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PSYCHOLOGICAL ASSESSMENT OF POST-TRAUMATIC STRESS DISORDER

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Knowledge of PTSD is advancing rapidly, as evidenced by the burgeoning literature on traumatic events and their psychological and social sequelae (Blake, Albano & Keane, 1992). Driving this expansion of information is the development and utilization of assessment approaches and instruments that are both conceptually and technically sophisticated. Numerous methodologically sound studies appear in the literature regularly that document the capacity of researchers and clinicians working in the field of trauma to evaluate comprehensively the nature of high-magnitude stressors, the characteristics of the persons exposed, and the expression of symptoms following exposure. As advocated by Sutker et al. (1991), the assessment of PTSD is increasingly characterized by person-environment conceptualizations with an emphasis on continuous measures of the stressor events, person characteristics, individual symptom responses, and a comprehensive assessment of compromised and spared abilities among individuals exposed. This approach to assessment is both dynamic and interactive, placing a greater emphasis on longitudinal rather than cross-sectional views in understanding psychological outcomes associated with traumatic event exposure.

In 12 years of study since the appearance of PTSD in the diagnostic nomenclature for psychiatry, there has been considerable progress in the area of assessment. This progress was highlighted in 1991 by a special section of the journal *Psychological Assessment*, dedicated to reviewing progress in conceptual foundations of assessment (Sutker et al., 1991), the assessment of PTSD in children (McNally, 1991), evaluating disasters (Green, 1991), the assessment of rape-related PTSD (Resnick et al., 1991), the use of neuropsychological assessment in PTSD research and clinical care (Wolfe & Charney, 1991), and the measurement of PTSD among refugees (Mollica & Caspi-Yavin, 1991). Each of these scholarly articles documents the need for multiple measures of the PTSD construct due to the imperfection of any single measure of PTSD, a recommendation that was proposed early in the development of PTSD research (Malloy et al., 1983), and one which has guided much of the progress made to date.

In 1987, Keane, Wolfe and Taylor proposed a method for evaluating the psychological effects of trauma exposure that incorporated assessment of the stressor variable (e.g., combat, rape, disaster), broad-based symptom measurement, and the use of multiple indicators of PTSD. This methodological approach to assessment included recommendations to procure information from the targeted individual, collateral informants, psychometrics, and psychophysiological indices, in addition to the clinical interview. Recognizing the fallibility of any single measure, and the possibility that not all vectors of information necessarily agree, these researchers proposed the use of clinical judgment to reconcile discrepancies in concordance. For research purposes, clinical judgment might be replaced by statistical algorithms, although the benefit of a statistical over a clinical decision-making process can be debated. However, for treatment purposes the authors recommended the use of clinical input by informed, competent clinicians to reconcile differences among indicators. Consensus diagnosis can yield a responsible diagnostic classification for a given patient, and it can also be useful as a process to promote a functional analysis of an individual's problems with concomitant recommendations for clinical intervention.

The publications cited in this article were selected not to be exhaustive of all important articles on PTSD assessment, but rather to present articles that served as precedents for instrument development or application; remaining articles were selected because they summarized well the existing literature on PTSD assessment. It is remarkable, and indeed gratifying, that the field of PTSD assessment has expanded so broadly. Through this expansion, work on treatment, psychopathology, health care utilization, and long-range effects can proceed in a systematic, coherent manner.

Research on the assessment of PTSD has developed in each of the following areas: clinical interviews, psychometrics, and psychophysiology. We will provide a brief overview of some of the available literature in each of these areas. For further details, of course, the reader is referred to the original sources.

SPECIAL PULLOUT SECTION:
A guide to using the PILOTS Data-
base on the Dartmouth College
Library Online System.



Structured Clinical Interviews. Certainly, the *Structured Clinical Interview for DSM-III-R (SCID; Spitzer, Williams, Gibbon & First, 1990)* has been the interview most frequently used to date to evaluate the presence or absence of PTSD. The SCID provides a comprehensive evaluation of Axis I and Axis II diagnoses. The PTSD module is concise and relatively easy to administer and score, while addressing the major diagnostic features of the disorder. Kulka et al. (1990) found a *kappa* of .93 when a second clinician listened to audiotapes of the target interview and then made independent diagnoses. McFall et al. (1990) reported 100 percent diagnostic reliability between two clinicians who completed independent SCIDs on ten subjects. Keane, Kolb and Thomas (1988) observed a *kappa* of .68 for PTSD SCID diagnoses derived from two independent clinicians who individually interviewed the same patients (N = 37). Kulka et al. (1990) also found the SCID diagnosis to be strongly correlated with other indices of PTSD (i.e., the Mississippi Scale, the Impact of Event Scale, the PK-Scale of the MMPI). These results suggest that the PTSD module of the SCID is a measure with respectable reliability and validity. Yet this instrument is limited, because it yields only dichotomous information about each symptom and, as a result, disorder severity and changes in symptom level cannot easily be detected.

