

EMDR and the Treatment of Complex PTSD: A Review

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The diagnosis of posttraumatic stress disorder (PTSD) covers a wide range of conditions, ranging from patients suffering from a one-time traumatic accident to those who have been exposed to chronic traumatization and repeated assaults beginning at an early age. While EMDR and other trauma treatments have been proven efficacious in the treatment of simpler cases of PTSD, the effectiveness of treatments for more complex cases has been less widely studied. This article examines the body of literature on the treatment of complex PTSD and chronically traumatized populations, with a focus on EMDR treatment and research. Despite a still limited number of randomized controlled studies of any treatment for complex PTSD, trauma treatment experts have come to a general consensus that work with survivors of childhood abuse and other forms of chronic traumatization should be phase-oriented, multimodal, and titrated. A phase-oriented EMDR model for working with these patients is presented, highlighting the role of resource development and installation (RDI) and other strategies that address the needs of patients with compromised affect tolerance and self-regulation. EMDR treatment goals, procedures, and adaptations for each of the various treatment phases (stabilization, trauma processing, reconnection/development of self-identity) are reviewed. Finally, reflections on the strengths and unique advantages of EMDR in treating complex PTSD are offered along with suggestions for future investigations.

Keywords: EMDR; complex PTSD; DESNOS; childhood trauma; psychotherapy research; review

As research data on traumatic stress and post-traumatic adaptations have accumulated over the past several decades, it has become increasingly evident that the diagnosis of posttraumatic stress disorder (PTSD), as currently delineated in the *DSM-IV* (American Psychiatric Association, 1994), fails to account for the complex symptomatology that emerges following chronic interpersonal traumatization. Chronic abuse, often coupled with failures in attachment, appear to have a profound effect on cognitive, affective, and psychosocial development, leading to an inadequate sense of self, impaired schemas, deficits in affect regulation and impulse control, and problems in forming and maintaining healthy, secure attachments in adulthood.

Definition of Complex PTSD

Responding to the high rate of comorbidity between PTSD and other psychiatric disorders (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), and to the increasingly apparent limitations of the existing PTSD

criteria, the *DSM-IV* PTSD workgroup studied the existing research literature on trauma and children, female domestic violence victims, and concentration camp survivors. In doing so, they identified 27 core symptoms seen across these groups, and proposed a new diagnostic category referred to as disorders of extreme stress not otherwise specified (DESNOS) (Pelcovitz et al., 1997). This diagnostic construct has also been referred to as complex PTSD (Herman, 1992). The *DSM-IV* field trials studied 400 treatment-seeking traumatized individuals and 128 community residents (see van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005) and discovered that those who had been exposed to prolonged interpersonal trauma, particularly trauma that began at an early age, consistently presented with alterations or dysregulation in seven distinct areas: (a) regulation of affects and impulses, (b) attention or consciousness, (c) self-perception, (d) perception of the perpetrator, (e) relations with others, (f) systems of meaning, and (g) somatization (Table 1). Despite significant support for the DESNOS/complex PTSD construct, it

TABLE 1. Alterations Associated With Complex PTSD/DESNOS

Alterations in	Problems with
Regulation of affect and impulses	Poor affect regulation Modulation of anger Suicidal and parasuicidal preoccupation Difficulty modulating sexual behavior Impulsive risk-taking
Attention or consciousness	Pathological dissociation/derealization, depersonalization, amnesia, transient dissociative episodes
Self-perception	Guilt and shame Distorted sense of responsibility and failure Feeling of being permanently damaged Sense of alienation and profound aloneness
Perception of perpetrator	Idealization of perpetrator Preoccupation with hurting perpetrator Adoption of perpetrator's belief system
Relations with others	Idealizing and devaluing primary relationships Revictimization and victimizing others Mistrust
Systems of meaning	Despair Hopelessness Loss of purpose and sustaining spiritual beliefs
Somatization	Somatoform/conversion symptoms, sexual symptoms, chronic pain, digestive system and cardiopulmonary symptoms

Note. From "Disorders of Extreme Stress: The Empirical Foundation of a Complex Adaptation to Trauma," by an B. A. van der Kolk, S. Roth, D. Pelcovitz, S. Sunday, & J. Spinazzola, 2005, *Journal of Traumatic Stress*, 18, p. 391. Copyright 2005 by International Society for Traumatic Stress Studies. Adapted with permission.

was not formally included as a diagnostic category in the *DSM-IV*; the criteria for DESNOS are found in the "Associated Features of PTSD" section of the *DSM-IV* (American Psychiatric Association, 1994).

The *DSM-IV* field trials clearly demonstrated that early interpersonal traumatization (prior to age 14) leads to more serious and extensive posttraumatic symptoms than does later interpersonal traumatization. And the earlier the age of exposure, the more likely one is to suffer from DESNOS, in addition to pure PTSD. Furthermore, the longer individuals are exposed to traumatic circumstances, the more likely they are to develop both PTSD and DESNOS. Curiously, strict application of diagnostic criteria does not guarantee that a patient with DESNOS will also meet *DSM-IV* criteria for PTSD, as the detailed requirements for intrusive re-experiencing, constriction, avoidance, and hyperarousal may not be met by DESNOS patients. While the *DSM-IV* field studies found that most cases of DESNOS also met criteria for PTSD, subsequent studies in veteran (Ford, 1999) and civilian (McDonagh-Coyle et al., 1999) populations found that

25%–45% of patients diagnosed with DESNOS failed to meet criteria for PTSD. Since DESNOS can exist as a construct separate and independent from PTSD, treatment outcomes with PTSD populations cannot automatically be assumed to apply to complex PTSD/DESNOS populations.

Of critical importance to the discussion at hand is the finding that a DESNOS diagnosis predicts poorer PTSD treatment outcome in diverse clinical populations (Ford & Kidd, 1998; McDonagh-Coyle et al., 1999; Zlotnick, 1999). Studies that have compared individuals with a history of childhood-onset trauma with those having adult-onset trauma have consistently found child abuse survivors to be more dysregulated and functionally limited, specifically with regard to interpersonal relationships, affect modulation, and anger management (Cloitre, Scarvalone, & Difede, 1997; Resick, Nishith, & Griffin, 2003; van der Kolk et al., 2005). Additionally, it is worth noting that individuals with childhood abuse histories show poorer outcomes in treatments for comorbid psychiatric conditions when these comorbid conditions are

treated in isolation, without attending to the individual's trauma history and symptoms (van der Kolk et al., 2005).

