

Randomized Clinical Trial of Brief Eclectic Psychotherapy for Police Officers with Posttraumatic Stress Disorder

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The authors report on a randomized, controlled clinical trial on the treatment of posttraumatic stress disorder (PTSD), comparing manualized psychotherapy to wait-list control. This is the first study to evaluate Brief Eclectic Psychotherapy (BEP), which combines cognitive-behavioral and psychodynamic approaches within one treatment method. Forty-two police officers with the diagnosis of PTSD participated in the study; 22 were randomly assigned to the treatment group and 20 to the wait-list control group. Assessments of PTSD and comorbid conditions were made 1 week before treatment, after treatment session 4, upon termination of treatment (16 sessions), and at follow-up 3 months later. As expected, no significant differences between groups were observed at pretest or at session 4. At posttest and at follow-up, BEP had produced significant improvement in PTSD, in work resumption, and in some comorbid conditions.

KEY WORDS: PTSD; police officers; brief eclectic psychotherapy; randomized clinical trial; comorbidity.

Research in recent years has begun to reveal how common and how disabling posttraumatic stress disorder (PTSD) is. According to the most recent definition (American Psychiatric Association, 1994), PTSD is a pervasive anxiety disorder with the core clinical features of reexperiencing, avoidance, and hyperarousal, following exposure to traumatic events (Shalev, Bonne, & Eth, 1996). In a general population sample, Kessler, Sonnega, Bromet, Hughes, & Nelson (1995) have

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found a lifetime prevalence of 7.8%. The pathogenesis of PTSD reflects the complexity of the trauma response, which can be viewed as a heterostatic condition affecting the individual on multiple levels of psychological and biological functioning (Carlier & Gersons, 1995, 1997; Carlier, Lamberts, & Gersons, 1997; Foa, Siekete, & Rothbaum, 1989; Gersons & Carlier, 1992; Van der Kolk, 1988; Van der Kolk & Fislér, 1995). Over time, PTSD produces enduring changes in neurohormonal and memory functioning (Yehuda et al., 1995). PTSD has serious long-term morbidity (Kulka, Schlenger, & Fairbank, 1990), and effective treatments therefore are urgently needed.

Most controlled studies on the treatment of PTSD involve specific trauma populations such as male Vietnam veterans or female rape victims (Solomon, Gerrity, & Muff, 1992). All published studies have used exclusively either psychopharmacological approaches or psychotherapy. Shalev and colleagues (1996) concluded that pharmacotherapy alone is seldom sufficient to cure PTSD (see also DeRubeis & Crits-Cristoph, 1998; Foa & Meadows, 1997). Overall, cognitive-behavioral treatments have the greatest number of controlled outcome studies, and have been the most rigorously tested (Foa & Meadows, 1997, p. 474). These studies converge to demonstrate that both prolonged exposure procedures and stress inoculation training are effective in reducing symptoms of PTSD (e.g., Cooper & Clum, 1989; Foa, Rothbaum, Riggs, & Murdock, 1991; Keane, Fairbank, Caddell, & Zimering, 1989; Resick, Jordan, Girelli, Hutter, & Markofer-Dvorak, 1988; Resick & Schnicke, 1992). It also has been shown that a brief cognitive-behavioral program administered shortly after the trauma would accelerate the rate of improvement on trauma-related psychopathology (Bryant, Harvey, Dang, Sackville, & Basten, 1998; Foa, Hearst-Ikeda, & Perry, 1995). At least two studies concerning psychodynamic therapy for PTSD have reported positive results as well. Lindy (1988) found decreases in intrusive phenomena and depression in patients who completed their individual psychoanalytic treatment. A study by Brom, Kleber, and Defares (1989) compared brief dynamic psychotherapy to hypnotherapy, desensitization, and wait-list control. All treatment groups improved significantly.

This paper concerns a treatment approach for PTSD, which we call Brief Eclectic Psychotherapy (BEP; see also Gersons & Carlier, 1994). It incorporates several intervention techniques also used in the cognitive-behavioral treatment protocols of Foa and Resick, such as psychoeducation, imaginary guidance, homework tasks, and cognitive restructuring. Our approach, however, is a more sharply delineated, phase-oriented treatment. BEP also includes a focal psychodynamic approach (Lindy, 1993; Luborsky, 1984; Marmar, 1991) as well as the use of a farewell ritual at the end of the treatment (Gersons, 1988).

