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PSYCHOTHERAPEUTIC TREATMENT OF CHRONIC PTSD

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The Pareto principle holds that a small number of causes are responsible for a majority of problems. Regarding psychotherapy of combat-related PTSD, a few principles have been consistently proffered as curative: exposure; meaning alteration; coping skills; and use of social supports. These components have survived in the absence of conclusive evidence, the area of trauma recovery having benefited in both its "soul" and knowledge from the first wave of contributors—Lifton, Laufer, Figley, Lindy, Shatan, Horowitz, Kolb, Marmar, Haley, Parson, and Wilson—and being "pumped up" by a new breed of data assimilators and integrators—Keane, Saigh, van der Kolk, Foy, Herman, Terr, Penk, Pennebaker, McCann & Pearlman, and Janoff-Bulman.

Our review is limited to the coverage of this legacy with special emphasis on data from ongoing clinical trials of combat veterans (and some key studies of rape victims), exclusive of medication studies. Two points are made. First, our focus is *chronic* combat-related PTSD. According to official diagnostic criteria, virtually all studies or descriptions of this population are addressing chronicity. While no single etiological model of PTSD accounts for all the variance, the one offered by Foy (1992) is most (clinically) apt: For acute PTSD, initial unconditioned stimuli are associated with trauma cues and develop into conditioned stimuli and responses, but for chronic PTSD other variables (personality, early learning, social support, family history of psychopathology, etc.) mediate development and maintain symptoms. In effect, a new steady state arrives, a chronic traumatic personality whose mode of behavior can attain only temporary solutions. Comorbidity, downward mobility, and long-term care are modal, necessitating a ratcheting down of care goals.

Second, many descriptions of treatment programs exist but few controlled studies or reviews have been published (S. Solomon et al., 1992). Studies have yet to establish the relative importance of key variables, including but not limited to nature of the trauma, influence of demographic/cultural factors, length of trauma exposure, time since exposure, chronicity of symptoms, psychiatric comorbidity, and basic treatment factors, including individual versus combined care, or the influence of process variables. At its core, it is unclear whether a "trauma"

therapy should address a set of symptoms, etiological histories, other patient variables, or some combination of these. The conceptual models of PTSD outline only psychological processing or etiology of trauma to the neglect of treatment.

A friendly and healthy tension is unfolding in the explication of trauma care between those who have adopted a learning framework, emphasizing extinction and habituation, and those who espouse a cognitive perspective, where clinical information is reordered and integrated either by an emphasis on "top down" strategies (focus on surface cognitions and behaviors) or "bottom up" approaches (focus on narrative repair, schema altering). Clearly, therapies apply combinations of both (Dye & Roth, 1991), but parsing differences may be helpful.

The former camp is represented by more internally valid studies, case histories, and outlined treatment procedures. The goal of this approach is to reduce anxiety and its sequelae (nightmares, flashbacks, and intrusive thoughts) by an assault on trauma data, either directly (direct therapeutic exposure [DTE]) or by a titrated dosage (systematic desensitization). Two groups (Boudewyns & Hyer, 1990; Boudewyns et al., 1993; Keane et al., 1989) have completed controlled clinical trials on DTE of combat-related PTSD and have reported generally positive findings at post-treatment and follow-up. In both, DTE was administered and adjustment or symptom indices were reduced relative to milieu control or a waiting list control, respectively. Both groups have further discussed the precise execution of these techniques (Boudewyns, 1993; Lyons & Keane, 1989). Two other studies used a modified version of DTE and found reductions in symptoms similar to the Keane group when compared to a treatment control (Cooper & Clum, 1989) or found equivalent reductions in symptoms among treatments relative to a treatment control (Brom et al., 1989). Additionally, one other controlled study, comparing systematic desensitization and relaxation to a treatment control (Peniston, 1986), and a study that used guided imagery exposure techniques in addition to psychodynamic psychotherapy (Bowen & Lambert, 1986), as well as several uncontrolled or case studies (e.g., Fairbank et al., 1983), have appeared. All endorse the use of flooding.

The second group requires victims to alter physiological, affective, and cognitive responses associated with the trauma memory for purposes of integration. Victims respond not to events but to their interpretation of events; psychopathology is due to "bad" attributions. The task of therapy involves a meaning altering process, which can be placed on a continuum according to the depth of processing of human trauma: deep, existential level (altered



assumptive worlds: Janoff-Bulman, 1992); constructionist schemas (McCann & Pearlman, 1990); meaning altering (Harvey et al., 1991); reconstructing the trauma (Herman, 1992); story repair (Meichenbaum & Fitzpatrick, 1993); cognitive restructuring (Resick & Schnicke, 1992); information processing (Horowitz et al., 1984); or the correction of surface cognitions (e.g., Alford et al., 1988).