Prevalence of Complex PTSD

While the prevalence of complex PTSD in patients diagnosed with pure (i.e., *DSM-IV*-defined) PTSD is uncertain, the numbers are undoubtedly high. A sense of this number is hinted at by the number of patients with PTSD who are also diagnosed with other, comorbid psychiatric conditions. The National Comorbidity Survey found that 84% of all individuals diagnosed with PTSD met criteria for at least one additional lifetime psychiatric disorder (Kessler et al., 1995) and were at least eight times more likely to have three or more additional disorders than were individuals who did not meet criteria for PTSD. The disorders most likely to co-occur with PTSD were other anxiety disorders, major depression, somatization disorder, and a variety of Axis II disorders.

In a study of mostly Vietnam War veterans admitted to an inpatient PTSD residential rehabilitation program, 54% met criteria for early childhood trauma and 57% met DESNOS criteria, with three-quarters of these meeting both criteria (Ford & Kidd, 1998). Regardless of what the final numbers turn out to be, it is already clear that there is a desperate need to expand our study of patients exposed to chronic traumatization who meet the criteria for complex PTSD. Unfortunately, it is precisely these patients, with more impaired functioning, severe posttraumatic dysregulation, and significant high-risk behaviors (dissociation, suicidality, self-injurious behavior, substance abuse), who are most frequently excluded from mainstream PTSD studies.

Review of the Treatment Outcome Literature

Posttraumatic Stress Disorder

The efficacy of various therapeutic approaches, including EMDR, in treating noncomplex PTSD has been reported in great detail elsewhere (Bisson et al., 2007; Cloitre, 2009; Foa, Keane, Friedman, & Cohen, 2009a) as well as within this journal (Schubert & Lee, 2009). According to a recent review by Cloitre (2009, p. 10),

There is strong evidence that psychosocial interventions provide substantial relief of PTSD symptoms . . . Cognitive-behavioral treatments have been shown to be superior to waitlist, supportive counseling, nonspecific therapies and treatment as usual. Exposure therapy has been

studied in the largest number of trials and has consistently shown beneficial effects. Cognitive therapy is associated with the largest effect size . . . Combination treatments of exposure and cognitive therapy show small but consistent advantages over either of the interventions alone. EMDR, like exposure and cognitive therapy, has established efficacy.

EMDR's efficacy in the treatment of PTSD has, in fact, been established in 16 published controlled, randomized studies, with comparisons to antidepressant medication, cognitive behavioral therapies, and other forms of therapy. Several meta-analyses have concluded that EMDR is comparable to other efficacious treatments, including exposure therapy, in reducing PTSD symptomatology (Bisson et al., 2007; Bradley, Greene, Russ, Dutra, & Westen, 2005; Seidler & Wagner, 2006; van Etten & Taylor, 1998).

Complex PTSD/DESNOS, Survivors of Child Abuse and Other Forms of Chronic Traumatization

In "Effective Treatments for PTSD," recently published by the PTSD Treatment Guidelines Task Force of the International Society for Traumatic Stress Studies (Foa, Keane, Friedman, & Cohen, 2009b), DESNOS is recognized as one of several disorders that may develop in response to traumatic exposure or victimization, although it is not addressed at all in the text of the treatment guidelines. It is merely stated that relatively little is known about the successful treatment of patients with histories of early childhood abuse or domestic violence. The authors do note, however, that "there is a growing clinical consensus, with a degree of empirical support, that some patients with these histories require multimodal interventions, applied consistently over a longer period of time" (p. 2).

Phase-Oriented Treatment of Complex PTSD/DESNOS. There is a remarkable consensus within the trauma treatment literature that work with survivors of childhood trauma should be phase-oriented, multimodal, skill-focused, titrated, and aimed at symptom relief and functional improvement (Briere & Scott, 2006; Brown, Schefflin, & Hammond, 1998; Courtois, Ford, & Cloitre, 2009; Ford, Courtois, Steele, van der Hart, & Nijenhuis, 2005; van der Hart, Nijenhuis, & Steele, 2006). The consensus model of posttrauma treatment for these patients recommends that the initial phase of treatment focus on stabilization, issues of personal safety, and development of self and ego capacities (i.e., tolerating and modulating strong affect). Some authors (Steele, van der Hart, & Nijenhuis, 2005)

emphasize the importance, during this early phase of treatment, of addressing the patient's phobias of inner experience (memories, emotions, sensations, etc.), attachment and loss of attachment, and parts of his/her personality. Traumatic memories typically become a focus of treatment in the middle, or second, phase of treatment, and only after adequate gains have been made in the first phase. The third and final phase typically focuses on functional reintegration, the pursuit of new goals (particularly in the interpersonal realm), and a fuller development of self-identity. (Henceforth in this article, any mention of Phase 1, 2, or 3 will refer to the phases of this consensus model of posttrauma treatment. To avoid confusion, any discussion of the eight phases of the standard EMDR protocol [Shapiro, 2001] will specifically cite the EMDR model.)

In clinical practice, moving through these phases is not normally a linear process. Instead, it is fluid, dynamic, and more like a spiral process that requires revisiting trauma-based themes and beliefs, reactivating coping responses and resources, and reconsidering challenging core issues, again and again (Courtois, 1999). In her excellent article on integrating EMDR into the phase-oriented treatment of trauma, Gelinas (2003) concludes that these two approaches "strongly complement each other in their clinical strengths and weaknesses, while sharing many underlying theoretical and structural elements" (p. 91). Embedding the eight phases of the EMDR protocol within the larger framework of the phase-oriented, consensus model of trauma treatment appears to have indeed become standard practice in the field when working with complex PTSD and survivors of childhood trauma.

In recent years, several empirically evaluated models for treating specific chronically traumatized populations have been introduced, although none has been evaluated specifically for the treatment of complex PTSD/DESNOS. Ford and colleagues (2005) provide a comprehensive and descriptive review of several manualized treatment models developed or adapted for the treatment of "posttraumatic dysregulation." They discuss the strengths and weaknesses of various trauma treatment models that have adapted and incorporated components of cognitive behavioral therapy (CBT) and interpersonal affect regulation therapy (IAT), procedures that have previously been evaluated with PTSD patients and patients struggling with disorders commonly comorbid with PTSD (e.g., depression or substance abuse).

