

EMDR in the Treatment of Borderline Personality Disorder

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Abstract: Individuals diagnosed with borderline personality disorder (BPD) usually experience significant impairment in their ability to function. Impulsivity, affect instability, interpersonal difficulties, and identity problems are hallmark features of this disorder, frequently leading to suicidal and parasuicidal behaviors. Although BPD has traditionally been considered chronic and enduring, recent research has indicated that it can remit over time and that psychotherapy can accelerate this process. The etiology of BPD has been associated with childhood abuse and inadequate attachment. Given the significance of childhood abuse and trauma, eye movement desensitization and reprocessing (EMDR), a recognized trauma therapy, may be a reasonable treatment option for BPD. The positive effects noted in the following case illustrate EMDR's utility in the treatment of BPD and indicate that further controlled studies are warranted.

Keywords: EMDR; Borderline Personality Disorder; attachment; trauma; IASC

1 THEORETICAL AND RESEARCH BASIS

Borderline personality disorder (BPD) is a diagnosis that is associated with significant impairment, a high rate of comorbidity with other disorders, and substantial use of health care resources (Bender et al., 2001). Some consider it "one of the most intrusive illnesses known to the rehabilitation profession" (Hennessey & McReynolds, 2001; p. 97). Individuals with BPD exhibit impulsivity, affect instability, interpersonal impairment, and identity problems (American Psychiatric Association, 2001). Suicidal and parasuicidal behaviors are common, and the completed suicide rate is between 3% and 9.5% (McGlashan, 1986). Although BPD has generally been considered an enduring and chronic condition, there is some evidence to suggest that remission is possible and that psychotherapy can facilitate remission. Psychotherapy has also been associated with

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substantial reductions in health services costs for this population (Hall, Caleo, Stevenson, & Mearns, 2001).

After reviewing the literature, including some studies that followed patients for 15 years or more (McGlashan, 1985, 1986; Paris, Brown, & Nowlis, 1987; Paris & Zweig-Frank, 2001; Plakun, Burkhardt, & Muller, 1985; Stone, 1990; Zweig-Frank & Paris, 2002), Paris (2002b) concluded that BPD occasionally remits over time but that psychotherapy can further accelerate the process of remission. Although he cited a meta-analysis (Perry, Banon, & Ianni, 1999) indicating that 3.7% of BPD patients remit each year and that psychotherapy can increase that by seven times, Paris tempers this by pointing out this study's flaws and suggesting that even with psychotherapy, "remission rarely occurs within the first 5 years" (p. 319). Paris further cites several researchers (McGlashan, 1993; Paris, 2002a; Silver, 1983) who recommend intermittent treatment, as opposed to long-term continuous treatment, offered during times of crisis or relapse.

A more recent prospective study (Gunderson et al., 2003) examined potential factors associated with rapid remission observed in 10% of subjects with BPD in a larger personality disorder study (Gunderson et al., 2000) and found that alleviation of Axis I symptoms and situational stress may be related to the rapid improvements. Thus, it is reasonable to expect that targeting these factors through psychotherapy would result in positive effects. Results of this study have caused some to suggest that the existing concept of BPD as an enduring and persistent condition might benefit from reexamination (Allen, 2003; Fritsch & Ingraham, 2003). However, it is important to recognize that most people (i.e., 90%) with BPD do not remit. This, along with the finding that psychotherapy can accelerate remission when it does occur, suggests that finding an effective form of treatment is crucial.

The American Psychiatric Association (APA; 2001) recommended a combination of psychotherapy and pharmacotherapy and approved cognitive behavior therapy (CBT) (especially dialectical behavior therapy, DBT) and psychodynamic-psychoanalytic therapy as appropriate treatment options for this population. However, since its publication, the APA committee responsible for these practice guidelines has been criticized for lack of evidence supporting their conclusions (McGlashan, 2002; Sanderson, Swenson, & Bohus, 2002; Tyrer, 2002). These authors argued that publication of these guidelines was premature in that the research base at that time was insufficient. Sanderson and colleagues (2002) stated that the evidence for psychodynamic/psychoanalytic psychotherapy was based on one controlled study (Bateman & Fonagy, 1999) and that the evidence for CBT/DBT was based on four randomized studies (Evans et al., 1999; Linehan, Heard, & Armstrong, 1993; Linehan et al., 1999; Linehan, Tutek, Heard, & Armstrong, 1994). More controlled research might clarify this issue.

