



Research Paper

Deep brain reorienting group intervention (DBR-GI) as a tool for transforming embodied countertransference reactions and potential vicarious traumatization in trauma therapists

Anna Gerge ^{*} 

Department of Communication and Psychology, Aalborg University, Aalborg, Denmark

ARTICLE INFO

Keywords:

Rauma therapist's distress
Countertransference
Neurobiological effects
Vicarious traumatization
Group supervision
Deep brain reorienting group intervention (DBR-GI)

ABSTRACT

Objective: To (i) describe a deep brain reorienting group intervention (DBR-GI), and (ii) explore whether the deep brain reorienting (DBR) method as a group intervention ameliorates countertransference reactions and distress in psychotherapists who provide trauma therapies. Distress that potentially otherwise could lead to vicarious traumatization.

Methods: All participants in this small, naturalistic study ($n = 32$) were experienced trauma psychotherapists in ongoing group supervision. They were offered an opportunity to process their reactions to relational difficulties and/or distress related to their clinical work with DBR-GI during consultation hours and all signed informed consent. The participants' self-assessed experiences of discomfort before and after DBR processing were measured with the Subjective Units of Distress Scale (SUDS). They also provided verbal and written statements regarding their experiences after the DBR-GI intervention.

Results: SUDS ratings/values related to participants' experiences of discomfort before and after the DBR-GI moment were significantly changed, $p < 0000$ (binomial calculation). The subjective ratings were aligned with the participants' summarized verbal and written statements, where worry and unease changed towards a (re)gained felt sense of embodied freedom, presence, agency and clarity, including reduced transference reactions.

Conclusions: Preliminary results are promising. Potentially, DBR-GI seems to diminish trauma-generated countertransference and related reactions, also when used as a group intervention. New knowledge concerning which groups of clinicians who benefit from the intervention needs to be further enhanced and implemented in consultation/supervision. Whether or not DBR-GI is a helpful method during supervision of more inexperienced colleagues and if the group adaptation of DBR offers a possibility in work with clients should be investigated.

Introduction

As trauma therapists, we share the life-worlds of traumatized people inclusive how they have been impacted of natural disasters, human shortcomings, and deliberate malice – sometimes long before these events have become part of their verbal narratives (Gerge, 2024). Some of these experiences, shared or unconsciously staged together with us (Loewenstein & Brand, 2023), are overwhelming and impact therapies and therapists. The therapeutic relationship can be defined as the sum of the real relationship between the contractors and their working alliance, transference and countertransference (CT) (Levy & Scala, 2012). Interventions for ameliorating CT reactions have been requested in

contemporary research in psychodynamic (Levy & Scala, 2012), pragmatic (Muran & Eubanks, 2020) and the CBT oriented tradition (Prasko, Ociskova, Vanek et al., 2022). Wilson (2004) emphasized trauma-specific CT reactions when treating PTSD. Pierorazio, Snyder, Chang et al. (2025) stated that supervisors and consultants of therapists working with dissociative identity disorder (DID) must remain aware of the potential of vicarious traumatization (VT), compassion fatigue, burnout (Sayer, Kaplan & Nelson et al., 2024), and other occupational hazards. Supervisors/consultants should also ask about these hazards and guide therapists toward addressing them (Pierorazio et al., 2025). In the following, after a theoretical introduction including a brief presentation on trauma-generated CT and embodied CT, the use of deep brain

* Corresponding author at: Framnäsv 4A, 185 31 Vaxholm, Sweden.

E-mail address: anna@insidan.se.

<https://doi.org/10.1016/j.ejtd.2025.100615>

Received 17 September 2025; Received in revised form 6 November 2025; Accepted 7 November 2025

Available online 8 November 2025

2468-7499/© 2025 The Author(s). Published by Elsevier Masson SAS. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

reorienting group intervention (DBR-GI) during group supervision of experienced trauma therapists is researched. How DBR-GI is adapted to group supervision is presented and initially evaluated, giving a possible tool to supervisors and consultants, trained in DBR, when addressing and easing CT and aligned reactions of clinicians in supervision.

Trauma-generated countertransference

The contemporary expanded view of CT includes therapists' conscious and unconscious reactions to their clients' transference. According to [Prasco et al. \(2022\)](#) transference is conceptualized as the organization of an individual's experiences and behaviours, including cognitive, emotional, and interpersonal processes based on previous experience. From a psychodynamic perspective clients' transference can be seen as enactments of earlier dynamics and displaced feelings leading to unconscious repetitions of patterns of thoughts, feelings, beliefs, expectations, and responses stemming from important earlier relationships ([Pearlman & Saakvitne, 1995a](#)). These unconscious patterns can be re-enacted as fear of rejection, dependency/counter-dependency, or idealization/devaluation ([Hersoug, Ulberg & Høglend, 2014](#)), and in un-realistic wishes of a "quick fix", sometimes met by CT-reactions in the therapist, for examples given in EMDR therapy, see [Piedfort-Marin \(2018\)](#).

Clients' transference reactions can lead to blocks in the therapy process and are treated differently in different schools of therapy. In client-centered humanistic psychology the therapist strives to understand and accept the client's attitude toward the therapist/therapy (Rogers, 1965). In existential psychotherapy the understanding of transference places more emphasis on the client's capacity to choose, here and now ([Schneider & May 1995](#)). Also, in EMDR, as in psychodynamic psychotherapy, relational issues are considered to play a key role in each phase of the treatment ([Dworkin, 2013](#)), and especially in complex cases where the therapist's sensations and sensorimotor reactions during the trauma processing can guide interventions ([Piedfort-Marin, 2018](#)). Such intercorporeality is a prerequisite for an embodied intersubjectivity and a main source of knowledge about the other including our capacity of mindreading and feeling empathy ([Gallese, 2014](#)). Deep Brain Reorienting (DBR; Corrigan & Christie-Sands, 2020; [Corrigan, Young & Christie-Sands, 2025](#)) offers a bottom-up approach for soothing transference and CT-phenomena through the method's emphasis on finding an embodied orienting tension early in the appraisal process and a connection on midbrain level between therapist and client as a prerequisite for trauma-processing.

For the classical definition of CT as an unconscious phenomenon based on the therapist's unresolved issues, see [Kernberg \(1965\)](#) and [Hofsess and Tracey \(2010\)](#), and for the historical origin of the concept ([Ferenczi, 1909, 1919; Freud, 1910](#)). If unrecognized and unexplored, CT reactions can become therapeutically counterproductive ([Bhola, & Mehrotra, 2021; Breivik Øvstebø, Pedersen, Wilberg et al., 2024](#)) and result in heightened existential hopelessness, withdrawal, isolation or over-engagement ([Pierorazio et al., 2025; Wilson & Lindy, 1994; Wilson, Lindy & Raphael, 1994; Wilson & Thomas, 2004](#)). CT reactions refer to the inter-subjectivity of the psychotherapeutic dyad of the client and the therapist ([El Hussein, Skandrani, Sahab, et al., 2016; Shubs, 2008; Breivik Øvstebø et al., 2024](#)), including the totality of (unconscious) reactions, as feelings, cognitions, and behaviors, responding to dynamics in the therapeutic relationship ([Gelso & Hayes, 2007](#)). These responses are considered stemming from either the therapist's unresolved issues or from maladaptive behaviors elicited by the client ([Gelso & Hayes, 2007](#)). Such "maladaptive" behaviors often make sense when knowing more about the client's life experiences ([Gerge, 2024](#)). Several definitions of CT exist and vary whether CT is measured by self-report or observer-ratings ([Hayes, Gelso, Goldberg et al., 2018](#)).

Therapists' own traumatic or adverse experiences might be activated in the we-centered, shared space of therapy ([Piedfort-Marin, 2019; Rønnestad & Skovholt, 2003](#)). Several of the interviewed trauma

therapists in the [Cavanagh et al. study \(2015\)](#) mentioned silence surrounding personal trauma, posing major challenges in their capacity to conduct trauma therapy and [Pierorazio et al. \(2025\)](#) mentioned the risk of border violations in overidentification in treatment of DID, supposedly due to a personal trauma history. Therapists, who have experienced trauma in their lives and/or genealogy, showed stronger CT emotions and reactions, compared to therapists who had not experienced trauma ([Cavanagh et al., 2015](#)). For descriptions of transference power and CT phenomena in therapies with highly dissociative (and consequently severely traumatized) clients, see ([Kluft, 2009; Loewenstewin & Brand, 2023; Pierorazio et al., 2025; Sinason & Silver, 2009](#)).

Countertransference related to severe traumatization and dissociation

Data on CT in therapies with several types of complex traumatization shows that basic transference patterns were negative and post-traumatic, e.g., in treatment of incest and childhood sexual abuse survivors, adult violent-crime victims, in Vietnam veterans, and in female counselors working with sexual violence survivors ([Davis & Frawley, 1991, 1994, 2009; Shubs, 2008; Wilson, 2004; Schauben and Frazier, 1995](#)). Both Type I CT (avoidance) and Type II CT (overidentification) ([Wilson and Lindy, 1994](#)), and empathic strain and vicarious traumatization affected clinicians ([Shubs, 2008](#)). Such traumatic transference can be concealed and overtly avoided, though can be revealed in dangerous or otherwise high-risk behaviors – acting in and acting out to self or others ([Kluft, 1994, 2017; Loewenstein & Brand, 2023](#)). An interpretative phenomenological analysis study of 31 therapists including 10 disaster-relief workers found that "trauma calls into question the very identity of the therapist" including physical symptoms ([El Hussein et al., 2016](#)). [Pierorazio et al. \(2025\)](#) found in their reflexive thematic analysis of interviews of 15 therapists working with DID the theme of "churning my stomach up" including re-experiencing personal traumata and being physically impacted.

Early during treatment of severe secondary and especially tertiary structural dissociation ([Steele, van der Hart & Nijenhuis, 2005](#)), the therapists' capacity to know about what they experience in their inner worlds is crucial ([Gerge, 2024](#)). Supposedly traumatized and dissociative clients have changes in their brains' functional networks ([Dimitrova, Lawrence, Vissia, et al., 2024; Kearney et al., 2023a](#)) and brain functions ([Kearney & Lanis, 2024; Liddell, Das, Malhi et al., 2022; Teicher & Samson, 2016](#)). Information from clients' unspoken though lived life-worlds can manifest in their therapists as flashes, phantasms, and night dreams with aggressive, sadistic, and/or bizarre content that differs from the therapist's habitual way of gaining information from her/his inner world ([Gerge, 2024](#)).

In all stages of trauma work ([Herman, 1992](#)) with highly dissociative and traumatized clients, CT phenomena occur, supposedly because therapists may feel incapable of affecting change and are impacted by the suffering of their clients. If the therapists have personal themes/unfinished and maybe unconscious material regarding trauma-generated reactions the CT phenomena might be even more pronounced. Clients with PTSD, complex PTSD and DID may have switching self-states that embody trauma experiences. These can be projected onto therapy and the therapist as trauma-based and dissociation-based CT. This type of CT phenomena is crucial to decode both in diagnostics and in trauma therapies ([Pierorazio, Brand & Goldenson, 2025](#)).

In the *stabilization and safety* stage (I), flashes of the atrocities (when sitting with clients) or vehement dreams can give therapists premonitions of the clients' experiences even when heightened cognitive control and inter-identity avoidance of trauma-related knowledge is present, the latter supposedly due to that the frontoparietal network (central executive network) seems to be used to *not know* about the self ([Dimitrova et al., 2024](#)). Instead, it is potentially used to prevent highly dissociative clients from finding out about themselves. Therapies then can become a game of not knowing, while therapists must withhold

unbearable information until clients can bear to know about themselves (Gerge, 2024). Though, first such information needs to be held and embodied by the therapist.

Strong CT phenomena can appear as beta elements (raw, unthinkable, unlinked sensations) as per Bion (1962). Through processing our CT, the beta elements can transform into alpha elements (representable, metabolizable elements). Discrimination of a therapist's own different CT reactions requires the ability to make interpretations based on recognition of one's own emotional states (Abargil & Tishby, 2022; 2024; Bateman, Rüfenacht, Perroud et al., 2023; Laine, 2007) – a capacity hopefully heightened due to supervision/consultation with an experienced supervisor (Scaife, 2008), though needed to be maintained in embodied self-supervision in and between sessions. In clinical populations modest impairments in the mentalizing capacities of anxious individuals were found, likely influenced by their vulnerability to stress and the context in which they mentalized (Chevalier, Simard, & Achim, 2023). Presumably the Reflective Functioning (RF), an operationalization of mentalization, developed in early attachment relationships (Fonagy and Target, 2005) might be more robust in clinicians. Though, clients' trauma-generated dysregulation can impact and de-stabilise clinicians. Dissociative processes apply already when the therapy still focusses on emotion regulation, grounding, and safe stabilization (Gerge, 2024).

