ASK NOT FOR WHOM THE BELL TOLLS Controversy in Post-Traumatic Stress Disorder Treatment Outcome Findings for War Veterans

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This article reviews and analyzes two national studies of the efficacy of treatment for war veterans suffering from post-traumatic stress disorder (PTSD). A careful analysis of the studies conducted by the Department of Veterans Affairs (DVA) Northeast Program Evaluation Center (NEPEC) reveals conceptual, methodological, and design flaws in the research, which reports minimal treatment efficacy for PTSD. Based on this limited, if not biased, data, the results were used for policy purposes to dismantle inpatient PTSD hospital units and trauma-focus treatments. A critique is offered as a review to suggest how future studies might be conducted, designed, and evaluated, including the need for independent, "outside" peer reviews inasmuch as the issue of treatment outcomes generalizes to many nonmilitary populations.

Key words: PTSD, research, treatment, policy, therapy, outcome, DVA, Vietnam veterans

AS THE FIELD OF POST–TRAUMATIC Stress Disorder (PTSD) has grown since it was classified in 1980 as an anxiety disorder (APA, 1980), there has been a corresponding interest in understanding the effectiveness of clinical interventions (Foa, Keane, & Friedman, 2001; Wilson, Friedman, & Lindy, 2001). As noted in comprehensive analyses of the growth of PTSD as a field (Friedman, 2000; Van der Kolk, McFarlane, & Weisaeth, 1996; Wilson & Raphael, 1993), the scientific research on Vietnam veterans spearheaded a plethora of empirical investigations of the disorder and its treatment due to the large prevalence of PTSD among the 3.1 million personnel who served in Southeast Asia during the Vietnam War (Kulka et al., 1990). In that sense, the Department of Veteran Affairs (DVA) intensive inpatient, outpatient, and outreach counseling programs for war veterans have initiated a wide range of approaches for treating chronic

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PTSD. Only recently, however, have these efforts undergone evaluation to determine their effectiveness as assessed by a range of outcome criteria for the improvement of symptoms that impair adaptation and functioning. Thus, the review and analysis of treatment outcome studies is very important because it sheds light and offers insight as to the core issues involved in understanding the efficacy of treatment approaches. As stated by Wilson et al. (2001), "what treatments work best for which kind of PTSD client and under what circumstances" (p. 15). Moreover, the extensiveness of research on treatment outcomes conducted by the DVA on military veterans is not only heuristically and methodologically important, it serves as a sort of template or model for other programmatic efforts on patients suffering from PTSD. In this sense, the importance of carefully scrutinizing treatment outcome studies for PTSD carries as much importance as, for example, a clinical trial for a medication to treat a particular medical illness. More specifically, given the large number of Vietnam era veterans continuing to suffer from chronic PTSD, such treatment outcome studies carry added significance in terms of the difficulties and complexities in designing clinical interventions for chronic, severe stress disorders.

This review article consists of a critical analysis regarding the research conducted by the DVA on the treatment efficacy for PTSD in its specialty programs.¹ Our purpose is to offer critical and constructive viewpoints on (a) PTSD research strategies and conclusions that are relevant to war veterans and to other trauma survivors; (b) how the DVA could offer an open, constructive approach to reporting important PTSD study results; (c) understanding treatment efficacy for chronic PTSD as more than mere symptom reduction or alleviation; and (d) the generalizability of recent findings to PTSD treatment programs for war veterans to nonveteran populations. Two national DVA PTSD treatment studies are critically analyzed. Our analysis includes discussion of the ramifications of the DVA's acceptance of the NEPEC national study findings as a basis of planning program changes in PTSD treatment. Alterna-

KEY POINTS OF THE RESEARCH REVIEW

- The evaluation of treatment efficacy for PTSD should involve well-defined, meaningful and practical "real world" criteria in multiple clinical trials.
- The studies should attempt to manualize treatment by using "Gold Standard" criteria.
- Our review of the Department of Veterans Affairs research suggests that such Gold Standard criteria are lacking and that national policy planning to reduce trauma-focus treatments based on a few inadequate and limited studies is unwarranted.

tive research strategies, interpretations, concerns, and conclusions are presented. Substantial documentation exists that the analysis of these studies was used as a policy basis for restructuring DVA PTSD programs, including eliminating specialized inpatient PTSD units (Study 1) and implementing a large reduction in trauma-focus treatment (TFT) for war veterans (Study 2).

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Our primary purpose in this review is to present alternative viewpoints about the relevant DVA studies and to offer strategies regarding data collection and analysis for future PTSD studies, institutional policies and procedures that affect research and treatment of veterans with chronic PTSD. However, beyond these methodological considerations, there are important clinical considerations to be reevaluated in light of NEPEC's findings. As a former career DVA employee, one of the authors (RMS) had access to information about political, administrative, and clinical processes concerning DVA PTSD activities during his tenure with the DVA as a director of several PTSD treatment programs. This information was useful and foundational to the views presented in this article, especially because access to needed information was difficult to obtain through public channels.

