. Furthermore, parts have the option to return to an internal safe place prior to finishing the session [67].

Integration of parts work and information from EMDR processing can be navigated and resourced using IFS [67]. Residual somatic sensations may be associated with parts who are provided space to share their thoughts and feelings, and direct further processing. Reevaluating the trauma processing, associated affect and cognitions, as well as checking in with parts, particularly those involved in prominent polarisations, allows them to share any final concerns.

2.2 Treating secondary and tertiary structural dissociation with IFS-EMDR

Secondary PSD is associated with prolonged traumatic experiences typically in childhood, where the individual feels unable to escape [1, 21, 105]. Tertiary PSD is associated with severe and chronic early traumatisation and limited to DID [1, 8, 106–115]. Parental maltreatment can disrupt early dyadic attachment and subsequent affect regulation [116, 117]. As the caregiver becomes associated with danger, innate attachment needs become conjoined with fear and defensive responses [118–120]. To ensure that attachment needs are met, the child may assume that they are to blame for their maltreatment and view themselves as defective [121]; a central shame-based cognition likely forms to enable this selfdestructive defence to persist [122]. In the developing child, personality structure is relatively unintegrated and action system functioning is highly state dependent [123–125]. Secure attachment may be instrumental in the formation of a cohesive personality structure, and proper developmental action system integration can become compromised by childhood traumatisation [1, 108].

CPTSD and BPD are clinically prevalent presentations of secondary PSD [1]. In addition to the core PTSD symptomatology, CPTSD is characterised by disruptions in self-concept, including beliefs oneself is diminished, affect dysregulation and difficulties maintaining relationships [21, 104, 126, 127]. BPD symptomatology comprises disrupted sense of self, affect dysregulation, impulsivity, difficulties tolerating aloneness, unstable interpersonal relationships and transient psychotic symptoms [90, 91, 128–131]. BPD has been suggested to arise from dynamic genetic and environmental risk factors [132–139], particularly traumatic developmental experiences. Early attachment disturbances have been suggested as a major causal factor for BPD development [117, 140, 141]. DID diagnostic criteria include disrupted identity and discontinuity in sense of self, alongside related alterations in consciousness, memory, cognition, affect, behaviour and perception. Inability to recall everyday experiences, personal information and traumatic experiences, and symptoms cause significant distress or functional impairment [96].

Heterogeneity exists within presentations as secondary PSD can comprise two to many EPs [1, 2, 60]. EPs therefore vary in autonomy, characteristics, identity, and ability to assume executive control; as some EPs likely developed in childhood, they may possess greater autonomy and ability to dominate behaviour and consciousness than with primary PSD. ANP's difficulties with affect and arousal state regulation may be heightened with the presence of multiple EPs. Avoidance strategies likely comprise a greater level of protector polarisation, complexity and autonomy; such complexity may present comorbid psychopathologies as observed with BPD, which is often comorbid with mood disorders [142], eating disorders (EDs) [143], and substance misuse [144] (Fig. 2).

Tertiary PSD comprises at least two ANPs as well as multiple EPs (Fig. 3) [1]. Both ANP and EP division likely occur to manage chronically traumatising experiences within the child's daily life [18, 20]. As daily life action systems and needs divide among ANPs, the need to engage with these activities will activate the ANP to assume executive control [1]. A profound level of amnesia exists within ANPs and EPs; some EPs may be more autonomous, assume features of action systems other than defence and have a rich identity. Dissociative parts comprise varying degrees of autonomy and repertoire of actions, with many parts able to assume executive control where other parts are amnesic or have some depersonalised awareness. Various dissociative parts have been described within DID literature, including a host which describes the ANP in executive control the majority of the time, children, caretakers, and persecutors [1, 109, 145, 146]. Child parts likely possess greater autonomy and ability to dominate consciousness than secondary PSD and are often fixated on the traumatisation [147]; however, some child parts may be ANPs, mediated by play, attachment or exploration, fixated in early development of these action systems [1]. Some EPs mediated by the fight defensive subsystem can present as the original perpetrator and cause distress through engaging in self-destructive actions whilst intruding on ANP to assume executive control.

Secondary and tertiary PSD require treatment informed by TSDP [2, 60, 61, 66]. Therapists should understand that EPs contain experiences that were too dangerous for the client to witness and share with the external world; there may well be more dissociative parts present in the system than either the client or therapist are aware of, therefore the therapist



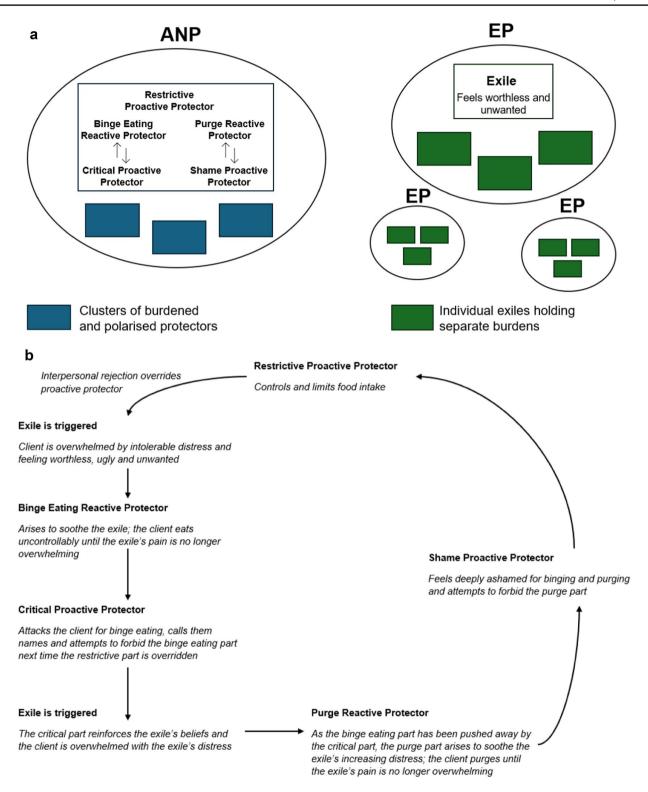


Fig. 2 a Synthesis of TSDP and IFS parts in secondary structural dissociation. In this example, the cluster of parts within ANP comprises a restrictive protector, polarised binge eating and critical protectors, and polarised purge and shame protectors. The corresponding exile experiences overwhelming distress, feels worthless, ugly and unwanted, and is stuck re-experiencing the trauma. **b** A cluster of IFS parts within secondary structural dissociation. Protectors within this cluster have assumed their burdens in order to protect the client from the 'worthless' exile's burden and associated memories, affect, beliefs, cognitions and sensory information. As the critical and shame protectors attempt to ostracise the binge eating and purge protectors, when the proactive protectors are next overridden, each reactive protector will escalate in their efforts. This example demonstrates how a complex avoidance strategy comprising shame, self-criticism and disordered eating can persist within secondary structural dissociation. Therapeutic work with this cluster of IFS parts can support a reduction in disordered eating behaviours and related self-conscious affect