In the *trauma processing* stage (II), therapists may feel overwhelmed by their clients' trauma histories, inclusive ongoing traumatization. Information about suffering can implicitly be given through losses of function and agency in and out of sessions. Also, therapists need to recognize whether their embodied felt sense of an activated state, emotion, or arousal level is a projective identification of the client's state or if it is of the therapist's own contribution (Gerge, 2024). As per Loewenstein & Brand (2023), therapists can experience flashbacks and memories of what clients felt and thought during traumatic events. Such shared attunement, even of horrific experiences, potentially overbridges existential loneliness and holds healing and installation of the hope of being solicited and understood.

In the *integration* phase (III), deep sorrow regarding lost time and wasted possibilities needs to be shared and reframed, thus opening to opportunities of the present and the future. Often the realisation that the atrocities actually happened, leads to a movement between phase II and phase III. The process of realisation puts a certain existential burden on therapists, leading to specific trauma generated CT reactions, when encompassing and holding seas of sorrow.

Embodied multiple transference phenomena and their putative antecedents

Already in the PTSD diagnosis avoidance and depersonalization are core criteria. Excess corticolumbic inhibition may, according to Purcell et al. (2024) help a person with PTSD of a dissociative subtype (Lanius et al., 2010) or DID to not feel the body. These phenomena impact both therapies and the therapists who meet severely traumatized clients. And, as stated in Gerge (2024) therapists *will* meet these clients: complex PTSD has a 1–8 % population prevalence and up to 50 % prevalence in mental health facilities (Maercker et al., 2022). Dissociative disorders have a prevalence of 1 % to 5 % and DID is present in 1 % to 1.5 % of general population. Dissociative disorders are more common in clinical populations, albeit underdiagnosed (Brand et al., 2016; Hawayek, 2023). A strong mediating factor behind trauma related psychopathology is childhood abuse (Ong, Davis, Horodyski, et al., 2025; Teicher, Gordon & Nemeroff et al., 2022) with global prevalence rates of 12.7 % for sexual abuse, 22.6 % for physical abuse, and 36.3 % for emotional abuse (Stoltenborgh et al., 2015). Brown, Yilanli and Rabbitt (2023) noted that approximately one in four children experience child abuse or neglect in their lifetime, including 18 percent being physically abused, 78 percent being neglected, and 9 percent being sexually abused. Such abuse will impact lives and therapy outcomes (Lippard & Nemeroff,

2020; Breivik Øvstebø, Pedersen et al., 2024). Trauma-related inner working models (Bowlby, 1973), when present in therapies, are initially seldom spontaneously spoken of, nor processed in a congruent narrative, supposedly due to that the frontoparietal network (central executive network) seems to be used to *not know* about the self (Dimitrova et al., 2024). This entails specific conditions for conducting trauma therapy and, by extension, supervision of these therapies.

Loewenstein & Brand (2023) give examples of CT in treatment of clients suffering from DID, leading to therapists feeling overwhelmed, and potentially distancing themselves. When trauma-related re-enactments happen, the therapy can be experienced as dangerous by both client and therapist. This can lead to attempts to enact dissociative distancing. If such strategies fail, clients may go into flashbacks and lose psychological distance and reality orientation (Loewenstein & Brand, 2023). Such processes can also be intertwined in multiple transference phenomena. For example, a clinician can feel strong tenderness toward a younger part of a grown-up client, a part holding abusive experiences from a troubled childhood. At the same time, fright and repulsion toward internalized introjects of perpetrators can terrify therapists and clients alike. The therapist's fear, with or without the combination with tenderness, can trigger disgust and terror in attachment phobic parts of the client. The fright that another person is interested in one and, at the same time, the horror that the other person seems weak and scared, or scary, can potentially overwhelm the (attachment) seeking-system of the client (Schimmenti, 2023). When this happens in parallel with the attachment-longing parts intense need for being cared for (Farina et al., 2019) a toxic mix of conflicting impulses might impact the therapy and the participants in the therapeutic dyad. At the same moment the therapist can be physically alarmed, by information of the client's ongoing self-harming, explicitly verbalised or not, for example, sex as self-injury (SASI; Hedén et al., 2023), cutting/vomiting or suicidal intentions. Navigating in these CT phenomena is not easy. Though, let us hypothetically rethink aspects of these phenomena from the lens of DBR theory (Corrigan & Christie-Sands, 2020).

The hypothetical basis for DBR treatment is an initial activation of the main brain structure for orienting – the superior colliculus of the midbrain. The client is first grounded in an awareness of where she/he is in the present moment. This has similarities with mindfulness/safe grounding, though the wordings of DBR are precisely developed to anchor the client in the here and now through addressing specific structures and functions of the deep brain. Then the client is asked to focus on an initial Orienting Tension associated with a traumatic or triggering event. The Orienting Tension, most often found on upper face or at the base of the skull, provides an anchor against overwhelm or dissociation and is a major component of DBR. Thus, shock-responses, occurring before primary affects or defence-oriented behaviours can be processed. This makes any subsequent clearing of distress in relation to traumatic or overwhelming events easier. According to Lanius, Harricharan, Kearney et al. (2025) DBR is the only current psychotherapeutic approach to address this shock response. After the shock has dissipated the periaqueductal gray (PAG), a columnar structure of the midbrain is hypothesised to be addressed. The PAG is the critical brain area for defensive responses such as flight, fight, and freeze – and for the affective responses to trauma, such as fear, rage, grief, and shame (Terpou et al., 2019a, 2019b).

When shock has dissipated and affects become possible to be with, with the guidance of an attuned therapist, the primary affects often shift and transform into more positive states. DBR is a shock dissolving and transformational psychotherapy that can help clients turn towards what they previously unconsciously have considered unbearable to be with. The mental shutdown or avoidance, often seen during trauma memory processing with complexly traumatised and dissociative clients can thus be avoided. DBR offers a new path of healing for early attachment wounded persons and those with severe dissociative disorders. Through focussing and anchoring in the part of the memory sequence that occurred before shock responses or emotional overwhelm DBR is often

considered more bearable, compared to other trauma-treatment modalities (Gerge, 2025; Lanius et al., 2025).

Parallel to the loss of the image of the world as a sufficiently safe place (if it ever was) follows the loss of the experience of the self as competent and congruent when a biologically driven depersonalisation, a core mark of traumatisation, takes place (Frau & Corrigan, 2025; Lanius, Paulsen & Corrigan, 2014; Murphy, 2023). The overloaded seeking-systems of childhood traumatised clients will leave them overwhelmed by shock and horror responses (Corrigan & Christie-Sands, 2020). Frau & Corrigan (2025) proposed that if the adversity is sufficiently intense for to lead to limbic learning and disruption of normally integrated cortical functioning, it necessarily has its roots in intense arousal mediated from the brainstem, midbrain and hypothalamus, see Terpou et al. (2019a 2019b) regarding the functions of the periaqueductal gray, PAG.

Hyper aroused clients are prone to emotional under-modulation, whereby subcortical regions, such as the PAG and amygdala, are chronically activated (Kearney & Lanius, 2024). Then, their sympathetic nervous system's active-defense states (fight and flight) are easily triggered or continuously activated (Lanius et al., 2018; Terpou et al., 2019a 2019b) and endocannabinoids are used for capping of heightened arousal levels. When clients are processing experienced threat through over-regulation of amygdala and PAG by higher cortical regions, this leads to emotional detachment and heightened depersonalisation and derealisation levels (Corrigan, Lanius & Kaschor, 2023). Clients with depersonalisation and derealisation often have more complex trauma histories and are prone to passive defenses and neurochemical dissociation through release of endogenous opioids, such as mu-opioids (Lanius et al., 2018; Terpou et al., 2019a). When sitting with those clients their therapists' psychophysiology will be impacted. See Corrigan et al. (2023) for a thorough discussion regarding the impact of neurochemical dissociation on structural dissociation and posttraumatic conditions.

Frau & Corrigan (2025) described the neurobiological consequences of verbal abuse as a hyperactivation of the innate alarm system driving a depersonalisation process stemming from shock responses (Corrigan & Young, 2025). Childhood abuse is associated with disturbances to the embodied sense of self (ESS), with childhood emotional abuse manifesting particularly strong relationships on all three ESS domains, e.g. ownership, agency, and narrative (Ong, et al., 2025), supposedly due to enhanced depersonalisation. Childhood abuse undermines the development of an integrated sense of self through elevated levels of fear and distress activated in the PAG of the midbrain, and dysregulation of affects is an important mediating factor behind adult psychiatric suffering (Teicher et al., 2022).

Consequently, when the active defences transition to passive states, endo opioids are released in the PAG (Terpou et al., 2019a B.A. b) leading to that the individual enters a state of numbing, mental disengagement and avoidance of interoception, often described as fading away. According to Lanius et al. (2024) and Corrigan et al. (2023) this results in a neurochemical capping of otherwise unbearable pain. Such survival-driven patterns of activation stem from the midbrain apparatus and will impact also therapists conducting therapies aiming at changing these patterns. Thus, the clients' positive or negative psychoform and/or somatoform dissociative symptoms (Van der Hart & Steele, 2023), driven by (i) supracortical, (ii) intracortical, (iii) neurochemical and (iiii) structural dissociation (Corrigan & Young, 2025), will affect their therapists. Clinicians' feelings of frustration, helplessness, and distress are part of trauma generated transference and CT reactions. Potentially, clinicians' feelings of loss of agency, numbness and memory gaps could be part of a trauma generated transference of neurochemical capping of the above-mentioned affective responses and trauma-induced states of their clients. The experience of sudden blankness, when sitting with highly dissociative clients could be a contagious effect of supracortical dissociation (Corrigan & Young, 2025). Supracortical dissociation is defined as the involuntary, automatic, and unconscious turning away on the midbrain level from aspects of reality which cannot be faced. Such

reactions (made conscious) provide useful insights into the (inner) worlds of our clients and ourselves (A. Gerge, 2024). Understood and transformed CT reactions are important process tools, especially when psychotherapeutic work is burdened by trauma-generated CT.

Highly dissociative clients' attachment wounds often underly their complex PTSD (Liotti, 2009; Kearney & Lanius, 2022; Schimmenti, 2023; Schore, 2009). They might fulfill criteria for a disorganized attachment (D attachment) style (Liotti, 2011) and their inner worlds hold chaotic and abusive experiences, leading to unresolved fear, distress and the deep pain of loneliness. Working together with people impacted by such developmental adaptations to chaotic and abusive childhood experiences will inevitably affect therapists and their mentalizing capabilities (Gerge, 2024).

If clients are severely traumatized by others, aspects of the internalized perpetrator may be experienced as an invisible but present force in the therapy room. Aligned with the drama triangle (Berne, 1966), this can contribute to therapists becoming (i) overcommitted: "I am the rescuer" or (ii) extremely unempathetic: "I am the perpetrator". Therapists may also feel like victims (rather than their clients) by having to face overwhelming material brought to therapy (Figley, 1995a 1995b; Gerge, 2011; 2024; Loewenstein 1993; Loewenstein & Brand, 2023; Wilson 2004). These positions might be conceptualized as adaptive answers of PAG activation, stemming from shock/pre-affective shock responses in the locus coeruleus in the brain stem. Though, when working with highly traumatized and dissociative clients, the rescuer, victim and perpetrator positions might be simultaneously activated thus overriding the integrative capacity of the seeking-system of the PAG of either client or therapist. Being a trauma therapist is not so much about "facing" material or hearing a story, as it is to "being with" and embody projective identifications (Bion, 1962) of utter helplessness, pain and humiliation.

The contagious experience of neurochemical dissociation may be a partial explanation why therapists often describe drowsiness when they begin to work with severely dissociative clients. The drowsiness is, putatively, a felt sense reflection of their clients' neurochemical dissociation, aiming at capping shock responses. Though, over- and under-regulation might oscillate, supposingly due to that different parts of the clients' dissociative system hold different appraisal processes, even if one type might be predominant (Del Río-Casanova et al., 2016). These patterns might also be related to active and/or passive defenses. In supervision trauma therapists can describe looming sensations and feeling fright and terror coming out of "nowhere" when reflecting on their clinical work and certain clients. Hypothetically this could be reflections of the very moment when neurochemical dissociation eases in their clients.

If trauma therapists are impacted when working with dysregulated clients, their supervisors need to deepen their understanding of the contagious impact of embodied dysregulation on their supervisees. Such dysregulation is supposedly stemming from brainstem and midbrain levels of the clients, and supervisors need to develop methods for helping clinicians in supervision to re-regulate themselves, thus heightening their reflective function (RF). RF is an aspect of accessible mentalisation capacity, a capacity supposedly stemming from retaken regulation on midbrain and brainstem levels of the brain. Therapists who can stay present with what is evoked in them, and mentalise, can better function as witnesses and thus enhance positive psychotherapeutic change. Processed embodied CT also gives opportunities for increased empathy, personal understanding, and redress for both clinicians and their clients (Gerge, 2024).