BACKGROUND: FOR WHOM THE BELL TOLLS

Since the advent of PTSD as a diagnostic category (1980) and the awareness of the stress disorder as a major concern among war veteran populations, the DVA has pioneered an impressive range of specialized treatment programs, research, and educational endeavors (Blank, 1993) to address the substantial prevalence of chronic war-related PTSD among veterans (e.g., 15%-30% lifetime) (Kulka et al., 1990). This lifetime PTSD prevalence is estimated at 15.2% for all Vietnam theater veterans (e.g., over 470,000 veterans of the Vietnam era alone) and above 25% for specific subgroups of veterans such as Hispanics, Native Americans, and those exposed to heavy combat and/or physically disabled by combat injuries (Kulka et al., 1990). At the national level, PTSD prevalence rates range between 1% and 50%, depending on the civilian trauma population studied (Kessler et al., 1997).

NEPEC established a national-level oversight and program evaluation of productivity and outcome of specialized DVA PTSD in- and outpatient treatment programs (Fontana & Rosenheck, 1996a, 1996b, 1997). NEPEC findings have had an important influence on DVA policy, funding initiatives as well as the organizational structure and future viability of PTSD treatment programs. The research was institutional in nature and perhaps for this reason the results have not been examined critically in scientific and clinical arenas outside the DVA. We believe that the lack of systematic discourse of alternative viewpoints is of special concern given the substantial medical/psychiatric needs of veteran populations suffering from PTSD. Furthermore, inpatient PTSD programs are being developed in the private sector, some patterned after the DVA's programs, and the NEPEC study results thus take on relevance to their design and development. Moreover, the lack of widespread input from DVA PTSD practitioners and specialized treatment programs is of concern, too, because they have the responsibility and insight as to the day-to-day realities of patient care.

Collectively, the authors of this study have over 60 years of clinical, research, forensic, and legal experience in working directly with war veterans and PTSD. The interest of one of the authors (RMS) in PTSD treatment extends retrospectively to a tour of duty in Vietnam (1968-1969) as an officer on one of the Army's two psychiatric teams responsible for war-related psychiatric injuries. Subsequently, after a 25-year career with the DVA, mostly in PTSD program leadership positions, there emerged and crystallized an acute, enduring awareness of the prolonged and indelible impact of the war trauma on veterans of all eras of service (e.g., World War II, Korea, Vietnam, Panama, Persian Gulf). Furthermore, it is recognized that there are significant DVA accomplishments in warrelated PTSD treatment, education, and research, especially through the Vet Center Outreach Program (a.k.a. Readjustment Counseling Service [RCS], 1979-present), the National Center for PTSD (NC-PTSD, 1990-present), and specialized in- and outpatient PTSD programs (1974-present). However, the recent development of a managed care emphasis in the DVA, like that in the general American medical health care sector, presents challenges as to how to address chronic war- or duty-related PTSD. This challenge is further compounded by the DVA's documented resistance concerning the development of specialized PTSD programs and their mission in psychiatric treatment (Blank, 1993; Scurfield, 1993). Due, in part, to this resistance, the Congress, national service organizations (e.g., Disabled American Veterans, Vietnam Veterans of America, American Legion) and concerned advocates have lobbied the DVA to continue to support PTSD treatment programs. Thus, the quality and adequacy of PTSD treatment for veterans is a major medical, social policy, and national health care concern, much like that for other service-connected medical problems. In that sense, there has always existed an unwritten agreement that America would care for those who defend Her in times of threat and war. At issue here in terms of the NEPEC research findings is just how well that mission and tacit agreement is being fulfilled by the federal agency mandated to provide care for military veterans and their families needing specialized psychiatric care. Therefore, the results of NEPEC's evaluation of PTSD treatment programs carries an important weight in terms of policy and treatment planning.

NEPEC

NEPEC, one of the seven sites of the DVA NC-PTSD, has a mandate to monitor and evaluate DVA specialized PTSD programs. The mandate has enabled NEPEC to design data collection strategies, to require participation of nationally recognized DVA PTSD programs, and to amass, analyze, and interpret the research data obtained. In the most basic way, the research results have the potential to be used for decision making about PTSD programs, patient care, and program development. This responsibility has great importance in terms of direct patient care, as we discuss below.

It is our contention that such empowerment carries with it the highest level of expectation that design, analysis, and conclusions be subjected to independent (i.e., non-VA), evaluation that includes consideration of alternative perspectives regarding data interpreted. To date, however, this has not occurred, a fact of concern given the influence of such studies on the vitality and existence of PTSD programs, as well as their importance to veterans seeking help for service-connected disabilities.

A LANDMARK STUDY: NEPEC EFFICACY STUDY OF INPATIENT PTSD TREATMENT PROGRAMS (STUDY 1)

The NEPEC outcome study of Fontana and Rosenheck (1996a, 1996b, 1997) comparing the results of PTSD bed-based treatment at Specialized Inpatient PTSD Units (SIPUs), Evaluation and Brief Treatment PTSD Units (EBTPUs), and General Psychiatric Units (GPUs) in the DVA health care system was a landmark endeavor. As a general finding, the study documented outcome results at the time of postdischarge follow-up from SIPUs, contrasted with post-discharge treatment gains at the less expensive EBTPUs (Fontana & Rosenheck, 1996a; Fontana & Rosenheck, 1996b). The results revealed few significant findings as to the efficacy of treatments.