Both the CBT and IAT programs use sequenced, phase-oriented approaches that emphasize the importance of Phase 1 work on self-regulation, interpersonal skills, psychoeducation, and stabilization prior to any

Phase 2 work, which then focuses on exposure to or review of traumatic memories and associated beliefs. In most of these models, Phase 2 work is more gradual, more titrated, and more focused on maintaining the patient's self-regulation than is the approach used in pure CBT interventions for PTSD (Rothbaum & Schwartz, 2002).

Several empirically validated Phase 1 models, such as Najavits's Seeking Safety, for individuals with PTSD and comorbid substance abuse (Najavits, 2002), and Linehan's Dialectical Behavior Therapy (DBT), for borderline personality disorder (Linehan, Tutek, Heard, & Armstrong, 1994), successfully decrease trauma-related dysregulation, improve functioning, and potentially prepare patients for later trauma-focused work. Cloitre's STAIR-MPE (Skills Training in Affect and Interpersonal Regulation With Modified Prolonged Exposure), evaluated in the first randomized clinical trial of a phase-oriented trauma treatment (Cloitre, Koenen, Cohen, & Han, 2002), represents one of the best examples of a model that integrates all that we have come to understand about the unique needs of individuals with complex PTSD and/or posttraumatic dysregulation. Cloitre begins with eight Phase 1 sessions designed to teach skills for mood regulation, distress tolerance, and emotional management in interpersonal contexts. The protocol then moves into eight sessions of Phase 2 work devoted to a CBT traumatic memory exposure intervention that has been modified to prevent cognitive and affective dysregulation. In their study of female child sexual abuse survivors, self-regulatory functioning was improved after the first eight sessions, while PTSD symptoms improved only after the Phase 2 sessions devoted to exposure work. The dropout rate was low (< 15%), presumably reflecting the efficacy of the Phase 1 preparatory work carried out before the introduction of trauma memory work. The results obtained by Cloitre and colleagues are limited only by the fact that women who met criteria for eating disorders, dissociative disorders, bipolar disorder, and borderline personality disorder were excluded from their study.

Treatment of Complex PTSD/DESNOS With Standard CBT. Despite the demonstrated efficacy of standard CBT for PTSD, its applicability and tolerability have been questioned for individuals with complex PTSD, comorbid Axis I or Axis II disorders (e.g., substance abuse and dependence, eating disorders, dissociative disorders, personality disorders), and/or histories of childhood abuse or chronic traumatization. Some have argued that findings from randomized clinical trials of manualized CBT protocols

cannot be generalized to community populations in which patients are more severely impaired and highly comorbid. Others have expressed concern that exposure therapy can lead to symptom exacerbation and high dropout rates, particularly when treating patients with compromised self-regulation and impulse control (for discussion, see Feeny, Hembree, & Zoellner, 2003). But several authors have worked to refute these claims, reporting successful treatment of more complex cases with CBT, including exposure therapy (e.g., Feeny et al., 2003; Feeny, Zoellner, & Foa, 2002; Hembree et al., 2003; Resick et al., 2003). Although clearly treating more complicated cases (e.g., PTSD patients with personality disorders [Hembree, Cahill, & Foa, 2004], PTSD patients with subclinical to mild severity borderline personality disorder characteristics [Feeny et al., 2002]), none of these investigations specifically studied populations with formally diagnosed complex PTSD/DESNOS. Furthermore, while reporting good improvement in PTSD symptoms following treatment, they generally found poorer end-state functioning in the groups with personality disorders when compared to groups without such comorbid conditions (Feeny et al., 2002; Hembree et al., 2003). Thus, CBT appears to be a beneficial yet far from ideal treatment for patients with complex PTSD.

Treatment of Complex PTSD/DESNOS With EMDR. In the EMDR empirical literature, studies evaluating PTSD treatment have generally focused on those suffering from the effects of single-episode adult traumas, although these groups of subjects almost certainly include a percentage of multiply traumatized individuals or individuals with childhood abuse histories. For example, in Lee and colleague's 2002 study comparing EMDR to stress inoculation training with prolonged exposure in the treatment of PTSD (Lee, Gavriel, Drummond, Richards, & Greenwald, 2002), 71% of the subjects had experienced a trauma prior to their current identified trauma, and 29% had experienced multiple previous traumas. In addition, 58% rated their childhood as containing either physical or sexual abuse, or emotional neglect. Unfortunately, without data identifying those within a given PTSD sample who meet criteria for complex PTSD, those with childhood abuse histories, and/or those with specific comorbid disorders, it is difficult to draw any research-based conclusions about EMDR's effectiveness with complex PTSD or chronically traumatized individuals.

One recent EMDR study, (van der Kolk et al., 2007) comparing EMDR, fluoxetine, and a pill placebo in the treatment of PTSD, did examine the impact of childhood- versus adult-onset trauma on treatment

outcome. In this controlled, randomized trial, van der Kolk and colleagues found that eight sessions of EMDR treatment yielded significantly less robust responses in individuals with childhood trauma histories than in adult-onset participants. Specifically, 100% of adult-onset participants lost their PTSD diagnosis by posttreatment, compared to only 75% of the childhood-onset participants. Furthermore, although 89% of the childhood-onset group had lost their PTSD diagnosis by the time of a 6-month follow-up, only 33% were asymptomatic, compared to 75% of those with adult-onset traumas. Thus, early trauma onset clearly predicted poorer end-state functioning. In addition, while the dropout rate was relatively low (17%) for the EMDR condition, and comparable to that in Cloitre and colleague's study (2002), dropouts were more common in the childhood-onset group. Van der Kolk and colleagues concluded that "for most individuals with childhood-onset trauma (all of whom, in this study, were victims of intrafamilial physical and/or sexual abuse), eight weeks of therapy was not enough to resolve long-standing trauma imprints and adaptations" (van der Kolk et al., 2007, p 8). In another study, specifically focused on adult survivors of childhood abuse, participants showed significant improvement, although the investigators concluded that the six EMDR sessions used in this study "were too few to adequately address all of the troubling issues the survivors in the study were confronting" (Edmond, Rubin, & Wambach, 1999, p. 114).