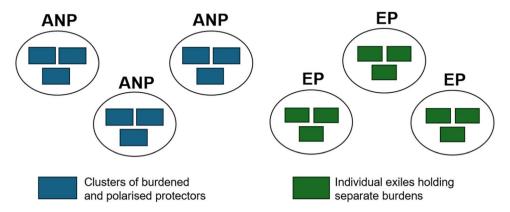


Fig. 3 Synthesis of TSDP and IFS parts in tertiary structural dissociation. Each ANP comprises clusters of burdened and polarised protectors, and each EP comprises exiles with a prevailing self-schema. Clusters of parts consist of burdened and polarised protectors within ANP, and corresponding exile(s) within EP. Therapeutic work with clusters of IFS parts can facilitate insights into the motivations of complex avoidance strategies, and support the reduction of strategies that are impacting daily life functioning

should work sensitively surrounding this. Alongside RDI, extended stabilisation and skill building create an environment where protectors and exiles can utilise safe space or container imagery to prevent flooding, and gain a sense of control and choice early in the therapeutic process [42, 148]. This phase provides an opportunity to develop the skills to proactively manage stressors through affect regulation, distress tolerance, self-soothing, as well as basic self-care including adequate rest, nutrition, relational boundaries and reflective functioning, with the overall aim of improving daily functioning [19, 42, 60, 88–90]. Psychoeducation surrounding EMDR processing and IFS unburdening allows client and therapist to determine the order in which clusters of traumatic memories will be targeted and processed [26, 61, 149, 150].

For clients living with complex dissociative parts and dissociative amnesia, techniques involving parts meeting internally may be useful [60]. The therapist can support recognition, communication and cooperation between dissociative parts, as well as understanding and acceptance that ANP(s) and EPs are part of the same personality, facilitated by the therapist's Self-energy [1, 60, 151]. Hypnosis and the Dissociative Table Technique [95, 152, 153] have been suggested to by-pass dissociative barriers and integrate adaptive resource states. Furthermore, an internal meeting place can be utilised to incorporate time orientation and self-compassion [60, 93, 95, 154-156]. Clients living with DID often struggle to access Self-energy, therefore it is important for the therapist to maintain Self-energy, which can subsequently activate Self-energy within the client [66].

Paced trauma processing follows stabilisation and requires the client to be within their window of tolerance, and possess sufficient energy and integrative capacity [61, 91, 157]. This can be achieved through working with one cluster of IFS parts at a time [66]. The therapist's Self-energy can hold space for other parts that arise and seek healing, allow them to release their thoughts and concerns and provide them with resources whilst the target parts are engaging with processing. Paced EMDR processing can use slower and shorter sets of BLS [26, 94], with talking and/or RDI between sets [61]. The client and their parts gain more energy from releasing a factor of their burden, and they gain confidence that they can manage the process. Clients can face dissociative phobias by asking protectors what they fear would occur if they left their extreme role, understanding that this belief may belong in the past and can be placed in an internal container [66]. If the client struggles to access their Self-energy, the therapist's Self-energy can provide support [60, 67, 148, 158]. Insufficient stabilisation and skill development, or traumatic memory exposure beyond the client's window of tolerance can detriment daily life functioning and exacerbate psychopathological symptoms [61]. Furthermore, young parts may need to remain in an inner safe place whilst other parts are undergoing processing [2].

Disrupted self-concept may be explored and transmuted by IFS-EMDR [76, 79, 122, 159, 160]. Shame has been proposed to mediate CPTSD symptomatology [161, 162], and regulation of self-conscious emotions including guilt, shame, embarrassment and humiliation are disrupted in BPD [163, 164]. The mindful attention, acceptance and compassion of Self-energy parallels principles of Dialectical Behaviour Therapy (DBT), an evidence-based BPD treatment [79, 90, 165]. Furthermore, self-compassion [43, 166, 167], mindfulness and self-acceptance [168], may be effective at targeting and reducing shame. A case study exploring the regulation of shame described how complex protector polarisation was navigated through the cultivation of Self-energy [76]. Internal shaming depicted early caretakers' shaming, and controlled parts' behaviours that may activate early shame, confess the abuse and result in life-threatening internal events; shame was both a core difficulty and protective strategy. Compassion from the client's Self-energy allowed the shaming part



to relax as Self-energy witnessed the cumulative threat and their attempted problem solving; hearing the protective strategies and roots of the client's symptomatology from Self-energy enabled a cascade of internal change to occur. Finally, the sense of identity, somatic sensations, sensory information, and negative cognitions prevailing around and sustaining shame may be effectively targeted and transmuted by EMDR [122, 160].

Insecure and conflicting attachment patterns, suggested as differing EP attachments intruding on ANP [1, 118, 119, 169], may be navigated by the attuned nature of IFS-EMDR [66, 67]. Highly frightened, mistrusting and needy child EPs may well present care-seeking behaviours and intense abandonment fears, as observed with interpersonal idealisation and devaluation in BPD [1, 147]. Parts driving these attachment patterns, as well as polarised judgemental or concerned protectors, can be validated by witnessing from Self-energy [66, 67, 69, 148, 158]. EPs involved in abusive, violating or self-destructive actions, including imitating the original perpetrator, are often feared and rejected by other parts [1, 60, 151, 170]. Exploration and psychoeducation surrounding the EP's original protective and survival function, including acknowledging that this defence was created under abusive circumstances, is essential in order to differentiate between these parts and the external perpetrator [1, 60, 156]. Time orientation, as well as parts meeting internally [152, 153], can support cultivation of acceptance, compassion and forgiveness facilitated by Self-energy, to support such EPs and concerned protectors in paced unburdening and EMDR processing [94]. As these memories are transmuted and SUDs decrease, the drive to engage in such actions decreases. The therapist can support ANP(s) in negotiating alternative and more constructive solutions with the EP [60, 170], including support through RDI and skills building [19, 42, 60, 88–92].

3 Discussion

3.1 Future research

Our proposed theoretical framework suggests an intervention for clients living with acute, complex and severe traumarelated psychopathology including chronic comorbidities. Clients living with multiple psychiatric diagnoses, such as chronic EDs alongside PSD, often struggle to find appropriate treatment [171]. Further, many recommended treatments do not incorporate trauma processing with stabilisation; therefore, clients may need to seek multiple interventions if they wish to proceed with trauma processing.

As TSDP is a widely known model for understanding trauma-related psychopathology, treatment approaches are often tailored towards the model. In Figs. 1 and 2 we demonstrate how complex avoidance strategies present as clusters of polarised IFS parts. Through working directly with these parts, IFS may provide a gentler approach to addressing complex avoidance strategies that present as comorbid psychiatric diagnoses such as EDs or addiction. Whilst TSDP-informed approaches can be implemented gently to ensure client safety and progression at their desired pace, working only with dissociative parts may not always access the subtleties of protective parts' motivations and the dynamics of the polarisation. Addressing complex protector polarisations underpinning comorbid psychopathology may be well suited to an IFS based approach, prior to working with enduring structural dissociation and dissociative parts. However, further research is needed to understand the efficacy of both TSDP based approaches and IFS in treating trauma-related psychopathology.

Validation of IFS-EMDR for each degree of PSD is needed through systematic, randomised and follow-up research. Treatment efficacy, challenges, and clients' experiences of the intervention should be determined. Treating comorbidities alongside PSD requires separate consideration to determine the efficacy, challenges, and to understand whether treatment time-frame alterations are needed.