Inpatient treatment for PTSD was compared between four SIPUs, four shorter term specialized EBTPUs, and five GPUs. The data set was quite large and random regression statistical modeling was utilized for use with longitudinal data. Accordingly, treatment outcome was assessed at three different time intervals: (a) inpatient discharge, (b) 8 months, and (c) 12 months later. All programs demonstrated significant improvement on several measures at the time of discharge, with EBTPUs demonstrating the most consistent improvement. Subsequently, however, symptoms and social functioning relapsed toward their preadmission levels, especially among SIPU participants. When treatment outcome was considered over the course of the year following discharge, the SIPUs showed no change or a significant decline in psychological adjustment. EBTPUs and GPUs, on the other hand, showed sustained and significant improvement on several measures. EBTPUs and GPUs showed significantly more improvement than SIPUs over the 1-year follow-up, even after differences in veterans' characteristics were taken into account (Fontana & Rosenheck, 1996a, p. v). NEPEC's interpretations stated that

The paucity of evidence of sustained improvement in the costly SIPU programs and the indication of high satisfaction and sustained improvement in the far less costly EBTPU programs suggest that systematic restructuring of inpatient PTSD treatment in DVA could result in delivery of effective services to larger numbers of veterans. (Fontana & Rosenheck, 1996a, p. v)

Thus, the lack of treatment gains sustained at the time of 1-year follow-up was interpreted by NEPEC and DVA officials as data that SIPUs were costly and noneffective.

CRITIQUE OF NEPEC FINDINGS, INTERPRETATIONS, AND POLICY IMPLICATIONS

The NEPEC study methodology and results along with their national policy implications were accepted as valid by DVA officials and used as a basis of program evaluation and planning. It is reasonable to suggest that the findings were embraced by officials to reduce, if not eliminate, PTSD treatment programs and offer lower cost outpatient treatment within a managed care model. Our focus is that scientific and clinical concerns about the NEPEC study were ignored, dismissed, or incompletely analyzed in terms of (a) scientific rigor, (b) research design and methodology, and (c) theoretical and

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Extensive clinical experience is congruent with research evidence regarding the severity and chronicity of war-related PTSD symptoms despite considerable and expensive treatment efforts (Wilson et al., 2001;

Archibald & Tuddenham, 1965; Kulka et al., 1990). At the same time, an extremely important finding replicated in other studies (Hyer, Scurfield, Boyd, Smith, & Burke, 1996; Donovan, Padin-Rivera, & Kowaliw, 2001) reported on the improvement of outcome factors at the time of discharge from the inpatient treatment programs SIPU (and EBTPU and general psychiatry). The similar result obtained in the NEPEC study was considered to be of little significance. Instead, they focused on relapse rates of treatment gains at the time of follow-up. NEPEC's conclusion that SIPUs failed to show therapeutic impact on veterans with chronic PTSD may have been premature due to their operational criterion measures. There are plausible, alternative interpretations of their findings, as well as other results that we consider below.

Reframing the discrepancy between the outcome findings at time of discharge from SIPUs and postdischarge follow-up. Historically, there has been discontinuity between DVA PTSD inpatient and outpatient programs. This discontinuity is a testable factor that may explain the inability for positive treatment gains to be sustained. We must raise the question, What is the

association of a range of extended care factors on the sustainment or enhancement of treatment gains following hospitalization? NEPEC reports only one such factor-the number of outpatient sessions. No other outpatient data are reported. Thus, it is difficult to ascertain which, if any, extended care factors may have been associated with outcome. To illustrate this point, it is possible to question whether there was a "continuum of care" and/or "differential access" among the three types of programs. For example, what was the frequency of and association between the source(s) of extended care and outcome (e.g., Vet Centers, PTSD Clinical Teams, SIPUs, general mental health)? The potential importance of the utilization of an outpatient aftercare regimen following inpatient stay is illustrated in an outcome study with more significant findings for treatment efficacy than the NEPEC study. Four hundred nineteen Australian Vietnam veteran cohorts who completed programs that were a combination of 4 weeks inpatient treatment and 8 weeks follow-up outpatient care showed significant improvements in their war-related psychiatric illnesses in comparison to their pretreatment levels of illness (Creamer, Morris, Biddle, & Elliott, 1999).

Access to care is another important factor to consider. Different levels of access to extended care for veterans in the three types of programs the NEPEC evaluated may have existed. EBTPUs (and GPUs) may have had a significant advantage over SIPUs regarding patients maintaining a continuity with their communities and in providing veterans with needed aftercare. This finding could be caused by two factors: (a) a shorter length of stay (LOS), which minimized discontinuity from the community, and (b) the smaller geographic catchment areas served by EBTPUs (and GPUs). In contrast, SIPUs admitted patients for a much longer LOS and accepted referrals from a substantially larger catchment area (e.g., an 11-state area at the American Lake SIPU).