In a related report, Carlson and colleagues (Carlson, Chemtob, Rusnak, Hedlund, & Muraoka, 1998) noted that earlier investigations of EMDR with combat-related PTSD had yielded mixed results, ranging from poor to quite positive. In their own study of chronically traumatized veterans with combat-related PTSD, subjects showed significantly better treatment benefits from EMDR than from other treatment conditions (biofeedback-assisted relation or routine clinical care) on a number of self-report, psychometric, and standardized interview measures (Carlson et al., 1998). They attributed the positive outcome, in part, to their use of a 12-session treatment regimen, longer than that used in previous studies, and concluded that "given that combat PTSD is a serious, chronic disorder for which minimal treatment of any kind may be unsuccessful, limited numbers of sessions may be one reason for the previously mixed findings with an EMDR approach" (Carlson et al., 1998, p. 4). Thus, by increasing the number of sessions to what they considered a more reasonable treatment dose, significant positive outcomes were achieved.

There have also been case reports of successful EMDR treatment of patients with complex PTSD. Kim and Choi (2004) reported a single case study of a multiply traumatized woman, diagnosed with DESNOS, whose previous treatments with psychotropic medication and supportive therapy had not yielded successful outcomes. Following six weekly EMDR sessions, the patient showed improvement on the Symptom Checklist 90 (SCL-90), Impact of Events Scale (IES), State Trait Anxiety Inventory (STAI), Dissociative Experiences Scale (DES), and Beck Depression Inventory (BDI) one week posttreatment and again at 6-month follow-up. One of the study's authors noted that the good therapeutic relationship that existed between therapist and patient prior to the introduction of EMDR may have been a key factor in the success of this case and may explain the patient's ability to make use of EMDR without any special preparation or resource development and installation (RDI) work (Kim, personal communication, March 9, 2009).

Korn and Leeds (2002) presented descriptive psychometric and behavioral outcome measures from two single case studies, examining the use of an EMDR RDI protocol with complex PTSD/DESNOS patients in the initial stabilization phase of treatment. Both patients met criteria for complex PTSD (as determined by the Structured Interview for Disorders of Extreme Stress [SIDES]; Pelcovitz et al., 1997) as well as for borderline personality disorder, PTSD, and major depressive disorder. Both patients showed clinically significant changes from baseline through treatment on targeted behaviors (angry outbursts, self-injurious behavior, binge eating, negative self-statements, and subjective experience of misery) and on clinical scales of the Symptom Checklist 90 Revised (SCL-90-R) (e.g., Depression, Anxiety, and Global Severity Index) and the Traumatic Symptom Inventory (TSI) (e.g., Anxious Arousal, Defensive Avoidance, Dissociation, and Tension Reduction Behavior). Follow-up data, collected 1 month after the completion of the 3-week RDI intervention, showed maintenance of treatment gains for both patients across all targeted behaviors. Interestingly, for both patients, behavioral changes seemed to precede improvements in cognitive patterns (e.g., debilitating negative self-talk) and in the intensity of emotional experiences (e.g., misery). These findings point to the importance of an early phase of work aimed at increasing self-efficacy and mastery when working with patients who are dealing with a chronic sense of powerlessness, defeat, and loss. In the cases reported, successfully increasing access to psychological resources appeared to interrupt destructive behavioral

chains, and ultimately decreased affective and cognitive distress in the face of trauma-related triggers. Importantly, it was primarily the symptoms related to posttraumatic self-dysregulation (anxiety, depression, anger, dissociation tension-reduction behaviors, dysfunctional sexual behavior, cognitive and behavioral avoidance) that showed the most improvement by the end of this Phase 1 treatment. PTSD intrusive symptoms did not improve in any significant way by posttreatment. However, both of these patients showed significant improvement in PTSD symptoms in the later stages of treatment, after the EMDR PTSD standard protocol was introduced. These findings are in accord with the findings of Cloitre and colleagues (2002) that PTSD symptoms (as compared to self-dysregulation symptoms) do not improve until the introduction of trauma-focused, exposure work.

Borderline personality disorder (BPD), perhaps more than any other diagnosis, has been viewed as a posttraumatic personality and relational adaptation to childhood abuse and neglect, including disruptions of attachment and bonding (Kroll, 1993; Linehan, 1993). Roth and Bateson (1997) have reported that patients diagnosed with BPD are generally more severely affected complex PTSD patients. Brown and Shapiro (2006) presented a case study of a patient diagnosed with BPD and major depression who reported a history of significant and repeated traumatization starting at a very young age. Like Kim and Choi's patient (2004) noted previously, this patient had been in cognitive behavioral and psychodynamic therapy with the first author prior to starting EMDR treatment (1.5 years of individual and conjoint sessions); she had also been previously treated with antidepressant medication. Unlike Kim and Choi (2004), Brown and Shapiro (2006) included several preparatory sessions focused on increasing affect management skills and readiness for trauma processing, allotting 20 total sessions over 6 months. The patient completed the Inventory of Altered Self-Capacities (IASC), a clinical assessment tool for quantifying complex PTSD-related symptoms, to evaluate pre- and posttreatment functioning in the areas of relatedness, identity, and affect control. All of the patient's pretreatment scores were significantly elevated and in the clinical range but dropped to subclinical levels posttreatment. Further decreases were noted on most scales and subscales at a 7-month follow-up. The authors concluded that the "results of this case are quite substantial, indicating that properly stabilized patients can achieve successful remediation of symptoms and enhancement of personal functioning within months, rather than years of therapy . . . The posttest measures . . . indicate a

pronounced remediation of BPD symptoms after completion of EMDR treatment” (Brown & Shapiro, 2006, p. 415).

Treatment Overview: EMDR Applications With Complex PTSD

There have been few detailed descriptions of how EMDR can be clinically applied in cases of complex PTSD (Forgash & Copeley, 2008; Korn & Leeds, 2002; Mansfield, 1998; Parnell, 1999). But given what is known about EMDR and this target population, it is now possible to describe a phase-oriented EMDR treatment of complex PTSD.

