Brief Eclectic Psychotherapy for PTSD: A Randomized Controlled Trial

To the Editor: Trauma-focused cognitive-behavioral therapy (CBT) and eye movement desensitization and reprocessing are empirically supported treatments for posttraumatic stress disorder (PTSD).[1] However, dropout rates from CBT studies are usually around 20%; up to 58% of patients who completed CBT are still diagnosed with PTSD at posttreatment assessment. Furthermore, only 32%–66% of patients achieve good end-state functioning. Therefore, there is a need for further development in the field.[2] Brief eclectic psychotherapy (BEP), a fully manualized, 16-session multimodal treatment approach, differs from trauma-focused CBT in that (1) the aim of exposure is catharsis rather than habituation/extinction; (2) the use of mementos and a farewell ritual, usually applied in grief work, is added; and (3) psychodynamic elements such as reflecting on the connection between early life experiences and the processing of adult trauma, or the implicit use of transference phenomena, are introduced in the domain of meaning and integration. BEP has proved to be effective in reducing PTSD symptoms in police officers[3] and survivors of interpersonal violence, accidents, and disasters.[4] In a single photon emission computed tomography study, BEP was shown to modulate the functioning of specific PTSD-related sites in the prefrontal cortex,[5] while magnetic resonance imaging scans did not detect any treatment-related changes in hippocampal volumes.[6] BEP responders showed reduced heart rate responsivity to trauma scripts[7] and an increase in cortisol and dehydroepiandrosterone levels.[8] These promising results deserve augmentation by an independent research group. Therefore, we conducted a randomized, controlled trial of BEP vs a "minimal attention" control group in a sample of patients suffering from chronic PTSD who had experienced a variety of traumatic events.

Method. This study was approved by the Ethics Committee of the Canton of Zurich. All participants gave written informed consent prior to enrollment. Inclusion criteria were a clear memory of an "index" traumatic event that had occurred no less than 6 months prior to entering the trial; current PTSD or subsyndromal PTSD; symptom severity of ≥ 50 on the Clinician-Administered PTSD Scale (CAPS)[9]; agreement to not receive other psychotherapy for PTSD during the trial; if taking psychoactive medication, a stable regimen for at least 2 months prior to entering the trial; age between 18 and 70 years; and sufficient proficiency in German to participate in BEP. Exclusion criteria were psychotic, bipolar, substance-related, or severe personality disorders; current severe depressive disorder; severe cognitive impairment or a history of organic mental disorder; ongoing threat of traumatic exposure; prominent current suicidal or homicidal ideation; and asylum-seeking status.

From April 2004 to April 2007, forty-five patients underwent the clinical screening interview; of these, 2 were not referred to baseline assessment. Thus, 43 patients were assessed at baseline. Of these, 6 did not fulfill diagnostic criteria or had a CAPS total score of < 50 and 7 were excluded for various other reasons such as insufficient proficiency in German, high-risk pregnancy, ongoing trauma-focused psychotherapy, or refusal to undergo randomization. In the end, 30 patients who fulfilled all inclusion criteria and were free from exclusion criteria were randomly assigned to either 16 sessions of BEP (N = 16) or a minimal attention control condition (N = 14). Patients allocated to the control condition were informed that they could begin BEP after a waiting period of 4 months, received a monthly phone call from the study coordinator, and kept a diary for 3 weeks to self-monitor their symptoms. In addition, patients in the control condition were informed that they could call the study coordinator whenever they felt they urgently needed therapeutic assistance. Thus, 4 patients (28.6%) received 1 additional appointment each during the waiting time to ensure sufficient stability.

Assessments were conducted by independent evaluators who were blind to the patients' group status. We used the Childhood Trauma Questionnaire (CTQ),[10] the Posttraumatic Diagnostic Scale (PDS),[11] the Structured Clinical Interview for *DSM-IV* (SCID I and SCID II),[12,13] the CAPS,[9] the Hospital Anxiety and Depression Scale (HADS),[14] and the Posttraumatic Growth Inventory (PGI).[15] Interrater reliability for diagnostic interviews was satisfactory (CAPS: κ = .89; SCID: overall reliability = 95.5%). Measurements took place at baseline (T0), posttreatment/post–minimal attention period (T1), and 6 months posttreatment (T2, BEP group only). After each T1 assessment, assessors were asked to guess the respective patient's treatment status. Results confirmed that the blinding was successful ($\chi^2_1 = 0.33$, NS). Participants received a compensation of CHF 100 for each completed assessment.

The standard duration of each BEP session was 50 minutes. A session-by-session manual is available, comprising the following 5 components: (1) psychoeducation, (2) imaginal exposure of 20–30 minutes in sessions 2–6, (3) mementos and writing assignments, (4) the domain of meaning and integration, and (5) a farewell ritual. Study therapists were trained by Berthold Gersons, who originally developed the BEP protocol.[3] Weekly supervision was provided by the first author. All therapy sessions were videotaped. Treatment adherence monitors' interrater reliability was satisfactory, with a mean κ of .85 (SD = .26). Videotapes of all treatment sessions were rated subsequently, yielding a mean treatment adherence of 81.1% (SD = 9.1%).