Current theories indicate that the etiology of BPD may be related to genetic or neurobiological factors, family environment (including attachment, parental pathology, and childhood abuse), and social factors (Nehls, 1998). Incidence of childhood abuse within this population is high (Nehls, 1998; Ogata et al., 1990; van der Kolk et al., 1996). Zanarini and colleagues (1989) noted that 72% of individuals with BPD reported

verbal abuse, 46% reported physical abuse, and 26% reported sexual abuse. Allen (2003) posited that those who have experienced trauma might be less likely to experience remission than those who have not and recommended further investigation of this hypothesis. Early-onset (i.e., mean age of 4) childhood sexual abuse has been particularly associated with diagnoses of BPD and post-traumatic stress disorder (PTSD), leading some to suggest that a diagnosis of complex PTSD might be more appropriate in these cases (McLean & Gallop, 2003).

Because trauma is a salient feature of BPD, one would expect a treatment designed to address traumatic experiences to have a beneficial effect. Linehan (1993) recommends a modified version of exposure therapy as an appropriate method of addressing trauma-related issues that arise in DBT. However, eye movement desensitization and reprocessing (EMDR) has also been recognized as an effective treatment for PTSD (Bleich, Kotler, Kutz, & Shaley, 2002; Chemtob, Tolin, van der Kolk, & Pitman, 2000; Clinical Resource Efficiency Support Team, 2003). Most recently, the Department of Veterans Affairs and Department of Defense PTSD practice guidelines (Department of Veterans Affairs & Department of Defense, 2004) and the American Psychiatric Association (2004) have afforded EMDR the highest level of recommendation, along with forms of CBT. Several controlled studies have compared CBT (exposure therapy with and without forms of cognitive therapy) to EMDR and have found the two treatments to be fairly equivalent in effectiveness, though EMDR was reported to be significantly more efficient (Ironson, Freund, Strauss, & Williams, 2002; Jaberghaderi, Greenwald, Rubin, Dolatabadim, & Zand, in press; Lee, Gavriel, Drummond, Richards, & Greenwald, 2002; Marcus, Marquis, & Sakai, 1997; Maxfield & Hyer, 2002; Power et al., 2002). When EMDR was compared with a combination of imaginal and therapist-assisted in vivo exposure, exposure was superior on 2 of 10 subscales and necessitated an additional 50 hours of homework (Taylor et al., 2003). The adaptive information processing (AIP) model, which is the theoretical framework behind EMDR, clarifies the impact of traumatic experiences on functioning and provides a rationale for utilizing EMDR in the treatment of BPD (Shapiro, 2001).

The AIP model describes a naturally occurring learning process that links new experiences with similar information, as well as information corrective to emotional disturbance, within the memory network, leading to adaptive resolution. In other words, once the appropriate associations are made "what is useful is stored with the appropriate affect and is available for future use" (Shapiro, 2001; p. 30). However, the intense affect that accompanies trauma can block this information processing from occurring, thus preventing connections with adaptive information. Consequently, the thoughts, emotions, sensations, and images associated with the traumatic event become isolated, only to be triggered by future similar events. Once triggered, this information and the associated distress can alter the individual's perceptions, thus contributing to dysfunctional responses that can impair daily functioning (Shapiro, 1998, 2001). Over time, this can lead to an enduring pattern of responding and interacting with one's environment. Thus, it would follow that targeting, through treatment, the traumatic events that have

contributed to the development of disorder or pathology may improve functioning (Shapiro, 2001, 2002; Shapiro & Maxfield, 2003).

The AIP model “predicts that most kinds of disturbing life experiences can be successfully treated, regardless of their origin” (Shapiro, 2001, p. 42). In terms of defining trauma, most would readily recognize experiences such as assaults, natural disasters, and traffic accidents as traumatic. The AIP model refers to these, which are events typically associated with PTSD, as “large-T” trauma. The childhood physical and sexual abuse often experienced by individuals with a diagnosis of BPD would clearly qualify as large-T trauma. However, the AIP model suggests that “small-t” trauma (i.e., those that do not rise to the level of PTSD/Criterion A events), though comparatively minor, may also negatively affect the information processing system. The invalidating environmental responses associated with development of BPD (Linehan, 1993), which go beyond physical abuse to also include pervasive experiences of humiliation, rejection, and neglect, would be considered small-t traumas. Furthermore, it has been posited that a parent’s inability to regulate an infant’s negative affect through appropriate mirroring may lead to an emotional escalation that could be considered traumatic (Main & Hesse, 1990). The subsequent lack of attachment in early childhood can limit one’s ability to develop self-soothing and self-regulation skills (Schore, 2001), skills that are often lacking in individuals with a diagnosis of BPD.

EMDR has been reported in controlled studies to successfully address PTSD and other trauma, with internal analyses indicating comparable effects (Scheck, Schaeffer, & Gillette, 1998; Wilson, Becker, & Tinker, 1995, 1997). Therefore, given the prevalence of trauma within the BPD population, EMDR would appear to be an appropriate method of addressing the experiential contributors of this disorder (e.g., early trauma). The following case illustrates EMDR’s applicability to BPD, and the positive treatment effects suggest that further research is warranted.