It is not surprising that this second group suffers from a gap between theory and research, being long on description and theory and short on controlled studies. The few completed clinical trials that have been conducted involved rape victims. Resick and Schnicke (1992) provide support for the use of cognitive processing of trauma via education, exposure, and cognitive reattribution among victims of sexual trauma. Given a 12-session package, subjects improved significantly after treatment (even at 6 months) relative to a wait-list control group. Additionally, Boudewyns et al. (1993) examined EMDR, a technique that titrates exposure and positive and negative cognitive "re"processing (as a result of saccades), and found guarded support for its use in combat veterans with PTSD. (The rationale and procedure for EMDR is given by Shapiro [1989]). Furthermore, several important works from members of this group have eloquently addressed the suspect cognitive structures or contents; Rothbaum & Foa (1992), Dye and Roth (1991), Herman (1992), McCann and Pearlman (1990), and Janoff-Bulman (1992) especially, have explicated the reworking and reappraisal process while respecting the importance of arousal and exposure.

In a seminal presentation of the importance of both exposure and cognitive reattribution, Foa and Kozak (1986) identified an activated (aroused) memory and input of incompatible information as necessary components for therapeutic change. In one study Foa et al. (1991) found that prolonged exposure, imagined and behavioral (absent relaxation and coping), was most successful over time in reducing intrusive thoughts, arousal symptoms, and avoidance among victims of sexual abuse. Relaxation and situational coping were also found to be helpful. In addition, several other treatment modalities emphasize reattribution while employing exposure, especially variants of anxiety management training or (already noted) systematic desensitization (Frank et al., 1988).

Interestingly, early studies espousing a learning model, and more current works by intrapsychic proponents, have both advocated the judicious use of these two curative agents. Regarding the former, Boudewyns (Boudewyns & Wilson, 1972) labeled this confluence "desensitization therapy using free association"; regarding the latter, Brende (1985) emphasized both abreaction (exposure) and integration (reattribution) in the treatment of PTSD. Each modality facilitates the processing of trauma by some subtle mix of exposure and reattribution.

Recently old wine has been placed in new bottles. Several packages of Stress Inoculation Therapy (SIT) have appeared. During the mid '80s Kilpatrick and colleagues (e.g., Veronen & Kilpatrick, 1983) performed a series of treatment outcome studies in the use of SIT on rape vic-

tims, generally finding for the efficacy of this technique (especially guided self-imagery). In a more recent evaluation, Resick et al. (1988) addressed SIT with rape victims (comparing this to assertion training, supportive psychotherapy, and a wait-list control), and found all treatment groups superior to the wait-list control on several PTSD-related measures. Meichenbaum (Meichenbaum & Fitzpatrick, 1993) has used his own SIT model in the treatment of trauma. Clients are taught to experientially rescript their trauma and to proactively interact with their stress environment. Symptoms are problems to be solved, and reframing, rewarding, normalizing, empowering, and education are curative agents. Again, while rich in clinical information, the efficacy and optimal combination of treatment interventions has yet to be determined.

Virtually all PTSD milieu programs (for combat-related victims) employ a multimethod process using the treatment components noted above (Rozytko & Dondershine, 1991). Data from these units endorse cautious optimism. On the whole they are successful in raising self esteem, improving interpersonal relationships, and decreasing numbing and arousal but not intrusive experiences (Scurfield et al., 1990), and, although altered by type of response to treatment (Perconte & Griger, 1991), subjects from these units tend to have high recidivism rates. Recently, other holistic programs, such as the Koach Project in Israel, have adopted an integrated treatment approach. Results are disappointing (e.g., Z. Solomon et al., 1992), as change is slow or selective.

What is lacking is an understanding of exactly what is going on—"what works, with whom, under what circumstances..." The construct of *chronicity* is rapacious in its appetite for avoidance of solution-focused strategies and, as always, the construct of psychotherapy and its curative components remain unclear. Regarding chronicity, several observers have expanded Keane's use of positive and negative symptoms of PTSD in important ways (Catherall, 1989; Hiley-Young, 1992). Hiley-Young (1992) and Catherall (1989) have described two types of traumatic reactivation: (1) an uncomplicated type, representative of classic PTSD victims who return to premorbid functioning, but who are vulnerable to traumatic symptoms when exposed to relevant stimuli; and (2) a complicated type, consisting of victims who are chronic as well as sensitive and vulnerable to stimuli not directly related to the original trauma. The former group is troubled with the primary trauma, mostly intrusive or positive symptoms; the latter is emotionally imprisoned by secondary trauma where characterological issues and negative symptoms predominate. The former can be uncomplicatedly treated, whereas the complicated group requires more, including examination of emotional responses to the trauma and perceptions of change, cognitive restructuring, information, and active coping. The organization, orchestration, and correct mix of treatment strategies and goals merit actuarial attention and clinical deliberation for chronic victims, even to the extent of different treatment compositions of the victim and family (Rosenheck & Thompson, 1986).

