Effects of Brief Eclectic Psychotherapy in Patients With Posttraumatic Stress Disorder: Randomized Clinical Trial

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Brief Eclectic Psychotherapy (BEP) is a manualized psychotherapy for posttraumatic stress disorder (PTSD) which has proven effective for police officers. This article reports on a randomized clinical trial using BEP to treat other types of PTSD patients recruited from an outpatient clinic. Twenty-four patients were randomly assigned to a treatment or a waitlist group. Assessment of PTSD was made before and after the treatment period (4 months). No significant differences between the groups were observed at pretest. By posttest, BEP had effectively reduced PTSD as well as general anxiety symptoms in the treated group of outpatients as compared to the waitlist group.

In the general population, 50 to 60% experience one or more traumatic events during their lifetime. A subgroup of about 7.8% have empirically been found to develop PTSD (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). For the diagnosis of PTSD, a traumatic event is a necessary condition as well as the core clinical features of reexperiencing, avoidance, and hyperarousal according to the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (DSM-IV; American Psychiatric Association, 1994). PTSD is often compounded by serious long-term comorbid disorders including depressive disorder, additional anxiety disorders, and alcohol or drug abuse or dependence. It may give rise to chronic somatic complaints and to problems at work and in relationships (Brady, Killeen, Brewerton, & Lucerini, 2000; Kessler et al., 1995). Hence, effective treatments are urgently needed.

Psychotherapy appears to be more effective in PTSD than pharmacotherapy, although patients treated with a combination of both have improved more than controls (Adshead, 2000; Davidson, 2000; Van Etten & Taylor, 1998). Drug therapy alone is seldom sufficient to treat PTSD effectively (Shalev, Bonne, & Eth, 1996). Psychotherapies, and behavior therapy in particular, have proved significantly effective, but no unequivocal support has been found for any single therapeutic rationale (Sherman, 1998).

This article investigates the effects of brief eclectic psychotherapy (BEP), which combines cognitive-behavioral and psychodynamic approaches, and a farewell ritual at the end of the treatment in a single treatment method and also devotes attention to the patients' partner and work-related problems. BEP is a manualized psychotherapy for PTSD patients who have experienced a wide range of traumas (Gersons, Carlier, & Olff, 2004). Cognitive-behavioral approaches have undergone the greatest number of controlled outcome studies, and both exposure and cognitive methods have

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effectively reduced PTSD symptoms (Davidson, 2001; Foa, Keane, & Friedman, 2000; Foa & Meadows, 1997; Hembree & Foa, 2000, 2003a). BEP incorporates several intervention techniques also used in the effective cognitive-behavioral treatment protocols of Foa and Resick, such as psychoeducation, imaginal exposure, writing tasks, and cognitive restructurering (Foa & Rothbaum, 1998; Resick & Schnicke, 1992). The writing tasks in the protocol of Foa and Rothbaum (1998) are different from our protocol. In the Foa and Rothbaum protocol, patients write in a daily dairy; in our protocol, they write an ongoing letter to persons and institutions related to the traumatic event. BEP also includes a focal psychodynamic approach (Krupnick, 2002; Lindy, 1993; Luborsky, 1984; Marmar, 1991) as well as the use of a farewell ritual at the end of the treatment (Gersons, 1988). Psychodynamic therapy focuses more specifically on emotions such as shame and guilt, and the relationship between patient and therapist may itself be a key element in the therapeutic process (Adshead, 2000; Lindy, 1996).

Most controlled studies have investigated specific trauma populations such as male Vietnam veterans or female rape victims (Solomon, Gerrity, & Muff, 1992). Our own previous randomized clinical trial found BEP effective for police officers, who showed significant improvements in PTSD symptomatology, work resumption, and some comorbid conditions (Gersons, Carlier, Lamberts, & Van der Kolk, 2000). Police officers are predominantly male, however, and women's risk of PTSD after exposure to trauma is about twice that of men (Kessler et al., 1995). Our previous study also used no objective monitoring tools, such as audiotapes, to evaluate treatment integrity.

The aims of the present study were therefore to (a) examine the BEP treatment approach in a traumatized population other than police officers and in PTSD patients who have experienced a wide range of traumas and (b) objectively monitor treatment integrity.