The *Diagnostic Interview Scale (DIS-NIMH)* is a highly structured interview that can be administered by technicians and clinicians alike. Providing a comprehensive examination of the diagnostic categories, this instrument has been used in many epidemiological studies. In a review of the literature on PTSD assessment, Watson et al. (1991) noted that in clinical settings the PTSD-DIS functioned well, correlating highly with other known measures of PTSD. However, Kulka et al. (1991) indicated that when used in a community sample, where the base rate of PTSD was low, the DIS performed poorly, with estimates of .23 for sensitivity and .28 for *kappa*. The use of this highly structured instrument for making diagnoses in field studies has, therefore, been challenged, and additional work is needed to substantiate its utility in these settings. Data on its utilization in clinical settings seem far more supportive of its usefulness.

The *PTSD-Interview* by Watson et al. (1991) yields both dichotomous and continuous scores, thus addressing some of the limitations of the SCID and DIS. Reports of high test-retest reliability (.95), internal stability ($\alpha = .92$), sensitivity (.89), specificity (.94), and *kappa* (.82) recommend this instrument for use in diagnosing PTSD. This instrument differs, however, from other clinical instruments in that it asks the subjects to make their own rating of symptom severity, rather than requiring this of the clinicians. This minimizes the role of the experienced clinician in the diagnostic process.

Davidson et al. (1989) offered the *Structured Interview for PTSD (SI-PTSD)* as an alternative to the SCID and DIS. This instrument also contains continuous and dichotomous symptoms ratings, and the researchers reported that it is a psychometrically sound instrument. Excellent test-retest

reliability (.71), inter-rater reliability (.97 - .99) and perfect diagnostic agreement (N = 34) were reported. The utility analyses revealed sensitivity of .96, specificity of .80, and a *kappa* of .79 when compared to the SCID.

The *Clinician Administered PTSD Scale* (Blake et al., 1990) was developed to address the limitation of previous clinical interviews for assessing PTSD. Available in both lifetime and current versions, the CAPS contains diagnostic symptoms of PTSD, its associated features, symptom severity measures, indices of impairment in social and occupational functioning, and an assessment of validity of patient responses. The CAPS also provides continuous and dichotomous scores to suit the needs of the investigator/clinician. Preliminary results from a sophisticated psychometric assessment of its properties (Weathers, 1992) indicates that the CAPS is promising with respect to issues of reliability and validity.

Psychometric Measures. Several questionnaires or self-report measures of PTSD have been developed and enjoy widespread use in both clinical and research settings. Each measure has diagnostic utility as well as the capacity to assess severity of disorder. Since these measures are relatively inexpensive to employ, several are frequently administered in conjunction with a clinical interview to provide multiple indices of PTSD.

The *PK-Scale* of the MMPI (Keane et al., 1984) consists of 49 items that differentiated PTSD from non-PTSD patients in both a test sample and a cross-validation sample of veterans. Eighty-two percent of 200 subjects were correctly classified using a cut-off score of 30. Subsequent studies have not found the same diagnostic hit rate, a problem that may be due to varying base rates of PTSD in the sample under study, different diagnostic methods for arriving at cases and non-cases, or the over-reliance on a single cut-off score to make the diagnosis. With the publication of the MMPI-2, Lyons and Keane (1992) describe the use of PK within the context of the improved overall instrument. For the most part, the PK-Scale remains unchanged in the wording of items; however, three repeated items have been deleted as were all repeated items on the test. The performance of PK in the NVVRS (Kulka et al., 1991) indicates that the MMPI-2 modifications have not altered the general interrelationship of PK with other measures of PTSD.

The *Mississippi Scale* (Keane, Caddell & Taylor, 1988) is available in both combat and civilian versions. It is a 35-item instrument that has high internal consistency ($\alpha = .94$), test-retest reliability (.97), sensitivity (.93), and specificity (.89). This instrument performed effectively in both clinical settings (e.g., McFall, Smith, Roszell et al., 1990) and in field/community settings (e.g., Kulka et al., 1991), indicating its general utility for measuring PTSD across settings and for different purposes (e.g., research or clinical).