Finally, the validation and ordering of the curative components of PTSD treatment has not been adequately examined. Although various formulations exist describing components of (e.g., Herman, 1992) or phases of trauma care (e.g., Horowitz, 1986), these represent clinical science at best. Recently, Loo (1993) has developed a treatment model based on the systematic integration of efficacious treatments and developmental tenets (client readiness and stage of change). What is striking about this model is the description of the prepotency and interactive effects of each symptom of PTSD and that choice of intervention is based on this ordering; i.e., more important symptoms need to be considered first so as to assist in the reduction of others. The need for the mapping and ordering of the elements of an effective treatment process for PTSD is now ready for study.

If the treatment of trauma has progressed in spite of the absence of randomized clinical trials, it will certainly prosper with them. Reasons for our lack of hard data are no different than in other areas of psychotherapy. Fortunately, researchers always assess assumptions that clinicians are acting on and have accepted as fact. In the normal process of the one catching the other, a friendly environment consisting of the correct mix of exposure and reprocessing must remain. Recently, several summary books on combat-related PTSD have appeared to assist the clinician in the complex interplay between theory and treatment (e.g., Peterson et al., 1991; Saigh, 1992; Wilson & Raphael, 1993). In addition, techniques that are especially promising in the pursuit of these treatment goals include exposure modeled after the Keane and Boudewyns groups, and the reattribution model of the Foa and Resick and Schnicke groups. Regarding this latter goal, the recent works of Herman (1992), Janoff-Bulman (1992), and McCann and Pearlman (1990) are exceptional in their conceptualization and description of psychic trauma and its treatment.

References

BOUDEWYNS, P.A. & WILSON, A.E. (1972). **Implosive therapy and desensitization therapy using free association in treatment of inpatients.** *Journal of Abnormal Psychology, 84*, 682-692.

FOA, E.B. & KOZAK, M.J. (1986). **Emotional processing of fear: Exposure to corrective information.** *Psychological Bulletin, 99*, 20-35.

SELECTED ABSTRACTS

BOUDEWYNS, P.A. & HYER, L. (1990). **Physiological response to combat memories and preliminary treatment outcome in Vietnam veteran PTSD patients treated with direct therapeutic exposure.** *Behavior Therapy, 21*, 63-87. Two individual treatment conditions for PTSD in Vietnam veterans were compared: direct therapeutic exposure (DTE) was compared to conventional one-on-one counseling (controls). All patients received an intensive group treatment milieu program in a VA inpatient

treatment program specifically designed for PTSD. Physiological responses to imaginal exposure scenes of stressful memories of combat were recorded. These physiological measures were taken prior to treatment, and immediately following treatment. Three physiological responses were evaluated: heart rate, frontal electrodermal activity, and skin conductance. All three measures indicated strong responding to the exposure scenes at both pre- and post-treatment. While there were no significant differences between the treatment conditions in physiological responding after therapy, there were trends that indicated that the DTE group had decreased physiological responding to the exposure scenes when compared to controls that could prove significant at planned followup.

Subjects were also given a preliminary psychological and behavioral evaluation to determine treatment outcome at three months following treatment. This evaluation indicated that the DTE treated group improved when compared to controls.

Results supported the notion that those subjects who did evidence decreased physiological responding to the imaginal scenes immediately following treatment, also improved psychologically at three months follow-up when compared to subjects who did not have reduced physiological responding, regardless of treatment received.

BOUDEWYNS, P., STWERTKA, S., HYER, L., ALBRECHT, W. & SPERR, E. (1993). **Eye movement desensitization for PTSD of combat: A treatment outcome pilot study.** *Behavior Therapist, 16*, 29-33. This study evaluated the efficacy of eye movement desensitization and reprocessing (EMDR), exposure, and a milieu control on a sample of convenience, combat-related veterans with PTSD. Twenty subjects were randomly assigned to one of the three groups. Two sessions of standard EMDR were employed, "matched" by two sessions of an exposure control (focus on trauma memory absent saccadic eye movements). Pre and post-therapy measures included Clinicians Administered PTSD Scale (CAPS: CAPS-2 at posttreatment), Impact of Events, and the Mississippi Scale for Combat-Related PTSD. In addition, subjects were evaluated pre and post treatment on standard physiological indices according to baseline, and repeated 5-minute tapes of the subject's worst combat memory. No differences were found on any of the pre-post measures; only a significant decrease in self-reported SUDS levels for the EMDR group (compared to EC controls) during treatment sessions was recorded. The authors noted that, despite only two therapy sessions and a small sample, the EMDR method received positive ratings by therapists and subjects, and may have been significant if the "new" altered memory was used for the posttreatment evaluation.