3.2 Limitations

Clients living in chaotic or abusive situations may be unsuitable for IFS-EMDR as an initial intervention. A stabilisation or skill building intervention such as DBT [90] may be more suitable to ensure client safety, widen the window of tolerance, develop proactive and reactive coping strategies, as well as self-regulation and interpersonal skills.

TSDP-informed practice is not a requirement for clinicians practicing IFS or EMDR with clients living with PSD. Furthermore, empirical evidence supporting IFS for all degrees of PSD, and EMDR for secondary and tertiary PSD, is lacking. Although our proposal describes why this psychotherapeutic integration may be effective, systematic research is essential for the validation and development of IFS-EMDR for PSD treatment. Clinicians would be required to undertake further training for the intervention; however this would likely benefit how clinicians work with clients living with PSD, regardless of whether IFS-EMDR is utilised.



Finally, TSDP and IFS both utilise the language of parts, however the distinct differences between such parts are not widely understood. Difficulties arise from this overlapping terminology, and challenges arise in clinical practice when IFS clinicians are not TSDP-informed; they may be unaware of the intricacies of dissociative parts and sensitivity needed when working with these parts. Further, the presentations of IFS and dissociative parts may overlap in clinical practice, providing confusion for clinicians with the current lack of awareness surrounding their distinct differences. Some clients may initially better suit working with IFS parts, particularly those living with complex comorbidities; awareness of the needs of dissociative and IFS parts is essential when working with PSD to understand and treat the complexity of the experience. Our proposed theoretical framework describes how both TSDP and IFS parts co-exist within clients at each degree of PSD, and training surrounding this would reduce confusion.

4 Conclusion

Personality structural dissociation provides a prototype for the heterogenous presentations that exist within acute, complex and severe posttraumatic psychopathology [1]. We suggest that IFS-EMDR may be an intervention that can benefit clients regardless of heterogeneity or comorbidities. The intervention can be phase-oriented and titrated, to ensure that clients possess sufficient energy and integrative capacity, and remain within their window of tolerance. Whilst empirical evidence supporting IFS-EMDR is lacking, our framework describes how this intervention can address prominent symptomatology and dissociative phobias underpinning PSD.

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Data availability No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate Not applicable.

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References

- 1. Van der Hart O, Nijenhuis ERS, Steele K. The haunted self: structural dissociation and the treatment of chronic traumatisation. Solihull:
- 2. Van der Hart O, Nijenhuis ERS, Solomon R. Dissociation of the personality in complex trauma-related disorders and EMDR: theoretical considerations. J EMDR Pract Res. 2010;4:76–92. https://doi.org/10.1891/1933-3196.4.2.76.
- 3. Lang PJ. The emotion probe: studies of motivation and attention. Am Psychol. 1995;50:372–85. https://doi.org/10.1037/0003-066X.50.5.
- 4. Panksepp J. Affective neuroscience: the foundations of human and animal emotions. New York: Oxford University Press: 1998.
- 5. Lichtenberg JD, Lachmann FM, Fosshage JL. Psychoanalysis and motivational systems: a new look. Milton Park: Routledge; 2011.
- 6. Allport GW. Personality and social encounter: selected essays. Beacon: Herndon; 1960.
- 7. Nijenhuis ERS, Van der Hart O. Dissociation in trauma: a new definition and comparison with previous formulations. J Trauma Dissociation. 2011;12:416-45. https://doi.org/10.1080/15299732.2011.570592.