To compare the 2 groups at baseline assessment, we used descriptive statistics, *t* tests, and χ^2/Fisher exact test. The comparison groups did not differ on any of the baseline sociodemographic and psychometric measures, except for lifetime traumatic events (BEP: mean = 1.6, SD = 1.3; control group: mean = 3.7, SD = 2.6; $t_{18.4} = 2.78$, (unequal variances), $P < .05$, Cohen $d = 0.8$). Patients in the BEP group also showed somewhat more depressive symptoms ($t_{28} = 1.73$, $P < .10$, Cohen $d = 0.6$, see Table 1). We felt that this second difference, although only approaching statistical significance, was also clinically relevant. Therefore, to test the impact of BEP on our primary and secondary outcome measures, analyses of covariance (ANCOVAs) were performed in order to control for lifetime traumatic events, baseline depression, and the respective outcome variable's baseline score. To test stability of treatment effects, the experimental group's scores at T1 (posttreatment) and T2 (6 month follow-up) were compared for differences by paired *t* tests. Intention-to-treat analyses were performed throughout, using the last-observation-carried-forward procedure.

Results. Patients were a mean of 39.5 (SD = 16.9) years old. Sixteen patients (53.3%) were male, 11 were not Swiss citizens (36.7%), and 10 (33.3%) were unfit for work. Patients reported a high childhood trauma load (CTQ total score of 45.4, SD = 20.1) and lifetime exposure to a mean of 2.6 (SD = 2.2) types of trauma as measured by the PDS. Index traumatic events had occurred 5.4 years (median 1.9; SD = 9.9) prior to study entry and included serious accidents (13), violent sexual or nonsexual assaults (9), non–combat-related war exposure (2), natural disasters (1), childhood trauma (1), and other traumatic events (4). Twenty patients (66.7%) suffered from a current comorbid Axis I disorder, and 8 (26.7%) had a personality disorder. Twelve patients (40.0%) were currently taking psychotropic medication (mostly antidepressants), including 5 (16.7%) patients taking analgesic medication.

Longitudinal data of our primary and secondary outcome measures are shown in Table 1. ANCOVAs (Table 2) controlling for the respective outcome variable's baseline score, baseline depression, and lifetime traumatic events revealed significant group effects for all outcome variables: patients who had received BEP experienced significantly greater improvements in CAPS, HADS anxiety, and

Table 1. Longitudinal Data of Primary and Secondary Outcome Measures (N = 30)[a]

	T0 Baseline		T1 Posttreatment/Post Waitlist		T2 Follow-Up
Outcome Measure	BEP (n = 16)	Waitlist (n = 14)	BEP (n = 16)	Waitlist (n = 14)	BEP (n = 16)
CAPS total score	78.6 (16.0)	73.4 (19.2)	60.8 (32.8)	66.4 (20.0)	58.1 (30.5)
HADS anxiety	14.4 (2.6)	13.8 (2.5)	12.2 (4.2)	13.5 (3.1)	11.8 (5.4)
HADS depression	13.4 (4.8)	10.7 (3.5)	10.8 (5.8)	11.4 (4.2)	11.4 (5.6)
PGI total score[b]	40.1 (19.5)	47.2 (13.5)	48.9 (24.2)	45.5 (20.4)	44.2 (26.1)

[a]Intention-to-treat, last observation carried forward. Data are expressed as mean scores (SD).
[b]n = 13 for the waitlist group.
Abbreviations: BEP = brief eclectic psychotherapy, CAPS = Clinician-Administered PTSD Scale, HADS = Hospital Anxiety and Depression Scale, PGI = Posttraumatic Growth Inventory.

Table 2. Analyses of Covariance of T1 (posttreatment/post-waitlist) Primary and Secondary Outcome Variables as a Function of Group Status (BEP vs minimal attention) With Baseline (T0) HADS Depression and Lifetime Traumatic Events and the Respective Outcome Variable's Baseline Scores as Covariates[a]

Outcome Variable	Source	*df*	Mean Square	*F*	Partial η^2
CAPS total score	T0 CAPS	1	7,168.72	23.44***	.48
	T0 HADS depression	1	1,086.13	3.55	.12
	Lifetime traumatic events	1	775.04	2.53	.09
	Group	1	2,430.19	7.95**	.24
	Error	25	305.87		
HADS anxiety	T0 HADS anxiety	1	44.39	4.80*	.16
	T0 HADS depression	1	59.86	6.47*	.21
	Lifetime traumatic events	1	1.95	0.21	.01
	Group	1	45.68	4.93*	.17
	Error	25	9.26		
HADS depression	T0 HADS depression	1	432.15	41.51***	.62
	Lifetime traumatic events	1	15.39	1.48	.05
	Group	1	79.44	7.63*	.23
	Error	26	10.41		
PGI total score	T0 PGI total score	1	3,809.51	22.24***	.48
	T0 HADS depression	1	1,159.26	6.77*	.22
	Lifetime traumatic events	1	999.99	5.84*	.20
	Group	1	2,151.34	12.56**	.34
	Error	24	171.32		

[a]N = 30, except N = 29 for PGI.
*$P < .05$.
**$P < .01$.
***$P < .001$.
Abbreviations: BEP = brief eclectic psychotherapy, CAPS = Clinician-Administered PTSD Scale, HADS = Hospital Anxiety and Depression Scale, PGI = Posttraumatic Growth Inventory.