Consistent with Horowitz's view of PTSD, his *Impact of Event Scale* (Horowitz, Wilner & Alvarez, 1979) focuses upon the assessment of intrusions and avoidant/numbing responses. Perhaps the single most widely used instru-

ment for assessing the psychological consequences of exposure to traumatic events, this scale has good internal consistency (.78 for intrusion, .82 for avoidance) and test-retest reliability (.89 for intrusion, .79 for avoidance). Recent studies have found the IES to correlate well with other indices of PTSD, but this instrument has the limitation that it does not measure other aspects of the disorder apart from the intrusion and avoidant components.

Saunders et al. (1990) derived a 28-item PTSD scale for the SCL-90 using items that best discriminated women with crime-related PTSD from non-cases. With good sensitivity (.75) and high specificity (.90) using the DIS as the criterion, this instrument, if findings are replicated, can be a particularly valuable one since so many available data sets contain the SCL-90 and a post-hoc assessment of PTSD would be feasible.

The *Penn Inventory* (Hammarberg, 1992) is an important new diagnostic tool because it was developed and validated with both combat veterans and trauma-exposed non-veterans. This particular instrument was found to be internally consistent ($\alpha = .94$) and of high test-retest reliability (.96). Sensitivity was found to be .90 and specificity was 100 percent among a sample of 83 veterans; in a sample of disaster survivors sensitivity was 94 percent with specificity observed to be 100 percent. While these findings were on relatively small numbers of subjects, it is clear that the Penn Inventory has excellent potential as a questionnaire measure of PTSD symptomatology.

Psychophysiology of PTSD. The search for biological markers of a psychological disorder transcends the study of PTSD and has been the focus of considerable interest among psychobiologists and biological psychiatrists. Early work in the area of PTSD indicated that a psychological challenge (i.e., exposure to cues of a traumatic event) provoked a systematic physiological response across several measurement domains (e.g., heart rate, skin conductance, EMG, and blood pressure). Blanchard et al. (1982) and Malloy et al. (1983) found that this reactivity predicts the PTSD diagnosis while using auditory and audiovisual cues. Some years later, Pitman et al. (1987) observed this same reactivity using personal scripts of traumatic events

that were then read to subjects. These studies all observed a robust physiological component by combining the presentation of a psychologically meaningful cue while measuring physiological responses. This challenge model may assist us in identifying other physiological parameters of PTSD.

There have been numerous replications of the psychophysiological findings in PTSD across several different research laboratories. In 1989, the Department of Veterans Affairs' Cooperative Study Program funded a 15-site clinical trial to determine the extent to which this psychophysiological assessment approach can be a useful diagnostic tool in discriminating cases of PTSD from non-cases (Keane et al., 1988). With the data collection phase of this study completed, we are now embarking on data cleaning and analysis. The results of this large-scale clinical trial will be reported in a future issue of the *PTSD Research Quarterly*.

As can readily be seen by the results of this cursory review, the assessment of PTSD has advanced rapidly. We are now in an excellent position to conduct meaningful research on treatment outcome, psychopathology, and health care utilization. The 1990s should provide answers to many clinically important and valuable questions that will affect public policy towards traumatized patients well into the 21st century.

References

KEANE, T.M., KOLB, L.C. & THOMAS R.T. (1988). **A psychophysiological study of chronic PTSD.** Department of Veterans Affairs Cooperative Study #334.

SPITZER, R.L., WILLIAMS, J.B., GIBBON, M. & FIRST, M.B. (1990). **Structured Clinical Interview for DSM-III-R.** Washington, DC: American Psychiatric Press.

WEATHERS, F.W. (1992). **A psychometric analysis of the Clinician Administered PTSD Scale.** Department of Veterans Affairs Medical Research Service Research Advisory Grant.

SELECTED ABSTRACTS

BLAKE, D.D., ALBANO, A.M. & KEANE, T.M. (1992). **Twenty years of trauma: Psychological Abstracts 1970 through 1989.** *Journal of Traumatic Stress, 5*, 477-484. The present study represents an objective assessment of the growth in trauma literature, and of the thematic trends which have been part of its historical evolution. For these purposes a systematic, manual search of *Psychological Abstracts* from 1970 to 1990 was conducted to identify literature on trauma-related topics. Fifteen hundred and ninety-six (1596) citations between 1970-1990 were identified, and a trend showing increasing numbers of trauma publications was in evidence. This increase was most apparent in literature involving war- and sexual abuse-related traumatization, but not in publications about natural and technological disaster. These findings reflect a dynamic and growing field, and will provide an important benchmark for assessing the changing status of the PTSD literature.