The present study assessed the effectiveness of Brief Eclectic Psychotherapy in a sample of police officers with PTSD. The job of police officers involves exposure to a wide range of emotionally distressing incidents, and police work often is cited as one of the most stressful occupations (Carlier, Lamberts, Fouwels,

& Gersons, 1996; Carlier, Lamberts, Van Uchelen, & Gersons, 1998a; Carlier & Gersons, 1994; Doctor, Curtis, & Isaacs, 1994; Gersons, 1989; Hetherington, 1993; Carlier & Gersons, 1992; Carlier et al., 1997). We report here on a pilot study using a pretest–posttest control group design, in which police officers with PTSD were randomly assigned to either the treatment condition (BEP) or a wait-list control group.

METHOD

Participants

All participants were Dutch police officers referred to us by their occupational physicians. They had requested outpatient treatment following exposure to a PTSD Criterion A event in the course of their work. All gave their written informed consent, after the procedure had been fully explained. Patient confidentiality was maintained. The study was approved by the Institutional Review Board of the Amsterdam Academic Medical Center.

To be eligible for inclusion in the study (initiated before introduction of the DSM-IV), patients were required to meet DSM-III-R criteria for PTSD (American Psychiatric Association, 1987) and to be free from current or past organic mental disorders, psychoactive substance-use disorders, schizophrenia or other psychotic disorders, and severe depression (suicidal). They also were to be medication-free (could not be on psychotropics) for at least 4 weeks before the study commenced.

Treatment

Our treatment consisted of individual psychotherapy, comprising weekly 60-min sessions spread over 16 weeks, barring illness or vacations. The treatment was given at the Department of Psychiatry at the Academic Medical Center of the University of Amsterdam. Patients were treated throughout the study by one of two clinical psychologists, both of whom had extensive experience in treating traumatized police officers, as well as in applying the treatment protocol used in this study. Each therapist treated an equal number of patients. Patients received no other form of treatment during the course of the protocol.

We provided a BEP course with manual (Gersons & Carlier, 1994), which included five essential elements: (1) psychoeducation, (2) imaginary guidance, (3) writing assignments and mementos, (4) domain of meaning or integration, and (5) a farewell ritual. (An English version of the treatment manual, describing the session-by-session work within the BEP construct, is available from the first author).

Psychoeducation.. In the first session, the patient, accompanied by a partner if possible, is informed about the treatment protocol and the rationale underlying

it. We explain that the patient is continually scanning the surrounding world for cues of danger, as if the event could happen again any moment. We point out that fear of the intense emotions associated with the event still impedes the learning process that will relegate the traumatic experience to past history. The treatment is to call up the memories and the intense emotions one last time.

Imaginary guidance.. Each of the next four to five sessions is composed of a brief period of muscle relaxation, followed by a stepwise reliving of the traumatic experience in the here-and-now with the patient's eyes closed. To activate the memory as vividly as possible, the subject is asked to concentrate on sensory details of the experience, such as weather, temperature, smells, sounds, and other environmental stimuli. Heavy emotional outbursts of fear and sorrow are provoked by this technique. The duration of the imaginal exposure is limited to 20 or 30 min.

Mementos and writing assignments.. These two techniques likewise can help to uncover the difficult feelings related to the traumatic experience. Mementos, which can be used from the second session onward, are objects that have a concrete or symbolic relationship to a traumatic event—clothes people were wearing when the event occurred, newspaper articles and photographs, certain tools such as gun used in police work. Some of these mementos also can be used later in the farewell ritual. Patients are encouraged, in addition, to write an ongoing letter about the traumatic event to someone connected with it. The writing is done at home for about half an hour daily. It evokes strong feelings of anger and helplessness. The letter can be used later, in the farewell ritual at the close of the treatment.

Domain of meaning or integration.. After the first six sessions, emphasis shifts to issues of meaning and attribution. At this stage, patients begin to realize, often for the first time, that their view of the world and of themselves has irrevocably changed. By exploring and also accepting this new view, they gain a new sense of safety and control over their lives. In some cases, similar previous experiences or key figures in their lives are discussed in a focused psychodynamic approach.