2 CASE PRESENTATION

Linda, a 43-year-old mother of two, presented for treatment with comorbid diagnoses of BPD and major depressive disorder (with severe anxiety). She was experiencing moderate to severe impairment in her marital and other relationships. Her own emotional functioning was unstable, leading to chronic depression, as well as frequent anxiety and rage attacks. Often, these rages were directed toward her husband in the form of verbal assaults. Linda’s primary treatment goals included resolving her panic/anxiety, depression, raging outbursts, insecurity, self-esteem, and relationship conflicts.

Linda had previously participated in treatment with the first author (S.B.) to address increasingly severe depression and suicidal ideation, as well as a deteriorating marital relationship. This treatment, which consisted primarily of cognitive behavioral and psychodynamic/insight-oriented psychotherapy, as well as antidepressant medication, utilized individual and conjoint sessions and lasted for a period of 1 1/2 years. An

improvement in her depressive symptoms was noted, and Linda gained a greater cognitive understanding of the probable impact of her traumatic history on the development of her affective and personality disorder. An important realization for Linda, at least on a cognitive level, was that she was not responsible for the adult-initiated, disturbing events that had occurred in her childhood.

PRESENTING COMPLAINTS

During her initial treatment, Linda attempted to resolve one of the most traumatic events of her adult life, which was a devastating affair between her husband and her sister. This event occurred during her first pregnancy. Although her husband had accepted full responsibility for his actions and demonstrated future commitment to their marriage, Linda struggled with the “marital recovery” aspect of her treatment. Her abandonment fears persisted despite a belief, intellectually, that her husband was committed to her and to the marriage, with his behavioral evidence to support it. Unfortunately, even experiencing this daily did not truly shift the levels of anxiety about abandonment to any large degree, nor did it affect the negative beliefs she held about herself, such as, “I’m not lovable,” “I’m not good enough and can’t measure up,” “It’s my fault,” “I’m bad,” and “I’m not important.” She also continued to exhibit moderate to severe affective instability, a chronic sense of emptiness, and difficulty maintaining a cohesive sense of self in relationship to others.

When Linda initiated treatment again 2 years later, she was experiencing significant personal crises, despite her earlier improvement. She felt that although she had learned a great deal in treatment, she was still unable to control her raging outbursts, her mood instability, her fears of abandonment, and her identity/self-worth confusion. Her husband concurred with this self-report from his wife.

Although the marriage had lasted for many years, it was continuously fraught with chaos, pathological insecurity, verbal assaults (primarily by Linda toward her husband), temper tantrums, substance use, emotional meltdowns, severe depression, and anxiety. Given the first author’s subsequent training, EMDR was introduced as a treatment option.

3 HISTORY

Three months after her birth, Linda was given to her biological mother’s friends, as she was unwilling to care for her, wishing to focus on her dancing. Her biological father had been absent since her birth. At the age of 2 1/2, her biological mother decided she wanted her back and a court battle ensued. Linda was later informed of a particularly dramatic courtroom scene in which she was literally torn from her foster parents’ arms and removed by the mother she had never really known. Although it was not an event about which she had her own autobiographical memory, she reported that hearing

about it triggered extreme physical anxiety for her. It is posited that traumatic attachment experiences from infancy are major contributors to the development of BPD (Benjamin, 1993; Dutton, Saunders, Starzomski, & Bartholomew, 1994; Fonagy et al., 1996; Gunderson, 1996; Patrick, Hobson, Castle, Howard, & Maughan, 1994).

Linda's mother remarried while she was still very young, leading her to believe that her adoptive father was her biological father. She had never been told otherwise. Linda did not learn the true identity of her biological father until she was pregnant with her first child at the age of 26, coinciding with her husband's affair with her sister. Although Linda found the revelation about her biological father traumatic, she also reported feeling oddly relieved because this validated her sense of being "different" from the rest of the family. Unfortunately, she also learned of two half sisters and a brother, all of whom openly rejected her existence, an excruciating blow to Linda.

Both of Linda's parents had ongoing substance abuse problems, for which they never received treatment. Linda recalled her mother as either "angry, abusive, or depressed" and indicated that she was often angry with her for "anything and everything. She said 'I couldn't do anything right.'" Although she described her adoptive father as intelligent, she also experienced him as having high expectations that she never believed she could meet, leaving her to feel like a "big disappointment." Linda recalled that he never defended nor protected her from her mother's abuses. The children witnessed many violent fights between their parents, followed by dramatic romantic interludes. Linda was unable to recall a day without yelling, bickering, or screaming, and felt as though her stomach was "always in a knot."