We believe that most PTSD clinicians would agree that in addition to program type variables (SIPUs, EBTPUs), extended aftercare factors are important to sustain or enhance gains accomplished during a hospitalization for PTSD treatment. The NEPEC study failed to statistically analyze such factors and yet asserted in their report that SIPUs were not a cost-effective option. From a methodological perspective, outcome studies of inpatient or residential PTSD programs can be limited in generalizability if there is not substantial assessment of extended care factors that may be associated with the outcome measures assessed. Clearly, research in the area of substance abuse treatment has shown that extended care following inpatient treatment is critical to relapse prevention (Fromm & D'Amico, 1999; Najavits, 2001). We have no reason to believe that aftercare for PTSD treatment should be any less important, especially inasmuch as many veterans are comorbid for alcohol dependence (Kulka et al., 1990).

Pooling or averaging of data sets. NEPEC's data collection and analysis strategy involved averaging together important research findings (a) between each of the three program types (e.g., all veterans in all SIPUs were pooled together to compare to all veterans in all EBTPUs) and (b) within each program site (e.g., all veterans were pooled together at a given site, whether positive, neutral, or negative treatment responders). By averaging together findings among the four SIPUs, it cannot be ascertained if there were significant "location effects" on an outcome viable at individual SIPU sites. Averaging together the findings at any one site (i.e., a between-measures procedure) blurred analysis of possible differential presence within various sites of the proportions of positive, neutral, and negative treatment responders. Was the presence of subgroups of positive responders at any SIPU sites "washed out" when averaged with that site's data? Were there significantly higher proportions of positive treatment responders at various sites? Moreover, what characteristics distinguished subgroups of treatment responders at each site and/or between sites? The NEPEC study is silent on this important question and we must question why this is so, given such a methodological and statistical comparison. By averaging significant results, NEPEC generalizations about "all SIPUs" or "all EBTPUs" are of questionable validity. This is

problematical in several respects: (a) NEPEC concluded that SIPUs, across the board, were ineffective, and (b) there is modest empirical evidence of significant location effects on outcome at the time of SIPU discharge between two of the four SIPUs that were in the NEPEC study (Hyer et al., 1996). We believe that future multiple-site PTSD studies should be conducted in a way that permits analysis of data sets within and between sites. Such an analysis by NEPEC could have led to a different set of findings that would be of clinical utility, namely, SIPUs and EBTPUs each do better in treating veterans with different characteristics, some sites are more effective than other sites, and there are salient factors that characterize various subgroups of treatment responders.

The statistical model utilized. Random regression modeling with longitudinal data involves a complex and advanced statistical model. Statistical experts who were consulted expressed concerns about this statistical model as utilized by NEPEC. Two examples are worth noting: (a) the selection of covariates among veteran patient groups that were substantially different from each other, and in treatment programs each with substantial variance from the other, may well be responsible for the equivocal outcome findings concerning differences among the treatments, and the removal of variance attributable to the treatment could explain the marginal outcome differences reported among program types; and (b) the strategy of using hundreds of ANOVAs and ANCOVAs, dozens of covariates, and many single-item indicators utilized for covariates raises important concerns about unreliable independent variables, spurious findings that are easy to obtain from single-item indicators and large Ns, and the value of any residual variance left to be analyzed.

Research on effective treatments for evaluating PTSD outcome has emphasized Gold Standard criteria, which includes manualized protocols (Foa et al., 2001; Wilson et al., 2001). At the time of the study, there was minimal, if any, manualization of treatment protocols within, and no standardized manualization across, various SIPUs or EBTPUs. NEPEC categorized treatment interventions at each site by brief, generic titles. The assumption was that such titles accurately classified interventions utilized by different staff and by different programs. Furthermore, program descriptions of each SIPU describe distinctive treatment philosophies, approaches, and program designs, such as a "second-generation" program at West Haven, Connecticut, designed to provide skills geared to integrating the veteran into society, rather than having a substantial trauma-focus component (Johnson, Feldman, Southwick, & Charney, 1994; Johnson et al., 1996). NEPEC did not report analysis of intra- or intersite differences and the limitations of pooling data. However, they concluded that trauma-focus treatment in SIPUs had failed to affect PTSD symptomatology (Rogers, 1998) and recommended that SIPUs should be dismantled in favor of EBTPUs.

Measurement methodology. The lack of treatment efficacy findings at SIPUs in the NEPEC study may partly be a function of the measurements utilized. This observation is based on findings of positive outcomes reported in the collaborative SIPU study at Augusta, Georgia, American Lake, Washington (Hyer et al., 1996), and the Brecksville, Ohio, PTSD programs (Donovan et al., 2001), which used different measurements than did NEPEC. In the final section of this article, we discuss measures that may be useful in assessing treatment outcome of chronic conditions, such as war-related PTSD (Wilson & Keane, 1997).

Self-selection biases. As a program evaluation study, there was a lack of random assignment to the three program types, among which admission criteria varied substantially. For example, SIPUs typically admitted veterans who reported chronic and stabilized PTSD-related problems. In contrast, EBTPUs typically accepted veterans who reported more acute and severe symptoms. Self-selection bias is mentioned to exemplify that NEPEC reports seem to imply that findings generated through their program evaluation methodology are of the same order of conclusiveness as experimental (or quasi-experimental) research methodology when this is clearly not the case.