Phase 1: Stabilization

The primary focus of the first phase of phase-oriented trauma treatment is stabilization. This coincides with the second phase of Shapiro’s eight-phase EMDR protocol, the preparation phase (Shapiro, 2001). With this population, the emphasis is on decreasing self-injurious and addictive behaviors, suicidality, pathological dissociation, and extreme emotional dysregulation. In this early work, phobias of attachment and attachment loss, of inner experiences (affects, somatic experiences, traumatic memory, urges), of parts of one’s personality, and of therapy itself need to be addressed (van der Hart et al., 2006). Maladaptive defenses need to be relinquished as new coping skills, self-capacities, and resources are developed and strengthened. In particular, individuals need to increase their affect tolerance and capacity to mindfully observe their own experience (affect, sensations, thoughts, impulses), without becoming overwhelmed and dysregulated and resorting to old, maladaptive defense patterns. They need to learn how to maintain dual attention, focusing simultaneously on past and present, as well as on internal and external realities. Learning to stay grounded in the present moment and connected to another person, while accessing emotions and traumatic memories, is an essential prerequisite for moving on to EMDR trauma processing.

EMDR RDI, reviewed in detail elsewhere (Leeds, 2009), refers to deliberate and strategic interventions focused on helping the patient access and develop core resources and self-capacities. In the best of circumstances, children develop these positive resources and self-capacities within the context of secure attachments with parents or other caregivers who consistently acknowledge and address their psychological, emotional, and physical needs. Self-regulation and a sense of safety, adaptive coping skills, the capacity

for healthy relationships, and the qualities of courage, compassion, and confidence, are examples of these resources. Therapeutic resource development uses images, stories, metaphor, humor, play, somatically focused exercises, Socratic questioning, behavioral experiments, and formal instruction and practice to increase the patient’s functioning, capacity for tolerating and regulating strong affect, and overall sense of self-control. The goal of RDI is to help patients access existing resources and develop new and effective coping skills (e.g., mindfulness, self-soothing, distancing, containment, titration/modulation, grounding/orienting, emotion regulation, interpersonal effectiveness, cognitive self-talk). RDI focuses on stabilizing and preparing the patient for the next phase of treatment, when attention will turn to the processing of traumatic memories.

When using RDI, the therapist identifies the needed resource or self-capacity (e.g., patient needs to feel stronger, safer, more grounded, more tolerant of strong affects) and explores the patient’s associations to this particular resource. The therapist may inquire about previous mastery experiences, relational resources, or imaginal and symbolic resources, or may introduce sensorimotor, skill-based, or behavioral experiments or experiences. Once the patient has a vivid association to, or a behavioral experience of, this resource in session, the patient is asked to focus on this image or full body experience, along with any associated affective and somatic components, while several brief sets (10–12 back-and-forth passes) of bilateral stimulation are presented to fully install the resource. Over time, many such resources may be installed. Ultimately, the patient works on so-called future templates, incorporating this new sense of a resourced self into a visualization of effective coping and performance in the future. In addition to resources developed within sessions, any coping successes that the patient reports outside of session (e.g., successful self-soothing, strong, assertive behavior) can be installed using the RDI standard protocol (Korn & Leeds, 2002); the patient simply focuses on the mastery experience as the resource target. Through all of this, the therapist helps the patient recognize that these emerging resources will enable him or her to safely engage in the trauma-processing work associated with the next phase of treatment.

Non-EMDR strategies and skill development approaches focused on ego strengthening and stabilization can certainly be integrated with standard EMDR RDI protocols during Phase 1 treatment. Linehan’s DBT model (1993), Cloitre’s STAIR model (2002), and Najavits’s Seeking Safety model (2002), among others, offer structured intervention packages for increasing affective and interpersonal regulation. Case reports of hypnotic

ego-strengthening interventions (Brown & Fromm, 1986; Frederick & McNeal, 1999; Hammond, 1990; Kluff, 1994; Phillips, 2008; Phillips & Frederick, 1995) suggest that such interventions can help stabilize complex PTSD patients early in treatment and help patients with affect modulation during later trauma processing. Twombly (2005) and Phillips (2008) both provide comprehensive overviews, with superb case examples, of how and when to integrate well-established hypnotic strategies with EMDR treatment.

Body-oriented approaches, such as sensorimotor psychotherapy (Ogden, Minton, & Pain, 2006) and somatic experiencing (Levine, 1997), offer a range of valuable resourcing interventions and exercises that can be incorporated into the RDI phase of treatment. Ego state or parts models (Forgash & Copeley, 2008; Schwartz, 1995; Twombly, 2005; Watkins & Watkins, 1997) provide additional approaches to increasing stability and self-capacities, while decreasing maladaptive defensive patterns that block access to affects and other material most in need of attention. Relational- and attachment-focused approaches (Davies & Frawley, 1994; Fosha, 2000; Pearlman & Courtois, 2005; Pearlman & Saakvitne, 1995) emphasize the importance of the therapeutic relationship in the first phase of treatment, noting the opportunities for developmental repair through moment-to-moment attunement and the prioritizing of patient attachment needs. Finally, the use of pharmacologic interventions can be extremely helpful in this phase and into the later phases of treatment, especially in reducing comorbid anxiety, depression, and sleep difficulties (Briere & Scott, 2006; Friedman, Davidson, & Stein, 2009).

In addition to the standard EMDR RDI protocol that has been in use for many years (Korn & Leeds, 2002), EMDR clinicians have developed a number of valuable interventions designed to decrease pathological dissociation and posttraumatic dysregulation during the early and middle phases of treatment. Forgash and Knipe (2008) have described the installation of a home base and a workplace for the ego state system prior to any trauma-processing work. Twombly (2000, 2005) has written about special considerations in using safe space imagery, installing coping skills, and facilitating the generalization of skills across an ego state system. She has also introduced a trio of EMDR adaptations designed to facilitate internal communication and cooperation across all parts of a dissociative personality system, decrease anxiety and potential negative transferences, and increase grounding and orientation in the present. Although originally developed for use with dissociative disorder patients, all of these interventions have relevance to complex PTSD. Knipe (2005, 2008) has

introduced several EMDR-related strategies (e.g., Loving Eyes; Constant Installation of Present Orientation and Safety [CIPOS]; Back of the Head Scale) for tracking and targeting dissociative avoidance, enhancing present orientation, reconciling conflicted ego states, and increasing patients' capacity for tolerating and regulating potentially overwhelming affects. Like any other RDI strategy, once these methods have been introduced in the early phase of treatment, they can be reintroduced as needed during subsequent trauma processing.