The study is a randomized clinical trial that assesses the effects of BEP in an outpatient PTSD sample with mixed backgrounds and different types of severe traumas, subjects in which the effectiveness of BEP had not yet been evaluated. We applied objective monitoring techniques to assess treatment integrity. In other parts of the study not reported here, we used neurobiological outcome measures, including psychophysiological and endocrinological assessments and structural (Lindauer et al., in press) and functional brain imaging (Lindauer et al., 2004). This article reports only on the psychological outcome measures.

Method

Participants

All participants were Dutch patients who had been referred to the outpatient clinic of the Academic Medical Centre by their general practitioner or occupational physician for further diagnosis and treatment of PTSD symptoms. Most participants had experienced traumatic events such as interpersonal violence, accidents, or disasters. They gave their written informed consent to take part in the study after the procedure had been fully explained. Patient confidentially was maintained. The study was approved by the Institutional Medical Ethics Committee of the Academic Medical Centre.

To be eligible for inclusion, patients had to satisfy the DSM-IV criteria for PTSD as well as being free of any current or past organic mental disorder, psychotic disorders, psychoactive substance use disorders, moderate and severe major depression, non-PTSD anxiety disorders, and severe dissociative disorders. We were careful to exclude serious comorbidity from the study to avoid influencing our neurobiological findings, which were reported and discussed elsewhere (Lindauer et al., 2004; Lindauer et al., in press). Further exclusion criteria were the use of psychiatric medication and language mastery problems. Thirty-five patients were screened, of whom 24 were selected for inclusion.

Procedure

Clinical assessment was carried out at two time points: within 2 weeks prior to the start of treatment (baseline or pretest stage) and within 2 weeks after the 4-month treatment or waitlist period (posttest). Each patient was assessed by a researcher (R.J.L.L. or E.P.M.M.), who were blind to all patients' condition. The List of Traumatic Events, Structured Interview for Posttraumatic Stress Disorder (SI-PTSD; Davidson, Malik, & Travers, 1997), the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983), and the Structured Clinical Interview for DSM-IV Axis I disorders (SCID; Spitzer, Gibbon, Janet, & Janet, 1996) were used for both assessments (discussed next). After the pretest assessment, the 24 PTSD patients selected for inclusion were assigned to the treatment group or the waitlist group. A colleague who had done no assessments used a computer program to randomly assign 12 patients to each condition in a block design. The waitlisted patients were told they would receive treatment in 4 months' time.

Measures

PTSD diagnoses were established by means of the SI-PTSD, which operationalizes the DSM-IV criteria for PTSD (Davidson et al., 1997; Davidson, Smith, & Kudler, 1989). The SI-PTSD has good reliability and validity; concurrent validity with PTSD diagnosis by the SCID also has been demonstrated (Davidson et al., 1997; Davidson et al., 1989). A Cronbach's α of .93 and a Cohen's κ of .88 have been found for the Dutch version of the SI-PTSD, values that can be considered acceptable (Carlier, Lamberts, Van Uchelen, & Gersons, 1998). We assessed PTSD with the SI-PTSD conform the DSM-IV criteria and scored a symptom present if the severity was more than 2. In addition to assessing PTSD, the SI-PTSD elicits information about the presence or absence of the three symptom clusters (reexperiencing, avoidance, and hyperarousal) and scales their severity in both a current and a lifetime perspective. To assess comorbidity, we provided an indication of the severity of major depression, expressed as the intensity of major depression (mild to severe) conform the DSM-IV criteria, by administration of the SCID (Spitzer et al., 1996). Three of the 24 PTSD patients also had a current secondary (onset after PTSD) first-episode mild major depression. In these 3 PTSD patients, there was an overlap between PTSD and depressive symptoms, but the main diagnosis was PTSD, for which they received psychotherapy and for which antidepressive medication was not necessary. The SCID was translated into Dutch (Van Groenestijn, Akkerhuis, Kupka, Schneider, & Nolen, 1999). The List of Traumatic Events (Carlier, Voerman, & Gersons, 2000) was used to record the number and severity of traumatizations, and the HADS (Zigmond & Snaith, 1983) was administered to detect depressive and anxiety symptoms. The HADS was translated into Dutch (Spinhoven et al., 1997). The List of Traumatic Events is a Dutch semistructured interview inquiring about any traumatic experiences participants have had (Carlier et al., 2000; Mollica, Caspi-Yavin, Bollini, Truong, Tor, & Lavelle, 1992). They were asked whether they had experienced such events at any time in the past. An additional question about the perceived adverse effects of each specific event was rated on a scale of 1 (*no effects*) to 5 (*very strong effects*). The described events satisfy the Stressor A(1) criterion for a diagnosis of PTSD. The Dissociation Experiences Scale (DES) assessed the severity of any dissociative symptoms (Bernstein & Putnam, 1986). The DES also was translated into Dutch (Carlier, Fouwels, Lamberts, & Gersons, 1996). A background questionnaire collected information about work and personal relationships.