NEPEC STUDY OF TWO OUTPATIENT PTSD CLINICAL TEAMS (PCTs) (STUDY 2)

NEPEC conducted an outcome study of six PTSD clinical teams that compared six PCT sites (Fontana & Rosenheck, 1996c). "High-intensity" sites provided interventions (of an unspecified nature) at a frequency of less than four times (3.91) per month for the first 4 months of treatment, versus "low-intensity" sites that provided interventions (also of an unspecified nature) at a frequency of just under two times (1.87) per month. During Months 5-12, this was followed by correspondingly less frequent interventions and a further reduction in intervention frequencies at all sites during Months 13-24. Treatment improvement peaked at the 4-month mark, with a sustaining of improvement across sites at the end of the 12th month or the 24th month. NEPEC concluded that this study demonstrated no treatment gains beyond the 4th month, and recommended a national PTSD clinical practice standard ("within the spirit of regulatory control") to reduce the frequency of sessions offered starting at Month 5 to less than one visit a month, implying that this would be sufficient to sustain any improvement.

CRITIQUE OF NEPEC FINDINGS AND INTERPRETATIONS

- A formula of phases and frequency of visits is recommended as a form of "regulatory control... that would be applied on average to the work of each clinical team as a whole" (Fontana & Rosenheck, 1996b, p. 207). It is noteworthy that the non-replicated results of this study could possibly justify NEPEC's making national clinical policy recommendations, as distinguished from suggestions for further research, which would be important to consider in regard to the evaluation of PTSD treatment programs and their effectiveness. In terms of patient care and the access and utilization of services, this is an important issue for veterans.
- 2. The NEPEC study was unable to provide information based on a large array of variables about factors that distinguished veterans with different treatment response outcomes. The frequency of the sessions provided did not appear to be related to the measures utilized to ascertain the level of the vet-

eran's symptomatology. Indeed, the low-intensity patients manifest more severe illness than the veterans who received high-intensity services. This finding raises questions as to which factors determined how many sessions were offered. For example, factors such as eligibility due to service connection status, the geographical distance from the treatment site, and the nature of the service being provided (e.g., seeing a physician at very low-intensity frequency for medication management of stabilized symptoms) may have been involved.

- 3. The NEPEC analysis of high intensity versus low intensity PCT services appears to be definitely constrained. For example, would knowledgeable PTSD clinicians consider high intensity to be the provision of a once-weekly individual or group session? Many experts (Foa et al., 2001; Wilson et al., 2001) would argue that once-weekly sessions of a timelimited nature may be able to provide stabilization, support, and maintenance, but that the time-limited interventions may not have the "treatment punch" to significantly reduce or eliminate most entrenched PTSD symptoms.
- 4. The NEPEC evaluation of outpatient programs used the same data analysis by averaging findings and not analyzing outcome differences for subgroups within each site. For example, what are percentages of positive responders at each site and the specific type of the treatment provided? The NEPEC publication does not address this issue. However, they suggest that empirical evidence of the lack of treatment gains beyond the 4-month mark justify a national regulatory policy on nonreplicated findings.

Let us now further consider the second study of six outpatient PTSD clinical teams. First, this is a study of once-a-week interventions of an unspecified nature. Second, the results cannot be generalized to outcome of outpatient treatment that is more frequent, such as several sessions a week, or a day hospital treatment offering. Third, the results cannot be generalized to specific types of treatment that might be offered within the frequency and phasing that was studied. Fourth, the results present little information regarding what differentiates positive from other treatment responders or what the percentage of positive responders was found at the six PCTs.

TRAUMA-FOCUSED TREATMENT GROUPS

It is important to note that the inpatient and outpatient PTSD programs evaluated by NEPEC include veteran peer treatment groups and trauma-focused treatment groups as a predominant modality of service. This factor assumes importance when put in the context that

outcome studies of peer group treatment with veterans is nonexistent, in spite of the provision of once-weekly sessions such a modality of service for veterans for three decades (Ford & Stewart, 1999; Scurfield, in press). This result may be due to the fact that such treatment groups have not been subjected to standardized and manualized procedures.

It is useful to place in perspective that preliminary findings of a DVA multisite controlled clini-

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cal trial comparing trauma-focused group therapy (TFGT) with a social problem-solving present-centered group treatment (PCGT) were recently reported (Schnurr & Foy, 2001). The results indicated a positive simple effect for each of the three waves of cohorts of the study: in favor of PCGT with cohort Number 1 and in favor of TFGT with cohorts Number 2 and Number 3. The conclusion stated was that "there was no evidence to support widespread implementation of TFGT."

Specifically, it is interesting that this study did not offer evidence to support implementation of PCGT. The latter equally valid conclusion was not stated and left the incorrect impression that TFGT has little therapeutic value.

IMPLICATIONS AND RECOMMENDATIONS OF THE NEPEC STUDY

NEPEC research and its implications require further consideration, due to (a) NEPEC's reporting of results and their interpretations without "outside" peer review, (b) the DVA's acceptance of the study results as a basis of treatment planning, and (c) the implementation of a managed health care model in the DVA health care

system. One example illustrates how NEPEC findings and policy implications can influence research and practice.