BLAKE, D.D., WEATHERS, F.W., NAGY, L.N., KALOUPEK, D.G., KLAUMINZER, G., CHARNEY, D.S. & KEANE, T.M. (1990). **A clinician rating scale for assessing current and lifetime PTSD: The CAPS-1.** *Behavior Therapist, 18*, 187-188. The CAPS-1 is a structured clinical interview designed to assess the 17 symptoms for PTSD as outlined in the DSM-III-R, along with eight associated features. This scale allows for careful analysis of PTSD by assessing both frequency and intensity dimensions of each symptom, by explicitly delineating current and lifetime symptom status, and by providing both continuous symptom scores and dichotomous diagnostic values. The CAPS-1 has the potential to enhance understanding of PTSD by increasing the capability to assess and quantify this multifaceted disorder.

BLANCHARD, E.B., KOLB, L.C., PALLMEYER, T.P. & GERARDI, R. (1982). **A psychophysiological study of post traumatic stress disorder in Vietnam veterans.** *Psychiatric Quarterly*, 54, 220-229. Comparisons were made between a group of male Vietnam veterans suffering from PTSD (n = 11) and an age and sex matched group of nonveteran controls (n = 11) on their psychophysiological responding (heart rate (HR), blood pressure (BP), forehead EMG, skin resistance level, and peripheral temperature) to mental arithmetic and an audiotape of combat sounds played at gradually increasing volume levels. The two groups responded differently to the combat sounds in terms of HR, systolic BP, and forehead EMG. The HR response could correctly classify 95.5 percent of the combined sample. Implications of these findings for the basis of PTSD are discussed.

DAVIDSON, J.R.T. & FOA, E.B. (1991). **Diagnostic issues in posttraumatic stress disorder: Considerations for the DSM-IV.** *Journal of Abnormal Psychology*, 100, 346-355. Four issues of key interest with regard to PTSD in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) are discussed. These include: (a) how to define the stressor criterion, especially whether the victim's response ought to be included and whether low-magnitude traumas qualify etiologically; (b) the cohesiveness of the syndrome and the validity of items across stressor groups; (c) the position of PTSD within DSM-IV; and (d) comorbidity with other illnesses.

DAVIDSON, J.R.T., SMITH, R.D. & KUDLER, H.S. (1989). **Validity and reliability of the DSM-III criteria for posttraumatic stress disorder: Experience with a structured interview.** *Journal of Nervous and Mental Disease*, 177, 336-341. Abstracted in *PTSD Research Quarterly*, 1(1), 1990.

FRIEDMAN, M.J. (1991). **Biological approaches to the diagnosis and treatment of post-traumatic stress disorder.** *Journal of Traumatic Stress*, 4, 67-91. PTSD appears to be associated with biological alterations in central noradrenergic activity, the hypothalamic-pituitary-adrenocortical axis, the endogenous opioid system, and the sleep cycle. This pattern of biologic abnormalities, which appears unique to PTSD, has practical implications for diagnosis and treatment. A biological approach may complement psychological diagnostic techniques. With regard to treatment, almost every type of psychotropic agent has reported efficacy in PTSD. However, very few double-blind therapeutic trials have been published. Successful pharmacotherapy appears to alleviate DSM-III-R intrusive recollections and hyperarousal but not avoidant symptoms. Current information suggests that drug treatment alone can rarely alleviate the suffering in PTSD. Medication appears to be most useful as an adjunct to psychotherapy. Finally, the neurobiological alterations associated with PTSD may make affected individuals more susceptible to alcohol, opiates, and other illicit drug use. This also has important implications for treatment.

GREEN, B.L. (1991). **Evaluating the effects of disasters.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 538-546. This article reviews the assessment of PTSD and other disaster-related psychopathology following natural and human-made disasters. A brief history of disaster research is provided, and instruments used in recent studies are discussed. Data from the author's research on the relationships of several of these measures to clinically-assessed PTSD are provided. The importance of multimethod assessment of PTSD and related symptoms is emphasized. Other factors potentially contributing to the development and maintenance of PTSD that should be

assessed (i.e., stressors, individual factors, recovery environment) are also noted.

HAMMARBERG, M. (1992). **Penn Inventory for posttraumatic stress disorder: Psychometric properties.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 4, 67-76. This article reports a 3-phase study to develop and validate the Penn Inventory for PTSD, a 26-item self-report measure of the severity of PTSD. In Phase 1, using a sample (n = 83) selected in 4 different groups, the inventory showed high internal consistency, test-retest reliability, and validity in relation to a structured clinical PTSD diagnosis, measures of combat exposure, and measures of PTSD symptom dimensions. Phase 2 cross-validated the initial findings on a second sample (n = 98), yielding results comparable to those of Phase 1, including measures of sensitivity and specificity. Phase 3, using a new sample (n = 76), extended the findings to general veteran psychiatric admissions and civilian survivors of the Piper Alpha oil rig disaster, and used as criterion measures the Mississippi Scale for Combat-Related PTSD among the veteran groups and the Impact of Event Scale in the civilian group.