Linda's relationships with her younger sister and brother were also profoundly problematic, as they became incestuous. When her sister later revealed that she was gay, Linda blamed herself for this. Linda had been molested by a female cousin at the age of 8, but when she attempted to report this event, her mother did not believe her, leaving her to feel even more invalidated and unsafe.

At the time of treatment, Linda had been married to her husband for more than 25 years. After being ejected from her home at the age of 18, they eloped and managed to remain married. As mentioned previously, despite its longevity, the marriage had been fraught with chaos and infidelity. Linda and her husband had two children, a son and a daughter, both of whom were adolescents at the time of treatment.

4 ASSESSMENT

The Inventory of Altered Self Capacities (IASC; Briere, 2004) was used to provide a measure of Linda's pre- and posttreatment functioning. The scales and subscales of the IASC provide measures of Relatedness (Interpersonal Conflicts, Idealization-Disillusionment, and Abandonment Concerns), Identity (Identity Impairment, Self-Awareness, Identity Diffusion, and Susceptibility to Influence), and Affect Control (Affect Dysregulation, Affect Instability, Affect Skills Deficits, and Tension Reduction Activi-

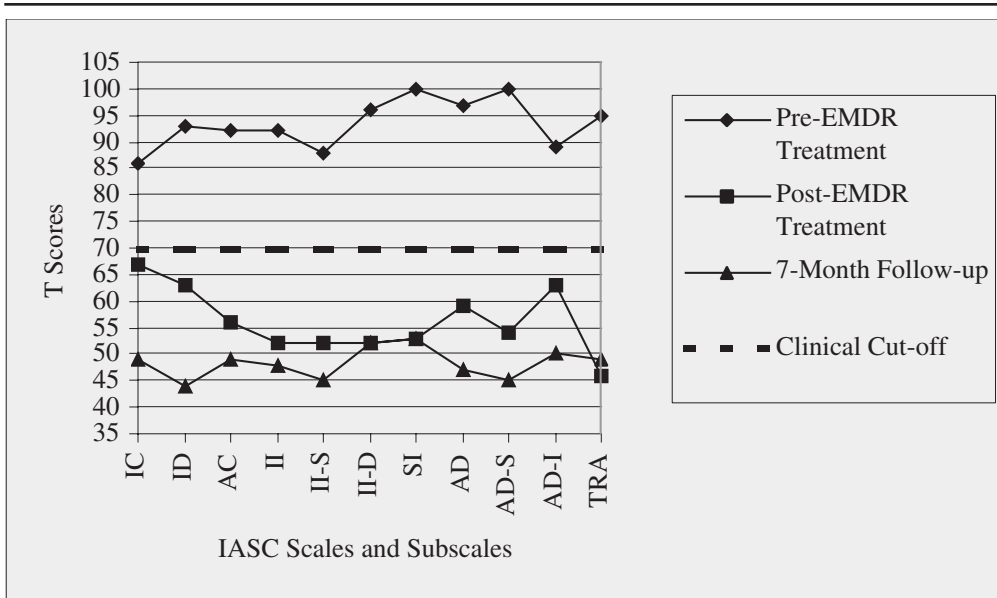


Figure 1. Pretreatment, Posttreatment, and 7-Month Follow-up Results as Measured by the Inventory of Altered Self Capacities (IASC; Briere, 2004) Scales and Subscales

NOTE: EMDR = eye movement desensitization and reprocessing. IASC scales and subscales include Interpersonal Conflicts (IC), Idealization-Disillusionment (ID), Abandonment Concerns (AC), Identity Impairment (II), Self-Awareness (II-S), Identity Diffusion (II-D), Susceptibility to Influence (SI), Affect Dysregulation (AD), Affect Skills Deficits (AD-S), Affect Instability (AD-I), and Tension Reduction Activities (TRA).

ties). These scales (see Figure 1) were completed by Linda pre- and posttreatment, with a follow-up administration 7 months following the completion of treatment.

For the 11 scales under the three headings noted above, "linear T scores are calculated to have a mean of 50 and a standard deviation of 10" (Briere, 2004; p. 20). All scores above 70 (two standard deviations above the mean) are considered clinically significant on this scale.

Prior to EMDR, the patient's scales ranged from 86 to > 100. Post EMDR, scores ranged from 68 to 46, all considered non-clinically significant. Figure 1 provides an illustration of the dramatic reduction in pre- to posttreatment scores, particularly the Identity scale and some of the Affect Control subscales (Affect Dysregulation, Tension Reduction Activities). All of Linda's pretreatment scores were elevated well beyond that which is considered clinically significant, whereas her post-treatment scores were subclinical. Follow-up results, which were assessed 7 months after the completion of treatment, revealed further decreases on most scales and subscales.

To supplement the client's observations, Linda's husband also completed the IASC 2 years following her EMDR treatment. Although he had not been asked to fill out an original pretreatment assessment of his wife, his "recalled perceptions" of her pretreatment attributes were collected simultaneously with postassessment, thus providing his perception of her pre- and posttreatment functioning (see Figure 2). His results affirmed her improved functioning.