In order for patients to safely move into Phase 2 trauma work, they must be able to demonstrate a repertoire of adaptive self-management skills. They must have the capacity to access affect and memories without negative consequences (such as increased dissociation), and the capacity for adequate affect tolerance and self-regulation (both auto- and interactive). They must be able to stay present in their body in the face of strong emotion and memory activation. They must show a willingness and ability to relinquish dissociation as a primary defense. And they must be ready to trust in the therapeutic relationship, allowing the therapist to actively assist with the maintenance of dual attention (past and present, outside and inside realities) and of grounding in the present, when needed. Once these skills and self-capacities are established, patients are ready to move into the second phase of treatment in which trauma processing becomes the focus.

Phase 2: Trauma Processing

The primary goal of the next phase of treatment is the processing of traumatic memories and the reduction and transformation of trauma-related beliefs, affective and behavioral patterns, and symptomatology. Within the eight-phase EMDR protocol (Shapiro, 2001), the clinician focuses on Phases 3 through 8, working directly with traumatic memories and triggers. In treating patients with chronic trauma histories, a combination of strategies guides the clinician in choosing relevant "big T" (PTSD Criterion A "shock" trauma, e.g., sexual or physical assault) and "little t" (developmental trauma, e.g., humiliations, losses, experiences of neglect or deprivation) experiences for processing. A symptom-focused approach attends to the most disruptive present-day symptoms, actively using the floatback (Shapiro, 2001) and affect bridge (Watkins & Watkins, 1997) techniques to identify those traumatic experiences directly linked to present-day triggers and symptoms. This strategy is extremely useful in identifying those memories, embedded within the chaotic context of severe neglect, deprivation, loss, and abuse, that are most activated and relevant with regard to

present-day dysfunction. At the same time, a more developmental, chronological approach (Kitchur, 2005; Shapiro, 2001), which searches for relevant memories and targets, starting with the earliest traumatic experiences and moving across the life span, can provide perspective on how dysfunctional beliefs and patterns originally developed, and a sense of clarity about the experiences that need to be addressed.

Because dissociation and other defenses are actively in play in survivors of chronic trauma, utilizing multiple strategies to access and organize targets is critical. Many clinicians find that prioritizing activated memories (memories with higher Subjective Units of Disturbance Scale [SUDS] levels and clear connections to present-day symptomatology) leads to a more rapid reduction of distress for the patient than does a chronological approach to targeting memories, particularly with regard to pure PTSD symptoms. In a recently published study, van der Kolk and colleagues (2007) significantly reduced the pure PTSD symptoms in many participants with both childhood and adult trauma exposure by only targeting those adult traumas obviously linked to current PTSD symptoms. Earlier childhood trauma memories were addressed only if they spontaneously arose ("associative channels" (Shapiro, 2001, p. 79)) in the course of processing and only if the patient could tolerate the focus on childhood material without becoming dysregulated. If the patient was not able to tolerate the spontaneous shift in focus, childhood memories were contained using visual imagery established during the preparatory phase of EMDR treatment (Korn, Rozelle, & Weir, 2004). Some participants were able to completely extinguish their adult trauma-related PTSD symptoms without ever directly addressing their traumatic childhood memories.

During trauma processing with complex PTSD patients, the clinician must act as a "psychobiological regulator" (Schore, 2003, p. 102), helping the patient remain within a "window of tolerance" (Siegel, 1999, p. 253). As such, the EMDR clinician is quite active in pacing and coregulating the EMDR processing, helping the patient to access and tolerate previously dissociated behavioral impulses, affects, sensations, and knowledge. Chronically traumatized individuals "often enter into cognitive and emotional loops that are not amenable to the simpler EMDR interventions" (Shapiro, 2001, p. 249). Thus, the clinician must remain alert to the signs of dysregulation (hyperarousal/hypoarousal, freezing, numbing, inability to think, dissociative responses of blanking out, shutting down, etc.) and actively uses cognitive interweaves (Shapiro, 2001) to keep the patient engaged and moving toward

the resolution of issues related to the themes of responsibility, safety, and choice.

For patients who present with extreme shame, self-blame, self-loathing, and negative cognitions related to defectiveness/unworthiness (e.g., "I'm bad"), interweaves focus on the issue of responsibility. The patient processes feelings of grief related to significant losses and of anger felt toward abusers and bystanders, ultimately leading to an increased sense of self-respect and self-compassion (e.g., "I did the best I could; I'm good"). For patients who present with a high level of fear and avoidance and an ever-present sense of danger (e.g., "I'm never safe; I'm always vulnerable and in danger"), interweaves focus on the issue of safety, orienting the patient to the present and highlighting differences between then and now. In these cases, processing results in a desensitization of fear and speechless terror and, in the end, to a decreased sense of vulnerability, increased sense of boundaries, and greater freedom of both movement and thought. For patients who present with extreme mistrust, helplessness and hopelessness, and negative cognitions related to control or power (e.g., "I'm powerless; I have no control"), the focus is on choice. As processing progresses, facilitated by focused interweaves, the patient moves through experiences of feeling trapped and victimized toward a recognition of present-day choices and possibilities (e.g., "I have choices; I'm in control now").

The clinician must stay attuned to the patient's tendency to avoid and defend against core affects, such as anger, sadness, and longing. Frequent looping and blocks to processing are the rule rather than the exception with this population. The clinician needs to anticipate the emergence of immobilizing, defensive, and inhibitory affects (shame, terror, unbearable states of aloneness, despair, and hopelessness, explosive rage) (Fosha, 2000), blocking beliefs (Parnell, 1999; Shapiro, 2001), and ego state conflicts (Litt, 2008). Familiarity with the range of blocks and patterns of defense most often experienced by chronic trauma survivors, as well as the particular variants experienced by one's own patient, can help the EMDR clinician anticipate the types of interweaves needed to move toward adaptive resolution.