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- 8. Reinders AATS, Veltman DJ. Dissociative identity disorder: out of the shadows at last? Br J Psychiatry. 2021;219:413–4. https://doi.org/10.1192/bjp.2020.168.
- Skałbania J, Polewik K, Pietkiewicz IJ, Tomalski R. Divided mind—divided brain. The neurobiology of dissociative identity disorder from the perspective of dynamical systems theory. Psychiatria i Psychol Kliniczna. 2021;21:27–35. https://doi.org/10.15557/PiPK.2021.0003.
- 10. Schlumpf YR, Nijenhuis ERS, Chalavi S, Weder EV, Zimmermann E, Luechinger R, La Marca R, Reinders AATS, Jäncke L. Dissociative part-dependent biopsychosocial reactions to backward masked angry and neutral faces: an fMRI study of dissociative identity disorder. Neuroimage Clin. 2013;3:54–64. https://doi.org/10.1016/j.nicl.2013.07.002.
- 11. Schlumpf YR, Reinders AATS, Nijenhuis ERS, Luechinger R, Van Osch MJP, Jäncke L. Dissociative part-dependent resting-state activity in dissociative identity disorder: a controlled fmri perfusion study. PLoS ONE. 2014;9: e98795. https://doi.org/10.1371/journal.pone.0098795.
- 12. Reinders AATS, Willemsen ATM. Dissociative identity disorder and fantasy proneness: a positron emission tomography study of authentic and enacted dissociative identity states. In: Dierckx R, Otte A, de Vries E, van Waarde A, den Boer J, editors. PET and SPECT in psychiatry. New York: Springer Publishing Co; 2014. p. 411–31.
- 13. Vissia EM, Giesen ME, Chalavi S, Nijenhuis ERS, Draijer N, Brand BL, Reinders AATS. Is it trauma- or fantasy-based? Comparing dissociative identity disorder, post-traumatic stress disorder, simulators, and controls. Acta Psychiatr Scand. 2016;134:111–28. https://doi.org/10.1111/acps.12590.
- Reinders AATS, Nijenhuis ERS, Quak J, Korf J, Haaksma J, Paans AMJ, Willemsen ATM, Den Boer JA. Psychobiological characteristics of dissociative identity disorder: a symptom provocation study. Biol Psychiatry. 2006;60:730–40. https://doi.org/10.1016/j.biopsych.2005. 12.019.
- 15. Reinders AATS, Willemsen ATM, Vos HPJ, Den Boer JA, Nijenhuis ERS. Fact or factitious? A psychobiological study of authentic and simulated dissociative identity states. PLoS ONE. 2012;7: e39279. https://doi.org/10.1371/journal.pone.0039279.
- 16. Reinders AATS, Willemsen ATM, Vissia EM, Vos HPJ, Den Boer JA, Nijenhuis ERS. The psychobiology of authentic and simulated dissociative personality states. J Nerv Mental Dis. 2016;204:445–57. https://doi.org/10.1097/NMD.0000000000000522.
- 17. Nijenhuis ERS, Van der Hart O. Forgetting and reexperiencing trauma: from anesthesia to pain. In: Goodwin J, Attias R, editors. Splintered reflections: images of the body in trauma. New York: Basic Books/Hachette Book Group; 1999. p. 39–65.
- Nijenhuis ERS, Van der Hart O, Steele K. The emerging psychobiology of trauma-related dissociation and dissociative disorders. In: D'Haenen D, den Boer JA, Willner P, editors. Biological psychiatry. Hoboken: Wiley; 2002. p. 1079–98.
- 19. Brown D, Scheflin AW, Hammond DC. Memory, trauma treatment, and the law. Solihull: Norton; 1998.
- 20. Van der Hart O, Van der Kolk BA, Boon S. The treatment of dissociative disorders. In: Bremner JD, Marmar CA, editors. Trauma memory and dissociation. Washington: American Psychiatric Press; 1998. p. 253–83.
- 21. Herman JL. Complex PTSD: a syndrome in survivors of prolonged and repeated trauma. J Trauma Stress. 1992;5:377–91. https://doi.org/10.1002/jts.2490050305.
- 22. Roth S, Newman E, Pelcovitz D, Van der Kolk B, Mandel FS. Complex PTSD in victims exposed to sexual and physical abuse: results from the DSM-IV field trial for posttraumatic stress disorder. J Trauma Stress. 1997;10:539–55. https://doi.org/10.1023/A:1024837617768.
- 23. Herman JL, Van der Kolk BA. Traumatic origins of borderline personality disorder. In: Psychological trauma. Washington: American Psychiatric Press; 1987. p. 111–26.
- Golynkina K, Ryle A. The identification and characteristics of the partially dissociated states of patients with borderline personality disorder. Br J Med Psychol. 1999;72:429–45. https://doi.org/10.1348/000711299160103.
- 25. Shapiro F. Eye movement desensitisation and reprocessing: basic principles, protocols, and procedures. New York: The Guilford Press; 1995
- 26. Shapiro F. Eye movement desensitisation and reprocessing: basic principles, protocols, and procedures. 2nd ed. New York: The Guilford Press; 2001.
- 27. Shapiro F. EMDR and case conceptualisation from an adaptive information processing perspective. In: Shapiro F, Kaslow F, Maxfield L, editors. Handbook of EMDR and family therapy processes. Hoboken: Wiley; 2007. p. 3–36.
- 28. Shapiro F. The role of eye movement desensitization and reprocessing (EMDR) therapy in medicine: addressing the psychological and physical symptoms stemming from adverse life experiences. Perm J. 2014;18:71–7. https://doi.org/10.7812/TPP/13-098.
- 29. Shapiro F. Eye movement desensitisation and reprocessing: basic principles, protocols, and procedures. 3rd ed. New York: The Guilford Press; 2018.
- 30. Solomon RM, Shapiro F. EMDR and the adaptive information processing ModelPotential mechanisms of change. J EMDR Pract Res. 2008;2:315–25. https://doi.org/10.1891/1933-3196.2.4.315.
- 31. Harper ML, Rasolkhani-Kalhorn T, Drozd JF. On the neural basis of EMDR therapy: insights from qEEG studies. Traumatology. 2009;15:81–95. https://doi.org/10.1177/1534765609338498.
- 32. Landin-Romero R, Novo P, Vicens V, McKenna PJ, Santed A, Pomarol-Clotet E, Salgado-Pineda P, Shapiro F, Amann BL. EMDR therapy modulates the default mode network in a subsyndromal, traumatized bipolar patient. Neuropsychobiology. 2013;67:181–4. https://doi.org/10.1159/000346654.
- 33. Pagani M, Di Lorenzo G, Verardo AR, Nicolais G, Monaco L, Lauretti G, Russo R, Niolu C, Ammaniti M, Fernandez I, Siracusano A. Neurobiological correlates of EMDR monitoring—an EEG study. PLoS ONE. 2012;7: e45753. https://doi.org/10.1371/journal.pone.0045753.
- 34. Rimini D, Molinari F, Liboni W, Balbo M, Darò R, Viotti E, Fernandez I. Effect of ocular movements during eye movement desensitization and reprocessing (EMDR) therapy: a near-infrared spectroscopy study. PLoS ONE. 2016;11: e0164379. https://doi.org/10.1371/journal.pone.0164379.
- 35. Sack M, Lempa W, Steinmetz A, Lamprecht F, Hofmann A. Alterations in autonomic tone during trauma exposure using eye movement desensitization and reprocessing (EMDR)—results of a preliminary investigation. J Anxiety Disord. 2008;22:1264–71. https://doi.org/10.1016/j.janxdis.2008.01.007.
- 36. World Health Organization. Guidelines for the management of conditions specifically related to stress. Geneva: WHO; 2013.
- 37. Bisson JI, Roberts NP, Andrew M, Cooper R, Lewis C. Psychological therapies for chronic post-traumatic stress disorder (PTSD) in adults. Cochrane Database Syst Rev. 2013. https://doi.org/10.1002/14651858.CD003388.pub4.