BOWEN, G.R. & LAMBERT, J.A. (1986). **Systematic desensitization therapy with post-traumatic stress disorder cases.** In C.R. Figley (Ed.), *Trauma and its wake. Vol. II: Traumatic stress theory, research, and intervention* (pp. 280-291). New York: Brunner/Mazel. Bowen and Lambert describe and evaluate the effectiveness of systematic desensitization. This approach involves identifying a series of increasingly anxiety-arousing stimuli and training the client in muscle relaxation techniques. In the process patients work through the cognitive conflicts of each of their most traumatic memories in an hierarchical order from least to most troubling. The treatment is complete when all stimuli can be presented without any significant anxiety. In their study Bowen and Lambert evaluated this treatment technique using biofeedback to measure the effects. A sample of Vietnam veterans suffering from combat-related PTSD was administered the technique applied to their traumatic memories of combat situations.

The authors found the technique effective in reducing anxiety associated with these memories. The method was particularly effective for outpatient use, where the patient could apply his or her new desensitization skills to other stressful life situations.

BROM, D., KLEBER, R.J. & DEFARES, P.B. (1989). **Brief psychotherapy for posttraumatic stress disorders.** *Journal of Consulting and Clinical Psychology*, 57, 607-612. Abstracted in *PTSD Research Quarterly*, 1(1), 1990.

CATHERALL, D.R. (1989). **Differentiating intervention strategies for primary and secondary trauma in post-traumatic stress disorder: The example of Vietnam veterans.** *Journal of Traumatic Stress*, 2, 289-304. A model of treatment of PTSD is presented. Two central psychological issues are addressed: (1) the conflict between ego forces oriented toward recalling and assimilating the traumatic material (thereby achieving ego integration) versus ego forces oriented toward repressing and avoiding the reexperience of the trauma (thereby defending against ego disintegration); and (2) the loss of self-cohesion which results from the breakdown between the trauma survivor's self and his social milieu. Clinicians are advised to use two different theoretical orientations (ego psychological and self psychological) in treating these two basic issues. The concepts of primary and secondary trauma refer to the initial traumatic experience and the subsequent breakdown in the relationship between the survivor and his social environment and are offered as tools for distinguishing which issue is uppermost in the patient's material at any given time.

COOPER, N.A. & CLUM, G.A. (1989). **Imaginal flooding as a supplementary treatment for PTSD in combat veterans: A controlled study.** *Behavior Therapy*, 20, 381-391. The present study examined the incremental effectiveness of imaginal flooding (IF) over standard psychotherapeutic and pharmacologic approaches in the treatment of combat-related PTSD. Evidence was found supportive of IF's effectiveness with regard to self-report symptoms directly related to the traumatic event(s), state anxiety, subjective anxiety in response to traumatic stimuli, and sleep disturbance. Flooding had no effect on level of depression or trait anxiety, indicating that it is a useful adjunctive treatment for PTSD but cannot likely be used as the sole vehicle of change.

DYE, E. & ROTH, S. (1991). **Psychotherapy with Vietnam veterans and rape and incest survivors.** *Psychotherapy*, 28, 103-120. The research and clinical literature on the treatment of two groups of trauma victims, Vietnam veterans and rape and incest survivors, is reviewed. A variety of trauma-focused interventions have been described and evaluated for these two populations; however, researchers and clinicians have not yet adequately examined the assumptions about the coping process upon which different treatment strategies are based. As a second goal, this article examines the assumptions about the coping process which underlie the diverse treatment approaches which currently exist. Their relevance to the research literature is evaluated.

FOA, E.B., ROTHBAUM, B.O., RIGGS, D.S. & MURDOCK, T.B. (1991). **Treatment of posttraumatic stress disorder in rape victims: A comparison between cognitive behavioral procedures and counseling.** *Journal of Consulting and Clinical Psychology*, 59, 715-723. Rape victims with PTSD (N = 45) were randomly assigned to one of four conditions: stress inoculation training (SIT), prolonged exposure (PE), supportive counseling (SC), or wait-list control (WL). Treatments consisted of nine biweekly 90

min individual sessions conducted by a female therapist. Measures of PTSD symptoms, rape-related distress, general anxiety, and depression were administered at pretreatment, posttreatment, and follow-up (M = 3.5 months posttreatment). All conditions produced improvement on all measures immediately posttreatment and at follow-up. However, SIT produced significantly more improvement on PTSD symptoms than did SC and WL immediately following treatment. At follow-up, PE produced superior outcome on PTSD symptoms. The implications of these findings and direction for treatment and future research are discussed.