HADS depression scores and stronger posttraumatic growth than the control group. Between-groups effect sizes (partial η^2) indicated large treatment effects on all outcome measures.

The BEP group showed significant decreases in mean CAPS total scores at posttreatment ($t_{15} = 3.15$, $P < .01$; effect size: Cohen $d = 1.5$) and follow-up ($t_{15} = 4.00$, $P = .001$; effect size: Cohen $d = 1.8$). In the control group, the mean CAPS total score did not significantly change ($t_{13} = 1.88$, $P = .08$; effect size: Cohen $d = 0.7$). To facilitate clinical interpretation of the results, we defined 3 additional levels of improvement regarding PTSD: treatment response (decline in CAPS total score of at least 18 points, ie, 1 SD of baseline mean score), loss of diagnosis (no longer meeting symptom criteria and CAPS total score < 50), and complete remission (CAPS total score < 20). At posttreatment, 5 patients in the BEP group (31.3%) qualified as treatment responders, 2 (12.5%) had lost their PTSD diagnosis, and a further 2 (12.5%) were fully remitted. At follow-up 6 patients (37.5%) qualified as treatment responders and 3 (18.8%) were fully remitted. In the waitlist group 4 patients (28.6%) qualified as treatment responders, but none lost their PTSD diagnosis or achieved complete remission.

In the BEP group, we found decreased levels of anxiety ($t_{15} = 2.27$, $P < .05$; effect size: Cohen $d = 0.8$) and depression ($t_{15} = 2.58$, $P < .05$; effect size: Cohen $d = 1.0$) at posttreatment. At follow-up, treatment gains remained largely stable (anxiety: $t_{15} = 2.27$, $P < .05$; effect size: Cohen $d = 0.9$; depression: $t_{15} = 2.57$, $P < .05$; effect size: Cohen $d = 1.0$). By contrast, in the waitlist group, anxiety and depression remained unchanged (anxiety: $t_{13} = 0.45$, NS; effect size: Cohen $d = 0.2$; depression: $t_{13} = -1.21$, NS; effect size: Cohen $d = -0.5$).

Posttraumatic growth in the BEP group, as measured with the PGI, had increased at posttreatment ($t_{15} = 2.23$, $P < .05$; effect size: Cohen $d = 0.8$). However, about half of this treatment gain was lost at follow-up, so that the effect was no longer significant 6 months posttreatment ($t_{15} = 1.15$, NS; effect size: Cohen $d = 0.5$). PGI scores in the control group remained unchanged ($t_{12} = -0.38$, NS; effect size: Cohen $d = -0.2$).

This is the first randomized controlled trial of BEP conducted by a research group independent of Gersons' group who initially presented promising findings regarding the efficacy of BEP in patients suffering from chronic PTSD.[3,4] Our study confirmed that BEP can effectively reduce PTSD symptom severity. While the rate of diagnostic change was rather low, and CAPS total scores for the BEP group were still quite high at posttreatment and follow-up, the overall response rate was in line with the majority of successful

psychotherapy outcome studies of PTSD.[16] Furthermore, BEP produced greater improvements in comorbid anxiety and depression and stronger posttraumatic growth as compared to the "minimal attention" control condition.

The strengths of this study included the rigorous application of standards for well-controlled psychotherapy outcome trials[1] and the extensive measures we took to optimize its clinical relevance. Index traumas included a wide variety of events, ranging from childhood abuse to war-related trauma. Also, we allowed psychiatric comorbidity, simultaneous psychotherapy for other problems, and psychoactive medication if patients were on a stable regimen.

A number of limitations should be mentioned. Our sample size was rather small, although statistical power was sufficient to test our main hypotheses. Moreover, we didn't compare BEP to an empirically supported therapy for PTSD. We felt that the results of Gersons' group should be replicated by an independent research group in a small study first, using a waitlist comparison group. Only if a study such as this provides positive results (which we are presenting here) should an active-active comparison study, requiring a much larger sample size to achieve adequate statistical power, be conducted. Also, related to the second limitation, BEP patients received more therapist attention than the waitlist group. The BEP group's superior improvement might thus be attributable at least in part to an attention-placebo effect.

Posttraumatic growth significantly increased from baseline after 16 treatment sessions. Given the strong focus on finding meaning and integrating the traumatic event into the broader context of life experiences in the BEP protocol, this finding is hardly surprising.[17] However, we had not expected that the treatment gains in posttraumatic growth would not be maintained at 6 month follow-up. This is most likely due to the interaction of a small sample size with intention-to-treat analysis.

In summary, BEP proved effective to improve PTSD symptom severity as well as comorbid depression and anxiety. In addition, BEP appeared to stimulate posttraumatic growth. In a next step, an active-active comparison study should be conducted, comparing BEP to one of the well-established, empirically supported psychotherapies for PTSD.

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