During a national conference call by NEPEC with representatives of specialized PTSD programs, it was stated regarding a proposed cooperative study on clinical outcomes that

The program will *not* [italics added] be traumafocused, as trauma-work is not always a part of PTSD treatment [*sic*]. It is preferred that enrollees be *new* [italics added] patients that have not had previous treatment. Additionally, they should be stable on their medication. This program will utilize individual therapy only and not include group work. It is felt that interactive group effects may so complicate the data analyses as to be unfeasible. (NEPEC National Conference Call minutes, September 8, 1998)

The proposed design per the NEPEC conference telephone log minutes indicates the protocol is devoid of the clinical realities at most PCTs. The program will not be trauma focused. It is preferred that enrollees be new patients who have not had previous treatment, a marked minority of any PCT patients. It must be kept in focus that it is nearly 30 years since the United States left Vietnam, for example. Given the usual PTSD patient population (i.e., Vietnam era veterans), what about the possibility that new patients may be of a different "breed," so to speak. Indeed, why are they new? What is different about them? What factors motivate them for treatment? Furthermore, only individual therapy will be utilized whereas veterans at PCTs will be in more than one modality of treatment because of the chronicity and complexity of their PTSD disorder. We must ask how it makes sense from the perspective of the clinical realities facing PTSD service providers to consider a cooperative study that helps to determine the optimal intensity of PTSD outpatient treatment based on a clinical protocol that appears not to exist in many PCT settings?

USING NEPEC FINDINGS TO SUPPORT REDUCTION OF TRAUMA-FOCUS TREATMENT

Justified in part by the NEPEC findings, efforts have been made to reduce or eliminate the provision of trauma-focus interventions and shift treatment efforts to skill building and functional problem solving. Such so-called secondgeneration PTSD programs are being encouraged even though they provide a therapeutic strategy with little empirical evidence as to their efficacy.

We must ask in light of collective clinical wisdom, are not trauma-focus interventions the core rationale for why specialized PTSD programs and services were developed and should continue to exist? Specialized PTSD programs evolved and received appropriations because mental health programs were not providing adequate attention to trauma-focused dynamics and neither were such programs being adequately funded by local DVA facilities. Nevertheless, the DVA nationally, and many psychiatry services in particular, appear not to have fully embraced trauma-focus treatment in spite of substantial empirical outcome data indicating its effectiveness for exposure-based treatment (i.e., see Cooper & Clum, 1989; Foa et al., 2001; Keane, Fairbank, Caddell, & Zimering, 1989; Wilson et al., 2001) and Eye Movement Desensitization and Reprogramming, or EMDR (i.e., see Carlson, Chemtob, Rusnak, Hedlund, & Muraoka, 1998; Rogers, 1998; Shapiro, 1996).

AN ORGANIZATIONAL INITIATIVE TO SOLICIT SCIENTIFIC CRITIQUE OF NEPEC FINDINGS

It is important to note a proactive attempt by a national DVA official to elicit critical thinking about the NEPEC inpatient study findings prior to their dissemination. Dr. Thomas Horvath, the former national director of mental health in DVA headquarters, had requested a number of "PTSD experts" to submit written critiques of the NEPEC preliminary report. These critiques were to be reviewed and considered by NEPEC prior to issuance of their final, "official" reports.

Based on input from several colleagues at the Honolulu Division, NC-PTSD, a 10-page critique was prepared (Scurfield, 1997). Although reviewed by NEPEC, there was minimal acknowledgment of alternative viewpoints outlined in the final NEPEC report. The statistical experts who provided their critique of the quantitative methodology utilized in the NEPEC study were DVA employees and they requested not to be acknowledged, due to their concerns about possible ramifications should their identities become known. Also, it is noteworthy that similar critiques submitted by several other national DVA PTSD experts and programs were also reviewed by NEPEC and not acknowledged in the final NEPEC report.

RECOMMENDATIONS TO PROMOTE AN ORGANIZATIONAL ENVIRONMENT THAT FACILITATES OPEN SCIENTIFIC AND POLICY DEBATE

When future national-level DVA studies are forthcoming, is it in the interests of the war veteran patient to institute an organization-wide process to promote vigorous scientific, policy, and clinical discourse with written presentations of alternative views and concerns? Based on the critical points presented above, we recommend that the DVA institute a process that would include some of the following procedures:

- Critical analyses are obtained from national experts, including professionals outside the DVA system, via independent peer review by recognized experts.
- These analyses should be included or acknowledged in official reports. Inclusion of one or more such peer-reviewed reports would be a proactive and a beneficial inclusion for readers.
- An alternative format should be considered. For example, pro and con viewpoints of critical issues could be given equal voice in an "A-B" type comparison. Readers could have access to competing viewpoints that otherwise may not be known (e.g., Lilienfeld, 1995; Kirk & Einbinder, 1994) and that the prestigious NC-PTSD *Research Quarterly* publication utilize a similar pro and con format for selected topics pertinent to the treatment and health care of veterans.

Without a system of checks and balances regarding research findings that are used for treatment and policy purposes, formal DVA reports of PTSD studies run the risk of being limited in value with minimal acknowledgment or systematic consideration of alternative perspectives.