HOROWITZ, M.J., WILNER, N.R. & ALVAREZ, W. (1979). **Impact of Event Scale: A measure of subjective stress.** *Psychosomatic Medicine*, 41, 209-218. Clinical, field, and experimental studies of response to potentially stressful life events give concordant findings: there is a general human tendency to undergo episodes of intrusive thinking and periods of avoidance. A scale of current subjective distress, related to a specific event, was based on a list of items composed of commonly reported experiences of intrusion and avoidance. Responses of 66 persons admitted to an outpatient clinic for the treatment of stress response syndromes indicated that the scale had a useful degree of significance and homogeneity. Empirical clusters supported the concept of subscores for intrusions and avoidance responses.

KEANE, T.M., CADDELL, J.M. & TAYLOR, K.L. (1988). **Mississippi Scale for Combat-Related Posttraumatic Stress Disorder: Three studies in reliability and validity.** *Journal of Consulting and Clinical Psychology*, 56, 85-90. The Mississippi Scale for Combat-Related PTSD is a 35-item self-report scale derived from DSM-III criteria for the disorder. This article describes a series of three studies designed to explore the psychometric properties of the scale. Study 1 used 362 Vietnam veterans seeking help at Vet Centers (Operation Outreach) to confirm the internal consistency of the instrument and provide an assessment of its factor structure. Study 2 demonstrated the high test-retest reliability of the instrument over a period of 1 week. Study 3 indicated that the test's sensitivity was .93, specificity was .89, and overall hit rate was .90 when it was used to differentiate between a PTSD group and two non-PTSD comparison groups. The utility of the test when it is administered within the context of a multi-axial approach to assess military-related PTSD is discussed.

KEANE, T.M., MALLOY, P.F. & FAIRBANK, J.A. (1984). **Empirical development of an MMPI subscale for the assessment of combat-related posttraumatic stress disorder.** *Journal of Consulting and Clinical Psychology*, 52, 888-891. Few guidelines exist for the psychological assessment of PTSD in Vietnam combat veterans. The focus of the present study was to develop empirically based criteria for use of the Minnesota Multiphasic Personality Inventory (MMPI) to aid in the assessment and diagnosis of PTSD. Two hundred patients were assigned to either a PTSD group (n = 100) or to a non-PTSD control group (n = 100). Standard clinical profiles demonstrated that the PTSD group had

PILOTS ON DARTMOUTH

A GUIDE TO USING THE PILOTS DATABASE ON THE DARTMOUTH COLLEGE LIBRARY ONLINE SYSTEM

PILOTS is a bibliographical database covering **Published International Literature On Traumatic Stress**. It is produced at the headquarters of the National Center for Post-Traumatic Stress Disorder in White River Junction. Although it is sponsored by the U.S. Department of Veterans Affairs, the PILOTS Database is not limited to literature on PTSD among veterans. Its goal is to include citations to all literature on PTSD, without disciplinary, linguistic, or geographical limitations, and to offer both current and retrospective coverage.

The PILOTS Database is now available on the Dartmouth College Library Online System, offering a user-friendly way of searching the traumatic stress literature. No password is required, and there is no fee for search time or for citations retrieved. All you need is a computer, a modem, a telephone line, and a communication program (such as CROSSTALK, MICROPHONE, or PROCOMM).

PREPARING YOUR TERMINAL OR COMPUTER

1. Set your terminal, modem, and/or communication software to 8 bits, no parity, full duplex. Set the baud rate to either 300, 1200, or 2400 baud.

2. Start up your communication software.

3. Dial (603) 643-6310 to reach Dartmouth College's Kiewit computer network in Hanover, New Hampshire. (Or, if you are using the Internet, telnet to `lib.dartmouth.edu`). After the connection is made, press the RETURN key a few times. When you see:

```
Kiewit Network, Dartmouth College [etc.]  
@
```

Type:

```
c lib
```

You will not be asked for a password.

4. The Dartmouth College Library Online system will display a welcome message. At the bottom of the screen you will see this prompt:

```
->
```

Type:

```
SELECT FILE PILOTS
```

and you will be connected to the PILOTS Database.