In addition to the standard cognitive interweaves originally described by Shapiro (2001), clinicians may use interweaves designed to increase the supportive connection between patient and therapist (e.g., "You are not alone; I'm right here with you"), to resolve ego state conflicts related to blocked processing (e.g., "Ask that protective part if it would be willing to step back for just a moment"), to facilitate sensorimotor expression and completion of adaptive action tendencies (e.g., fight/flight), to access previously

developed resources in the service of self-regulation, and to establish developmental repair strategies (e.g., connecting a compassionate adult self with a child self). Without appropriate preparation work and attention to moment-to-moment dyadic regulation and modulation, trauma processing can become a negative experience for patients, leading to retraumatization, a sense of failure, and, potentially, a withdrawal from treatment.

For patients who struggle with affect tolerance despite significant preparation, the clinician may want to use various titration, fractionation, and modulation strategies (e.g., allowing only “5 drops” of emotion, narrowing the focus to just one affect or one sensation, confining the processing to just one temporal segment of a memory, or utilizing resource imagery like a movie screen, zoom lens, remote control, or affect dial) (Fine & Berkowitz, 2001; Lazarove & Fine, 1996; Twombly, 2005). It is often helpful for clinicians to begin and end sessions with a focus on a patient’s safe place or resources, increasing ego-strength and stability at the start and creating a sense of closure, with present-time grounding and reorientation, at the end.

Phase 3: Reconnection and Development of Self-Identity

During the third phase of treatment, the focus is on increasing self-esteem and self-respect, increasing healthy connections and intimacy, and exploring and integrating one’s sense of identity. The clinician re-evaluates current triggers and anticipatory fears related to change, contemplation of new goals, and initiation of new tasks. Psychoeducation, modeling, visualization, and role-playing can help the patient prepare for new challenges. A future “positive template” protocol (Shapiro, 2001, p. 210) is used to help the patient imaginably rehearse and problem-solve in preparation for upcoming situations and encounters. Ultimately, success is measured in terms of the patient’s capacity to effectively handle previous triggers or avoided situations and to approach desired goals in his or her day-to-day life.

Taken as a whole, this phase-oriented approach to the use of EMDR in the treatment of complex PTSD offers a comprehensive, flexible, and effective model for treating this often difficult-to-treat population of trauma survivors.

Clinical Strengths of EMDR

EMDR offers several unique advantages when treating complex PTSD. Patients are given a tremendous

amount of control over their treatment, and exposure to feared inner experiences (feelings, sensations, images, cognitions) can be experienced in relatively short bursts rather than in the more sustained or prolonged manner typical of exposure therapy. Even though no significant differences were found in direct comparisons of dropout rates between active PTSD treatments (Bisson et al., 2007; Hembree et al., 2003), it is worth noting that EMDR dropout rates are generally low across studies and generally lower than those reported in exposure treatments. Hembree and colleagues (2003) found average dropout rates were 20% from exposure treatments, 22% from stress inoculation training (SIT), and 27% from combinations of exposure and other CBT techniques, but only 18% from EMDR. In their meta-analysis, van Etten and Taylor (1998) reported that an average of 36% of PTSD patients treated with selective serotonin reuptake inhibitors (SSRIs) withdrew from treatment prematurely. In a recent study by McDonagh and colleagues (McDonagh et al., 2005), CBT participants experienced significant reductions in PTSD and secondary symptoms, but the dropout rate was 41%. EMDR may, in fact, be better tolerated, at least for some patients, than many other treatment approaches, with dropout rates of 10% or less commonly reported (Ironson, Freund, Strauss, & Williams, 2002; Marcus, Marquis, & Sakai, 1997; Rothbaum, 1997; Wilson, Becker, & Tinker, 1995). EMDR also uniquely allows chronically traumatized patients to process material, if necessary, without detailed recounting and even at times without words, facilitating the desensitization and processing of material that was previously inaccessible, unapproachable, or difficult to transform.

EMDR can be particularly valuable for patients who, despite multiple other treatments and possibly even significant improvements in their global level of functioning, continue to struggle with a core sense of defectiveness, shame, and guilt, and who remain intensely burdened by pain and self-hatred (complex PTSD’s “alterations in self-perception”). Within an EMDR framework, the therapist meticulously searches for the constellation of experiences responsible for the categories of difficulties identified by the construct of complex PTSD or DESNOS. This can include both “big T” and “little t” trauma experiences associated with current affective, somatic, and behavioral symptoms or patterns, defensive and self-protective responses, and interpersonal dynamics. In some cases, targeted memories or experiences may be chosen that are not obviously traumatic and that are not initially associated with high SUDS levels.

When working with complex PTSD patients, EMDR practitioners place particular emphasis on identifying patient experiences that represent attachment disruptions and failures, neglect and experiences of profound aloneness, and unmet psychological needs (often associated with grief and affective experiences of longing or yearning), as well as the more typically explored experiences of emotional, physical, and sexual abuse. Clinicians attend both to acts of omission and commission. Because of the continual re-evaluation of the social learning links between past events and current dysfunction inherent in the protocol, EMDR treatment produces an increasingly clear picture of the material most in need of targeting in the desensitization phase. EMDR contains an inherent feedback loop that allows patients, in collaboration with their therapists, to increasingly focus in on the experiences (and associated beliefs, behaviors, and affects) that continue to hold them back in their attempts to heal and change.

EMDR is a treatment approach for the scientist-practitioner, guided first by theory (Shapiro, 2001) and then by individualized case formulations and treatment plans, developed in response to the presentation and needs of each patient. EMDR practitioners construct a list of potential targets—a hierarchy of touchstone events (Shapiro, 2001)—at the start of treatment, fully aware that this list may be quite different from the list of targets that eventually gets processed. Retaining this flexibility is a valuable aspect of EMDR treatment, as complex PTSD patients initially may not remember particular traumatic content, may minimize or deny the connection between current dysfunction and earlier life experiences, and may be reluctant to disclose certain aspects of their history out of shame or fear. The concept of treatment as a spiral process is inherent in EMDR's three-pronged protocol, emphasizing past, present, and future targets and re-evaluation, across time. Although EMDR is a manualized, protocol-based treatment model, practitioners carefully construct a case conceptualization for each patient (identifying significant areas of dysregulation, phobias, skill deficits, links between past and present, and blocks to future adaptive functioning) and an individualized treatment plan, which are then continually re-evaluated and adapted as the clinical picture inevitably evolves over time (Shapiro, 2007).