Farewell ritual.. At session 11, patients are asked to plan a farewell ritual together with their partner (Gersons, 1988). In most cases, mementos and the letter they have written are burned, buried, or thrown into the water. Patients are encouraged to fully express, for one last time, the sorrow they still feel, and then to celebrate leaving the event behind them and regaining control over life.

We took a number of precautions to safeguard the integrity of the treatment procedure. First, to check the therapists' adherence to the protocol, we had them submit a checklist to the second author for each patient after each session. This recorded such items as time spent on particular procedures and whether any deviations from the protocol had occurred. Second, every 3 weeks the therapists also underwent supervision from the first three authors. Last, patients themselves completed a detailed checklist concerning the treatment procedure and their therapist after each of the 16 sessions. Analysis of these treatment integrity data showed no deviation from the BEP treatment protocol.

Measures

Diagnoses were established by means of a structured interview (SI-PTSD) which operationalized DSM-III-R criteria for PTSD (Davidson, Smith, & Kudler, 1989). The SI-PTSD has good reliability and validity; concurrent validity with PTSD diagnosis by the Structured Clinical Interview for DSM-III-R Axis I Disorders (SCID) also has been demonstrated (Blake et al., 1995; Davidson et al., 1989; Spitzer, Williams, Gibbon, & First, 1990). For the present study, we translated the interview into Dutch and adapted it to the DSM-III-R. For the Dutch version of the SI-PTSD, we found a Cronbach's alpha of .93 and a Cohen's kappa of .88, which can be considered acceptable (Carlier, Lamberts, Van Uchelen, & Gersons, 1998b).

Participants also were given the Symptom Checklist (SCL-90), a multidimensional indicator of psychopathology. It has been shown to be especially useful as an indicator of the effects of psychotherapy (Derogatis, 1994). The Dutch translation contains nine subscales, two of which deviate slightly from the original. The subscales Interpersonal Sensitivity and Paranoid Ideation are combined into one scale, and items dealing with sleep disturbance are represented in a separate scale. Our nine subscales are listed in Table 3.

To assess any influence of comorbidity, we also administered the Anxiety Disorders Interview Schedule—Revised (DiNardo & Barlow, 1988) measuring the following disorders: substance-related, psychotic, mood, anxiety, and somatoform. Cronbach's alpha was .92, indicating that it is a reliable instrument.

Assessment Procedure

Psychometric assessments were conducted at four points in time: 1 week before the start of treatment (baseline), 1 month after the start (after four sessions), 4 months after the start (at termination of treatment), and 3 months after termination (follow-up). The second assessment was intended to measure any intermediate effects of treatment. At baseline and at the end of treatment, we used all three instruments to assess patients. At other times, we used only the SI-PTSD and the SCL-90.

All assessments were performed by one of three independent assessors and took about 90 min. The assessors were trained research psychologists. Nonparametric (chi-square) tests were run to detect any researcher effects (assessment experience), and none were found. The wait-listed patients were told that they would receive treatment in 7 months, and they were monitored by a nonassessor psychologist in the interim. Because of this long waiting-list period, four police officers spontaneously mentioned during the follow-up interviews (3 months after termination) which treatment condition they were in. In anticipation of the results, we can already report that there was no significant difference in outcome between blind and blind broken. None of the independent assessors informally disclosed any bias themselves.

Recovery Proportions

According to DSM-III-R, the diagnosis PTSD can be made when the following criteria are met: the experience of a Type A traumatic event and at least six PTSD symptoms, including at least one reexperiencing symptom, three avoidance symptoms, and two hyperarousal symptoms. In the present study, groups were compared on resumption of their police work and on the following recovery proportions: no PTSD, fewer than six symptoms, no reexperiencing symptoms, fewer than three avoidance symptoms, and fewer than two hyperarousal symptoms on SI-PTSD.

RESULTS

Of the 61 potential subjects who underwent formal psychiatric screening for the study, 42 were judged suitable (see inclusion criteria outlined above, but especially absence of PTSD diagnosis, psychoactive substance-use disorders, suicidal ideation). Twenty-two patients received treatment, and 20 were randomly assigned to the wait-list control group. One patient from the wait-listed group dropped out of the study because of worsening PTSD symptoms. Because this did not happen until after the third assessment, we included this patient in the study. No patients from the treatment group dropped out.