Clinical Variables

The treatment and control groups were compared in terms of the following clinical variables: (a) reexperiencing score, avoidance score, and hyperarousal score on the SI-PTSD; and the HADS depressive and anxiety subscores (all continuous variables); (b) and diagnoses of PTSD and major depression (dichotomous variables).

Treatment

BEP consisted of individual psychotherapy given in 16 weekly sessions of 45 to 60 min each. The course of BEP was administered as prescribed by the manual (Gersons et al., 2004), and thus included the five basic elements of the treatment: (a) psychoeducation, (b) imaginal exposure, (c) writing tasks and memorabilia, (d) meaning and integration, and (e) farewell ritual. In the first session, the patients, accompanied by a partner if they had one, were informed about PTSD symptoms and about the treatment protocol. Each of the next four to five sessions began with relaxation, followed by imaginal exposure, whereby patients relived the traumatic experience step by step. To activate the traumatic memory, patients were asked to concentrate on sensory details of the experience. The imaginal exposure lasted 20 to 30 min. During this stage of the therapy, two techniques— memorabilia and writing tasks—were used to uncover the difficult feelings relating to the traumatic event. Some of the memorabilia, such as newspaper articles or photographs, were set aside for use later in the farewell ritual. Patients wrote an ongoing letter about the traumatic event to express emotions of anger towards persons or institutions. The writing was done at home for about a half-hour daily; it evoked strong feelings of anger and helplessness. The letter also could be used in the farewell ritual.

After the first six sessions, emphasis shifted to issues of meaning and attribution. This part of the treatment lasted about six sessions. Because a traumatic event also has many consequences in areas such as work and personal relationships, patients are encouraged during the meaning and integration stage to confront the fact that their life has fundamentally changed. In session 11, they were asked to plan a farewell ritual, and they were encouraged to fully express the sorrow they still felt. In the final four sessions, they performed the ritual and celebrated leaving the traumatic event behind them and regaining control over their lives. The psychotherapy was aimed at reducing symptoms, learning to cope with symptoms in everyday life, and integrating the traumatic memories into the totality of the patient's memory system. More detailed

information about the BEP treatment has been provided in earlier publications (Gersons, 2001; Gersons et al., 2000).

The psychotherapists were clinically experienced psychiatry residents, who received supervision every 2 weeks from two senior psychiatrists (I.V. and B.P.R.G.). One of them had developed the treatment (B.P.R.G.). All sessions were audiotaped, and a special rating system was developed to analyze treatment integrity. The rating system covered all five elements of BEP, and five audiotapes were therefore scored for each patient by a clinical psychologist (K.B.) and a medical doctor (M.J.).

Statistical Analysis

All statistical analyses were performed with SPSS (Chicago) 11.0 for Windows. Rates are reported here as raw numbers, and standard deviations accompany the means. Pretest (baseline) demographic characteristics and clinical variables were compared using a two-tailed independent t test for continuous variables and a chi-square test for categorical variables. Multivariate analysis of covariance (MANCOVA) was used to analyze treatment effects, with baseline measurements as covariates. Intention-to-treat and per-protocol analyses were calculated. In the former, all patients stayed in the groups to which they were randomly assigned; in the latter, only patients who completed the treatment were analyzed. The Cohen's d effect sizes also were presented. Statistical significance was set at .05.