If you are using a file capture utility (which is an option offered by most communication programs) to copy the entire search transaction to your floppy or hard disk, type:

```
SET PAGING OFF
```

before beginning your search. This will display your search results as a continuous scroll rather than screen-by-screen, saving you telephone time and charges and providing you with an electronic record of your search which you can import into a word processing program for later manipulation offline. *Be sure to turn on file capture before beginning your search!*

ABOUT THE PILOTS DATABASE

The PILOTS Database is produced by Fred Lerner, DLS, Information Scientist, and Jan Clark, Program Assistant, at the National Center for Post-Traumatic Stress Disorder in White River Junction, Vermont.

We welcome your comments and suggestions. Please contact:

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SEARCHING THE PILOTS DATABASE

AUTHORS. You may search for any author of any document; junior as well as senior authors are indexed. Just type:

FIND AUTHOR *or* F AU

followed by the name you are looking for. For best results, use either the surname alone or the complete forename along with the surname. To search for multiple authors, separate their names with the word AND. Here are some examples:

FIND AU FRIEDMAN

FIND AU GAIL WYATT

FIND AU SOLOMON AND AU BLEICH

Use the BROWSE command (explained below) to identify author names used in PILOTS.

TITLES. If you know the title, or part of the title, of a document, type:

FIND TITLE *or* F TI

and some important words from the title. You need not type all the words in the title, and they need not be in order. The Online System will find all items with titles containing all the words you type.

Thus if you know of a paper on PTSD whose title contains the words "rational pharmacotherapy," by typing:

F TI RATIONAL PHARMACOTHERAPY

you will find the citation to Matthew Friedman's "Toward rational pharmacotherapy for posttraumatic stress disorder: an interim report" and any other publications with that phrase in the title.

SUBJECTS. If you want to locate items on a particular subject, type:

FIND TOPIC *or* F TOP

and one or more subject terms. This will search the title, abstract, and descriptor fields for those terms. Some examples:

FIND TOPIC CANADIANS

F TO DRUG THERAPY

F TO AFRICAN AMERICANS INCEST

For a more exact search, type:

FIND DESCRIPTOR *or* F DE

and one or more descriptors from the PILOTS Thesaurus. This controlled vocabulary of indexing terms is published in the *PILOTS User's Guide*, which may be ordered from the National Technical Information Service, Springfield VA 22161, (703) 487-4650. Request publication PB92-100252. The price is \$19.50 plus \$3 shipping and handling.

For a more general search, type:

FIND GENERAL *or* F GEN

and one or more terms. This will find your term(s) regardless of the field in which they appear.

OPTIONS. The PILOTS Database may be searched by any of the following indexes:

GENERAL	searches the entire article citation.
AUTHOR	searches for author names.
TITLE	searches for words in article titles.
DESCRIPTOR	searches for descriptor words from the PILOTS Thesaurus.
TOPIC	searches for words from the title, abstract, and descriptor fields.
ABSTRACT	searches for words in the abstracts of citations.
AFFILIATION	searches for the institution at which the reported work was done.
FORM	searches for the form of publication: book chapter, journal article, etc.
ID	searches for the article's unique PILOTS identification number.
SOURCE	searches for book or journal title or for ISBN or ISSN.
INSTRUMENTS	searches for names of test or measurement instruments used in the work reported in articles indexed.

TRUNCATION AND WILDCARD SEARCHING. To search for all words or names having a common root, add a dollar sign to the end of a string of characters. For example, *neuro\$* will match words such as neurosciences, neuroanatomy, neurobiology, etc. Use a question mark to search for words that vary in individual letters. For example, *wom?n* will match woman, women, or womyn. You can use multiple ? characters in one word.

FOR MORE PRECISE SEARCHING

ADJACENCY AND PROXIMITY SEARCHING. You can retrieve items containing words which are adjacent and in the order specified by typing ADJ between the two words. For example:

```
FIND TOP COMBAT ADJ STRESS
```

will retrieve only those items in which the phrase "combat stress" occurs in the title, abstract, or descriptor field. (To find words adjacent to each other in either order, type PROX between them.)

COMBINING SETS (BOOLEAN SEARCHING). Each search is assigned a name by the Online System. You can combine or extend previous searches by using their name(s) in another search expression, as in the examples below. To see a record of all searches that you have entered during the current session, type:

```
SHOW SEARCHES
```

To retrieve *all* items that meet the criteria you gave in *either* of two searches, type:

```
FIND s1 or s2
```

To retrieve *only* those that meet the criteria you gave in both searches, type:

```
FIND s1 and s2
```

To *exclude* from a search a particular characteristic, type:

```
FIND s4 and not AU Friedman
```

which will retrieve all items from search 4 *except* those with Friedman as one of the authors.