ALTERNATIVE FACTORS TO CONSIDER IN CHRONIC PTSD TREATMENT OUTCOMES

It is important to note that NEPEC could not find factors in their study of PCTs that were significantly correlated with treatment outcomes. This result suggests several conclusions: (a) There are no factors correlated with outcome or (b) there are factors that are correlated but were not included in the NEPEC methodology. Without empirical evidence to the contrary, we assume that the latter is the case. Space limitations permit only a brief identification of a more expanded concept of factors to consider in assessing chronic PTSD treatment outcomes.

FACTORS TO BE CONSIDERED IN ASSESSING PTSD TREATMENT OUTCOMES

What do the consumers of service consider to be important to change behaviorally? In the majority of PTSD treatment studies (including NEPEC's), a crucial variable has not been assessed, namely, What do the patients believe to be the important focus of treatment? Clinical experience argues that many veterans with chronic PTSD who enter treatment (a) are am-

bivalent about, or do not want to eliminate, some PTSD symptoms that they regard as survivor mode adaptations, such as hypervigilance, anger, generalized mistrust, and self-imposed isolation (i.e., Murphy, Cameron, et al., in press; Rosen, Cameron, & Thompson, in press); (b) are at least as motivated to obtain, retain, or increase their disability compensation as they are to become gainfully employed (see the secondary gain orienta-

Without a system of checks and balances regarding research findings that are used for treatment and policy purposes, formal DVA reports of PTSD studies run the risk of being limited in value with minimal acknowledgment or systematic consideration of alternative perspectives.

tion and consequent exaggeration of symptoms reported by veterans who were seeking finan-

cial compensation; Frueh, 1998); and (c) may or may not value changes in certain quality-of-life (QOL) indicators that clinicians or researchers target as outcome measures (i.e., increasing social support networks, participation in the community).²

Stages of treatment readiness. Researchers and clinicians should consider whether the veterans are at a stage in treatment when they are motivated or able to take advantage of treatment interventions.³ Different levels of "treatment readiness" require different types of interventions and effect outcome (Murphy & Cameron, 1998). Veterans at the "precontemplative" stage are often not sure that they want to engage in treatment efforts.

Targeting associated features, versus core PTSD symptoms for therapeutic change. Associated features, and not just core PTSD symptoms (APA, 1994), are integral to a holistic view of PTSD outcome (Scurfield, 1993, 1994, in press; Wilson et al., 2001). It may be that (a) DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, fourth edition)(APA, 1994) core PTSD symptoms, especially (Criterion B) intrusive symptoms, are particularly resistant to change in chronic PTSD, and (b) associated features of the disorder are at least as important to address as are the target for change efforts that are highly endorsed by both PTSD clinicians and veterans. The more salient of the PTSD associated features include self-destructive behaviors, highrisk-taking behaviors, loss of self-worth and personal identity, impaired affect modulation, feelings of being permanently damaged, loss of previously sustained beliefs, guilt, shame, despair, isolation, intimacy and marital problems, disillusionment, and hopelessness. There is research, and considerable clinical evidence, to indicate that many of the important PTSD treatment outcomes with veterans concern selfesteem, self-awareness, and self-understanding (Scurfield, Kenderdine, & Pollard, 1990; see also Donovan et al., 2001)—even though the veterans may continue to manifest core PTSD symptomatology (Ragsdale, Cox, Finn, & Eisler, 1996).

Customer satisfaction. As stated governmental policy, the DVA strongly emphasizes customer satisfaction as a performance indicator. How-

ever, customer satisfaction has not been systematically treated as a clinical outcome indicator in PTSD studies. When there are discrepancies between (higher) customer satisfaction and (lower) outcome results per traditional psychometric instruments, instrument results are considered valid, and customer satisfaction is disregarded or ignored.

Coping. The research literature on coping is voluminous (Folkman & Lazarus, 1985), and study of the specific applications of coping styles to trauma is expanding (Aldwin, 1993; Solomon, Mikulincer, & Avitzu, 1998; Solomon, Mikulincer, & Benbenishsty, 1989; Wolfe, Keane, Kaloupek, Mora, & Wine, 1993). Coping concepts with applicability to PTSD include approach coping styles that focus on problemsolving management, versus avoidant coping styles that focus on emotions. Also, there is a COPE instrument that discerns general styles of coping from specific coping application to specific episodes (Carver, Sheier, & Weintraub, 1989). Studies on coping styles in PTSD treatment outcome studies is important when considering target objectives for the disorder (Wilson et al., 2001).

Subjective self-report and open-ended questions. In addition to the standardized PTSD and symptom instruments, it is important to consider patient self-report and open-ended questions to elicit feedback about important clinical outcomes. Note the contrast between the absence of change on standardized instruments and (a) positive subjective reports by veterans (Hyer et al., 1996) and (b) similar findings regarding veteran self-reports and specially designed instruments (Scurfield et al., 1990). PTSD studies have reported significant treatment gains as measured by tailored instruments sensitive to the spectrum of PTSD symptoms, in contrast to nonspecialized and standardized instruments. Perhaps clinical programs understand best what they affect and thus develop instruments more likely to measure benefits from treatments (J. Zadecki, personal communication, September 25, 1998; Zadecki, 1999). Clearly, good treatment outcome studies need multiple methods and multiple instruments with psychometric specificity and sensitivity to outcome measures (Wilson & Keane, 1997).