FRANK, E., ANDERSON, B., STEWART, B.D., DANCU, C., HUGHES, C. & WEST, D. (1988). **Efficacy of cognitive behavior therapy and systematic desensitization in the treatment of rape trauma.** *Behavior Therapy*, 19, 403-420. The present study addresses the role of behavior therapies in the recovery from rape trauma by presenting two lines of evidence. First, 60 immediate-treatment seekers are compared to 24 late-treatment seekers. Although the late-treatment seekers began treatment at a time point comparable to the point at which the immediate-treatment seekers completed treatment, both groups of subjects showed comparable pre-post improvement. Second, all treated subjects (N = 84) are compared to untreated subjects in assessment-only studies conducted at other sites. Although the treated subjects in the present study were significantly more symptomatic than subjects in the assessment-only studies at initial assessment, symptom levels were comparable by three-to-four months postassault, suggesting that treatment intervention accounted for the greater change observed in the treated subjects.

HILEY-YOUNG, B. (1992). **Trauma reactivation assessment and treatment: integrative case examples.** *Journal of Traumatic Stress*, 5, 545-555. A framework for differentiating between subtypes of trauma reactivation is presented as a guide to client-treatment matching. Case examples are given to illustrate uncomplicated reactivation, complicated reactivation, and respective treatment implications. The rationale for utilizing a psychoeducational approach for treatment of uncomplicated reactivation and a psychodynamic approach for treatment of complicated reactivation is presented. Treatment implication [sic] for short-term disaster counseling services are discussed.

KEANE, T.M., FAIRBANK, J.A., CADDELL, J.M. & ZIMERING, R.T. (1989). **Implosive (flooding) therapy reduces symptoms of PTSD in Vietnam combat veterans.** *Behavior Therapy*, 20, 245-260. Abstracted in *PTSD Research Quarterly*, 1(1), 1990.

LOO, C.M. (1993). **An integrative-sequential treatment model for posttraumatic stress disorder: A case study of the Japanese American internment and redress.** *Clinical Psychology Review*, 13, 89-117. This article presents a clinical model that integrates classic victimization symptoms with multiple treatment interventions into a coherent process of recovery. The model serves to reduce the fragmentation of the PTSD literature, clarify existing treatment modalities in terms of their respective contributions to recovery, and suggest principles underlying the sequencing and/or concurrence of specific interventions for trauma due to intentional, external human design (PTSD-IHD). Parallels are made between symptoms experienced by Vietnam veterans with PTSD and those of Japanese Americans who were interned in U.S. concentration camps during World War II. The psychologically relevant historic and self-help events that preceded and included the Japanese American redress movement elucidate the clinical model.

MEICHENBAUM, D. & FITZPATRICK, D. (1993). **A constructivist narrative perspective of stress and coping: Stress inoculation applications.** In L. Goldberger & S. Breznitz (Ed.), *Handbook of stress: Theoretical and clinical aspects*. 2nd ed. (pp. 706-724). New York: Free Press. This chapter combines theoretical rationale and empirically supported therapeutic techniques to approach the problem of traumatic as well as everyday stressors in an effort to facilitate adaptive coping. The origins and underlying principles of the constructivist narrative perspective are discussed with emphasis on the role of the narrative in the adjustment process following stressful events. An outline is provided of the distinctions between the narratives of successful copers and chronically distressed individuals, and the variety of techniques involved in narrative construction and repair. Finally, stress inoculation training (SIT) is proposed as a collaborative effort in rescripting the stressful event and providing personal meaning for the distressed individual.

PENISTON, E.G. (1986). **EMG biofeedback-assisted desensitization treatment for Vietnam combat veterans post-traumatic stress disorder.** *Clinical Biofeedback and Health*, 9, 35-41. A modified version of EMG biofeedback-induced desensitization procedure (EMG-D) was employed in the treatment of 8 Vietnam combat veterans with a seven-year history of chronic PTSD, of frequent recurring nightmares and/or flashbacks that were anxiety-evoking events. 16 PTSD patients ranging from 29 to 42 years of age were randomly assigned to the two treatment conditions (EMG-D and NO Treatment-NT). EMG analysis of forehead muscle tension and over a two year follow-up period indicated that the patients in the EMG-D condition had significantly reduced their muscle tension and showed continued improved functioning over a 24-month follow-up period. The patients reported a few instances of recurrence of their nightmares and/or flashbacks; however, they were essentially anxiety-free episodes. No significant reductions in muscle tension or recurring nightmares and/or flashbacks were found for patients in the NT condition.