- 38. Chen L, Zhang G, Hu M, Liang X. Eye movement desensitization and reprocessing versus cognitive-behavioral therapy for adult posttraumatic stress disorder. J Nerv Mental Dis. 2015;203:443-51. https://doi.org/10.1097/NMD.0000000000000306.
- 39. Turrini G, Tedeschi F, Cuijpers P, Del Giovane C, Kip A, Morina N, Nosè M, Ostuzzi G, Purgato M, Ricciardi C, Sijbrandij M, Tol W, Barbui C. A network meta-analysis of psychosocial interventions for refugees and asylum seekers with PTSD. BMJ Glob Health. 2021;6: e005029. https://doi.org/10.1136/bmjgh-2021-005029.
- 40. Moreno-Alcázar A, Treen D, Valiente-Gómez A, Sio-Eroles A, Pérez V, Amann BL, Radua J. Efficacy of eye movement desensitization and reprocessing in children and adolescent with post-traumatic stress disorder: a meta-analysis of randomized controlled trials. Front Psychol. 2017. https://doi.org/10.3389/fpsyg.2017.01750.
- 41. Kaptan SK, Dursun BO, Knowles M, Husain N, Varese F. Group eye movement desensitization and reprocessing interventions in adults and children: a systematic review of randomized and nonrandomized trials. Clin Psychol Psychother. 2021;28:784–806. https://doi.org/ 10.1002/cpp.2549.
- 42. Korn DL. EMDR and the treatment of complex PTSD: a review. J EMDR Pract Res. 2009;3:264–78. https://doi.org/10.1891/1933-3196.3.4.
- 43. Karatzias T, Murphy P, Cloitre M, Bisson J, Roberts N, Shevlin M, Hyland P, Maercker A, Ben-Ezra M, Coventry P, Mason-Roberts S, Bradley A, Hutton P. Psychological interventions for ICD-11 complex PTSD symptoms: systematic review and meta-analysis. Psychol Med. 2019;49:1761-75. https://doi.org/10.1017/S0033291719000436.
- 44. Bongaerts H, Voorendonk EM, Van Minnen A, De Jongh A. Safety and effectiveness of intensive treatment for complex PTSD delivered via home-based telehealth. Eur J Psychotraumatol. 2021. https://doi.org/10.1080/20008198.2020.1860346.
- Bongaerts H, Voorendonk EM, Van Minnen A, Rozendaal L, Telkamp BSD, De Jongh A. Fully remote intensive trauma-focused treatment for PTSD and Complex PTSD. Eur J Psychotraumatol. 2022. https://doi.org/10.1080/20008066.2022.2103287.
- 46. Voorendonk EM, De Jongh A, Rozendaal L, Van Minnen A. Trauma-focused treatment outcome for complex PTSD patients: results of an intensive treatment programme. Eur J Psychotraumatol. 2020. https://doi.org/10.1080/20008198.2020.1783955
- 47. Bækkelund H, Endsjø M, Peters N, Babaii A, Egeland K. Implementation of evidence-based treatment for PTSD in Norway: clinical outcomes and impact of probable complex PTSD. Eur J Psychotraumatol. 2022. https://doi.org/10.1080/20008066.2022.2116827.
- Wilhelmus B, Marissen MAE, Van den Berg D, Driessen A, Deen ML, Slotema K. Adding EMDR for PTSD at the onset of treatment of borderline personality disorder: a pilot study. J Behav Ther Exp Psychiatry. 2023;79:101834. https://doi.org/10.1016/j.jbtep.2023.101834.
- 49. De Jongh A, Hafkemeijer LCS. Trauma-focused treatment of a client with Complex PTSD and comorbid pathology using EMDR therapy. J Clin Psychol. 2024;80:824–35. https://doi.org/10.1002/jclp.23521.
- 50. Hafkemeijer L, De Jongh A, Van der Palen J, Starrenburg A. Eye movement desensitization and reprocessing (EMDR) in patients with a personality disorder. Eur J Psychotraumatol. 2020. https://doi.org/10.1080/20008198.2020.1838777.
- 51. Hafkemeijer L, Starrenburg A, Van der Palen J, Slotema K, De Jongh A. Does EMDR therapy have an effect on memories of emotional abuse, neglect and other types of adverse events in patients with a personality disorder? Prelim Data J Clin Med. 2021;10:4333. https:// doi.org/10.3390/jcm10194333.
- 52. Hafkemeijer L, Slotema K, De Haard N, De Jongh A. Case report: Brief, intensive EMDR therapy for borderline personality disorder: results of two case studies with one year follow-up. Front Psychiatry. 2023. https://doi.org/10.3389/fpsyt.2023.1283145.
- Slotema CW, Van den Berg DPG, Driessen A, Wilhelmus B, Franken IHA. Feasibility of EMDR for posttraumatic stress disorder in patients with personality disorders: a pilot study. Eur J Psychotraumatol. 2019. https://doi.org/10.1080/20008198.2019.1614822.
- Momeni Safarabad N, Asgharnejad Farid A-A, Gharraee B, Habibi M. Treatment of a patient with borderline personality disorder based on phase-oriented model of eye movement desensitization and reprocessing (EMDR): a case report. Iran J Psychiatry. 2018;13:80-3.
- 55. De Jongh A, Groenland GN, Sanches S, Bongaerts H, Voorendonk EM, Van Minnen A. The impact of brief intensive trauma-focused treatment for PTSD on symptoms of borderline personality disorder. Eur J Psychotraumatol. 2020. https://doi.org/10.1080/20008198.2020. 1721142.
- 56. International Society for the Study of Trauma and Dissociation. Guidelines for treating dissociative identity disorder in adults, third revision: summary version. JTrauma Dissociation. 2011;12:188-212. https://doi.org/10.1080/15299732.2011.537248.
- 57. Briere J, Scott C. Principles of trauma therapy: a guide to symptoms, Evaluation and Treatment. Thousand Oaks: Sage Publications; 2006.
- Courtois CA, Ford JD, Cloitre M. Best practices in psychotherapy for adults. In: Courtois CA, Ford JD, editors. Treating complex traumatic stress disorders: an evidence-based guide. New York: Guilford Press; 2009. p. 88–103.
- Ford JD, Courtois CA, Steele K, Van der Hart O, Nijenhuis ERS. Treatment of complex posttraumatic self-dysregulation. J Trauma Stress. 2005;18:437-47. https://doi.org/10.1002/jts.20051.
- 60. Van der Hart O, Groenendijk M, Gonzalez A, Mosquera D, Solomon R. Dissociation of the personality and EMDR therapy in complex trauma-related disorders: applications in the stabilization phase. J EMDR Pract Res. 2013;7:81-94. https://doi.org/10.1891/1933-3196.7.
- 61. Van der Hart O, Groenendijk M, Gonzalez A, Mosquera D, Solomon R. Dissociation of the personality and EMDR therapy in complex trauma-related disorders: applications in phases 2 and 3 treatment. J EMDR Pract Res. 2014;8:33-48. https://doi.org/10.1891/1933-3196.8.
- 62. Korn DL, Leeds AM. Preliminary evidence of efficacy for EMDR resource development and installation in the stabilization phase of treatment of complex posttraumatic stress disorder. J Clin Psychol. 2002;58:1465–87. https://doi.org/10.1002/jclp.10099.
- 63. Parnell L. Attachment-focused EMDR: healing relational trauma. Solihull: Norton; 2013.
- 64. Seubert A. Becoming known: a relational model utilizing gestalt and ego state-assisted EMDR in treating eating disorders. J EMDR Pract Res. 2018;12:71–85. https://doi.org/10.1891/1933-3196.12.2.71.
- 65. Gonzalez-Vazquez Al, Rodriguez-Lago L, Seoane-Pillado MT, Fernández I, García-Guerrero F, Santed-Germán MA. The progressive approach to EMDR group therapy for complex trauma and dissociation: a case-control study. Front Psychol. 2018. https://doi.org/10. 3389/fpsyg.2017.02377.
- Twombly J, Schwartz R. The integration of the internal family systems model and EMDR. In: Forgash C, Copeley M, editors. Healing the heart of trauma and dissociation with EMDR and ego state therapy. New York: Springer Publishing Co; 2008. p. 295–311.