Although a host of standardized instruments were administered in the American Lake treatment outcome study (Scurfield et al., 1990), the clinical staff reported that the most useful treatment outcome information was obtained from two open-ended questions:

- In what ways do you feel the program most helped you to change in a positive way? (The two most common groupings of answers: [a] self-esteem, selfacceptance, self-understanding, and awareness; and [b] relationships—with staff members and other veterans.)
- 2. In what ways did the program help you very little or not at all? (By far the most reported area: intrusive symptoms of war-related stressors.)

CONCLUSIONS AND CHALLENGES: FOR WHOM DOES THE BELL TOLL?

A review and constructive analysis of the NEPEC study raises the question of whether the DVA, as a matter of institutional policy, should develop a method of seeking outside, peer-reviewed criticisms of research studies involving the treatment of PTSD. A sound institutional policy should include an officially sanctioned channel for clinicians to express their input, concerns, and suggestions for improvement in research design.

There is an understandable historical dichotomy within the DVA between PTSD treatment and mental health services. This schism includes Vet Center programs that operate under a line authority to protect their autonomy that is outside of the DVA medical centers. This particular dichotomy has involved different types of staff in diverse services providing inpatient bed-based care versus outpatient treatment. Such a parallel and dichotomous organization of service delivery has been based, in part, on political factors concerning the role of mental health services in the DVA. Substantial reorganization of services at some medical centers offers promise of a more seamless delivery system. For example, the same set of staff members could provide care at an inpatient ward and outpatient clinic, which would include responsibility for following a cohort of veterans throughout the course of health care utilization at that center (e.g., treating those same veterans whether they are in- and/or outpatients).

An important challenge is how research methodology can measure real-world outcomes for veterans with chronic, persistent, and static PTSD symptomatology. This may include not basing treatment outcome primarily on eradication of core PTSD symptoms but helping patients to achieve stabilization and coexist more peacefully with long-standing and indelible traumatic memories (Scurfield, 1994). As one veteran stated about the symptom checklist instruments in the American Lake study,

The way I answered these questions doesn't really tell what is going on with me and how I have changed. Many of my external life circumstances are similar to what I was going through prior to treatment. What has changed for me is the different meaning I place on the same circumstances. (Scurfield et al., 1990, p. 200)

The film A Journey of Healing (Scurfield, Pouch, & Perkal, 1997) documents the poignant and distressing trauma experiences still present in veterans of various wars (World War II, Vietnam, Persian Gulf). It is evident from this research documentary that veterans can obtain marked relief from both premilitary and military-related trauma issues and yet continue to manifest PTSD diagnostic symptoms on standardized instruments. We believe that programmatic research can do a better job of ascertaining (a) trauma-related, as well as non-war-related, issues important for the veteran to resolve and (b) the extent to which the patient assesses such issues as having changed. A more complete picture of treatment outcome changes should also include the realworld perspective of veterans and their families.

In conclusion, our intent in this study was to present constructive analysis and an alternative viewpoint concerning the two major program evaluation studies of veterans suffering from PTSD, institutional dynamics and policy making in the DVA, and consideration of an expanded concept of PTSD treatment outcomes. The commitment to quality veteran treatment programs can only be as good as the foundation on which it is built. When valuing the dedication and sacrifices of America's military exservicemen, few would argue that such a foundation should not be made out of granite, perhaps even polished black granite, because high-

IMPLICATIONS FOR PRACTICE, POLICY, AND RESEARCH

The process by which the NEPEC study conducted by the Department of Veterans Affairs illustrates critical implications for practice, policy, and research is as follows:

- First, it illustrates the need to have peer review of study design that involves experts both inside and outside of the DVA.
- Second, it illustrates the need to design Gold Standard clinical outcome research with meaningfully defined variables indicating improvement in health/psychiatric status.
- Third, it illustrates the need to proceed with caution in program decisions as to which forms of treatment

NOTES

1. This article is based partly on a presentation, "PTSD: Controversy in Outcome," at the PTSD Treatment Outcome Symposium, Hines DVA Medical Center, Chicago, Illinois, on September 15, 1998, sponsored by VISN 12 and Dr. Jerry Zadecki and Edward Klama, PTSD Clinical Team.

2. See the Quality of Life (QOL) Inventory (Frisch, 1994) that queries if the client considers various QOL factors to be important, as well as satisfying.

3. See the "stages of change" model (Prochaska & Diclemente, 1982, 1992].

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quality care is a right paid for by veterans who ask not for whom the bell tolls.

are most effective for chronic, severe war-related trauma in veterans.

- Fourth, it illustrates the need to establish criteria for scientifically determining which modalities of treatment work best for what type of client and under which conditions.
- Fifth, it illustrates the need to involve outside peer review of all research findings and to encourage alternative perspectives and interpretations of the study findings.
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SUGGESTED FUTURE READINGS

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