PERCONTE, S.T. & GRIGER, M.L. (1991). **Comparison of successful, unsuccessful, and relapsed Vietnam veterans treated for posttraumatic stress disorder.** *Journal of Nervous and Mental Disease*, 179, 558-562. The present study investigated the differences between veterans who benefited from intensive treatment for PTSD and those who either relapsed or showed no improvement following treatment. Data from 45 combat veterans with PTSD completing at least 6 weeks of treatment in a partial hospitalization program were utilized. Veterans who had improved following treatment and had maintained a positive adjustment 18 months following treatment were found to have had lower rates of alcohol consumption and greater program participation than those who were unimproved or relapsed. These veterans also obtained lower scores on the MMPI-PTSD subscale, the global indices of the SCL-90-R, and seven of nine individual symptom scales of the SCL-90-R. These results were consistent with other recent reports concerning the existence and characteristics of Vietnam veteran symptom overreporters in studies using the MMPI, and suggest possible treatment outcome predictors for these groups.

RESICK, P.A. & SCHNICKE, M.K. (1992). **Cognitive processing therapy for sexual assault victims.** *Journal of Consulting and Clinical Psychology*, 60, 748-756. Cognitive processing therapy (CPT) was developed to treat the symptoms of PTSD in rape victims. CPT is based on an information processing theory of

PTSD and includes education, exposure, and cognitive components. Nineteen sexual assault survivors received CPT, which consists of 12 weekly sessions in a group format. They were assessed at pretreatment, posttreatment, and 3- and 6-month follow-up. CPT subjects were compared with a 20-subject comparison sample, drawn from the same pool who waited for group therapy for at least 12 weeks. CPT subjects improved significantly from pre- to posttreatment on both PTSD and depression measures and maintained their improvement for 6 months. The comparison sample did not change from the pre- to the posttreatment assessment sessions.

ROSENHECK, R. & THOMSON, J. (1986). **"Detoxification" of Vietnam war trauma: A combined family-individual approach.** *Family Process*, 25, 559-570. Treatment with families of veterans suffering from the aftereffects of combat trauma in the Vietnam War often requires a preliminary phase of disjoint treatment, in which family members are seen separately, before conjoint treatment can proceed. In this disjoint phase of treatment, wives and children are introduced to the brutal realities of Vietnam combat experience and to an understanding of its sequelae. This disjoint phase of family therapy detoxifies combat experience so that it can be approached in subsequent conjoint sessions along with more traditional family therapy issues.

SCURFIELD, R.M., KENDERDINE, S.K. & POLLARD, R.J. (1990). **Inpatient treatment for war-related post-traumatic stress disorder: Initial findings on a longer-term outcome study.** *Journal of Traumatic Stress*, 3, 185-201. Symptom checklists and a follow-up questionnaire were mailed to the first 180 graduates of an inpatient Post Traumatic Stress Treatment program. 86 of the 180 responded to the survey. Their responses were compared to measures obtained on them while they were inpatients at the treatment program. Significant differences were found on one symptom checklist, while positive trends toward symptom reduction were noted on another. Demographic characteristics of the respondents were discussed, as were responses to open-ended questions regarding in what ways the program helped most and least. Changes in a positive direction were noted in the area of self-esteem, interpersonal relationships, and symptoms of numbing and arousal. PTSD-related intrusive symptoms had the least clear-cut improvement. Implications of these findings for inpatient treatment and aftercare are reviewed, with suggestions for future applied research.

SOLOMON, S.D., GERRITY, E.T. & MUFF, A.M. (1992). **Efficiency of treatments for posttraumatic stress disorder: An empirical review.** *Journal of the American Medical Association*, 268, 633-638. Data Synthesis: Drug studies show a modest but clinically meaningful effect on PTSD. Stronger effects were found for behavioral techniques involving direct therapeutic exposure, particularly in terms of reducing PTSD intrusive symptoms. However, severe complications have also been reported from the use of these techniques in patients suffering from other psychiatric disorders. Studies of cognitive therapy, psychodynamic therapy, and hypnosis suggest that these approaches may also hold promise. However, further research is needed before any of these approaches can be pronounced effective as lasting treatment of PTSD. Conclusions: Further studies should specifically address combined treatment approaches, optimal treatment length and timing, effects of comorbidity, and unstudied traumatized populations.

SOLOMON, Z., BLEICH, A., SHOHAM, S., NARDI, C. & KOTLER, M. (1992). **The "Koach" project for treatment of combat-related PTSD: Rationale, aims, and methodology.** *Journal of Traumatic Stress, 5*, 175-193. The Koach project was designed and implemented by the Mental Health Department of the IDF (Israel Defense Forces) Medical Corps as a treatment program for chronic PTSD veterans, aimed at reducing the prevalence and severity of PTSD and accompanying psychiatric symptomatology and improving functioning in the military, the family, and the community. It was comprised of a 1-month residential phase on an army base, followed by mutual self-help groups in the veterans' communities. The project combined behavioral, cognitive, and group approaches into an integrated therapeutic program. This article presents the rationale behind the project and describes the treatment approaches that were utilized.

ADDITIONAL CITATIONS Annotated by the Editors

ALFORD, J.D., MAHONE, C. & FIELSTEIN, E.M. (1988). **Cognitive and behavioral sequelae of combat: Conceptualization and implication for treatment.** *Journal of Traumatic Stress, 1*, 489-501.