Results

Demographic Characteristics and Clinical Variables

Pretest assessment showed no differences between the treatment and waitlist groups on the demographic and case historical characteristics described in Table 1: age, gender, civil status, education, previous psychotherapy, years since trauma, number of traumas, comorbid mild major depression, change of work due to trauma, sick leave, and relationship problems. In both groups, about half of the participants had undergone previous psychotherapy, were on sick leave, and/or had relationship problems (Table 1). Table 1 shows the demographic characteristics of the overall sample. Most subjects had developed PTSD after experiencing interpersonal violence. Table 2 presents the traumatic events experienced by the PTSD patients. Most treatment sessions were delivered as planned, but 1 patient from the waitlist group received treatment and was transferred to the treatment group because of work-related consequences. Two treatment-

Table 1. Demographic Characteristics of the Overall PTSD Sample

Variable	BEP ($n = 12$)		Waitlist ($n = 12$)	
Age in years, M (SD)	37.6 (10.2)		40.3 (8.9)	
Education in years, M (SD)	12.3 (2.8)		12.5 (3.1)	
Years since trauma, M (SD)	2.7 (2.5)		6.1 (9.4)	
Number of prior traumas, M (SD)	3.3 (3.1)		4.1 (3.8)	
Trauma, n(%)				
interpersonal violence	9	(75)	7	(58.3)
accident/disaster	3	(25)	5	(41.7)
Gender, n(%)				
male	7	(58.3)	4	(33.3)
female	5	(41.7)	8	(66.7)
Civil status, n(%)				
married/cohabiting	7	(58.3)	4	(33.4)
single	3	(25)	4	(33.3)
divorced	2	(16.7)	3	(25)
widow	0	(0)	1	(8.3)
History of previous psychotherapy, n(%)	7	(58.3)	6	(50)
for trauma-related symptoms	5	(41.65)	4	(33.3)
for other symptoms	2	(16.65)	2	(16.7)
Comorbid mild major depression, n(%)	3	(25)	0	(0)
Change of work due to trauma, n(%)	2	(16.7)	2	(16.7)
On sick leave, n(%)	8	(66.7)	6	(50)
Relationship problems, n(%)	6	(50)	6	(50)

Note. PTSD = posttraumatic stress disorder; BEP = brief eclectic psychotherapy; M (SD) = mean (SD).

group patients did not begin treatment for practical reasons (illness in family, work obligations). Three more left prematurely: 1 due to emigration, 1 whose PTSD had improved after imaginal exposure, and 1 for whom imaginal exposure proved too difficult to endure. Hence, in the per-protocol analysis (patients who completed the treatment), the sample sizes were 7 (58%) for the treatment group and 11 (92%) for the waitlist group. The dropout rates of patients who were not assessed after the treatment period were 3 (25%) for the treatment group and none for the waitlist group. Demographic characteristics and clinical variables of patients and dropouts showed no significant differences, except for education in

Table 2. Types of Trauma Exposure That Had Triggered PTSD ($N = 24$)

Traumatic Event[a]	No.	(%)
Natural disaster	1	(4.2)
Motor vehicle accident	1	(4.2)
"Other" kind of accident	5	(20.8)
Combat or warfare	1	(4.2)
Life-threatening/disabling event to loved one	1	(4.2)
Robbery/weapon used	6	(25)
Assaulted by strangers	3	(12.5)
Threatened with death/serious harm	3	(12.5)
Rape	3	(12.5)

[a]Events were considered traumatic if exposure was accompanied by intense fear, helplessness, or horror.

years, $t(20) = 4.32$, $p < .001$, and reexperiencing score, $t(22) = 2.33$, $p < .05$. Both variables were higher in the patients than in the dropouts.

Treatment Effects

Intention-to-Treat Analysis

Table 3 shows the treatment effects on the clinical variables in the intention-to-treat analysis (including all patients who began the study). Two patients in the treatment group experienced a new physical threat during or shortly after the treatment and a reemergence of DSM-IV PTSD symptoms before the posttest assessment, but that produced no significant difference with the waitlist group. In the intention-to-treat analysis, the treatment group had improved significantly on PTSD diagnosis, reexperiencing score, hyperarousal score, and HADS anxiety subscore. No significant improvement was seen in avoidance score or HADS depressive subscore. Treated patients

scored lower on sick leave and relationship problems than waitlisted patients, but the changes were not significant. Table 4 shows the effects sizes on outcome measures.