- O'Shea Brown G. Internal family systems informed eye movement desensitization and reprocessing: an integrative technique for treatment of complex posttraumatic stress disorder. Int Body Psychother J. 2020;19:112–22.
- 68. Schwartz R. Internal family systems therapy. New York: The Guilford Press; 1995.
- 69. Schwartz R, Sweezy M. Internal family systems therapy. 2nd ed. New York: The Guilford Press; 2020.
- 70. Schwartz R. Introduction to the internal family systems model. San Francisco: Trailhead Publications; 2001.
- 71. Fitzgerald M. Cool, calm, and collected: the associations between self-leadership and adult mental and relational health outcomes. Am J Fam Ther. 2022;50:57–71. https://doi.org/10.1080/01926187.2020.1865218.
- 72. Dolbier CL, Soderstrom M, Steinhardt MA. The relationships between self-leadership and enhanced psychological, health, and work outcomes. J Psychol. 2001;135:469–85. https://doi.org/10.1080/00223980109603713.
- 73. Phillips TK, Rose AL, Strickland ML. The mediating role of self-leadership in the link between racial identity attitudes, mental health outcomes, and race related stress. Int J Syst Ther. 2022;33:175–95. https://doi.org/10.1080/2692398X.2022.2084316.
- 74. Robinson B, Flowers C, Burris C. An empirical study of the relationship between self-leadership and workaholism "firefighter" behaviors. J Self Leader. 2006;2:29–36.
- 75. Bilbao Bourke J, Dobrovolny J, Eaton M, Ferrante T, Smith M. Complex Trauma care pathway: results of a 12-month pilot. Perm J. 2021;25:1–1. https://doi.org/10.7812/TPP/20.147.
- 76. Sweezy M. The teenager's confession: regulating shame in internal family systems therapy. Am J Psychother. 2011;65:179–88. https://doi.org/10.1176/appi.psychotherapy.2011.65.2.179.
- 77. Hodgdon HB, Anderson FG, Southwell E, Hrubec W, Schwartz R. Internal family systems (IFS) therapy for posttraumatic stress disorder (PTSD) among survivors of multiple childhood trauma: a pilot effectiveness study. J Aggress Maltreat Trauma. 2022;31:22–43. https://doi.org/10.1080/10926771.2021.2013375.
- 78. Wilkins EJ. Using an IFS informed intervention to treat african american families surviving sexual abuse. J Fem Fam Ther. 2007;19:37–53. https://doi.org/10.1300/J086v19n03_03.
- 79. Sweezy M. Treating trauma after dialectical behavioral therapy. J Psychother Integr. 2011;21:90–102. https://doi.org/10.1037/a0023011.
- 80. Singer T, Kok B, Bornemann B, Zurborg S, Bolz M, Bochow C. The resource project: background, design, samples, and measurements. 2nd ed. Leipzig: Max Planck Institute for Human Cognitive and Brain Sciences; 2016.
- 81. Lumma A, Valk SL, Böckler A, Vrtička P, Singer T. Change in emotional self-concept following socio-cognitive training relates to structural plasticity of the prefrontal cortex. Brain Behav. 2018. https://doi.org/10.1002/brb3.940.
- 82. Lavergne M. Art therapy and internal family systems therapy. Can Art Ther Assoc J. 2004;17:17–36. https://doi.org/10.1080/08322473. 2004.11432257.
- 83. Krauze PK, Gomez AM. EMDR therapy and the use of internal family systems strategies with children. In: Gomez AM, editor. EMDR therapy and adjunct approaches with children: complex trauma Attachment and Dissociation. New York: Springer Publishing Co; 2013. p. 299–319.
- 84. Piedfort-Marin O. Synthesis and realization (personification and presentification): the psychological process of integration of traumatic memories in EMDR psychotherapy. J EMDR Pract Res. 2019;13:75–88. https://doi.org/10.1891/1933-3196.13.1.75.
- 85. Gelinas DJ. Integrating EMDR into phase-oriented treatment for trauma. J Trauma Dissociation. 2003;4:91–135. https://doi.org/10.1300/
- 86. Allen JG, Fonagy P, Bateman AW. Mentalizing in clinical practice. Washington: American Psychiatric Pub; 2008.
- 87. Courtois AA. Recollections of sexual abuse: treatment principles and guidelines. Solihull: Norton; 1999.
- 88. Kluft RP. The initial stages of psychotherapy in the treatment of multiple personality disorder patients. Dissociation Prog Dissociative Disord. 1993;6:145–61.
- 89. Kluft RP. An overview of the psychotherapy of dissociative identity disorder. Am J Psychother. 1999;53:289–319. https://doi.org/10.1176/appi.psychotherapy.1999.53.3.289.
- 90. Linehan MM. Cognitive behavioural treatment of borderline personality disorder. New York: The Guilford Press; 1993.
- 91. Ogden P, Minton K, Pain C. Trauma and the body: a sensorimotor approach to psychotherapy. Solihull: Norton; 2006.
- 92. Steele K, Van der Hart O, Nijenhuis ERS. Phase-oriented treatment of structural dissociation in complex traumatization: overcoming trauma-related phobias. J Trauma Dissociation. 2005;6:11–53. https://doi.org/10.1300/J229v06n03_02.
- 93. Gonzalez A, Mosquera D. EMDR and dissociation: the progressive approach. Seattle: Amazon Imprint; 2012.
- 94. Forgash C. Orienting the ego state system to present reality (OPR). In: Luber M, editor. EMDR dissociative disorders and complex post-traumatic stress disorder. New York: Springer Publishing Co; 2010. p. 225–32.
- 95. Forgash C, Copeley M. Healing the heart of trauma and dissociation with EMDR and ego state therapy. New York: Springer Publishing Co; 2007.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington: American Psychiatric Association: 2013.
- 97. Debell F, Fear NT, Head M, Batt-Rawden S, Greenberg N, Wessely S, Goodwin L. A systematic review of the comorbidity between PTSD and alcohol misuse. Soc Psychiatry Psychiatr Epidemiol. 2014;49:1401–25. https://doi.org/10.1007/s00127-014-0855-7.
- 98. Petrakis IL, Rosenheck R, Desai R. Substance use comorbidity among veterans with posttraumatic stress disorder and other psychiatric illness. Am J Addict. 2011;20:185–9. https://doi.org/10.1111/j.1521-0391.2011.00126.x.
- 99. Rijkers C, Schoorl M, Van Hoeken D, Hoek HW. Eating disorders and posttraumatic stress disorder. Curr Opin Psychiatry. 2019;32:510–7. https://doi.org/10.1097/YCO.000000000000545.
- 100. Dorflinger LM, Masheb RM. PTSD is associated with emotional eating among veterans seeking treatment for overweight/obesity. Eat Behav. 2018;31:8–11. https://doi.org/10.1016/j.eatbeh.2018.07.005.
- 101. Horesh D, Lowe SR, Galea S, Aiello AE, Uddin M, Koenen KC. An in-depth look into PTSD-depression comorbidity: a longitudinal study of chronically-exposed Detroit residents. J Affect Disord. 2017;208:653–61. https://doi.org/10.1016/j.jad.2016.08.053.
- 102. Kotera Y, Dosedlova J, Andrzejewski D, Kaluzeviciute G, Sakai M. From stress to psychopathology: relationship with self-reassurance and self-criticism in Czech University students. Int J Ment Health Addict. 2022;20:2321–32. https://doi.org/10.1007/s11469-021-00516-z.