Discusses maladaptive thought and behavior patterns seen in Vietnam combat veterans with PTSD. The authors consider the adaptive origins of these patterns, why they persist, and psychotherapeutic implications.

BOUDEWYNS, P.A. (in press). **Direct Therapeutic Exposure: A learning-theory-based approach to the treatment of PTSD.** In L. Hyer (Ed.), *Trauma victim: Theoretical considerations and practical suggestions*. Muncie, IN: Accelerated Press.

This chapter outlines the background, theory, and rationale for Direct Therapeutic Exposure as applied to combat-related veterans with PTSD. Practical guidelines, common problems, and case examples are provided in the explication of this exposure procedure.

BRENDE, J.O. (1985). **The use of hypnosis in post-traumatic conditions.** In W.E. Kelly (Ed.), *Post-traumatic stress disorder and the war veteran patient* (pp. 193-210). New York: Brunner/Mazel.

Discusses the use of hypnosis to facilitate uncovering and abreaction in the treatment of trauma survivors. The author includes both historic and contemporary sources in demonstrating the relevance of the technique to the treatment of Vietnam veterans.

FAIRBANK, J.A., GROSS, R.T. & KEANE, T.M. (1983). **Treatment of posttraumatic stress disorder: Evaluating outcome with a behavioral code.** *Behavior Modification, 7*, 557-568.

Reports a case study of using imaginal exposure techniques to treat a Vietnam combat veteran with PTSD. The authors present detailed information about an observational rating code for categorizing behavior during exposure.

HARVEY, J.H., ORBUCH, T.L., CHWALISZ, K.D. & GARWOOD, G. (1991). **Coping with sexual assault: The roles of account-making and confiding.** *Journal of Traumatic Stress, 4*, 515-531.

Administered a questionnaire to 25 women and 1 man in order to investigate the roles of account-making and confiding in em-

pathic others in facilitating recovery from sexual assault. Both processes were positively correlated with outcomes. The authors discuss the value of story-construction and confiding in recovery.

LYONS, J.A. & KEANE, T.M. (1989). **Implosive therapy for the treatment of combat-related PTSD.** *Journal of Traumatic Stress, 2*, 137-152.

Discusses procedural issues and offers guidelines for conducting implosive therapy with traumatized combat veterans. The authors provide an excellent brief review of implosive techniques as well as detailed information about both the structure and content of their program.

RESICK, P.A., JORDAN, C.J., GIRELLI, S.A., HUTTER, C.K. & MARHOEFER-DVORAK, S. (1988). **A comparative outcome study of behavioral group therapy for sexual assault victims.** *Behavior Therapy, 19*, 385-401.

Compared the effectiveness of three types of group therapy (stress inoculation, assertion training, and supportive psychotherapy) for treating 37 rape victims. Relative to 13 wait-list controls, the treated women showed improvement in PTSD and other symptoms, although the treated groups did not differ from each other.

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PILOTS UPDATE

From its inception the PILOTS database has been intended to be comprehensive in its coverage of the traumatic stress literature. Our goal has always been to index papers from all disciplines dealing with PTSD. As we have encountered relevant publications in our searches of *Current Contents* and in the increasing number of unsolicited reprints that we receive, we have entered them in the database. But our efforts at searching the literature retrospectively for papers on traumatic stress have concentrated on medical and psychological databases.

Our initial goal was to include in the PILOTS database all English-language papers on PTSD included in MEDLINE, the National Library of Medicine's electronic index of the medical literature, and PSYCINFO, the online version of *Psychological Abstracts*. By the end of July we shall have substantially reached this goal: the PILOTS database will include 98 percent of the relevant material from those two databases as well as CINAHL (the Cumulative Index to Nursing and Allied Health Literature), Social Work Abstracts, and Sociological Abstracts. Thus in most cases it will not be necessary for PILOTS users to repeat their searches in these databases.

Three types of material found in these databases are excluded from PILOTS at the present time. We do not cover unpublished conference presentations, doctoral dissertations, and (with a few exceptions) material in foreign languages. We do plan to add dissertations to the database during the next year, and to increase the indexing of material in French, German, Spanish, and other languages. (We have no plans to add unpublished material to the database.)

During the next several months we shall continue our retrospective searching of the health and behavioral science literature, to ensure that all relevant papers indexed in BIOSIS (the electronic edition of *Biological Abstracts*), EMBASE (the online version of *Excerpta Medica*), and Mental Health Abstracts are included in PILOTS. We shall also explore the literature of allied and alternative medicine and the health policy literature.