You can use parentheses to produce complex searches, following the same rules as in algebra:

```
FIND s1 and (AU Hendin or AU Haas)
```

BROWSING THE INDEXES. The BROWSE command is a useful way of determining the version or spelling of a term or name used in the PILOTS Database. It gives you a listing of single words and composite terms that have been indexed in the database. Type:

```
BROWSE
```

followed by an index name, followed by as many letters or words as you know to be correct.

For example, if you're not sure if there is an "s" at the end of Judith Lyons's name, type:

```
BROWSE AUTHOR LYON
```

(which may be abbreviated BRO AU LYON), and you will see a numbered list of up to 100 terms that begin with the letters you typed (in this case, LYON). To search for one or more of the browsed terms, type FIND, followed by the "browse numbers" of the terms you want to retrieve. Use hyphens to indicate a range of browse numbers, and commas or spaces to indicate individual browse numbers. For example:

```
FIND B4 or FIND B5-B8 or FIND B1, B5, B10-B15
```

DISPLAYING YOUR SEARCH RESULTS

After you have completed a search, the Online System will automatically show you the items that you retrieved. You can use the DISPLAY command to look at your search results in more detail.

If you type DISPLAY alone, you will see a single-line SHORT display of all the items you received. This will not tell you where the papers were published.

The DISPLAY MEDIUM command (or D MED for short) will give you a concise bibliographical citation: author, title, and the basic facts of publication.

The DISPLAY LONG (or D LONG) command gives you an extended representation of the document: not only a bibliographical citation but also the year and language of publication, a list of the descriptors assigned to the document from the PILOTS Thesaurus, and an abstract. In most cases there's other information as well: the author's affiliation, a list of the instruments used in the work reported, and notes tracing bibliographic connections to other publications.

Other DISPLAY formats, such as DISPLAY ENDNOTE and DISPLAY PROCITE, present the material in a form intended for downloading into a database of your own. If you use the database software indicated, you might find this useful.

To display specific items that your search retrieved, include item numbers in your `DISPLAY` command. Use a blank space or a comma to separate numbers. Use a hyphen to ask for a range of item numbers. You may use the letter `L` to indicate the last item retrieved. Here are some examples of `DISPLAY` commands:

```
DISPLAY 10-20 or D 1 5 7 MED or D 10, 15-L LONG
```

SORTING YOUR RESULTS. After your search has retrieved some items, you can use the `SORT` command to arrange them into different orders. You may sort your search results by author, ID, source, title, or year, by typing `SORT` followed by the name of the field:

```
SORT AUTHOR
SORT YEAR
```

Normally the `SORT` command will arrange citations in ascending alphabetical or chronological order. To indicate descending order, type `(DESC)` after the field name. For example:

```
SORT YEAR (DESC)
```

which will present the most recent year's publications first. (Note that `SORT SOURCE` will give you a list in alphabetical order by journal or book source, which will facilitate finding the publications in a library catalog or on its shelves.)

After the `SORT` is complete, use the `DISPLAY` command to see the sorted results. If you issue any other database commands, such as `FIND` or `BROWSE`, the sort will go away, and you will have to `SORT` again to see the results in order.

LIMITING YOUR RESULTS. To limit your search results to those publications in English, type:

```
LIMIT LANG ENGLISH
```

(You can also do this for other languages.) To limit your results by date, type:

```
LIMIT YEAR
```

followed by a limit operator and the year or range of years. The limit operators are:

<code>EQ</code>	equals	<code>NE</code>	not equal to
<code>GT</code>	greater than	<code>LT</code>	less than
<code>GE</code>	greater than or equal to	<code>LE</code>	less than or equal to

For example:

```
LIMIT YEAR GT 1991
```

will give you only those papers published after 1991. (If you don't type a limit operator, the System will assume that you intended to use `EQ`.)

PROBLEMS?

If you are ever unsure about what you have just done, or what you can do next, simply type `HELP`, or `H`. You will then see a screen that explains your situation and may teach you some new ways of using the system.

Type `EXPLAIN` (or `E`) followed by a word or phrase (such as a command name) that you want explained. If you type `EXPLAIN` alone you will see a list of terms for which explanations are available.

If your screen becomes cluttered with "garbage characters" or is otherwise unreadable, type `CLEAN` and it will be "painted" again so that you can read it.

Use the Break key to back out of what you are doing, or to stop the system from completing a command. (If you haven't got a Break key on your machine, read your communications software manual to see how to transmit a Break command. Many programs use control-C—that is, pressing the control and `c` keys simultaneously—for this purpose.) Use Break in the following situations:

- If you have partially built a command and are being prompted to complete it, and you want to cancel the command.
- If you have issued a command and the system seems to be processing it very slowly, and you want to cancel the command.
- If you have issued a `SET PAGING OFF` command, and you want to stop a display before reaching the end.