Per-Protocol Analysis

In the per-protocol analysis (not shown in table), the treatment group had clinically meaningfully improved on all psychological variables: PTSD diagnosis, $\chi^2(1, N = 18) = 11.46$, $p < .01$; reexperiencing score, $F(1, 18) = 15.35$, $p < .01$; avoidance score, $F(1, 18) = 18.25$, $p < .01$; hyperarousal score, $F(1, 18) = 22.41$, $p < .01$; HADS depressive subscore, $F(1, 18) = 12.29$, $p < .01$; and HADS anxiety subscore, $F(1, 18) = 13.62$, $p < .01$ (see Table 4 for the effect sizes).

Treatment Integrity

Treatment integrity was approximately 75% with a $\kappa > .81$, showing good adherence to the protocol. In the

Table 3. Treatment Effects on the Clinical Variables in the Intention-to-Treat Analysis

Variable	Pretest Stage	Posttest Stage	Test for Treatment Effects F
Reexperiencing score, *M (SD)*			4.97*
BEP	3.4 (0.9)	1.2 (1.5)	
waitlist	3.9 (0.8)	3.1 (1.8)	
Avoidance score, *M (SD)*			3.60
BEP	3.9 (1.1)	1.6 (2.2)	
waitlist	3.5 (0.7)	3.2 (1.7)	
Hyperarousal score, *M (SD)*			5.82*
BEP	3.8 (0.9)	1.3 (1.8)	
waitlist	3.8 (1.0)	2.7 (1.5)	
HADS depressive subscore, *M (SD)*			2.85
BEP	11.8 (4.3)	8.0 (6.7)	
waitlist	9.0 (3.5)	9.1 (5.7)	
HADS anxiety subscore, *M (SD)*			5.07*
BEP	13.1 (3.2)	8.1 (4.8)	
waitlist	11.3 (3.3)	12.0 (4.7)	
Trauma between pretest and posttest, *n (%)*			0.81
BEP		2 (16.7)	
waitlist		1 (8.3)	
PTSD diagnosis, *n (%)*			5.74*
BEP	12 (100)	2 (16.7)	
waitlist	12 (100)	9 (75)	
Mild major depression, *n (%)*			3.47
BEP	3 (25)	1 (8.3)	
waitlist	0 (0)	1 (8.3)	
On sick leave, *n (%)*			0.06
BEP	8 (66.7)	4 (33.3)	
waitlist	6 (50)	6 (50)	
Relationship problems, *n (%)*			0.88
BEP	6 (50)	2 (16.7)	
waitlist	6 (50)	5 (41.7)	

Note. PTSD = posttraumatic stress disorder; BEP = brief eclectic psychotherapy; *M (SD)* = mean (*SD*); HADS = Hospital Anxiety and Depression Scale.
*$p < .05$.

Table 4. Effect Sizes on Outcome Measures

	Pretreatment to Posttreatment	
Measure	Intention-to-Treat	Per-Protocol
Reexperiencing score	.45	.76
Avoidance score	.52	.72
Hyperarousal score	.39	.74
HADS depressive subscore	.38	.78
HADS anxiety subscore	.54	.80
PTSD diagnosis	.47	.58
Mild major depression	.25	.38
On sick leave	.33	.57
Relationship problems	.25	.47

Note. The Cohen's *d* effect size categories were: .2 (small), .5 (medium), and .8 (large). HADS = Hospital Anxiety and Depression Scale; PTSD = posttraumatic stress disorder.

treatment group, 55% of the patients were accompanied by their partner to the first session and 65% of the patients did their writing tasks conform the protocol.

Discussion

This randomized controlled study had two basic aims. The first was to assess the effects of BEP in a traumatized population other than police officers and in PTSD subjects who experienced a wide range of traumas instead of specific traumas such as warfare or sexual abuse. We measured treatment effects with both an intention-to-treat and a per-protocol analysis. In the former, the treatment group improved on two PTSD symptom clusters (reexperiencing and hyperarousal) and on general anxiety symptoms; the avoidance symptom cluster and the work-related and relationship problems also improved, but not significantly. In the per-protocol analysis, the avoidance symptom cluster and the depressive symptoms were significantly improved as well. The effect sizes of the intention-to-treat analysis were small to medium, and the effect sizes of the per-protocol analysis were medium to large. The dropout rate was 25% for the treatment group, which is comparable to other randomized clinical trials (see Hembree & Foa, 2003b). BEP thus appears to be effective not only in police officers with PTSD (Gersons et al., 2000) but also in outpatients with mixed backgrounds and different types of severe traumas. The second aim was to assess treatment integrity with objective monitoring tools (audiotapes of all sessions). This analysis showed consistent adherence to the protocol.