Though, these gains come at a certain price (Pearlmann & Saakvitne, 1995a 1995b), the price of being a witness to another human being's wounds and despair, with the explicit wish to be part of a redress of that person's life world and self-value. Trauma therapists, especially those specialized in severe dissociative disorders (Loewenstein & Brand, 2023; Pierorazio et al., 2025) and complex PTSD (Horesh & Lahav, 2024) abides with deep suffering and vulnerability. Then interventions for

soothing implicit experiences sometimes defying narrative or logical expression, are needed in consultation and supervision for those working close to the after-effects of human traumatization. The DBR method (Corrigan & Christie-Sands, 2020) is one such possible, promising intervention that has shown efficacy in supervision when used with individual supervisees' trauma generated CT (Gerge, 2024).

Trauma therapists' vicarious traumatization, resilience and post-traumatic growth (VPG)

Clinicians' can develop secondary traumatic stress/vicarious traumatization (VT) due to indirect trauma exposure when working with clients fulfilling DSM-5 PTSD symptoms (American Psychiatric Association, 2013). The A4 criterion is relevant for those who experience repeated or extreme exposure to aversive details of traumatic event(s). The CT-driven impact of VT can consist of intrusive imagery, avoidance behaviors, negatively changed cognitions and heightened arousal (Aparicio, Michalopoulos, & Unick, 2013; Branson, 2018; Mishori, Mujawar, & Ravi, 2014). Aligned with the B, C, D, and E criteria of the PTSD diagnosis, the VT might include PTSD-like symptoms, e.g. nightmares, intrusive images, avoidance, depressivity, anxiety or hypervigilance (Canfield, 2005; Figley, 1995a 1995b; Ludick & Figley, 2017; Stamm, 1995). These reactions might be short- or long-term alterations in therapists' cognitive schemes, beliefs, expectations, and assumptions about themselves and others (Barros, Teche, Padoan, et al., 2020; McCann & Pearlman, 1990) and can affect therapists' meaning-bearing systems (Pearlman, & Saakvitne, 1995a 1995b; Saakvitne et al. 1996, 2000). Also, feelings of impatience, irritability, and sleep disturbances can occur (West, 2013). The ICD-11 (2018/2022) diagnosis of complex PTSD criteria of disturbances in self-organization (DSO) consists of dysregulations of central aspects of the self (Bachem, Levin, Zerach et al., 2021). Working with sufferers of complex PTSD might dysregulate clinicians in ways mimicking the DSO-criteria, as will working with highly dissociative clients. Though, the affective responses among helping professionals are both positive and negative (Dalenberg, 2004; Deaton, 2020; Gerge, 2011, 2024; Pearlman & Caringi, 2009). In the scoping review of Labrecque, Larouche and Gauthier-Boudreau et al. (2024) the clinicians (psychologists and neuropsychologists) were generally very satisfied at work despite high burnout rates. This may say something about the engagement of the clinician but also about the difficulties of the task.

Compassion fatigue (Figley, 2002) can change into vicarious resilience (Hernandez, Gangsei, & Engstrom, 2007), compassion satisfaction (CF; Stamm, 2009), and vicarious post-traumatic growth (VPG; Arnold, et al., 2005; Calhoun, & Tedeschi, 2006; Tedeschi, & Calhoun, 1996). Moderate VT levels were found to be the strongest predictors of VPG, including positive changes in therapists' view of themselves, in valuing relationships and appreciating life, whereas high levels impeded growth (Tsirimokou, Kloess, & Dhinse, 2022). Pierorazio et al. (2025) found in their reflexive thematic analysis the theme of Social Justice Practice in the therapists working with DID, and the importance of embracing a *here and now* stance, honouring what is meaningful about the work, and the importance of self-care to manage potential VT.

Therapists' unconscious and neurophysiological driven strategies for managing traumatized clients' hypo- and hyperaroused states also includes the possibility of vicarious post-traumatic growth (VPG; Arnold et al., 2005). VPG is defined as a maturation of the personality of the professional helper, including a possible newfound purpose and meaning (Bartoskova, 2017; Tsirimokou et al., 2023). Compassion satisfaction (CS; Stamm, 2009) is the sense of achievement or enjoyment stemming from one's ability to be of help in a professional role. Similarly to vicarious resilience, CS is a vicarious benefit from the clients' improvement, personal growth, and therapeutic gains (Pooler, Wolfer, & Freeman, 2014). Positive effects of the treatment can "spill over" to trauma therapists, as for example stabilization techniques (Gerge, 2018; Siegel, 2010), and daily use of empathy potentially supports

development of fulfilment and satisfaction (Newell, Nelson-Gardell, & MacNeil, 2016). According to Bartoskova (2017) the experiences of VPG among trauma counselors were found in four domains: change in worldview, growth in self, making a difference, and finding personal ways to process trauma. These domains seemed to buffer empathic overload, anxiety, and depression, e.g. secondary traumatic stress (Elwood, Mott, Lohr, et al., 2011). These findings are in line with Tsirimokou et al. (2023) and Pierorazio et al. (2025).

Consultation for overcoming trauma-specific countertransference (CT) and trauma specific dysregulation

As per Pearlman & Saakvitne (1995a 1995b), lack of support, lack of consultation, and overload can lead to VT, where overwhelming emotional impact and poor case conceptualization can be antecedents to VT (Lansen & Haans, 2004). Therapists needed and got help with CT issues through consultation, specialization, and support (Cavanagh et al., 2015). Supervision with appropriate, timely interventions may prevent long-term negative effects, improve quality of care and patient satisfaction, and maintain mental health care providers in their positions (Jimenez, Andersen, Song et al., 2021). The central protective factor of trauma-informed consultation/supervision was profound and, according to Padmanabhanunni and Gqomfa (2022), enhanced the clinicians' ability to envision and mentalize emotional reactions and the life experiences of clients. Also, how these impacted the clinicians became more evident. Awareness and reflectiveness of therapists' own states and arousal levels is particularly important to maintain (Bateman et al., 2023) and is often the aim of supervision (Gerge, 2024). When VT is mitigated, self-reflective professionals can stay emotionally present and be of help for their traumatized clients (Reading et al., 2019), thus vicarious resilience will be enhanced.

A scoping review on existing interventions addressing vicarious traumatization among service providers working with traumatized clients found that interventions were generally self-care based and tended to focus on general stress reduction and health promotion rather than on specific VT effects (Kim, Chesworth, Franchino-Olsen, et al., 2022). Though, interventions delivered over the longer term in a group setting showed the most promise in addressing service providers' VT symptoms and tailored VT interventions in consultations were asked for (Kim, et al., 2022).

Besides professional competence and understanding of the assignment, specific consultation is required on the transference and CT phenomena activated in encounters with clients whose problems and difficulties are direct results of neglect and abuse (Gerge, 2011, 2024; Padmanabhanunni, & Gqomfa, 2022), where early attachment chock can be hypothesized. Potentially, supervision then needs to address the impact of such dysregulation also through methods reaching brainstem and midbrain levels.

Deep brain reorienting group intervention (DBR-GI) in consultation

DBR (Corrigan & Christie Sands, 2020) was investigated as a method to help trauma psychotherapists overcome difficult CT and client-related distress during supervision with significant results found (Gerge, 2024). Such reactions can otherwise potentially lead to VT.

DBR is a psychotherapeutic approach targeting the ordered neurophysiological sequence conceptualized to occur in response to a traumatic event and/or a dysregulating experience, and which persists when triggered (Corrigan & Christie-Sands, 2020). The method highlights how alterations of subcortical mechanisms of the midbrain and brainstem can be treated in post-traumatic conditions and in clients with attachment wounds, e.g. when deep hubs which regulate the brain have been dysregulated (Corrigan et al., 2023). DBR has been proven effective and well-tolerated in a randomized controlled trial with clients suffering PTSD/CPTSD (Kearney et al., 2023b), in a single case with depersonalization disorder (Frau & Corrigan) and in three single cases with DID

(Gerge, 2025, 2025).

The DBR intervention consists of a sequence that includes (i) activation of an orienting tension (superior and inferior colliculus in the midbrain); (ii) search for shock/pre-affective shock (locus coeruleus in the brain stem); and (iii) affective responses (periaqueductal gray in the midbrain). These regions are activated upon encountering obtrusive stimuli that activate protective and survival-oriented action with basic neurophysiological responses starting before affective and cognitive components (Corrigan & Christie-Sands, 2020; Lanius et al., 2020; Rabellino et al., 2015; Terpou et al., 2019a).

Kearney et al. (2023b) stated that DBR is distinct in several ways when compared to other methods. Due to DBR’s hypothesized capacity to reach and regulate the midbrain and brainstem physiology, the method supposedly makes it possible to direct body awareness by means of a neurobiologically sound sequence. Then pre-affective shock and emotional overwhelm can be transformed. In DBR, a trained therapist slows down, tracks, and attunes the client’s responses. Then, embodied memories can become dynamic and open to change, as each time we remember, we remember a new memory (Elsey, Van Ast & Kindt et al., 2018). DBR combines knowledge of a precise neuroanatomical sequence with relational work as the attuned therapist helps the person to hold focused attention. This leads to a process occurring in a more regulated manner that clients often consider milder than other therapies (Corrigan & Christie Sands, 2020; Gerge, 2025; Kearney et al., 2023b).

Method

Use of deep brain reorienting group intervention (DBR-GI), as a part of psychotherapy supervision, was investigated by a supervisor accustomed to offering experiential methods as part of her supervision tasks, after she had found the DBR method valuable in previous supervision (Gerge, 2024). All therapists, in the following text called participants, gave written approval to having their processes, numbers and statements used in this manuscript.

A small, explorative, naturalistic study was undertaken to see if DBR-GI, a group adaptation of DBR, could be helpful in supervision of experienced therapists reporting CT reactions inclusive negatively loaded emotional or embodied states. In this study the focus was the participants current short-term reactions and self-reported CT responses related to their clinical work, e.g. their conscious feelings which they were willing to reflect on and remember. Such reactions could, if not worked through, potentially lead to less effective treatments and affect therapists’ wellbeing, including a heightened risk of potential vicarious traumatization.

During supervision in nine ongoing groups of clinicians carried out over a month, the supervisor offered the therapists an opportunity to experience DBR-GI. General focus of the group supervision was on case conceptualization, risk assessment and diagnostics, method development on a relational psychodynamic basis, self-care, and when appropriate, DBR. 27 women and five men participated in the supervision groups where 32 out of 32 participants (100 %) were interested in using DBR-GI to investigate their CT and distress reactions – mainly in relation to their clinical work with clients with withstanding traumatization. Seven, out of the 32 participants who tried DBR-GI, participated in web-based consultation; the others attended in situ. Seven of the participants were not trained in DBR. The size of the supervision groups varied from two to six participants.

All participants were experienced health professionals and seasoned trauma therapists mostly working with complex PTSD and structural dissociation (van der Hart, Nijenhuis, & Steele, 2006) in specialist psychiatry or in private practice. They were all profoundly experienced, with more than 84 % having more than 20 years of clinical experience, including more than 45 % having more than 30 years of experience, and 75 % being licensed psychotherapists and EMDR therapists. They could choose to define themselves as female/male/non-binary or not specifying their gender, though all defined themselves as female or male, see

Table 1
Participants’ professions and clinical experiences. N (tot) = 32 (100 %). 25 (78,2 %) in real life, 7 (21,9 %) over the web. Women: 27 (84,4 %), Men: 5 (15,6 %).

Profession	N (%)
MCSW	
Certified clinical psychologists	11 (34,4 %)
Certified psychotherapists	12 (37,5 %)
Teachers of (and supervisors in) psychotherapeutic work	24 (75,0 %)
Registered nurse, midwife 1 p, psychiatric nurse 4 p	14 (43,8 %)
MDs; psychiatrist, oncologist, GP, pain-specialist	5 (15,6 %)
EMDR therapists	3 (9,4 %)
EMDR therapists	24 (75,0 %)
Clinical experience:	
Less than 10 years	1 (3,1 %)
Between 10–20 years	4 (12,5 %)
Between 20–30 years	12 (37,5 %)
More than 30 years	15 (46,9 %)

Table 1.