Once we have indexed the world's health literature, we shall turn our attention to law and criminal justice. Our intention is to identify, acquire, and index all appropriate material from law reviews, legal treatises, case law, and statutes. We shall also search the literature of criminology, public policy, and the social sciences. When we have done all that, there will still remain history and the humanities. We do not expect to run short of work anytime soon.

COMING SOON: "BOOKS RECEIVED"

We are inaugurating a "Books Received" column, which will appear in our sister publication, the *NCP Clinical Newsletter*. Published by the National Center's Clinical Laboratory and Educational Division in Palo Alto, California, the *Newsletter* reaches several thousand clinicians around the world. We will cover popular as well as scholarly books, so that clinicians can find about literature to suggest to their patients and clients and their families, as well as material for their own reading. Because we shall provide indicative annotations rather than evaluative reviews, we hope to avoid the lengthy delays common to scholarly reviewing. We encourage authors to have their publishers send copies of their books to: "Books Received," National Center for PTSD (116D), VA Medical Center, White River Junction, Vermont 05009 USA. Books sent will be listed, with full publishing information including price and ISBN, and will also be indexed (to the chapter level where appropriate) in the PILOTS database.

DVA NORTHEAST PROGRAM EVALUATION CENTER

Alan Fontana, Ph.D. and Robert Rosenheck, M.D.

The Northeast Program Evaluation Center (NEPEC), under the direction of Robert Rosenheck MD, has a staff of 30 and is located in the medical center at West Haven, CT. It was established in 1987 by Paul Errera MD to evaluate new programs which were being initiated by the Mental Health and Behavioral Sciences Service. Since then, NEPEC has also undertaken program evaluation for the Geriatrics and Extended Care Service and the Veterans Assistance Service of the Department of Veterans Affairs (VA), and for joint programs between VA and Housing and Urban Development, the Social Security Administration, and the Department of Health and Human Services. These programs fall under four general headings: homelessness, chronic mental illness, residential treatment, and PTSD. Alan Fontana joined NEPEC in 1988 as Director of PTSD Evaluations, and Helen Spencer came on board in 1989 as Assistant Director. In 1989, NEPEC participated in the formation of the National Center for PTSD and remains affiliated with the National Center as its Evaluation Division.

The specialized PTSD programs currently consist of two types of outpatient and four types of inpatient programs. Outpatient programs include 57 PTSD Clinical Teams and 9 Substance Abuse PTSD Teams. In addition, 4 Women's Stress Disorders Treatment Teams are due to be named later this year. Inpatient programs include 22 Specialized Inpatient PTSD Units, 9 Evaluation and Brief Treatment PTSD Units, 7 PTSD Residential Rehabilitation Programs, and 4 PTSD and Substance Abuse Units.

In 1991, NEPEC undertook the task of preparing VA's response to the Persian Gulf War. Dr. Rosenheck chaired a committee of VA professionals and assembled several in-depth surveys from VA medical centers and Readjustment Counseling Service to present both a preliminary report of impressions and a final report of findings.

At NEPEC, an evaluation consists of a comprehensive cross-sectional and longitudinal survey of a program's functioning which includes its administrative operation as well as a description of program participants, clinical processes, and outcomes. NEPEC also undertakes related investigations of service delivery and mental health issues for their contribution to future policy decisions concerning the modification of existing programs and the design of new programs. The results of these efforts are integrated and summarized periodically in VA reports.

Some topics and analyses in the VA reports are of interest outside VA circles as well. We give these topics wider exposure through publication in professional journals and books when possible. The large number of veterans surveyed in the evaluations enabled us to compare veterans of World War II, Korea, and Vietnam. Although the levels of traumatic exposure and symptomatology were different in many cases, the relationships between traumatic exposure

and PTSD symptoms were the same across wars. Thus, much of what we learn about the impact of individual twentieth century wars on psychological well-being is likely to be applicable to modern warfare in general.

We explored the nature of traumatic exposure in more detail by including the psychological meaning of the traumas in their specification. Roles involving low personal responsibility for the initiation of traumas appear to be connected most distinctively to symptoms diagnostic of PTSD, whereas roles involving high personal responsibility seem to be connected as much to comorbid symptoms, including suicidal behavior, as to PTSD. In another study, we examined the etiology of war-related PTSD through structural equation modeling of many of the major risk factors. War-zone experiences contributed to symptoms more strongly than any other category, and they mediated much of the effects of premilitary risk factors and military entry conditions.

Because all evaluations cannot be conducted as intensively as these initial ones, we sought to pare down the assessment instruments to a minimum, and, at the same time, utilize a measure of PTSD symptoms that was maximally sensitive to treatment interventions. Toward this end, we developed a short form of the Mississippi Scale that was more sensitive to change over the course of treatment than the total scale was. Use of this short form should not only maximize the economy of data collection, but it also should maximize the chances of detecting change in PTSD symptoms when assessed by a self-report questionnaire.

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