Differences between the two groups in relative baseline characteristics of the 42 patients included in the efficacy analysis (see Table 1) are statistically significant on only one characteristic: The mean age of the treatment group was 3 years younger than that of the wait-list group, $t(39) = 2.28$, $p < .05$. Because this difference is quite small, it is not likely to have affected the results of the study. The patients in both groups were medication-free for the 6 months preceding entry

Table 1. Baseline Characteristics of Patient Groups

Variable	Brief Eclectic Psychotherapy (<i>n</i> = 22)	Wait List (<i>n</i> = 20)
Mean (<i>SD</i>) age, years	35 (6)	38 (7)*
Men/women	18/4	19/1
Marital status		
Married/cohabiting	18	17
Single	3	1
Divorced	1	1
Number of patients with previous psychotherapy	3	4
Mean (<i>SD</i>) years in police force	16 (14)	16 (8)
Mean (<i>SD</i>) years since trauma in police work	3 (3)	5 (7)
Mean (<i>SD</i>) number of traumas in police work	19 (8)	15 (8)
Mean (<i>SD</i>) number of traumas outside police work	3 (2)	4 (3)

* $p < .05$.

into the study. There were no significant differences between groups in education, race (all White), or time since trauma (average of 3 years; not shown in Table 1).

Treatment sessions were delivered as planned and no deviations from the treatment protocols were detected. Chi-square tests were conducted for possible therapist effects. The two therapists did not diverge in the percentage of improvement demonstrated by their patients on any of the outcome measures used in the study. The absence of such protocol and intertherapist deviations was consistent with the extensive experience of both therapists in applying the treatment protocol before the study began.

Recovery from PTSD

Table 2 shows the recovery proportions at baseline, after treatment session 4, at posttest, and at follow-up. The table shows that the treatment was effective as a whole in reducing PTSD and symptoms. Comparison between the treatment group and the wait-list group shows no significant differences after session 4. At posttest, all criteria were significantly different between groups, except “less than

Table II. Recovery Proportions by Treatment (After 4 Sessions, at Posttest, and at Follow-up)

Criterion	% of Patients			
	Baseline	After 4 Treatment Sessions	Posttest (End of Treatment)	Follow-up
No PTSD				
BEP	0	31	91	96
Wait list	0	35	50**	35**
<6 PTSD symptoms				
BEP	0	23	77	91
Wait list	0	30	15**	30**
No reexperiencing symptoms				
BEP	0	5	55	68
Wait list	0	20	15**	20**
<3 Avoidance symptoms				
BEP	0	32	82	91
Wait list	0	45	60	40***
<2 Hyperarousal symptoms				
BEP	0	14	68	68
Wait list	0	10	20**	30*
Resumption of police work				
BEP	18	59	77	86
Wait list	25	60	70	60*

Note. N = 22 for Brief Eclectic Psychotherapy (BEP) and n = 20 for wait list.

* p < .05.

** p < .01.

*** p < .001.

three avoidance symptoms” and “resuming police work,” $F(1, 38) = 9.12, p < .01$. At the follow-up, the differences between the two patient groups were significant on all criteria, $F(1, 37) = 5.05, p < 0.1$.

Findings pertaining to PTSD symptoms are shown in Fig. 1. As expected, no significant differences were found between groups at pretest or session 4. The significant differences became apparent at posttest, $F(1, 39) = 19.82, p < .01$, and at follow-up, $F(1, 39) = 16.75, p < .01$.

Intermediate and Immediate Effects of Treatment and Effects at Follow-up

The mean scores for the two groups on the SCL-90 scales are shown in Table 3 for pretest (baseline), session 4, posttest (termination), and follow-up. Table 3 shows that there were no significant differences ($p > .05$) between patient groups at pretest or after session 4. At posttest, however, all SCL-90 scores except psychoticism were significantly lower for the treatment group than for the control group: Phobic anxiety, $F(1, 36) = 10.44, p < .01$; anxiety, $F(1, 36) = 6.90, p < .05$; depression, $F(1, 36) = 14.39, p < .01$; somatization, $F(1, 36) = 7.85, p < .01$; obsessive-compulsive, $F(1, 36) = 9.61, p < .01$; interpersonal sensitivity, $F(1, 36) = 9.34, p < .01$; hostility, $F(1, 36) = 9.81, p < .01$; sleeping problems, $F(1, 36) = 16.05, p < .01$. All gains were maintained at the 3-month follow-up, except that the improvement in hostility lost its significance ($p < .05$).