Intervention

The 32 participants could choose when recognizing a burdensome moment in connection with their work with a client or a related theme to be processed in DBR-GI. With the help of the supervisor the earliest appraisal of the chosen activating stimulus (AS) was found. The Subjective Units of Disturbance Scale (SUDS, 0–10) (Wolpe, 1969; Wolpe & Lazarus (1966) was initially used as a measure of how disturbing the therapist experienced the client/the session/the situation. The participants’ AS were further processed in the DBR-GI led by the consultant.

SUDS is a self-reporting scale whereby zero is not disturbing at all and 10 is the most disturbing one can imagine. The SUDS helps individuals subjectively evaluate their emotional and/or physiological distress; this widely used tool is implemented for self-help, psychology, and therapy. Since its development, the SUDS has been important in clinical practice, providing a quick and convenient method of measuring subjective anxiety and distress (Milosevic & McCabe, 2015). It assesses the individual level of distress or activation. SUDS is regularly used in EMDR and CBT (Benjamin, O’Neil, Crawley et al., 2010; Kiyimba & O’Reilly, 2020; Shapiro, 2012), and thus well known by the therapists in this small explorative, naturalistic study. The SUDS is not a necessity when doing DBR-GI, though was used in this explorative study to enable quantitative analysis.

After the end of the DBR-GI moment, the participants were asked about how disturbing (rating 0–10) it was now to think of the client/situation. The DBR-GI-protocol was inspired by clin. psych. Maiorani’s work (verbal communication) with students’ examination anxiety and the experiences of pain of pregnant women with osteoporosis, where the pupils/patients processed their AS, e.g. examination anxiety respectively pain, during three respectively four subsequent DBR group sessions.

Procedure

DBR-GI was used in its basic structure, the orientation-tension-affect sequence, which can be considered as the DBR standard protocol. For each of the participants, who chose to process their CT or other aspects of distress with DBR, the DBR-GI part took less than 20 min.

Deep brain reorienting group intervention (DBR-GI) in group supervision is an adaptation of the Standard DBR treatment protocol phases—The Orienting-Tension-(Shock)-Affect sequence, see Table 2 below, also published in Gerge (2025).

In DBR-GI the participants were asked to find their AS, in relation to their clinical work. It was neither necessary nor desirable for them to choose their most disturbing situation or insight, but rather the situation or moment when they became aware of the problem or phenomenon. Thus, the participants were asked to go to the starting point of their

Table 2

Summary of the DBR sequence. For a more elaborated description see Frau and Corrigan (2025) Standard DBR treatment protocol phases—The O-T-(Shock)-A sequence. For a putative description of brain regions sequentially involved, see page 8 in Corrigan and Christie-Sands (2020).

1. Client's choice of an activating stimulus
2. Where-Self/Proto Self and orienting to here and now
3. Let tension ease around forehead/eyes and high up in the neck/base of skull
4. Turn toward the Activating Stimulus
5. Identify an orienting tension/OT
6. Look for pre-affective shock
7. Give space and time for pre-affective shock energy to dissipate
8. Acknowledge the emergence of affects
9. Ask for a New Perspective/NP
10. Relate the NP to a changed embodied felt sense.
11. Emphasize the importance of being with the NP the upcoming hours, to promote memory reconsolidation (enhance healing mismatch between the old and the new perspective of the self).

awareness of their appraisal. The participants were then asked to write down their AS and how disturbing it was to think about this on a SUD scale between 0 and 10, where zero is not disturbing at all and 10 is maximally disturbing.

The Where-Self with an addition of “Now notice that you are not alone, there are other people with you, all doing their processing”, with inspiration from clin. psych. Maiorani (verbal communication), plus the Proto Self intervention (Corrigan, 2025) were carried out as a group intervention. The interventions aimed to anchor the participants in the self that knows where they are in space and time, here and now (Where-Self), and in the deepest sense of being in a body (Proto Self). The latter is developed with inspiration from Damasio (1999) referring to areas deep in the brainstem that control attention and give information of what is happening in our bodies from moment to moment, thus anchoring our sense of self and allowing us to function as a unit with vitality and access to energy.

The participants were then asked to turn their focus towards the AS they have written on the paper and find their orientation tension (OT). The use of the orienting tension is two-fold; it anchors against overwhelm and it opens the relevant information file. When the participants had found their OT, they gave a sign, as for example raising a hand or nodding. The rest of the group were asked to continue to search for their OT and those, who already had found their OTs, were asked to deepen into their OT meanwhile the others searched for their OTs.

When everyone had found their OT, the shock menu was given, i.e. they were encouraged to look for a pressure or vibration in or behind the eyes or somewhere else in the body, a wave of heat or coldness, shudders, a tensing up or an emptying or hollowing somewhere in the body. Also, a recoiling or a felt sense of an electric charge or a jolt somewhere in the body could be searched for.

The participants were encouraged to let the DBR sequence take place at a reduced pace “ultra-slow”. If needed they were asked to return to their OT and if the supervisor noticed that any of the participants were becoming overwhelmed by emotions/affects, that person was encouraged to do release breathing, i.e. to take breaths with longer exhalations than inhalations.

At the end of the DBR-GI sequence, the participants were asked for a new perspective on themselves. The new perspective encompassed how it now felt being them and they were also asked about how it now felt in their bodies. After a brief massage of their heads they were asked to estimate how disturbance they felt now (SUDS between 0 and 10), where zero was not disturbing at all and 10 was maximally disturbing. The changes of the SUD scales were analysed by an independent statistician. Finally, the participants were asked to be with the embodied new perspective as much as possible over the following hours, thus enhancing memory reconsolidation of their new learning.

Intervention summary

The selected initial AS focused on a poignant moment of the

participant’s encounter with a client or concerns about their clinical work. After an initial localization of the participant in the here and now – through exercises aiming at embodied consciousness specific to DBR, in this case the Where-Self followed by the Proto Self – an orienting tension on the upper face or neck provided an anchor in the part of the memory sequence that occurred before the shock response or emotional overwhelm. Release of pre-affective chock and then change of basic affects toward more positive affects followed by the orientation-tension-affect sequence. The DBR-GI part of the supervision was closed when no residual tension or current distress remained or when it was ecologically valid to stop. Then the participants were asked about (i) their new perspective, (ii) their current embodied felt-sense and (iii) how disturbing it now was to think of the client/theme (SUDS rating between 0–10). Changes in SUDS pre-post DBR-GI were calculated.

Finally, the participants could send short reflections on how they felt during some of the upcoming days during the next two weeks. Their activating stimuli, new perspectives, embodied felt-senses, and short reflections were finally analysed according to frequency and content.

Results

SUDS changes, related to the experience of the client/theme before and after the DBR moment, were generally lowered with the mean value changed from $m = 6,52$ to $m = 1,94$, $p < 0000$ (binomial calculation with the average difference between before and after measurements = 4.6, standard deviation 1.5 with 95 % confidence interval 4.1–5.1). The changed subjective ratings were aligned with the participants’ summarized verbal and written statements, where worry about clients, and feelings of being invaded and/or devaluated changed towards eased transference, (re)gained reflective function, agency and clarity and an embodied felt sense of presentness and calmness, see Tables 3 and 4.

Several participants mentioned the relational addition to the Where-self of “Now notice that you are not alone, there are other people with

Table 3
Themes observed as activating stimuli, AS, at the beginning of the DBR-GI sequence, N(tot)=32 (100 %).

Activating stimuli	n (%)
Concerns about clients	24 (75 %)
Feeling resistance	11 (34,4 %)
Feeling invaded	10 (31,3 %)
That clients' needs/wishes cannot be met within the therapeutic framework	8 (25,0 %)
Feeling devalued	8 (25,0 %)
Clients getting worse/dying	5 (15,6 %)
Worry about clients' dissociation	4 (12,5 %)
Worry about clients' life situation	4 (12,5 %)
Structurally exposed in the assignment	9 (25 %)
Being questioned/not respected in the assignment	9 (25 %)
Not being given reasonable conditions/time pressure	4 (12,5 %)

Table 4

Themes observed in the new perspectives, NP, and embodied felt sense at the end of the DBR-GI sequence.

New perspective:	n (%)
Felt sense of embodied freedom	16 (50 %)
Calmness	15 (46,9 %)
More present	14 (43,8 %)
Clarity/retaken reflective function or reduced transference reactions	14 (43,8 %)
Agency	10 (31,3 %)
Acceptance	10 (31,3 %)
Relaxation	9 (25 %)
Enjoying doing DBR in a group	5 (15,6 %)
Stability	4 (12,5 %)
Centered	2 (6,3 %)
Energy	3 (9,4 %)

you, all doing their processing”, as reassuring. Also doing the DBR-GI together with others and listening to instructions given to someone else in the group felt reassuring, when indulged in the personal processing. This was specifically mentioned by 18 % of the 27 out of 32 participants who gave feedback one to two weeks after the DBR-GI.

Short reflections summary

The 32 participants could send a written reflection regarding their experience during the two weeks following the DBR-GI intervention. Most of the 28 participants, 87,5 % of the 32 participants, who gave their reflections afterward, see Table 5 pointed out positive changes that were thematized as (i) recuperation, as for example less stress and more presence in body and feelings, and (ii) heightened clarity and reflective function, as for example lessened transference and increased agency, clarity and adequate anxiety. Four persons reported no significant change.

See examples:

Example A: It's not me who did anything wrong or should be ashamed, DBR-GI was very relieving and now SUD has dropped further, down to zero. It was also nice to do DBR with someone else.

Example B: When meeting the patient, I felt more engaged in my listening and sharing. I took an initiative (to talk about the closure of the therapy). More clear-minded, curious and freer, less stuck in transference and countertransference. The session became clarifying, stabilizing, calming and understandable.

These and the others' reflections are aligned with the participants gains at the end of the DBR-GI processing part of their supervisions. These gains seemed to have persisted at least some days to two weeks after the participants processed their distress using DBR-GI.

Table 5

Themes observed in the comments sent of 28 (87,5 %) of the 32 participants one to two weeks after the DBR-GI.

Themes:	N(tot)=28 (100 %)
Recuperation	
Less stress	11 (39,3 %)
More presence in body and feelings	11 (39,3 %)
Calmer	11 (39,3 %)
Grounded/sTable	5 (17,9 %)
Clarity	
Less, or more conscious of transference reactions	12 (42,9 %)
More agency/power of action	8 (28,6 %)
Heightened clarity in meetings with clients	8 (28,6 %)
Increased adequate anxiety/need to change	5 (17,9 %)
Heightened empathy	4 (14,3 %)
This is not my fault/responsibility	3 (10,7 %)
No change experienced	4 (14,3 %)
Enjoying doing DBR in a group	5 (17,9 %)

Discussion

The SUDS measures subjective state distress where SUD values below 2 are considered very slight anxiety/slight anxiety, thus an acceptable level of anxiety. From SUD values above 4 the anxiety is considered implicating considerable distress and SUDs 6 - 8 becoming increasingly intolerable, although the construct clarity of the SUD-scale can be discussed (Mattera & Zabolski, 2025). In this small naturalistic study, the 32 participants' mean values changed from $m = 6,52$ to $m = 1,94$ and the result was highly significant, $p < 0000$. Though, maybe it is more important to notice that most of the 87,5 % of the 32 participants who sent short reflections during the upcoming two weeks after the DBR-GI experienced an empowering ease, i.e. recuperation, heightened reflective functioning and clarity, according to the analysis. Such gains can potentially be antidotes to the impact of being with highly dysregulated clients daily, a quest that otherwise could lead to VT (intrusive imagery, avoidance behaviors, negative changes to cognitions and heightened arousal) and a dysregulated embodied felt sense.

Hypothetically DBR-GI used in supervision reinstalled aspects of what helps therapists build alliances with clients (Breivik Øvstebø et al., 2024) including reflective functioning (Fonagy and Target, 2005) and compassionate and creative capabilities. These aspects were potentially aligned with an embodied felt sense (Gendlin, 1978) that changed towards an experience of freedom, calmness, and stability in line with the hypothesized gains of a re-established regulation of the midbrain and the brainstem, although the latter statement is not researched in the study. Potentially the therapists' different CT reactions were distinguished, and they could better make interpretations based on recognition of their own emotional states (Abargil & Tishby, 2022,2024; Bateman, et al., 2023; Laine, 2007) with a retaken clarity. Though, four participants who reported a positive change mentioned that it may also have been due to other reasons than DBR-GI, as time moving on and two of them having individual DBR sessions shortly after the DBR-GI.