Recommendations for Future Research

There remains a desperate need for research aimed at clarifying the optimal treatment strategies for individuals with complex PTSD. To begin this process,

it is critically important that researchers investigating any PTSD population accurately assess subjects for the presence of complex PTSD and its constellations of symptoms. Both clinicians and researchers need to more regularly make use of the excellent assessment tools (e.g., SIDES, TSI, IASC) available for evaluating chronically traumatized populations that present with significant dissociation and dysregulation. These have been reviewed elsewhere (Briere & Spinazzola, 2005). In the future, all PTSD studies would then be able to comment on treatment efficacies vis-à-vis complex PTSD/DESNOS.

Measures that evaluate psychosocial behavior patterns and functioning (e.g., quality of life, social and interpersonal functioning, occupational functioning, spirituality, sexuality/intimacy) also should be included in pretest–posttest assessments (Galovski, Sobel, Phipps, & Resick, 2005). Although there is strong support for including measurements of psychosocial functioning in treatment outcome studies, there is still only a limited number of well-controlled outcome studies targeting and tracking psychosocial change and evaluating shifts in global functioning. In the end, it is critical to realize that, beyond a reduction in PTSD and secondary symptoms, good end-state functioning and psychosocial adjustment are necessary goals in treating complex PTSD.

EMDR researchers interested in looking specifically at complex PTSD can learn from the handful of published studies examining treatment approaches with survivors of childhood abuse, chronic traumatization, or PTSD with significant comorbid conditions (for reviews, see Courtois & Ford, 2009; Ford et al., 2005). Manualized EMDR protocols for complex PTSD should describe sequenced, phase-oriented approaches to treatment with an organized structure for RDI, focused on addressing relevant areas of dysregulation (Ford et al., 2005) and the skills or self-capacities needed for later trauma-focused processing. RDI protocols need to be empirically evaluated both for their stand-alone efficacy as Phase 1 stabilization interventions and as part of sequenced, multiphase treatment models. Researchers need to explore the value of combining established first-phase stabilization modules (e.g., STAIR, Seeking Safety, DBT) with the standard EMDR PTSD protocol as a second phase intervention. Different treatment packages (various Phase 1 treatment protocols, including EMDR RDI, in combination with Phase 2 treatment using standard EMDR) need to be compared for efficacy. Studies are also needed to better understand whether a symptom-focused or a chronological, developmental approach is more efficacious with this population.

Other issues also remain to be resolved. Some authors have challenged the idea that adding additional interventions improves outcomes. Feeny and colleagues (2003) argue that “there have been no studies conducted to date that have shown exposure therapy with additional components to be more effective than exposure therapy alone in treating PTSD and associated symptoms” (p. 87). Additionally, they suggest that “programs containing too many procedures may even increase dropout rates or reduce efficiency” (p. 87). But the studies they cite are not focused on complex PTSD populations per se and do not specifically examine the impact of adding a skill-focused Phase 1 stabilization component carefully designed to address the deficits of an extremely dysregulated complex PTSD population. Nonetheless, the data cited by these authors remind us that more is not always better and that the components added to any therapy protocol should be carefully considered in light of the specific needs of the population being treated.

There are strong arguments that the patient characteristics associated with childhood abuse survivors and complex PTSD patients (e.g., difficulty tolerating distress and certain emotional states, vulnerability to dissociation, difficulty maintaining a stable therapeutic relationship) require a phase-oriented, multicomponent approach, emphasizing initial skill development and stabilization. It seems clear that a patient with comorbid substance abuse may need a different protocol than a patient presenting with suicidal ideation or parasuicidal behaviors. Hopefully, research can help us address the questions of who needs what treatments, how to sequence or integrate treatment components, and how much of any given treatment is enough.

In light of the limited self-capacities of patients when accessing child ego states, several authors have written about the advantage of beginning with adult traumas (even if childhood traumas appear more charged or relevant to symptoms) and only later moving on to targeting earlier childhood events. Others have argued that beginning with a focus on current triggers feels less threatening or potentially overwhelming to patients who are extremely reluctant to begin with childhood experiences. It would be fascinating to compare “within EMDR” protocols to see if there is an advantage of one approach over the others in treating this highly dysregulated and phobic population.

Clearly, any treatment outcome study examining the efficacy of EMDR for a complex PTSD population must allow for an adequate treatment dose. It is fair to say that treatments of six to eight sessions are clearly

inadequate for addressing the array of symptoms and dimensions of dysregulation that characterize complex PTSD (Edmond et al., 1999; van der Kolk et al., 2007). Twelve or more treatment sessions (Carlson et al., 1998) is probably more realistic when working with a chronically traumatized population. We would venture to suggest that at least 20–25 sessions are needed to achieve more comprehensive improvements, beyond reductions in the pure PTSD symptomatology (Brown & Shapiro, 2006). In short, if one’s goal is improvement in the entire complex PTSD clinical picture (quality and meaning of life, dissociation, interpersonal relationships, and other indicators of dysregulation), and not just in pure PTSD symptoms, then a phase-oriented approach, with adequate time for trauma processing, must be employed. Additionally, extended follow-up intervals (12 months or longer) are needed to evaluate the sustainability of gains and the trajectories of recovery for these complex patients.

As a final note, EMDR researchers have made a point of noting that EMDR treatment produces gains comparable to other exposure-based or cognitive behavioral treatments, but with considerably less homework required (Lee et al., 2002; Schubert & Lee, 2009). While this appears to be true with pure PTSD, it remains possible that additional, structured homework assignments (beyond the request to keep a journal) may turn out to be extremely valuable when working with a complex PTSD population, in which generalization of learning is less fluid. Further investigation of this issue could be highly profitable.

In closing, we can only reiterate the strong recommendation of van der Kolk and Courtois (2005, p. 387):

future research efforts must address the many patients who are currently excluded from research studies because of the complex posttraumatic adaptations associated with their PTSD. Future treatment outcome studies should maintain precise records of participant exclusion and attrition in all phases—from initial screening and intake through treatment sessions and all follow-up assessments—to yield greater understanding of exactly the symptoms that are and are not addressed by these studies.

Spinazzola (Spinnazzola, Blaustein, & van der Kolk, 2005) offers recommendations on how to design future PTSD research in order to “ensure the applicability of treatments to the greatest number of survivors of trauma” (p. 434). These recommendations are a must-read for any researcher interested in evaluating treatments for complex PTSD.

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