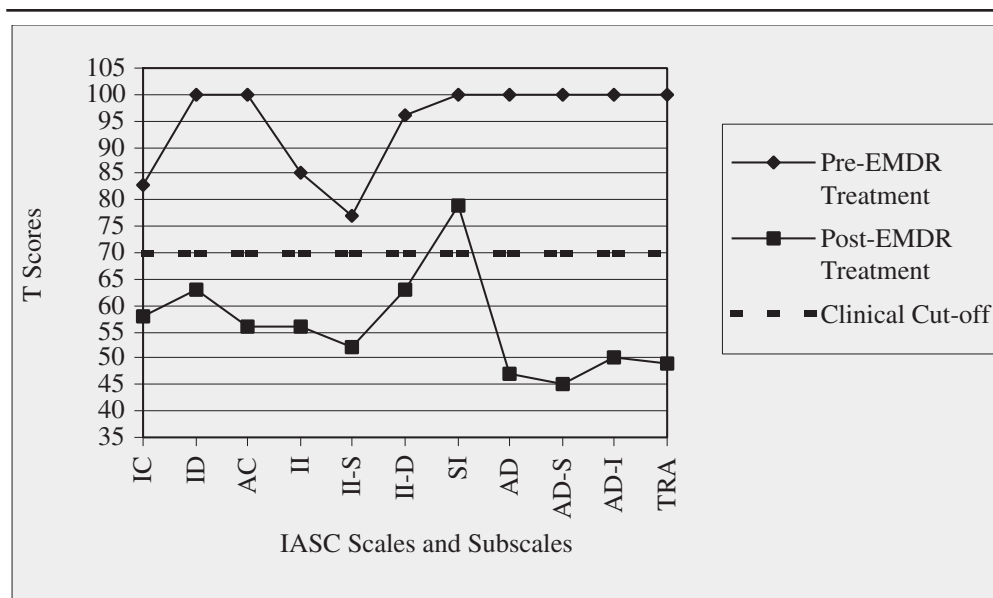


Figure 2. Husband's Report of Linda's Functioning (Pre- and Posttreatment IASC Results)

NOTE: IASC = Inventory of Altered Self Capacities; EMDR = eye movement desensitization and reprocessing. IASC scales and subscales include Interpersonal Conflicts (IC), Idealization-Disillusionment (ID), Abandonment Concerns (AC), Identity Impairment (II), Self-Awareness (II-S), Identity Diffusion (II-D), Susceptibility to Influence (SI), Affect Dysregulation (AD), Affect Skills Deficits (AD-S), Affect Instability (AD-I), and Tension Reduction Activities (TRA).

All but one of the scales, Susceptibility to Influence, decreased from clinically significant pretreatment scores to subclinical posttreatment scores. This particular scale is related to an unquestioning tendency to accept the statements, assertions, and/or demands of others. When questioned about his perception of this issue, Linda's husband reported that Linda was still influenced by "persuasive" individuals (e.g., strong personalities), though the impact on their lives was minimal.

A measure of emotional distress commonly used in EMDR therapy, the Subjective Units of Distress (SUD; Wolpe, 1958) Scale, was also used throughout Linda's treatment. This scale requires the client to identify the level of distress related to an identified target event, where 10 represents the worst possible distress and 0 represents no distress or neutral. As noted in the Course of Treatment section, Linda's SUD levels decreased considerably as treatment progressed.

5 CASE CONCEPTUALIZATION

EMDR is an integrated psychotherapy (Shapiro, 2001, 2002) that utilizes an eight-phase treatment protocol to access disturbing life events, present triggers, and projected future experiences and to process them to adaptive resolution. First, information is gathered (client history) and care is taken to adequately prepare the client for the chal-

lenges of treatment (client preparation). Then, appropriate treatment targets are chosen (assessment) and reprocessed (desensitization, installation, body scan). During the closure phase, clients are prepared for between-session equilibrium. During the reevaluation phase, treatment effects are evaluated and the clinician is guided to subsequent targeting.

EMDR facilitates this process by accessing all aspects of the experience, including the image, beliefs, affect, and bodily sensations, while also simultaneously providing a form of dual attention stimulation, such as bilateral eye movements, tones, or hand taps. Using a process that has been compared to free association, the client is invited to share information elicited during the eye movements, regardless of the content. According to standardized procedures, the therapist guides the client to the target for the next set of eye movements and the pattern continues until all of the aspects of the disturbing memory, and attendant associations, have been addressed. This results in positive changes in affect, beliefs, bodily sensations, and other indicators of the memory. Subsequent to processing, what is useful in the earlier experience appears to be learned, stored with appropriate emotion, and able to adequately guide the client in the future. What is useless, including the dysfunctional affects, attitudes, and sensations, are discarded. Complete treatment involves targeting past, present, and future events through the protocol.