From the lens of the DBR theory (Corrigan & Christie-Sands, 2020; Corrigan et al., 2023) the experiences chosen as activating stimuli probably contained elements of pre-affective shock at the brain stem level. Potentially it can be hypothesized that, in the DBR-GI, pre-affective shock dissipated and neurochemical dissociation eased and the described negatively loaded affective activation of the PAG in the participants midbrains could change. Though, such claims are not verified by objective data in this small study. According to the theory of DBR, basic affects of a negatively loaded PAG change after pre-affective shock dissipates, supposedly due to heightened oxytocin levels in the PAG, often experienced as ease and agency. When DBR, as is hypothesized, reregulates the brain's deeper regions, and specifically the PAG of the midbrain and the locus coeruleus of the brainstem, higher cognitive functions once more come online and stabilize. Interestingly, Ong et al. (2025) found childhood emotional abuse being associated with disturbances to the embodied sense of self, impacting the feeling of ownership, agency, and narrative. Exactly these categories of experience seemed to be strengthened when DBR-GI was used with the experienced clinicians partaking in the study. Then, potentially, enhanced coping strategies and work satisfaction can give a realistic assessment of one's own capacity, and gratitude for being able to help (Arnold et al., 2005; Gerge, 2024; Tsirimokou, et al., 2022).

Findings from this small, explorative, naturalistic study are in line with the findings noted in Gerge (2024), and they contrast with the findings of Bhola, & Mehrotra (2021) who found that the more experienced therapists were less likely to give their clients special status or be over-concerned or over-involved with them. The experienced therapists reported lower levels of helplessness and inadequacy during sessions in the Bhola & Mehrotra study (2021) and were less likely to report a sense of being overwhelmed and experiencing negative and avoidance feelings toward their clients with borderline personality disorders (BPDs). In this small study, as in Gerge (2024) the therapists were very experienced, though most of them chose to process experiences of being

overwhelmed, invaded, worried, and/or frustrated by their clients in the DBR-GI. Supposedly the complex PTSD and dissociative clients of the participants had higher levels of comorbidities than the [Bhola & Mehrotra \(2021\)](#) participants. And, potentially, the CT derived from the impact of massive traumatization, dissociation, and personality disordered traits in the clients created a more toxic mix ([Bateman et al., 2023; Luyten, De Meulemeester, & Fonagy, 2021](#)).

Most of the participants, 75 %, in this sample chose to process aspects of their clinical work with clients. Speculatively they might have experienced their clients' personality disorder traits more problematic than their clients' post-traumatic conditions. This ought to be further researched, for example through in-depth qualitative methods and specified measurements. The, in the DBR-GI reached dysregulation of the participants could hypothetically partly be reflections of chock-responses stemming from their clients' neurochemical dissociation and other trauma generated states. Such felt sense contagion might awaken mind-fog, the experience of fading away or feelings of worry and helplessness, and other states and affects that could be conceptualized as CT reactions. Conscious activation of positive affects as curiosity and joy are also mediated from the PAG in the midbrain and can potentially work as antidotes to the negatively loaded affects. With the regulative hubs in the midbrains and the brainstems of participating therapists stabilized, supervision will more easily activate agency and positive affects such as curiosity and compassion. Also, if the very source of choking dysregulation in the brainstem is addressed, supervision ought to be more effective and, by extension, offer trauma therapists a method for spontaneous retaken self-regulation. Otherwise, when under pressure anxiety levels increase, these are often managed ambivalently or avoidantly as we as social mammals suffer when we are close to or hear of fellow human beings' sufferings ([Sánchez-Romero, Ruiz-Fernández, & Fernández-Medina et al., 2022](#)). According to [Oasi, De Salve & Rossi et al. \(2024\)](#) self-awareness of psychotherapists' emotional responses is important to limit psychotherapeutic failures. If DBR as a theory and DBR-GI as a method consciously offer means to understand and address both affective and pre-affective dysregulation, it potentially offers a valuable tool in supervision of therapists conducting trauma therapy.

Aligned with [Bion \(1962\)](#), when we transform the raw beta elements into alpha elements the mental content can be recalled and consciously represented. DBR-GI seemed to be of help in managing CT reactions in safer and more professional ways. Potentially the method can add to therapists' capabilities to recognize dissociation among psychiatric populations ([Pierorazio, Brand & Goldenson, 2025](#)). Dissociation is, according to [Boyer Caplan and Edwards \(2022\)](#) and [Purcell et al. \(2024\)](#), an under-recognized and under-treated disabling condition.

Overall, new knowledge regarding the functional networks of the brain and the impact of trauma on our nervous systems ought to lead to a rethinking of CT and which methods we need to incorporate in supervision of trauma therapists. Transference phenomena might also be contagious felt sense experiences of the clients' neurochemical dissociation impacting clinicians working with highly traumatized clients. Especially if clients suffer from the dissociative subtype of PTSD, complex PTSD, developmental trauma disorder, whereby the attachment has been traumatizing ([Spinazzola et al., 2018; van der Kolk, 2005](#)) or a dissociative dysregulation beyond these conditions, a dysregulation on brain stem level can be hypothesized ([Corrigan & Christie-Sands, 2020; Corrigan et al., 2023; Frau & Corrigan, 2025; Kearney & Lanius, 2022](#)). Being with such dysregulations will put its mark on therapists when sitting with the nothingness of neurochemical dissociation and other survival driven phenomena of the brainstem and midbrain. If further researched and developed, DBR-GI, and other methods for ameliorating such impact, can probably counteract therapists' embodied CT phenomena and distress.

Conclusion

As supervisors and counsellors, we need to develop and promote self-

care, motivation, resilience, agency, curiosity and reflective functioning in supervisees and consultees. If DBR-GI can be a valid tool when changing responses to overwhelming clinical situations was investigated. The study focused on whether DBR-GI, when used in supervision and consultation, could help trauma therapists counteract embodied and emotional overload, CT, and client-related distress. If DBR-GI mitigated short-term reactions stemming from working with highly dysregulated clients was the scope of interest. The results and reflections are promising. Aligned with the call for interventions tailoring vicarious traumatization, the use of DBR-GI seemed valuable for experienced trauma psychotherapists and ought to be further researched. In line with the findings of the small naturalistic study on the individual use of DBR in supervision/consultation ([Gerge, 2024](#)) the use of DBR-GI in supervision seemed helpful for those participating in this study. The DBR-GI seemed to (i) open pathways from distress and potential vicarious traumatization (VT) to professional resilience and (ii) recaptured embodied felt presence, clarity and agency.

In group consultations with experienced trauma therapists DBR-GI seemed helpful in transforming the impact of trauma-generated CT including longstanding physio-psychological dysregulation and negatively loaded affects. Potentially, DBR-GI seemed to contribute to a process during which positive affects and resources were freed, after embodied CT reactions were transformed, e.g. pre-affective shock, neurochemical dissociation and the negatively loaded affects. Then enhanced clarity, cognitive reflectivity, self-understanding and professional agency seemed to be recaptured. Thus, the method could be valuable in group supervision when supervisors trained in DBR want to reinstall more optimal states in therapists caring for others.

DBR-GI seemed to offer a valuable tool for soothing and transform trauma therapists' CT-related distress as the participants highly significant subjective ratings were aligned with their summarized verbal and written statements. Worry and unease seemed to change towards (re) gained agency and acceptance and an embodied felt sense of presentness and calmness. According to the analysis of their statements submitted during the upcoming two weeks after the DBR-GI, the participants seemed to report greater access to recuperation and clarity. The participants' feedback in direct connection with the intervention and during the following weeks encouraged the use of the DBR-GI intervention in consultation/supervision.

Though, other nonspecific factors, than DBR-GI, may have contributed to a reduction and affected the results, i.e. the therapists being given the opportunity to talk about dysregulating experiences, been given mutual support, and being relationally held in the supervision situation. That said, a preliminary cautious enthusiasm seems reasonable for the use of DBR-GI for enhancing embodied re-regulation of experienced trauma therapists. If the method can be used in supervision with less experienced clinicians and in clinical work ought to be investigated.

Flaws and possible further development

A mayor flaw of this small, explorative, naturalistic study is that the researcher was the one who carried out the intervention, and the one who wrote the manuscript. Another flaw is the absence of control groups. In a re-examination of the potentially effective elements of supervision, a controlled study comparing the results with or without DBR-GI incorporated, could be undertaken. Preferably with the same therapists, so they can function as their own controls.

In further research on the use of DBR-GI in supervision or in clinical work, the interventions undertaken ought to be teamwork, where supervisors/therapists other than the main author conduct the intervention. This will be possible, as the DBR-GI method now exists. When investigating DBR-GI as a clinical treatment tool an individual assessment session, including experiencing an individual DBR session, before partaking in DBR-GI sessions is suggested.

Valid tools for measuring how clients' mix of hypo-arousal and

hyper-arousal, neurochemical dissociation, and the complex PTSD criteria of disturbances in self-organization (DSO) impacts clinicians are needed and ought to be developed. Assessment tools for measuring transference issues on preverbal levels and/or felt-sense levels ought to be developed, especially if transformation of pre-affective shock and other midbrain and brainstem-influenced states, as hypothesized, are important in the described processes. To the author's knowledge there is a scarcity of measurements validated for embodied felt sense CT-reactions and psychophysiological long-term effects of demanding clinical work as the "felt-sense" of trauma is expressed in non-verbal, sensory-based, action-oriented forms.

In this small study on DBR-GI, the clients that activated the therapists' trauma-generated CT and distress were diagnosed with varying screening instruments and not all clients were formally diagnosed, so it is not exactly specified what kind of dysregulation the therapists were in contact with, nor how the clients' mix of hypo-arousal and hyper-arousal added to the therapists' dysregulation. Further research is warranted on whether the therapists' experiences of being overwhelmed stemmed from being with clients with personality disorder traits plus traumatization, from the mix of neurochemical dissociation and other dissociative phenomena, and/or from activation of multiple transference phenomena. If the reported distress processed in the DBR-GI stemmed from CT, empathy, heavy workload, activated personal issues and/or certain other personal burdens (Nissen-Lie et al., 2021) is not known and ought to be problematized in further studies. Also, whether DBR-GI holds efficiency in group supervisions and consultations with less experienced therapists was not investigated; this also should be studied. DBR-GI could in the long run potentially contribute to reinstalled self-care, enhanced self-understanding and professional agency. Though, such cause-and-effect relationships are at this point only speculative.

CRedit authorship contribution statement

Anna Gerge: Writing – review & editing, Visualization, Validation, Resources, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

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 article.

Acknowledgment

The author thanks the colleagues who took part in this study and shared their experiences of transformation when DBR-GI was used as a method in group supervision. Thanks to Frank M. Corrigan, MD, PhD, who developed DBR, and Chiara Malchiodi, clinical psychologist, who initiated the development of a DBR group protocol for clinical use.