In comparison to a group with normal scores (derived from the SCL-90-R manual), all SCL-90 scores for both the treatment and the wait-list group were significantly higher than the norm at both baseline and after session 4. At termination, all scores of the treatment group coincided with the norm. This improvement was maintained at 3-months follow-up, except for hostility. Scores of the wait-list group remained significantly above the norm at all measuring occasions.

Finally, Table 4 shows baseline scores and recovery at termination for DSM-III-R psychiatric disorders other than PTSD. A treatment effect was found only for the DSM-III-R anxiety disorder agoraphobia, $F(1, 38) = 4.14, p < .05$.

DISCUSSION

Our treatment was effective for all three PTSD symptom clusters and showed clinically significant change. As in Foa et al.'s (1991) study that used prolonged exposure, the improvement had progressed further on all outcome criteria 3 months after termination of the treatment. This also includes return to work (86% of the treatment group vs. 60% of the wait-list group at follow-up). Our research sample was characterized by relatively high rates of Undifferentiated Somatoform Disorder, which is in line with other studies that found high rates of somatization disorder in individuals with chronic PTSD (Davidson, Hughes, Blazer, & George, 1991; Deering, Glover, Ready, Eddleman, & Alarcon, 1996; Sutker, Allain, &

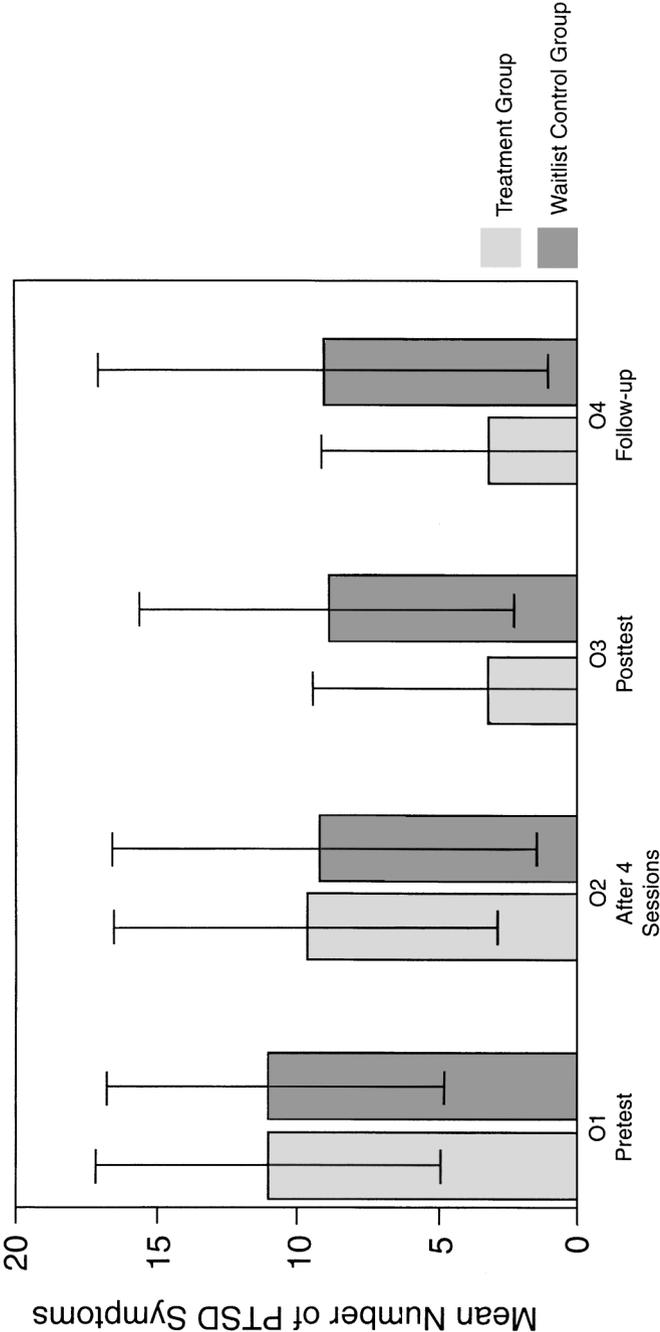


Fig. 1. Mean number of PTSD symptoms as a function of treatment condition. Extended bars represent standard deviation.