The eye movements and other dual attention stimulation are important aspects of this treatment (Shapiro, 2001). Although it is not known exactly how the eye movements contribute to this process, some have compared their effects to the process associated with REM sleep (Stickgold, 2002). A number of controlled studies have supported this theory as well as others, and reported positive effects on imagery, emotional disturbance, and episodic memory retrieval (Andrade, Kavanagh, & Baddeley, 1997; Barrowcliff, Gray, Freeman, & MacCulloch, 2004; Barrowcliff, Gray, MacCulloch, Freeman, & MacCulloch, 2003; Christman, Garvey, J., Propper, & Phaneuf, 2003; Kavanagh, Freese, Andrade, & May, 2001; Kuiken, Bears, Miall, & Smith, 2001-2002; Sharpley, Montgomery, & Scalzo, 1996; van den Hout, Muris, Salemink, & Kindt, 2001).

Because childhood trauma and its subsequent impact on attachment have been associated with the development of BPD, it was anticipated that as Linda addressed and resolved her own childhood trauma, her symptoms would reduce and her functioning would therefore improve. Although she had attempted to resolve these issues through counseling previously, she had experienced limited success and was still encountering significant problems. Given EMDR's proven effectiveness with respect to trauma, it was decided to try this approach with Linda.

6 COURSE OF TREATMENT AND ASSESSMENT OF PROGRESS

Linda participated in 20 sessions of EMDR therapy over the course of 6 months. Initial treatment goals addressed panic and anxiety, depression, raging outbursts, insecurity, self-esteem, and relationship conflicts. Because Linda had participated in previous

therapy, the treating clinician (S.B.) was already familiar with her history. Thus, the first few sessions focused on assessing her current functioning and preparing her for EMDR treatment. Given the emotional dysregulation issues associated with BPD, the preparation phase of EMDR treatment is particularly important because it provides the client with some affect management skills. Various relaxation strategies, such as the safe-place exercise (Shapiro, 2001), are taught, and the client is encouraged to utilize them between sessions. The therapist may also use these techniques to close incomplete sessions. Once the therapist feels confident that the client is able to cope with the intense emotions that may accompany therapy, treatment targets are identified and reprocessing may begin.

Treatment targets were chosen to address problematic relationships in Linda's life, including her parents' marital relationship (from her present adult perspective), her relationship with each parent (which revealed a significant absence of attachment in the experience of the client), her relationships with siblings, her relationship with her husband (revealing an extraordinarily insecure attachment, recapitulating the one with her adoptive father), and other important early relationships. Linda also identified 10 key disturbing events that were addressed in chronological order:

1. Linda was removed from her foster parents at the age of 2 after a dramatic courtroom scene. Although she had no personal memory of this event, hearing others' accounts triggered extreme physical and emotional anxiety. It is also important to consider the impact of the original "detachment" as an infant by her biological mother, who gave her up and then changed her mind.
2. When Linda informed her mother that she had been molested, at age 8, by her female cousin, her mother did not believe her.
3. She participated in incest with her siblings. Her brother molested her when she was 12 years of age, then she molested her sister. All three participated together until she was 14 years old.
4. Linda was directed to leave home after her birth control pills were discovered by her mother (at the age of 18). This represented another abandonment, in that the client was expected to leave home before she was even remotely ready.
5. Because her parents refused to endorse the wedding, Linda and her husband eloped. This represented yet another rejection, the accumulation of which eventually damaged Linda's ability to trust anyone's unconditional connection to her.
6. She discovered the affair between her sister and husband.
7. Linda first learned about her biological father when she was pregnant with her son. Prior to that, she believed that her adoptive father was her biological father, for whom she never felt "good enough."
8. A babysitter molested Linda's son at the age of 4.
9. A male cousin molested her daughter at the age of 5.
10. Linda discovered love letters addressed to her husband and written by her trusted friend.

As recommended by the EMDR treatment protocol, these events were targeted starting with the earlier childhood memories. However, as the focus of treatment shifted to the more recent events, such as being directed to leave home by her parents and having to elope, it was discovered that they were no longer disturbing to Linda and did not

need to be addressed directly. This phenomenon may be explained by the tendency for EMDR's positive effects to generalize to other related events and memories (Shapiro, 2001). Subsequent processing addressed present disturbances (e.g., talking about finances), and future anticipated anxieties (having the projected conversation).