References

- Abargil, M., & Tishby, O. (2022). Countertransference awareness and treatment outcome. *Journal of Counseling Psychology*, 69(5), 667–677. <https://doi.org/10.1037/cou0000620>
- Abargil, M., & Tishby, O. (2024). Changes in countertransference and changes in patient working alliance and outcome: An empirical study. *Journal of Counseling Psychology*, 71(5), 447–458. <https://doi.org/10.1037/cou0000743>
- American Psychiatric Association. (2013). *Diagnostic statistical manual of mental disorders (5th ed.)*. Arlington, Virginia: American Psychiatric Association.
- Aparicio, E., Michalopoulos, L. M., & Unick, G. J. (2013). An examination of the psychometric properties of the Vicarious Trauma Scale in a sample of licensed social workers. *Health & Social Work*, 38(4), 199–206. <https://doi.org/10.1093/hsn/hlt017>
- Arnold, D., Calhoun, L. G., Tedeschi, R. G., & Cann, A. (2005). Vicarious post-traumatic growth in psychotherapy. *Journal of Humanistic Psychology*, 45(2), 239–263. <https://doi.org/10.1177/0022167805274729>
- Barros, A. J. S., Teche, S. P., Padoan, C., Laskoski, P., Hauck, S., & Eizirik, C. L. (2020). Countertransference, Defense Mechanisms, and Vicarious Trauma in Work with Sexual Offenders. *The Journal of the American Academy of Psychiatry and the Law*, 48(3), 302–314. <https://doi.org/10.29158/JAAPL.003925-20>
- Bartoskova, L. (2017). How do trauma therapists experience the effects of their trauma work, and are there common factors leading to post-traumatic growth? *Counseling Psychology Review*, 32(2), 30–45. <https://doi.org/10.53841/bpscr.2017.32.2.30>
- Bachem, R., Levin, Y., Zerach, G., Cloitre, M., & Solomon, Z. (2021). The interpersonal implications of PTSD and complex PTSD: The role of disturbances in self-organization. *Journal of Affective Disorders*, 290, 149–156. <https://doi.org/10.1016/j.jad.2021.04.075>
- Bateman, A., Rüfenacht, E., Perroud, N., Debbané, M., Nolte, T., Shaverin, L., & Fonagy, P. (2023). Childhood maltreatment, dissociation and borderline personality disorder: Preliminary data on the mediational role of mentalizing in complex post-traumatic stress disorder. *Psychology and Psychotherapy*. <https://doi.org/10.1111/papt.12514>
- Benjamin, C. L., O'Neil, K. A., Crawley, S. A., Beidas, R. S., Coles, M., & Kendall, P. C. (2010). Patterns and predictors of subjective units of distress in anxious youth. *Behavioural and Cognitive Psychotherapy*, 38(4), 497–504. <https://doi.org/10.1017/S1352465810000287>
- Berne, E. (1966). *Games people play*. New York, NY: Ballantine Books.
- Bhola, P., & Mehrotra, K. (2021). Associations between countertransference reactions towards clients with borderline personality disorder and therapist experience levels and mentalization ability. *Trends in Psychiatry and Psychotherapy*, 3(2), 116–125. <https://doi.org/10.47626/2237-6089-2020-0025>
- Bion, W. R. (1962). A theory of thinking. *International Journal Psycho-Analysis*, 43. (Reprinted in *Second Thoughts* (1967)).
- Boyer, S. M., Caplan, J. E., & Edwards, L. K. (2022). Trauma-Related Dissociation and the Dissociative Disorders: Neglected Symptoms with Severe Public Health Consequences. *Delaware Journal of Public Health*, 8(2), 78–84. <https://doi.org/10.32481/djph.2022.05.010>
- Bowlby, J. (1973). *Attachment and loss. separation: anxiety and anger*, 2. New York, NY: Basic Books.
- Brevik Øvstebø, R., Pedersen, G., Wilberg, T., Røssberg, J. I., Johnsen, Dahl, H. S., & Kvarstein, E. H. (2024). Countertransference, alliance, and outcome in the treatment of patients with personality disorder: a longitudinal naturalistic study. *Frontiers in Psychiatry*, 15, Article 1490056. <https://doi.org/10.3389/fpsy.2024.1490056>
- Brand, B. L., Sar, V., Stavropoulos, P., Krüger, C., Korzekwa, M., Martínez-Taboas, A., & Middleton, W. (2016). Separating Fact from Fiction: An Empirical Examination of Six Myths About Dissociative Identity Disorder. *Harvard Review of Psychiatry*, 24(4), 257–270. <https://doi.org/10.1097/HRP.0000000000000100>
- Branson, D. C. (2018). Vicarious trauma, themes in research, and terminology: A review of literature. *Traumatology*, 25, 1. <https://doi.org/10.1037/trm0000161>
- Brown, C. L., Yilanli, M., & Rabbitt, A. L. (2023). *Child physical abuse and neglect. [Updated 2023 may 29]. in: statpearls [Internet]. treasure island (FL)*. StatPearls Publishing. 2025 Jan-. Available from <https://www.ncbi.nlm.nih.gov/books/NBK470337/>.
- Calhoun, L. G., & Tedeschi, R. G. (2006). The foundations of post-traumatic growth: An expanded framework. In L. G. Calhoun, & R. G. Tedeschi (Eds.), *Handbook of post-traumatic growth* (pp. 1–23). Mahwah, NJ: Lawrence Erlbaum.
- Canfield, J. (2005). Secondary traumatization, burnout, vicarious traumatization. *Smith College Studies in Social Work*, 75(2), 81–101. https://doi.org/10.1300/J497v75n02_06
- Cavanagh, A., Wiese-Batista, E., Lachal, C., Baubet, T., & Moro, M. R. (2015). Countertransference in Trauma Therapy. *Journal Trauma Stress Disorder Treat*, 4, 4. <https://doi.org/10.4172/2324-8947.1000149>
- Chevalier, V., Simard, V., & Achim, J. (2023). Meta-analyses of the associations of mentalization and proxy variables with anxiety and internalizing problems. *J Anxiety Disorders*, 95, Article 102694. <https://doi.org/10.1016/j.janxdis.2023.102694>
- Corrigan, F. M., Corrigan, F. M., Young, H., & Christie-Sands, J. (2025a). *The deepest sense of belonging, 2025. Deep brain reorienting, understanding the neuroscience of trauma, attachment wounding, and dbr psychotherapy* (pp. 108–124). London, UK: Routledge.
- Corrigan, F. M., & Christie-Sands, J. (2020). An innate brainstem self-other system involving orienting, affective responding, and polyvalent relational seeking: Some clinical implications for a "Deep brain Reorienting" trauma psychotherapy approach. *Medical hypotheses*, 136, Article 109502. <https://doi.org/10.1016/j.mehy.2019.109502>
- Corrigan, F. M., Lanius, U. F., & Kaschor, B. (2023). The defense cascade, traumatic dissociation and the self: A neuroscientific model. In M. J. Dorahy, S. N. Gold, & J. A. O'Neil (Eds.), *Dissociation and the dissociative disorders: past, present, future (2nd ed (pp. 587–601))*. Routledge.
- Corrigan, F. M., Young, H., Corrigan, F. M., Young, H., & Christie-Sands, J. (2025). *A Composite Model of Dissociative Disorders, 2025. Deep brain reorienting, understanding the neuroscience of trauma, attachment wounding, and dbr psychotherapy* (pp. 68–86). London, UK: Routledge.
- Corrigan, F. M., Young, H., & Christie-Sands, J. (2025). *Deep brain reorienting, understanding the neuroscience of trauma, attachment wounding, and dbr psychotherapy*. London, UK: Routledge.
- Dalenberg, C. (2004). Maintaining the safe and effective therapeutic environment in the context of distrust and anger: Countertransference and complex trauma. *Psychotherapy: Research, Practice, Training*, 41(4), 438–447. <https://doi.org/10.1037/0033-3204.41.4.438>
- Damasio, A. R. (1999). *The feeling of what happens: body and emotion in the making of consciousness*. New York, NY: Harcourt.

- Davis, J. M., & Frawley, M. G. (1991). Dissociative processes and transference countertransference paradigms in the psychoanalytically oriented treatment of adult survivors of childhood sexual abuse. In L. Mitchell, & S. A. Aron (Eds.), *Relational psychoanalysis: the emergence of a tradition*. Oakland CA: Analytic Press.
- Davis, J. M., & Frawley, M. G. (1994). *Treating the adult survivor of childhood sexual abuse: a psychoanalytic perspective*. New York, NY: Basic Books.
- Deaton, J. D. (2020). *Vicarious post-traumatic growth among helping professionals: factor analysis and an investigation of construct validity*. (Doctoral dissertation). Retrieved from <https://scholarcommons.sc.edu/etd/5914>.
- Del Río-Casanova, L., González, A., Páramo, M., Van Dijke, A., & Brenlla, J. (2016). Emotion regulation strategies in trauma-related disorders: Pathways linking neurobiology and clinical manifestations. *Review in Neurosciences*, 27(4), 385–395. <https://doi.org/10.1515/revneuro-2015-0045>
- Dimitrova, L. I., Lawrence, A. J., Vissia, E. M., Chalavi, S., Kakouris, A. F., Veltman, D. J., & Reinders, A. A. T. S. (2024). Inter-identity amnesia in dissociative identity disorder resolved: A behavioral and neurobiological study. *Journal of Psychiatric Research*, 174, 220–229. <https://doi.org/10.1016/j.jpsychires.2024.04.026>
- Dworkin, M. (2013). *EMDR and the relational imperative: the therapeutic relationship in emdr treatment*. New York, NY: Routledge.
- El Hussein, M., Skandrani, S., Sahab, L. T., Dozio, E., & Moro, M. R. (2016). *Countertransference in trauma clinic: a transitional breach in the therapists' identity*. InTech. <https://doi.org/10.5772/64842>
- Else, J. W. B., Van Ast, V. A., & Kindt, M. (2018). Human memory reconsolidation: A guiding framework and critical review of the evidence. *Psychological bulletin*, 144(8), 797–848. <https://doi.org/10.1037/bul0000152>
- Elwood, L. S., Mott, J., Lohr, J. M., & Galovski, T. E. (2011). Secondary trauma symptoms in clinicians: A critical review of the construct, specificity, and implications for trauma-focused treatment. *Clin Psychology Review*, 31(1), 25–36. <https://doi.org/10.1016/j.cpr.2010.09.004>
- Ferenczi, S. (1919). On the technique of psychoanalysis. *Final contributions to the problems and methods of psychoanalysis*. New York, NY: Basic Books, 1955.
- Farina, B., Liotti, M., & Imperatori, C. (2019). The Role of Attachment Trauma and Disintegrative Pathogenic Processes in the Traumatic-Dissociative Dimension. *Front. Psychol., Psychology for Clinical Settings*, 10, 933. <https://doi.org/10.3389/fpsyg.2019.00933>
- Ferenczi, S. (1909). Introjection and transference. *Final contributions to the problems and methods of psychoanalysis*. New York, NY: Basic Books, 1955.
- Figley, C. R. (1995a). *Compassion fatigue: coping with secondary traumatic stress disorder in those who treat the traumatized*. New York, NY: Brunner/Mazel.
- Figley, C. R. (1995b). Compassion fatigue: toward a new understanding of the costs of caring. In B. H. Stamm (Ed.), *Secondary traumatic stress: self-care issues for clinicians, researchers, and educators, first edition* (pp. 3–28). Lutherville, MD: Sidran Press.
- Figley, C. R. (2002). Compassion fatigue: psychotherapists' chronic lack of self-care. *Journal of Clinical Psychology*, 58, 1433–1441. <https://doi.org/10.1002/jclp.10090>
- Fonagy, P., & Target, M. (2005). Mentalization and the Changing Aims of Child Psychoanalysis (1998). In L. Aron, & A. Harris (Eds.), *Relational psychoanalysis: innovation and expansion: 2. Relational psychoanalysis: innovation and expansion* (pp. 253–278). Analytic Press.
- Frau, C., & Corrigan, F. M. (2025). Verbal Abuse, Depersonalization, and the Innate Alarm and Defensive Systems: A Single Case Illustration of Treatment with Deep Brain Reorienting. *Journal of Child & Adolescent Trauma*, 18(1), 11–21. <https://doi.org/10.1007/s40653-024-00672-z>
- Freud, S. (1910/1957). Future prospects of psychoanalytic therapy. Ed. and Trans. In J. Strachey (Ed.), *The standard edition of the complete works of sigmund freud: 11. The standard edition of the complete works of sigmund freud* (pp. 139–151). London, England: Hogarth Press. Original work published 1910.
- Gallese, V. (2014). Bodily selves in relation: embodied simulation as secondperson perspective on intersubjectivity. *Phil. Transaction. Royal Society B*, 369, Article 20130177. <https://doi.org/10.1098/rstb.2013.0177>
- Gelso, C. J., & Hayes, J. A. (2007). *Countertransference and the therapist's inner experience: perils and possibilities*. Mahwah, NJ: Erlbaum.
- Gendlin, E. (1978). *Focusing*. New York, NY: Everest House.
- Gerge, A. (2011). *Med empatin bevarad - varför handledning är nödvändig (With empathy preserved - why supervision is necessary)*. Stockholm: Insidan.
- Gerge, A. (2018). Revisiting the safe place: Method and Regulatory Aspects in Psychotherapy when Easing Allostatic Overload in Traumatized Patients. *International Journal Clinical and Exp Hypn*, 66(2), 147–173. <https://doi.org/10.1080/00207144.2018.1421356>
- Gerge, A. (2024). In-depth consultation: Deep brain reorienting (DBR) as a potential tool for transforming countertransference reactions in trauma therapists. *European Journal Trauma & Dissociation*, 8(3), Article 100442. <https://doi.org/10.1016/j.ejtd.2024.100442>
- Gerge, A. (2025). The utilisation of deep brain reorienting (DBR) in the treatment of two clients with dissociative identity disorder (DID). *European Journal Trauma & Dissociation*, 9(3), Article 100579. <https://doi.org/10.1016/j.ejtd.2025.100579>
- Gerge, A., Rudstam, G., & Söndergaard, H. P. (2025). Neuroscience-based relational art therapy and deep brain reorienting in the treatment of dissociative identity disorder. *Frontiers in Psychology*, 16, Article 1454483. <https://doi.org/10.3389/fpsyg.2025.1454483>
- Hawayek, J. (2023). Epidemiology of Dissociative Identity Disorder. In H. Tohid, & I. H. Rutkofsky (Eds.), *Dissociative identity disorder*. Cham: Springer. https://doi.org/10.1007/978-3-031-39854-4_7
- Hayes, J. A., Gelso, C. J., Goldberg, S., & Kivlighan, D. M. (2018). Countertransference management and effective psychotherapy: Meta-analytic findings. *Psychotherapy*, 55, 496–507. <https://doi.org/10.1037/pst0000189>
- Hernandez, P., Gangsei, D., & Engstrom, D. (2007). Vicarious resilience: A new concept in work with those who survive trauma. *Family Process*, 46, 229–241.
- Hersoug, A. G., Ulberg, R., & Høglend, P. (2014). When Is Transference Work Useful in Psychodynamic Psychotherapy? Main Results of the First Experimental Study of Transference Work (FEST). *Contemporary Psychoanalysis*, 50(1–2), 156–174. <https://doi.org/10.1080/00107530.2014.880314>
- Hedén, L., Jonsson, L. S., & Fredlund, C. (2023). The Connection Between Sex as Self-Injury and Sexual Violence. *Archives of Sexual Behavior*, 52(8), 3531–3540. <https://doi.org/10.1007/s10508-023-02669-5>
- Hofess, C. D., & Tracey, T. J. (2010). Countertransference as a prototype: The development of a measure. *Journal Couns Psychology*, 57(1), 52–67. <https://doi.org/10.1037/a0018111>. PMID: 21133560.
- Herman, J. (1992). *Trauma and recovery*. New York, NY: Basic Books.
- Horesh, D., & Lahav, Y. (2024). When one tool is not enough: An integrative psychotherapeutic approach to treating complex PTSD. *Journal of Clinical Psychology*, 80(7), 1689–1697. <https://doi.org/10.1002/jclp.23688>
- International classification of diseases eleventh revision (ICD-11)*. (2018/2022). Geneva: WHO.
- Jimenez, R. R., Andersen, S., Song, H., & Townsend, C. (2021). Vicarious trauma in mental health care providers. *Journal Interprofessional Education & Practice*, 24, Article 100451. <https://doi.org/10.1016/j.xjep.2021.100451>. ISSN 2405-4526.
- Kearney, B. E., & Lanius, R. A. (2022). The brain-body disconnect: A somatic sensory basis for trauma-related disorders. *Frontiers in Neuroscience*, 16, 1–34. <https://doi.org/10.3389/fnins.2022.1015749>
- Kearney, B. E., Terpou, B. A., Densmore, M., Shaw, S. B., Théberge, J., Jetly, R., McKinnon, M. C., & Lanius, R. A. (2023a). How the body remembers: Examining the default mode and sensorimotor networks during moral injury autobiographical memory retrieval in PTSD. *NeuroImage. Clinical*, 38, Article 103426. <https://doi.org/10.1016/j.nicl.2023.103426>
- Kearney, B. E., Corrigan, F. M., Frewen, P. A., Nevill, S., Harricharan, S., Andrews, K., Jetly, R., McKinnon, M. C., & Lanius, R. A. (2023b). A randomized controlled trial of Deep brain Reorienting: a neuroscientifically guided treatment for post-traumatic stress disorder. *European Journal Psychotrauma*, 14(2), Article 2240691. <https://doi.org/10.1080/2008066.2023.2240691>
- Kearney, B. E., & Lanius, R. A. (2024). Why reliving is not remembering and the unique neurobiological representation of traumatic memory. *Nature Mental Health*, 2, 1142–1151. <https://doi.org/10.1038/s44220-024-00324-z>
- Kernberg, O. (1965). Notes on countertransference. *J Am Psychoanal Assoc*, 13, 38–56. <https://doi.org/10.1177/000306516501300102>
- Kim, J., Chesworth, B., Franchino-Olsen, H., & Macy, R. J. (2022). A Scoping Review of Vicarious Trauma Interventions for Service Providers Working with People Who Have Experienced Traumatic Events. *Trauma, Violence & Abuse*, 23(5), 1437–1460. <https://doi.org/10.1177/1524838021991310>
- Kiyimba, N., & O'Reilly, M. (2020). The clinical use of Subjective Units of Distress scales (SUDs) in child mental health assessments: a thematic evaluation. *Journal of Mental Health (Abingdon, England)*, 29(4), 418–423. <https://doi.org/10.1080/09638237.2017.1340616>
- Kluft, R. P. (1994). Countertransference in the treatment of multiple personality disorder. In J. P. Wilson, & J. D. Lindy (Eds.), *Countertransference in the treatment of ptd* (pp. 122–150). New York, NY: Guilford.
- Kluft, R. P. (2009). A Clinician's Understanding of Dissociation Fragments of an Acquaintance. In P. F. Dell, & J. A. O'Neil (Eds.), *Dissociation and the dissociative disorders dsm-v and beyond* (pp. 599–623). New York, NY: Routledge.
- Kluft, R. P. (2017). Weaponized sex: Defensive pseudo-erotic aggression in the service of safety. *J Trauma & Dissociation*, 18(3), 259–283. <https://doi.org/10.1080/15299732.2017.1295376>
- Labrecque, L., Larouche, A., Gauthier-Boudreau, J., & Lalande, D. (2024). Risk and protective factors for burnout among psychologists and neuropsychologists: A scoping review. *Professional Psychology: Research and Practice*, 55(4), 299–312. <https://doi.org/10.1037/pro0000573>
- Laine, A. (2007). On the edge: The psychoanalyst's transference. *The International Journal of Psycho-Analysis*, 88, 1171–1183. <https://doi.org/10.1516/ijpa.2007.1171>
- Lanius, R. A., Vermetten, E., Loewenstein, R. J., Brand, B., Christian, S., Bremner, J. D., et al. (2010). Emotion modulation in PTSD: Clinical and neurobiological evidence for a dissociative subtype. *The American Journal of Psychiatry*, 167, 640–647. <https://doi.org/10.1176/appi.ajp.2009.09081168>
- Lanius, U. F., Paulsen, S. P., & Corrigan, F. M. (2014). *Neurobiology and treatment of traumatic dissociation: towards an embodied self*. New York, NY: Springer.
- Lanius, R. A., Boyd, J. E., McKinnon, M. C., Nicholson, A. A., Frewen, P., Vermetten, E., Jetly, R., & Spiegel, D. (2018). A Review of the Neurobiological Basis of Trauma-Related Dissociation and Its Relation to Cannabinoid- and Opioid-Mediated Stress Response: A Transdiagnostic, Translational Approach. *Current Psychiatry Reports*, 20(12), 1–14. <https://doi.org/10.1007/s11920-018-0983-y>
- Lanius, R. A., Terpou, B. A., & McKinnon, M. C. (2020). The sense of self in the aftermath of trauma: Lessons from the default mode network in post-traumatic stress disorder. *European Journal Psychotraumatology*, 11, Article 1807703. <https://doi.org/10.1080/2008198.2020.1807703>
- Lanius, R., Harricharan, S., Kearney, B. E., & Pandev-Girard, B. (2025). *Sensory pathways to healing from trauma: harnessing the brain's capacity for change*. New York, NY: The Guilford Press.
- Lansen, J., & Haans, T. (2004). Clinical supervision for trauma therapists. In W. J. P. Wilson, & B. Drozdek (Eds.), *Broken spirits*. New York, NY: Brunner-Routledge.
- Levy, K. N., & Scala, J. W. (2012). Transference, transference interpretations, and transference-focused psychotherapies. *Psychotherapy*, 49(3), 391–403. <https://doi.org/10.1037/a0029371>