- 103. Parnell L. Tapping in: a step-by-step guide to activate your healing resources through bilateral stimulation. Louisville: Sounds True;
- 104. Van der Kolk BA, Roth S, Pelcovitz D, Sunday S, Spinazzola J. Disorders of extreme stress: the empirical foundation of a complex adaptation to trauma. J Trauma Stress. 2005;18:389-99. https://doi.org/10.1002/jts.20047.
- 105. Cloitre M, Stolbach BC, Herman JL, Van der Kolk B, Pynoos R, Wang J, Petkova E. A developmental approach to complex PTSD: childhood and adult cumulative trauma as predictors of symptom complexity. J Trauma Stress. 2009;22:399–408. https://doi.org/10. 1002/jts.20444.
- 106. Boon S, Draijer N. Multiple personality disorder in The Netherlands: a clinical investigation of 71 patients. Am J Psychiatry. 1993;150:489-94. https://doi.org/10.1176/ajp.150.3.489.
- 107. Kluft RP. Dissociative identity disorder. In: Michelson LK, Ray WJ, editors. Handbook of dissociation: theoretical empirical and clinical perspectives. New York: Plenum Press; 1996. p. 337-66.
- 108. Putnam FW. Dissociation in children and adolescents: a developmental perspective. New York: The Guilford Press; 1997.
- 109. Putnam FW. Pierre Janet and modern views of dissociation. J Trauma Stress. 1989;2:413–29. https://doi.org/10.1002/jts.2490020406.
- 110. Ross CA, Norton GR, Wozney K. Multiple personality disorder: an analysis of 236 cases. Can J Psychiatr. 1989;34:413–8. https://doi. org/10.1177/070674378903400509.
- 111. Ogawa JR, Sroufe LA, Weinfield NS, Carlson EA, Egeland B. Development and the fragmented self: longitudinal study of dissociative symptomatology in a nonclinical sample. Dev Psychopathol. 1997;9:855-79. https://doi.org/10.1017/S0954579497001478
- 112. Coons PM. Confirmation of childhood abuse in child and adolescent cases of multiple personality disorder and dissociative disorder not otherwise specified. J Nerv Ment Dis. 1994;182:461-4. https://doi.org/10.1097/00005053-199408000-00007.
- 113. Draijer N, Langeland W. Childhood trauma and perceived parental dysfunction in the etiology of dissociative symptoms in psychiatric inpatients. Am J Psychiatry. 1999;156:379-85. https://doi.org/10.1176/ajp.156.3.379.
- 114. Nijenhuis ERS, Spinhoven P, Van Dyck R, Van der Hart O, Vanderlinden J. Degree of somatoform and psychological dissociation in dissociative disorder is correlated with reported trauma. J Trauma Stress. 1998;11:711–30. https://doi.org/10.1023/A:1024493332
- 115. Chalavi S, Vissia EM, Giesen ME, Nijenhuis ERS, Draijer N, Cole JH, Dazzan P, Pariante CM, Madsen SK, Rajagopalan P, Thompson PM, Toga AW, Veltman DJ, Reinders AATS. Abnormal hippocampal morphology in dissociative identity disorder and post-traumatic stress disorder correlates with childhood trauma and dissociative symptoms. Hum Brain Mapp. 2015;36:1692-704. https://doi.org/ 10.1002/hbm.22730.
- 116. Siegel DJ. Toward an interpersonal neurobiology of the developing mind: attachment relationships, ?mindsight,? and neural integration. Infant Ment Health J. 2001;22:67-94. https://doi.org/10.1002/1097-0355(200101/04)22:1%3c67::AID-IMHJ3%3e3.0.CO;2-G.
- 117. Mosquera D, Gonzalez A, Leeds AM. Early experience, structural dissociation, and emotional dysregulation in borderline personality disorder: the role of insecure and disorganized attachment. Borderline Personal Disord Emot Dysregul. 2014;1:15. https://doi.org/ 10.1186/2051-6673-1-15.
- 118. Liotti G. Understanding the dissociative processes: the contribution of attachment theory. Psychoanal Inq. 1999;19:757–83. https:// doi.org/10.1080/07351699909534275.
- 119. Liotti G. Disorganization of attachment as a model for understanding dissociative psychopathology. In: Solomon J, George C, editors. Attachment disorganization. New York: The Guilford Press; 1999. p. 291-317.
- 120. Liotti G. Disorganised attachment in the pathogenesis and the psychotherapy of borderline personality disorder. In: Danquah AN, Berry K, editors. Attachment theory in adult mental health: a guide to clinical practice. New York: Routledge/Taylor & Francis Group; 2014. p. 113-28.
- 121. Fairbairn WRD. The repression and the return of bad objects (with special reference to the 'war neuroses'). Br J Med Psychol. 1943;19:327-41. https://doi.org/10.1111/j.2044-8341.1943.tb00328.x.
- 122. Shapiro F, Forrest MS. EMDR: breakthrough therapy for overcoming anxiety, stress and trauma. New York: Basic Books; 2016.
- 123. Perry BD, Pollard R. Homeostasis, stress, trauma, and adaptation. Child Adolesc Psychiatr Clin N Am. 1998;7:33–51. https://doi.org/ 10.1016/S1056-4993(18)30258-X.
- 124. Teicher MH, Andersen SL, Polcari A, Anderson CM, Navalta CP. Developmental neurobiology of childhood stress and trauma. Psychiatr Clin North Am. 2002;25:397–426. https://doi.org/10.1016/S0193-953X(01)00003-X.
- 125. Wolff PH. The development of behavioural states and the expression of emotions in early infancy. Chicago: University of Chicago Press: 1987.
- 126. World Health Organization. International statistical classification of diseases and related health problems (eleventh revision). Geneva: WHO; 2018.
- 127. Cloitre M, Courtois CA, Charuvastra A, Carapezza R, Stolbach BC, Green BL. Treatment of complex PTSD: results of the ISTSS expert clinician survey on best practices. J Trauma Stress. 2011;24:615–27. https://doi.org/10.1002/jts.20697.
- Bohus M, Stoffers-Winterling J, Sharp C, Krause-Utz A, Schmahl C, Lieb K. Borderline personality disorder. Lancet. 2021;398:1528–40. https://doi.org/10.1016/S0140-6736(21)00476-1.
- 129. Gunderson JG, Herpertz SC, Skodol AE, Torgersen S, Zanarini MC. Borderline personality disorder. Nat Rev Dis Prim. 2018;4:18029. https://doi.org/10.1038/nrdp.2018.29.
- 130. Van der Kolk BA, Hostetler A, Herron N, Fisler RE. Trauma and the development of borderline personality disorder. Psychiatr Clin North Am. 1994:17:715-30. https://doi.org/10.1016/S0193-953X(18)30082-0.
- 131. Fonagy P, Target M. Attachment and reflective function: their role in self-organization. Dev Psychopathol. 1997;9:679–700. https:// doi.org/10.1017/S0954579497001399.
- 132. Leichsenring F, Leibing E, Kruse J, New AS, Leweke F. Borderline personality disorder. Lancet. 2011;377:74–84. https://doi.org/10. 1016/S0140-6736(10)61422-5.
- 133. Amad A, Ramoz N, Thomas P, Jardri R, Gorwood P. Genetics of borderline personality disorder: systematic review and proposal of an integrative model. Neurosci Biobehav Rev. 2014;40:6–19. https://doi.org/10.1016/j.neubiorev.2014.01.003.