There are some limitations of the present study. The sample size was relatively small with severe exclusion criteria, thus limiting the generalizability of the findings. We used a small sample with severe exclusion criteria

because the main purpose of our wider research was to assess neurobiological outcomes. Since we made no follow-up assessments, we could not investigate longer term effects such as relapses or further improvement. A preceding study of BEP, involving police officers, noted more improvement in PTSD symptoms in the treatment group at follow-up than at posttest (Gersons et al., 2000). In a study by Foa and colleagues (1991) that used prolonged exposure, improvement also had progressed 3 months after treatment termination. Had we performed follow-up assessments, we might likewise have found additional improvement several months after the termination of BEP.

How can the efficacy of psychotherapy for PTSD be clarified? Brewin (2001) argued that psychotherapy for PTSD generally involves two elements, which may be used separately or in combination: (a) detailed, repeated exposure to traumatic information; and (b) modification of maladaptive beliefs about events, behaviors, or symptoms. The first element also is an important part of our treatment, and a brief review of work by Bouton is necessary to understand the possible underlying biological mechanisms responsible for its efficacy. Bouton (2002) argued that extinction—the loss of learned performance that occurs when a Pavlovian signal is repeatedly presented without its reinforcer—does not imply a destruction of the information originally learned ("unlearning") but instead reflects new learning. Successful treatment can then effectively generalize this new learning to new contexts. A therapeutic goal might be to connect the treatment to as many shared cues as possible to generalize the inhibition of fear to other contexts that resemble the safe situation of the therapy (Bouton, 2002; Bower & Sivers, 1998). In BEP, imaginal exposure helps patients to relive the horror of their experience by recounting the traumatic event in its starkest details and then working through it painstakingly. Patients describe exactly what they are seeing, hearing, feeling, smelling, and tasting, with a strong focus on the most painful moment of all. They do this in the safe context of the consulting room, and they learn from this new experience (Gersons, 2001). Future brain-imaging studies are necessary to assess the effects of psychotherapy, which may further explain the underlying biological mechanisms that influence the effectiveness of exposure in PTSD. One of the aims of our treatment is integrating the memories of the trauma into the totality of a person's memory system, which have been set out in detail by Brewin (2001) in his dual representation theory. Brewin integrated psychological and biological knowledge of PTSD in a plausible model to understand the underlying mechanisms in PTSD. He distinguished two memory systems. The first is situationally accessible memory (SAM), which involves

implicit, image-based, cue-dependent, and nonhippocampally dependent memories at the amygdala level, as when sensory memories of the traumatic event are reexperienced after being triggered by external cues. The second system is verbally accessible memory (VAM), involving explicit, conscious, hippocampally dependent memories, such as ordinary autobiographical memories. Brewin argued that flashbacks can be suppressed as soon as critical retrieval cues, lodged in the SAM since the trauma, can be transferred to the VAM, thus enabling it to inhibit the activation of the amygdala. In contexts associated with safety, projections from the hippocampus and the prefrontal cortex are capable of forestalling abnormal amygdala activation. Successful treatment for PTSD integrates more SAM contents into the VAM system, making the latter more effective at inhibiting amygdala activation. This is why our BEP study also focused on neurobiological outcome measures, and in particular on structural (Lindauer et al., 2004) and functional imaging (Lindauer et al., in press) of the hippocampus and prefrontal cortex.

In summary, successful treatment gives patients the opportunity to remember their traumatic event in a safe context, turning this into a new learning experience. By also focusing attention on the different emotions that play a part in PTSD, treatment helps them to integrate the traumatic memories into the totality of their memory system.

Future studies should compare BEP with other psychotherapies, drug treatments, or both. Follow-up will be essential. Using both psychological and biological outcome measures to assess the various emotions as they arise during and after the treatment can uncover more detailed information about the complexity of trauma as well as about treatment response during each of the five stages of BEP. This could enhance our understanding not only of the trauma and treatment responses in PTSD but also of relapses.

Acknowledgments

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