- Liddell, B. J., Das, P., Malhi, G. S., Felmingham, K. L., Outhred, T., Cheung, J., Den, M., Nickerson, A., Askovic, M., Aroche, J., Coello, M., & Bryant, R. A. (2022). Torture exposure and the functional brain: investigating disruptions to intrinsic network connectivity using resting state fMRI. *Translational Psychiatry*, 12(1), 37. <https://doi.org/10.1038/s41398-022-01795-3>
- Liotti, G. (2009). Attachment and Dissociation. In P. F. Dell, & J. A. O'Neil (Eds.), *Dissociation and the dissociative disorders: dsm-v and beyond*. New York, NY: Routledge.
- Liotti, G. (2011). Attachment Disorganization and the Controlling Strategies: An Illustration of the Contributions of Attachment Theory to Developmental Psychopathology and to Psychotherapy Integration. *Journal of Psychotherapy Integration*, 21(3), 232–252. <https://doi.org/10.1037/a0025422>
- Lippard, E. T. C., & Nemeroff, C. B. (2020). The Devastating Clinical Consequences of Child Abuse and Neglect: Increased Disease Vulnerability and Poor Treatment Response in Mood Disorders. *The American Journal of Psychiatry*, 177(1), 20–36. <https://doi.org/10.1176/appi.ajp.2019.19010020>
- Loewenstein, R. J. (1993). Post-traumatic and dissociative aspects of transference and countertransference in the treatment of multiple personality disorder. In R. P. Kluff, & Catherine Fine (Eds.), *Clinical perspective on multiple personality disorder* (pp. 51–85). Washington, D.C.: American Psychiatric Press, Inc.
- Loewenstein, R. J., & Brand, B. (2023). Dissociative identity disorder: a disorder of diagnostic and therapeutic paradoxes. *Psychoanalytic Psychotherapy*. <https://doi.org/10.1080/02668734.2023.2272771>
- Ludick, M., & Figley, C. R. (2017). Toward a mechanism for secondary trauma induction and reduction: imagining a theory of secondary traumatic stress. *Traumatology*, 23(1), 112–123. <https://doi.org/10.1037/trm0000096>
- Luyten, P., De Meulemeester, C., & Fonagy, P. (2021). The self–other distinction in psychopathology: Recent developments from a mentalizing perspective. In M. Gilead, & K. N. Ochsner (Eds.), *The neural basis of mentalizing* (pp. 659–680). Springer Nature Switzerland AG. https://doi.org/10.1007/978-3-030-51890-5_34
- Maercker, A., Cloitre, M., Bachen, R., Schlumpf, Y. R., Khoury, B., Hitchcock, C., et al. (2022). Complex post-traumatic stress disorder. *The Lancet*, 400(10345), 60–72. [https://doi.org/10.1016/S0140-6736\(22\)00821-2](https://doi.org/10.1016/S0140-6736(22)00821-2). PMID: 35780794.
- McCann, I. L., & Pearlman, L. A. (1990). Vicarious traumatization: A framework for understanding the psychological effects of working with victims. *Journal Traumatic Stress*, 3, 131–149. <https://doi.org/10.1002/jts.2490030110>
- Mattera, E., & Zaboski, B. (2025). Rethinking the Subjective Units of Distress Scale: Validity and Clinical Utility of the SUDS. *Clinics and Practice*, 15(7), 123. <https://doi.org/10.3390/clinpract15070123>
- Milosevic, I., & McCabe, R. E. (Eds.). (2015). *Phobias: the psychology of irrational fear; phobias: the psychology of irrational fear*. New York, NY: Bloomsbury Publishing.
- Mishori, R., Mujawar, I., & Ravi, N. (2014). Self-reported vicarious trauma in asylum evaluators: A preliminary survey. *Journal of Immigrant and Minority Health / Center for Minority Public Health*, 16, 1232–1237. <https://doi.org/10.1007/s10903-013-9958-6>
- Muran, J. C., & Eubanks, C. F. (2020). *Therapist performance under pressure: negotiating emotion, difference, and rupture*. American Psychological Association. <https://doi.org/10.1037/0000182-000>
- Murphy, R. J. (2023). Depersonalization/Derealization Disorder and Neural Correlates of Trauma-related Pathology: A Critical Review. *Innovations in Clinical Neuroscience*, 20(1–3), 53–59. PMID: 37122581; PMCID: PMC10132272.
- Newell, J. M., Nelson-Gardell, D., & MacNeil, G. (2016). Clinician responses to client traumas: A chronological review of constructs and terminology. *Trauma, Violence, & Abuse*, 17(3), 306–313. <https://doi.org/10.1177/1524838015584365>
- Nissen-Lie, H. A., Orlinsky, D., & Ronnestad, M. H. (2021). The Emotionally Burdened Psychotherapist: Personal and Situational Risk Factors. *Prof psych Research & Practice*, 52(5). <https://doi.org/10.1037/pro0000387>
- Ong, L. E., Davis, B. M., Horodyski, A. M., Cole, T. A., & Orcutt, H. K. (2025). The role of embodied sense of self in the relationship of childhood abuse types to distress and fear. *Journal of Affective Disorders*, 389, Article 119698. <https://doi.org/10.1016/j.jad.2025.119698>. Epub ahead of print.
- Oasi, O., De Salve, F., Rossi, C., Maggio, S., Casabona, I., & Molgora, S. (2024). Rethinking Treat failures. Res group Ital psychotherapists. *Frontiers in Psychology*, 2024, 15. <https://doi.org/10.3389/fpsyg.2024.1403736>
- Padmanabhanunni, A., & Gqomfa, N. (2022). The Ugliness of It Seeps into Me": Experiences of Vicarious Trauma among Female Psychologists Treating Survivors of Sexual Assault. *International Journal of Environmental Research and Public Health*, 19(7), 3925. <https://doi.org/10.3390/ijerph19073925>
- Pearlman, L. A., & Saakvitne, K. W. (1995a). *Trauma and the therapist: countertransference and vicarious traumatization in psychotherapy with incest survivors*. New York, NY: Norton.
- Pearlman, L. A., & Saakvitne, K. W. (1995b). *Treating therapists with vicarious traumatization and secondary traumatic stress disorder i figley, C.R. (red): compassion fatigue. coping with secondary stress disorder in those how treat the traumatized*. New York, NY: Bruner/Mazel Publishers.
- Pearlman, L. A., & Caringi, J. (2009). Living and working self-reflectively to address vicarious trauma. In C. A. Courtis, & J. D. Ford (Eds.), *Treating complex traumatic stress disorders: an evidence-based guide* (pp. 202–224). New York, NY: The Guilford Press.
- Piedfort-Marin, O. (2019). When the therapist's traumas emerge in a psychotherapy session: The use of trauma-related countertransference. *European Journal Trauma & Dissociation*, 3(3), 181–189. <https://doi.org/10.1016/j.ejtd.2019.05.003>
- Piedfort-Marin, O. (2018). Transference and countertransference in EMDR therapy. *Journal of EMDR Practice and Research*, 12-3, 158–172. <https://doi.org/10.1891/1933-3196.12.3.158>
- Pierorazio, N. A., Snyder, B. L., Chang, M.-Y., Israel, B. J., & Brand, B. L. (2025). How Psychotherapists Who Practice With Clients With Dissociative Identity Disorder Experience Their Work: A Reflexive Thematic Analysis. *Counselling & Psychotherapy Research*, 25(1), Article e12879. <https://doi.org/10.1002/capr.12879>
- Pierorazio, N. A., Brand, B. L., & Goldenson, J. (2025). Dissociation-informed assessment: Process-related guidance. *Psychological trauma: theory, research, practice, and policy*. <https://doi.org/10.1037/tra0001997>. Advance online publication.
- Pooler, D. K., Wolfer, T., & Freeman, M. (2014). Finding joy in social work II: Intrapersonal sources. *Social Work*, 59(3), 213–221. <https://doi.org/10.1093/sw/swu020>
- Prasko, J., Ociskova, M., Vanek, J., Burkauskas, J., Slepecky, M., Bite, I., Krone, I., Sollar, T., & Juskiene, A. (2022). Managing Transference and Countertransference in Cognitive Behavioral Supervision: Theoretical Framework and Clinical Application. *Psychology Research and Behavior Management*, 11(15), 2129–2155. <https://doi.org/10.2147/PRBM.S369294>
- Purcell, J. B., Brand, B., Browne, H. A., Chefetz, R. A., Shanahan, M., Bair, Z. A., Baranowski, K. A., Davis, V., Mangones, P., Modell, R. L., Palermo, C. A., Robertson, E. C., Robinson, M. A., Ward, L., Winternitz, S., Kaufman, M. L., & Lebois, L. A. M. (2024). Treatment of dissociative identity disorder: Leveraging neurobiology to optimize success. *Expert Review of Neurotherapeutics*. <https://doi.org/10.1080/14737175.2024.2316153>
- Rabellino, D., Tursich, M., Frewen, P. A., Daniels, J. K., Densmore, M., Théberge, J., & Lanius, R. A. (2015). Intrinsic connectivity networks in post-traumatic stress disorder during sub- and supraliminal processing of threat-related stimuli. *Acta Psychiatrica Scandinavica*, 132(5), 365–378. <https://doi.org/10.1111/acps.12418>
- Reading, R. A., Safran, J. D., Origlieri, A., & Muran, J. C. (2019). Investigating therapist reflective functioning, therapeutic process, and outcome. *Psychoanal. Psychology*, 36, 115–121. <https://doi.org/10.1037/pap0000213>
- Rønnestad, M. H., & Skovholt, T. M. (2003). The journey of the counselor and therapist: Research findings and perspectives on professional development. *J Career Development*, 30(1), 5–44. <https://doi.org/10.1023/A:1025173508081>
- Saakvitne, K. W., Pearlman, L. A., & the Staff of the Traumatic Stress Institute. (1996). *Transforming the pain: a workbook on vicarious traumatization*. New York, NY: W.W. Norton.
- Saakvitne, K. W., Gamble, S. G., Pearlman, L. A., & Lev, B. T. (2000). *Risking connection: a training curriculum for working with survivors of childhood abuse*. Lutherville, MD: Sidran Press.
- Sánchez-Romero, S., Ruiz-Fernández, M. D., Fernández-Medina, I. M., Del, Mar, Jiménez-Lasserres, M., Del Rocío Ramos-Márquez, M., & Ortega-Galán, A. M. (2022). Experiences of suffering among nursing professionals during the COVID-19 pandemic: A descriptive qualitative study. *Applied Nursing Research : ANR*, 66, Article 151603. <https://doi.org/10.1016/j.apnr.2022.151603>
- Sayer, N. A., Kaplan, A., Nelson, D. B., Wiltsey Stirman, S., & Rosen, C. S. (2024). Clinician Burnout and Effectiveness of Guideline-Recommended Psychotherapies. *JAMA network open*, 7(4), Article e246858. <https://doi.org/10.1001/jamanetworkopen.2024.6858>
- Scaife, J. (2008). *Supervision in clinical practice: a practitioner's guide (2nd edition)*. London: Routledge.
- Schimmenti, A. (2023). The relationship between attachment and dissociation: Theory, research, and clinical implications. In M. J. Dorahy, S. N. Gold, & J. A. O'Neil (Eds.), *Dissociation and the dissociative disorders: past, present, future (2nd ed)* (pp. 161–176). Routledge.
- Schore, A. N. (2009). Attachment Trauma and the Developing Right Brain: Origins of Pathological Dissociation. In P. F. Dell, & J. A. O'Neil (Eds.), *Dissociation and the dissociative disorders: dsm-v and beyond*. New York: Routledge.
- Schauben, L. J., & Frazier, P. A. (1995). Vicarious trauma: The effects on female counselors of working with sexual violence survivors. *Psychology of Women Quarterly*, 19(1), 49–64. <https://doi.org/10.1111/j.1471-6402.1995.tb00278.x>
- Schneider, K. J., & May, R. (1995). *The psychology of existence. an integrative, clinical perspective*. New York, NY: McGraw-Hill.
- Shapiro, F. (2012). EMDR therapy: An overview of current and future research. *European Review of Applied Psychology*, 62(4), 193–195. <https://doi.org/10.1016/j.erap.2012.09.005>
- Shubs, C. H. (2008). Countertransference issues in the assessment and treatment of trauma recovery with victims of violent crime. *Psychoanalytic Psychology*, 25(1), 156–180. <https://doi.org/10.1037/0736-9735.25.1.156>
- Siegel, D. (2010). *The mindful therapist*. New York, NY: W.W. Norton & Company.
- Sinason, V., & Silver, A.-L. S. (2009). Treating dissociative and psychotic disorders psychodynamically. In A. Moskowitz, I. Schäfer, & M. J. Dorahy (Eds.), *Psychosis, trauma and dissociation: emerging perspectives on severe psychopathology*. New York, NY: Wiley-Blackwell.
- Spinazzola, J., van der Kolk, B., & Ford, J. D. (2018). When Nowhere Is Safe: Interpersonal Trauma and Attachment Adversity as Antecedents of Post-traumatic Stress Disorder and Developmental Trauma Disorder. *Journal of Traumatic Stress*, 31(5), 631–642. <https://doi.org/10.1002/jts.22320>
- Stamm, B. H. (1995). *Secondary traumatic stress: self-care issues for clinicians, researchers, and educators*. Baltimore, MD, US: The Sidran Press.
- Stamm, B. H. (2009). *Professional quality of life: compassion satisfaction and fatigue version 5 (ProQOL)*. Retrieved from https://proqol.org/uploads/ProQOL-5_French.pdf
- Steele, K., van der Hart, O., & Nijenhuis, E. R. (2005). Phase-oriented treatment of structural dissociation in complex traumatization: overcoming trauma-related phobias. *Journal of Trauma & Dissociation : The Official Journal of the International Society for the Study of Dissociation (ISSD)*, 6(3), 11–53. https://doi.org/10.1300/J229v06n03_02
- Stoltenborgh, M., Bakermans-Kranenburg, M. J., Alink, L. R. A., & Van IJzendoorn, M. H. (2015). The prevalence of child maltreatment across the globe: review of a series of