When reprocessing a disturbing memory or event, the AIP model indicates that it is desirable for the client to identify the image, belief, affect, and bodily sensations associated with the experience for complete reprocessing to occur. As mentioned previously, Linda identified some key events that were associated with certain problematic relationships. For each, Linda described the image and identified a negative cognition, which was phrased in the present tense (e.g., "I am not safe"), to emphasize the incongruity (i.e., although she is not in current danger, she feels she is unsafe *now*). Linda also identified the preferred more adaptive, positive cognition (e.g., "My safety does not depend on others now"), and the accuracy of that belief was measured by the Validity of Cognition Scale (Shapiro, 1989, 2001). On this scale, a score of 7 indicates that the cognition feels completely true to the client, whereas a score of 1 means that the cognition feels completely false. The affect associated with each event was also identified (e.g., fear, shame, sadness), and the level of disturbance was measured using the SUD scale, where 10 is the highest level of disturbance and 0 is no disturbance or neutral. The bodily sensations associated with the disturbance were also identified.

In terms of her parents' marital relationship, Linda recalled her parents' nightly fights, which included screaming and yelling. As she recalled these events, Linda noticed feelings of anger and fear accompanied by rapid breathing and a tightening in her throat and chest. Her negative cognition was, "I am not safe." After reprocessing this experience, Linda's SUD level decreased from a 9 to a 0, and she fully believed that her safety did not currently depend on others. Whereas this event was related to safety issues, many of the other key events in Linda's life were related to her own negative self-concept.

While exploring her relationships with her father (adoptive) and mother, Linda recalled memories of being told that she was disappointing and her mother screaming at her. These elicited feelings of sadness, terror, and anger, along with associated discomfort in her stomach, eyes, and solar plexus. She believed that she was unlovable and "not good enough." Reprocessing these memories resulted in a considerable decrease in her SUD level (from 9/10 to 0/1) and allowed Linda to believe that she was good, intelligent, kind, and worth loving. Linda recalled a particular memory of being pulled out of the pool at the age of 4 and beaten for holding her brother's head under the water while they were playing. As she recalled this memory, Linda felt afraid and confused and believed that she was bad. Her SUD level was eventually reduced to 0 and she was able to acknowledge that she was just a child and that they were just playing. She realized that she was "a good kid" and had not done anything "bad or wrong."

Linda's negative self-concept was also evident as she processed a memory related to her marital relationship, her husband's affair with her sister. In addition to disbelief, Linda identified feelings of shock and anxiety, along with pain in her eyes, chest, and stomach. This event caused her to believe that she was not good enough. As therapy pro-

gressed, Linda was eventually able to believe that she was an adequate, fulfilling, and satisfying lover. However, her SUD level, which was initially at 10, did not reduce below a 2 due to the pain associated with the betrayal. The remaining level of disturbance appeared appropriate considering the intensely painful implications of this event on the entire family.

A key memory linked to Linda's relationship with her sister was also difficult to completely resolve. Linda recalled an incident of sexual activity occurring between them in the bathtub. Because her sister eventually revealed that she was a lesbian, Linda believed that she was responsible for this. She reported feelings of shame and disgust and noted nausea and discomfort in her stomach. Her starting SUD level was a 10. However, her concluding SUD remained at a 1 or 2, despite the fact that she did eventually believe that it was not her fault. Because Linda was a child at the time of the incident and had been molested herself, it would not be reasonable to consider her fully accountable for this behavior. However, a certain amount of remorse would be appropriate, given the nature of the situation. Linda was saddened by her contribution to her sister's childhood trauma, which would explain the residual distress indicated by a SUD level of 2. It is revealing, however, that her positive cognition of "It's not my fault. I'm responsible for how *I* turn out," did reach a score of 7 on the Validity of Cognition Scale.

After reprocessing these and other key events, present triggers, and imagined future actions, Linda's overall functioning, as measured by the IASC, improved considerably. Notably, both Linda and her husband reported an improved ability to interact within her personal relationships, especially with family members, without the previously chaotic and overreactive pattern. She also began to perceive the nature of her relationships with others more realistically. Linda's improved ability to more accurately assess her own and others' strengths and weaknesses led to a less black-and-white view of the world (e.g., all good/all bad). These factors reduced her sense of disillusionment, thereby decreasing the interpersonal conflict. As her abandonment issues resolved, Linda began to feel more secure in her current relationships with her parents and her husband. It is interesting that Linda eventually found that her parents "needed her more than she needed them." She had come to understand their problems through her eyes as an adult and had been able to perceive her own strength in the face of those disappointing relationships.