- 134. Zanarini MC, Frankenburg FR. Pathways to the development of borderline personality disorder. J Pers Disord. 1997;11:93–104. https://doi.org/10.1521/pedi.1997.11.1.93.
- 135. Bozzatello P, Rocca P, Baldassarri L, Bosia M, Bellino S. The role of trauma in early onset borderline personality disorder: a biopsychosocial perspective. Front Psychiatry. 2021. https://doi.org/10.3389/fpsyt.2021.721361.
- 136. Battle CL, Shea MT, Johnson DM, Yen S, Zlotnick C, Zanarini MC, Sanislow CA, Skodol AE, Gunderson JG, Grilo CM, McGlashan TH, Morey LC. Childhood maltreatment associated with adult personality disorders: findings from the collaborative longitudinal personality disorders study. J Pers Disord. 2004;18:193–211. https://doi.org/10.1521/pedi.18.2.193.32777.
- 137. Zanarini MC, Yong L, Frankenburg FR, Hennen J, Reich DB, Marino MF, Vujanovic AA. Severity of reported childhood sexual abuse and its relationship to severity of borderline psychopathology and psychosocial impairment among borderline inpatients. J Nerv Ment Dis. 2002;190:381–7. https://doi.org/10.1097/00005053-200206000-00006.
- 138. Widom CS, Czaja SJ, Paris J. A prospective investigation of borderline personality disorder in abused and neglected children followed up into adulthood. J Pers Disord. 2009;23:433–46. https://doi.org/10.1521/pedi.2009.23.5.433.
- Afifi TO, Mather A, Boman J, Fleisher W, Enns MW, MacMillan H, Sareen J. Childhood adversity and personality disorders: results from a nationally representative population-based study. J Psychiatr Res. 2011;45:814–22. https://doi.org/10.1016/j.jpsychires.2010.11. 008.
- 140. Bateman A, Fonagy P. Psychotherapy for borderline personality disorder: mentalisation-based treatment. Oxford: Oxford University Press; 2004.
- 141. Kernberg PF, Weiner AS, Bardenstein K. Personality disorders in children and adolescents. Basic Books; 2000.
- 142. Fornaro M, Orsolini L, Marini S, De Berardis D, Perna G, Valchera A, Ganança L, Solmi M, Veronese N, Stubbs B. The prevalence and predictors of bipolar and borderline personality disorders comorbidity: systematic review and meta-analysis. J Affect Disord. 2016;195:105–18. https://doi.org/10.1016/j.jad.2016.01.040.
- 143. Shah R, Zanarini MC. Comorbidity of borderline personality disorder. Psychiatr Clin North Am. 2018;41:583–93. https://doi.org/10. 1016/j.psc.2018.07.009.
- 144. Grant BF, Chou SP, Goldstein RB, Huang B, Stinson FS, Saha TD, Smith SM, Dawson DS, Pulay AJ, Pickering RP, Ruan WJ. Prevalence, correlates, disability, and comorbidity of DSM-IV borderline personality disorder. J Clin Psychiatry. 2008;69:533–45. https://doi.org/10.4088/JCP.v69n0404.
- 145. Braun BG. Treatment of multiple personality disorder. Washington: American Psychiatric Publishing; 1986.
- 146. Kluft RP. An introduction to multiple personality disorder. Psychiatr Ann. 1984;14:19–24. https://doi.org/10.3928/0048-5713-19840 101-05.
- 147. Steele K, Van der Hart O, Nijenhuis ERS. Dependency in the treatment of complex posttraumatic stress disorder and dissociative disorders. J Trauma Dissociation. 2001;2:79–116. https://doi.org/10.1300/J229v02n04_05.
- 148. Forgash C, Knipe J. Integrating EMDR and ego state treatment for clients with trauma disorders. In: Forgash C, Copeley M, editors. Healing the heart of trauma and dissociation with EMDR and ego state therapy. New York: Springer Publishing Co; 2007. p. 1–59.
- 149. Lombardo M. EMDR target timeline. J EMDR Pract Res. 2012;6:37-46. https://doi.org/10.1891/1933-3196.6.1.37.
- 150. Morrow RD. EMDR target tracking. J EMDR Pract Res. 2008;2:69–72. https://doi.org/10.1891/1933-3196.2.1.69.
- 151. Kluft RP. Dealing with alters: a pragmatic clinical perspective. Psychiatr Clin North Am. 2006;29:281–304. https://doi.org/10.1016/j. psc.2005.10.010.
- 152. Fraser GA. The dissociative table technique: a strategy for working with ego states in dissociative disorders and ego-state therapy. Dissociation Prog Dissociative Disord. 1991;4:205–13.
- 153. Fraser GA. Fraser's "dissociative table technique" revisited, revised: a strategy for working with ego states in dissociative disorders and ego-state therapy. J Trauma Dissociation. 2003;4:5–28. https://doi.org/10.1300/J229v04n04_02.
- 154. Bergmann U. Hidden selves: Treating dissociation in the spectrum of personality disorders. In: Forgash C, Copeley M, editors. Healing the heart of trauma and dissociation with EMDR and ego state therapy. New York: Springer Publishing Co; 2008. p. 181–225.
- 155. Paulsen S. Treating dissociative identity disorder with EMDR, Ego state therapy and adjunct approaches. In: Forgash C, Copeley M, editors. Healing the heart of trauma and dissociation with EMDR and ego state therapy. New York: Springer Publishing Co; 2007. p. 141–79.
- 156. Paulsen S. Act-as-if and architects approaches to EMDR treatment of DID. In: Luber M, editor. Eye movement desensitisation and reprocessing scripted protocols: special populations. New York: Springer Publishing Co; 2009. p. 357–87.
- 157. Siegel DJ. The developing mind: how relationships and the brain interact to shape who we are. New York: The Guilford Press; 1999. 158. Lobenstine F, Courtney D. A case study: the integration of intensive EMDR and ego state therapy to treat comorbid posttraumatic
- stress disorder, depression, and anxiety. J EMDR Pract Res. 2013;7:65–80. https://doi.org/10.1891/1933-3196.7.2.65.
- 159. Sweezy M. Internal family systems therapy for shame and guilt. New York: Guilford Publications; 2023.
- 160. Knipe J. EMDR toolbox: theory and treatment of complex PTSD and dissociation. 2nd ed. New York: Springer Publishing Co.; 2018.
- 161. Lee DA, Scragg P, Turner S. The role of shame and guilt in traumatic events: a clinical model of shame-based and guilt-based PTSD. Br J Med Psychol. 2001;74:451–66. https://doi.org/10.1348/000711201161109.
- 162. López-Castro T, Saraiya T, Zumberg-Smith K, Dambreville N. Association between shame and posttraumatic stress disorder: a meta-analysis. J Trauma Stress. 2019;32:484–95. https://doi.org/10.1002/jts.22411.
- 163. Spitzer C, Jelinek L, Baumann E, Benecke C, Schmidt AF. Negative self-conscious emotions in women with borderline personality disorder as assessed by an implicit association test. Personal Disord Theory Res Treat. 2021;12:456–65. https://doi.org/10.1037/per00 00467
- 164. Winter D, Bohus M, Lis S. Understanding negative self-evaluations in borderline personality disorder—a review of self-related cognitions, emotions, and motives. Curr Psychiatry Rep. 2017;19:17. https://doi.org/10.1007/s11920-017-0771-0.
- 165. May JM, Richardi TM, Barth KS. Dialectical behavior therapy as treatment for borderline personality disorder. Mental Health Clin. 2016;6:62–7. https://doi.org/10.9740/mhc.2016.03.62.



- 166. Au TM, Sauer-Zavala S, King MW, Petrocchi N, Barlow DH, Litz BT. Compassion-based therapy for trauma-related shame and posttraumatic stress: initial evaluation using a multiple baseline design. Behav Ther. 2017;48:207-21. https://doi.org/10.1016/j.beth.
- 167. Gilbert P, Procter S. Compassionate mind training for people with high shame and self-criticism: overview and pilot study of a group therapy approach. Clin Psychol Psychother. 2006;13:353-79. https://doi.org/10.1002/cpp.507.
- 168. Luoma JB, Kohlenberg BS, Hayes SC, Fletcher L. Slow and steady wins the race: a randomized clinical trial of acceptance and commitment therapy targeting shame in substance use disorders. J Consult Clin Psychol. 2012;80:43-53. https://doi.org/10.1037/a0026
- 169. Main M, Solomon J. Discovery of an insecure-disorganized/disoriented attachment pattern. In: Brazelton TB, Yogman MW, editors. Affective development in infancy. Westport: Ablex Publishing; 1986. p. 95-124.
- 170. Ross CA. Dissociative identity disorder: diagnosis, clinical features and treatment of multiple personality. Hoboken: Wiley; 1997.
- 171. Brewerton TD. The integrated treatment of eating disorders, posttraumatic stress disorder, and psychiatric comorbidity: a commentary on the evolution of principles and guidelines. Front Psychiatry. 2023. https://doi.org/10.3389/fpsyt.2023.1149433.

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