- meta-analyses. *Child abuse review (Chichester, England : 1992)*, 24(1), 37–50. <https://doi.org/10.1002/car.2353>
- Tedeschi, R. G., & Calhoun, L. G. (1996). The post-traumatic growth inventory: Measuring the positive legacy of trauma. *Journal Traum Stress*, 9(3), 455–471. <https://doi.org/10.1007/BF02103658>
- Teicher, M. H., & Samson, J. A. (2016). Annual Research Review: Enduring neurobiological effects of childhood abuse and neglect. *Journal Child Psychology Psychiatry*, 57(3), 241–266. <https://doi.org/10.1111/jcpp.12507>
- Teicher, M. H., Gordon, J. B., & Nemeroff, C. B. (2022). Recognizing the importance of childhood maltreatment as a critical factor in psychiatric diagnoses, treatment, research, prevention, and education. *Molecular Psychiatry*, 27(3), 1331–1338. <https://doi.org/10.1038/s41380-021-01367-9>
- Terpou, B. A., Densmore, M., Théberge, J., Thome, J., Frewen, P., McKinnon, M. C., et al. (2019a). The threatful self: Midbrain functional connectivity to cortical midline and parietal regions during subliminal trauma-related processing in PTSD. *Chronic Stress*, 3, 1–12. <https://doi.org/10.1177/2470547019871369>
- Terpou, B. A., Harricharan, S., McKinnon, M. C., Frewen, P., Jetly, R., & Lanius, R. A. (2019b). The effects of trauma on brain and body: A unifying role for the midbrain periaqueductal gray. *Journal of Neuroscience Research*, 97, 1110–1140. <https://doi.org/10.1002/jnr.24447>
- Tsirimokou, A., Kloess, J. A., & Dhinse, S. K. (2022). Vicarious Post-traumatic Growth in Professionals Exposed to Traumatogenic Material: A Systematic Literature Review. *Trauma, Violence, & Abuse*, 0(0). <https://doi.org/10.1177/15248380221082079>
- Van der Hart, O., Nijenhuis, E. R. S., & Steele, K. (2006). *The haunted self: structural dissociation and the treatment of chronic traumatization*. New York, NY: Norton.
- van der Hart, O., & Steele, K. (2023). The Theory of Trauma-related Structural Dissociation of the Personality. In M. J. Dorahy, S. N. Gold, & J. A. O'Neil (Eds.), *Dissociation and the dissociative disorders past, present, future*. New York, NY: Routledge.
- van der Kolk, B. A. (2005). Developmental Trauma Disorder: Toward a rational diagnosis for children with complex trauma histories. *Psychiatric Annals*, 35(5), 401–408. <https://doi.org/10.3928/00485713-20050501-06>
- West, M. (2013). Trauma and the transference-countertransference: working with the bad object and the wounded self. *The Journal of Analytical Psychology*, 58(1), 73–98. <https://doi.org/10.1111/j.1468-5922.2013.02018.x>
- Wilson, J. P. (2004). Empathy, trauma, transmission, and countertransference in post-traumatic psychotherapy. In J. P. Wilson, & B. Drozdek (Eds.), *Broken spirits* (pp. 277–316). New York, NY: Brunner-Routledge.
- Wilson, J. P., & Lindy, J. D. (1994). *Countertransference in the treatment of ptsd*. New York, NY: Guilford Press.
- Wilson, J. P., Lindy, J. D., Raphael, B., Wilson, J. P., & Lindy, J. D. (1994). Empathic strain and therapist defense: type I and II CTRs. *Countertransference in the treatment of ptsd* (pp. 31–61). New York, NY: Guilford Press.
- Wilson, J. P., & Thomas, R. B. (2004). *Empathy in the treatment of trauma and ptsd*. New York: Brunner-Routledge.
- Wolpe, J. (1969). Subjective Units of Distress Scale (SUDS) [Database record]. *APA PsycTests*. <https://doi.org/10.1037/t05183-000>
- Wolpe, J., & Lazarus, A. A. (1966). *Behavior therapy techniques: a guide to the treatment of neuroses*. Oxford, UK: Pergamon Press.

Further reading

- Corrigan, F. M., Corrigan, F. M., Young, H., & Christie-Sands, J. (2025b). Appendix 1. Shock-induced Vigilance Scale, SiVS 2025. Deep brain reorienting, understanding the neuroscience of trauma, attachment wounding. In *and dbr psychotherapy* (pp. 115–117). London, UK: Routledge.