In terms of Linda's self-awareness, she demonstrated marked improvements in her ability to be aware of her strengths, weaknesses, goals, and needs in a more personally defined fashion. She also felt less inclined to allow others to influence her feelings and perceptions of herself. This allowed Linda to better determine what would meet her needs while also acknowledging other points of view. In that sense, her personal boundaries became clearer and more easily maintained. Overall, as indicated by her IASC scores, Linda showed significant gains in all areas of affect control and personal management, showing even greater improvement as time passed. There were no further reported "rage attacks," toward herself or others, and the couple was able to rationally discuss and eventually resolve issues for the first time in their marriage. In general, Linda showed an ability to manage her own emotions in much healthier ways, including an

elimination of threats to leave and other self-destructive behaviors. In addition, her overall levels of internal tension were significantly reduced with the neutralization of many of the “triggers” that had been “activating” her nervous system.

7 TREATMENT IMPLICATIONS AND RECOMMENDATIONS TO CLINICIANS AND STUDENTS

This case provides some preliminary evidence for use of EMDR in the treatment of BPD. Since resolving trauma, usually childhood abuse, is considered an important component of effective BPD treatment, EMDR's effectiveness is not surprising. Although Linehan (1993) has recommended exposure therapy as an appropriate adjunct to DBT, this case would suggest that EMDR should also be considered. Furthermore, EMDR has emerged as one of the leading treatments for PTSD, which is purely trauma based, and whereas CBT (exposure with and without forms of CBT) is also considered an effective treatment, EMDR has generally proven to be more efficient, often using fewer sessions and eliminating daily homework, with which clients may be unable or unwilling to comply.

For Linda, targeting various traumatic events from childhood allowed her to integrate these memories in a way that provided her with a healthier perspective. Instead of being overly sensitive to signs of abandonment, Linda was able to view others in a more realistic manner. This, together with her enhanced self-regulation skills, allowed her to interact with others in a healthier, less reactive fashion. Linda eventually saw herself as more competent and less dependent. As indicated by the IASC, these improvements were maintained and even further enhanced at follow-up.

Results of this case are quite substantial, indicating that a properly stabilized client can achieve successful remediation of symptoms and enhancement of personal functioning within months, rather than years, of therapy. Although a year and a half of previous therapy had resulted in stabilization and a solid therapeutic relationship, the pre-treatment measures indicated that Linda's awareness of the causes of her negative emotions and emotional regulation techniques were often insufficient to change the inappropriate reactions and behaviors. The posttest measures, which dropped into the subclinical range, indicate a pronounced remediation of BPD symptoms after completion of EMDR treatment. Further research will indicate if effects can be further enhanced through a combination of DBT and EMDR. Research combining these two approaches is also suggested to establish the most efficient treatment regime. Investigating the integration of EMDR resource development and installation (Korn & Leeds, 2002) during the stabilization phase may also be beneficial.

The entire course of EMDR treatment consisted of approximately 20 sessions that focused on reprocessing the memories seemingly at the foundation of the pathology, along with triggers and future templates. To return to the AIP model (Shapiro 2001, 2002),

Personality is viewed as an accumulation of characteristic internal patterns and responses. Each of these characteristics is believed to be an interaction between genetic predisposition and experiences. If the responses are appropriate, they are considered to be engendered by adequately processed childhood experiences that have laid the groundwork for adaptive behaviors. If the responses are dysfunctional, they are considered to be [caused] by inadequately processed experiences that are activated by current conditions (Shapiro, 2002, p. 10).

As indicated in the present case, it is posited that once the earlier events were processed, they no longer produced the dysfunctional affects that precipitated Linda's negative self-assessments, perceptions, and interpersonal reactions. The processing of these events allowed Linda to develop more adaptive beliefs, emotions, and behaviors, as reflected in the standardized measures. Linda's insights and positive self-assessments subsequent to processing were additional indicators of positive treatment gains. Research directly comparing EMDR to exposure therapy is needed to determine if these effects are differentially enhanced by EMDR because of its cognitive component.

It should be noted that the diagnosis of BPD encompasses a wide spectrum of clients, ranging from those who are fairly high functioning through those who are extremely debilitated and unable to become involved in any intimate relationships, many of whom have required multiple hospitalizations. Results of this case study indicate that EMDR is a promising treatment for this population. However, further research is needed to identify what portion of this population can be efficiently treated, which may need a modified version of the standard protocols, and what portion may not be good candidates for EMDR. Hopefully, the potential of offering an effective and efficient treatment for such a chronic and debilitating condition might motivate researchers to explore this further.

It should be underscored that research investigating this population must use a sufficient number of sessions to adequately address the client's complex history. As indicated in this case, multiple traumatizations necessitate more processing than the 3-to-5 hour doses recommended for single-trauma victims. The clinical goal is not only to reduce overt symptoms but to facilitate development of a healthy adult who is able to self-soothe, feel the full range of emotions, and maintain an adaptive sense of self and external awareness. In addition, a systemic evaluation should indicate the ability to interact and bond appropriately. Besides the obvious social implications, these abilities are also necessary to set the groundwork for parenting patterns potentially needed to help end the cascade of suffering from one generation to the next.

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