Table III. Scores at Baseline, at 4 Weeks After Start of Treatment, at Termination, and at Follow-up

Symptom Checklist-90	Baseline		After 4 Treatment Sessions		Termination		3-Month Follow-up	
	BEP	Wait List	BEP	Wait List	BEP	Wait List	BEP	Wait List
Phobic anxiety	21.1 (7.3)	22.1 (11.0)	19.8 (7.2)	18.7 (7.8)	13.4 (5.6)	17.8 (7.4)*	13.8 (4.6)	21.1 (7.6)**
Anxiety	10.1 (3.1)	14.4 (4.7)	9.6 (3.0)	10.1 (3.4)	7.7 (1.6)	9.8 (3.7)*	7.6 (0.9)	9.8 (3.3)**
Depression	35.1 (14.6)	34.9 (13.0)	32.3 (14.0)	28.7 (11.9)	21.0 (7.4)	28.5 (9.6)*	21.6 (8.5)	30.5 (10.5)**
Somatization	19.2 (6.8)	22.8 (9.9)	20.7 (9.5)	19.7 (9.3)	13.6 (4.3)	18.7 (8.6)*	14.9 (4.1)	21.8 (9.0)**
Obsessive-compulsive	18.9 (7.1)	20.1 (7.1)	18.7 (8.1)	17.2 (6.9)	12.8 (5.0)	16.8 (5.3)*	13.5 (4.9)	18.5 (5.6)**
Interpersonal sensitivity	30.1 (9.8)	34.0 (10.9)	29.9 (10.1)	27.7 (8.1)	22.5 (7.4)	29.4 (9.1)*	22.8 (6.3)	32.8 (9.8)**
Hostility	11.0 (6.1)	11.7 (5.9)	9.7 (4.0)	10.3 (4.7)	7.4 (2.0)	9.6 (2.9)*	8.3 (3.5)	10.0 (3.1)
Sleeping problems	5.1 (2.2)	5.3 (2.9)	4.5 (2.5)	5.3 (3.0)	2.8 (1.3)	5.2 (2.8)**	2.9 (1.3)	5.3 (2.4)**
Psychoticism	14.5 (4.8)	15.2 (4.9)	13.9 (4.4)	12.6 (4.1)	10.6 (3.1)	12.1 (3.3)	10.4 (2.3)	13.1 (4.0)*

Note. $N = 22$ for Brief Eclectic Psychotherapy (BEP) and $n = 20$ for wait list. Values are $M (SD)$.

* $p < .05$.

** $p < .01$.

Table IV. Percentage of Patients with Comorbid Psychiatric Disorders (DSM-III-R) at Baseline and Termination

Comorbid Disorder	% of Patients			
	Baseline		Termination	
	BEP	Wait List Control	BEP	Wait List Control
Any other current diagnosis	82	90	59	60
Generalized Anxiety	14	5	0	0
Agoraphobia	9	10	0	10*
Panic Disorder	9	0	0	0
Social Phobia	9	5	0	0
Phobic Disorder	14	0	0	0
Obsessive-Compulsive Disorder	5	10	0	5
Major Depression	50	30	18	10
Dysthymia	5	20	0	15
Conversion Disorder	0	5	0	5
Hypochondriasis	9	0	5	0
Undifferentiated Somatoform Disorder	64	90	45	50
Alcohol Dependence	23	30	9	25

Note. *N* = 22 for Brief Eclectic Psychotherapy (BEP) and *n* = 20 for wait list.

**p* < .05.

Motsinger, 1988). One might wonder about the severity of the PTSD involved here because most subjects were continuing their work as police officers during their treatment. This may seem contradictory, but it is not. Lee, Vaillant, Torrey, & Edler (1995) have established that the distress of PTSD symptoms does not necessarily produce disability, and that the number of PTSD symptoms correlates only minimally with a poor psychosocial outcome.

Before discussing the benefits of the eclectic psychotherapy approach, we note some of the limitations of the present study. First, the sample size was relatively small and therefore may not have been representative of the population of police officers, or may have affected the interpretation of the results. Second, our sample was a treatment-seeking group and, as such, it probably formed one of the most symptomatic sectors of the population of police officers. Unlike other treatment outcome studies, which have reported considerable dropout rates, there were no treatment dropouts in our study, and only one in the wait-list group. Evidently, the study involved a group of people who were highly motivated for treatment. For people who are less motivated, we hypothesize that the psychoeducational element in the first session of BEP could be of crucial importance. We also do not know if our treatment is effective for very severe forms of PTSD, that is, with significant disability. Another limitation is the absence of more objective monitors of the treatment, such as audiotapes of sessions. Four wait-listed patients themselves mentioned the 7-month waiting period during the follow-up interview, but there was no significance difference in outcome between blind and blind broken. Also, we feel justified in assuming that patient improvement derived from the treatment

itself, and not from some belief on the part of the assessors or patients that the treatment would be effective. Had the latter been the case, then, logically, the conditions of the wait-listed patients would have worsened, especially in such a lengthy waiting period, whereas those of the treated patients would have improved markedly. Our results showed, however, that even the wait-listed patients had improved slightly, though not significantly, at posttest in comparison with their baseline condition. Moreover, treated patients did not show improvement until after 16 sessions. At session 4, their condition had even deteriorated. Finally, the patients' improvement was reflected not only in the interview administered by the assessor but also in the self-rating scale by the patients.

The wait-list comparison condition provided necessary controls for several sources of internal invalidity, although it, too, was not without its drawbacks. The use of a wait-list control procedure limits the conclusions that can be drawn because the outcomes indicate that something (treatment) was superior to nothing (waiting list), without providing information on the differential efficacy of different types of therapy. A key advantage in the present study was that the duration of the wait listing was identical to that of the treatment and follow-up period. In addition, the use of an intermediate assessment at parallel points in time buttressed the conclusion that treatment provided benefits beyond the effects of the passage of time. Nevertheless, the next step is obviously to compare the present treatment with alternative treatment approaches, for instance, cognitive treatment (Kendall et al., 1997).

The present study investigates the combined effect of the cognitive-behavioral and psychodynamic approaches within one and the same treatment method. In contrast to Foa et al.'s (1991) technique of multiple, repetitive exposure to mental images of the event, in BEP we work through the event much more slowly, and in minute detail. The aim is to integrate the memories of the trauma into the totality of a person's memory system. One interesting finding of our study was that patients only need to work through what they perceive as their *most important* traumatic event in order to regain a sense of controllability and predictability in everyday life. The farewell ritual, which we consider an important element of BEP, could not be studied separately in our design. Future research could address this issue separately. The police officers did express a great deal of appreciation for this stage of the treatment. The rationale for the farewell ritual is that it helps people to leave the traumatic experience behind them and to celebrate their commitment to restoring a normal life with their partner.

Police officers differ from rape victims in that they belong to social organizations that recognize the reality of trauma in their lives. From our data, we cannot determine whether our treatment approach also will be effective for other traumatized populations. Therefore, further research is needed on that point. Also, police officers are predominantly male. The latter could be important because, in general, women's risk of PTSD following exposure to trauma is approximately

twofold higher than that of men (Breslau, Davis, Andreski, & Peterson, 1991; Breslau, Davis, Andreski, Peterson, & Schultz, 1997; Breslau et al., 1998; Green, 1994; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Norris, 1992). A similar gender difference was found in the chronicity of PTSD (Breslau et al., 1998). The gender difference cannot be explained by differences in the type or number of traumas experienced by men and women and suggests a greater vulnerability of women to the PTSD effects of trauma (Breslau et al., 1998; Kessler et al., 1995). On the other hand, no such gender differences in police officers were found in a previous study by the authors (Carlier et al., 1997). We are also curious as to whether our treatment will prove to have long-term positive effects should officers be exposed to new traumatic police events. This would imply a much longer follow-up period than that in the present study. Finally, comparisons with other forms of treatment, including psychopharmacological approaches alone or in combination, also deserve further attention. In view of the observed complexity of the trauma response, both psychological and biological outcome measures could be used.

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