FINISHING UP

When you are finished searching, type `BYE` at the prompt to leave the PILOTS Database and the Dartmouth College Library Online system. At the `@` prompt, use your communications software to hang up the modem connection.

overall higher mean elevations and an 8-2 configuration. A discriminant function analysis based on an empirically derived decision rule correctly classified 74 percent of the patients in each group. A special PTSD subscale was developed and cross-validated that improved diagnostic hit rates to 82 percent of the patients. The discriminant validity of the diagnosis of PTSD and the use of psychological tests in the assessment of Vietnam combat veterans are discussed.

KEANE, T.M., WOLFE, J. & TAYLOR, K.L. (1987). **Post-traumatic stress disorder: Evidence for diagnostic validity and methods of psychological assessment.** *Journal of Clinical Psychology*, 43, 32-43. PTSD is a diagnosis that has been the subject of considerable criticism in the clinical literature. Of primary concern has been the question of whether PTSD is a disorder that can be discriminated reliably from already existing diagnoses, such as depression, dysthymia, or generalized anxiety disorder. This paper reviews the evidence that surrounds this controversy and employs the guidelines for validating a diagnosis established by Robins and Guze (1970) as the framework for the review. A second purpose of this paper is to present a multiaxial approach for the assessment of PTSD. This approach includes the use of structured interviews, psychometrics, and a psychophysiological assessment procedure. Studies that support the reliability and validity of the components of the multiaxial method are reviewed.

KULKA, R.A., SCHLENGER, W.E., FAIRBANK, J.A., HOUGH, R.L., JORDAN, B.K., MARMAR, C.R. & WEISS, D.S. (1990). **Trauma and the Vietnam War generation: Report of findings from the National Vietnam Veterans Readjustment Study.** New York: Brunner/Mazel. Abstracted in *PTSD Research Quarterly*, 1(3), 1990.

KULKA, R.A., SCHLENGER, W.E., FAIRBANK, J.A., JORDAN, B.K., HOUGH, R.L., MARMAR, C.R. & WEISS, D.S. (1991). **Assessment of posttraumatic stress disorder in the community: Prospects and pitfalls from recent studies of Vietnam veterans.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 547-560. Research on the assessment and diagnosis of PTSD has rather quickly expanded from relatively small studies in clinical settings into the realm of community epidemiology, increasingly relying on population-based or "community" studies. This article highlights some of the key challenges and opportunities associated with assessing PTSD outside of treatment settings by reviewing the results of some recent efforts to develop, test, and use diagnostic measures of PTSD among samples of Vietnam veterans in the community, including in particular the recently completed National Vietnam Veterans Readjustment Study. Prevalence rates emanating from these different studies are compared, a comprehensive effort to account for some of the more major discrepancies is described, and a general strategy for assessing PTSD in the community — one based on comprehensive assessment of multimethod and multisource information — is suggested.

LYONS, J.A. & KEANE, T.M. (1992). **Keane PTSD scale: MMPI and MMPI-2 update.** *Journal of Traumatic Stress*, 5, 111-117. This paper addresses questions regarding the use and interpretation of the Keane MMPI PTSD scale. Particular focus is placed on issues to consider when using various versions of the MMPI including Form R, the group form, and the new MMPI-2.

MALLOY, P.F., FAIRBANK, J.A. & KEANE, T.M. (1983). **Validation of a multimethod assessment of posttraumatic stress**

disorders in Vietnam veterans. *Journal of Consulting and Clinical Psychology*, 51, 488-494. There appears to be a high incidence of PTSD in Vietnam veterans. Yet there is little information available on the reliability and validity of any approach to the assessment of these combat-related stress disorders. The present study was designed to determine if responses to the presentation of mild combat stimuli would distinguish the following three carefully matched groups of veterans: (a) those with an exclusive diagnosis of PTSD, (b) inpatients on a psychiatry ward who clearly do not have PTSD, and (c) Vietnam veterans with combat experience who are currently well adjusted. Behavioral, physiological, and self-report measures of anxiety obtained through this laboratory-based assessment clearly distinguished the PTSD veterans from the remaining two critical comparison groups. The utility of this tripartite assessment approach for the reliable identification of PTSD secondary to combat is discussed. Future research directions are presented.

MCFALL, M.E., SMITH, D.E., ROSZELL, D.K., TARVER, D.J. & MALAS, K.L. (1990). **Convergent validity of measures of PTSD in Vietnam combat veterans.** *American Journal of Psychiatry*, 147, 645-648. The authors evaluated the convergent validity of several widely used psychometric tests of PTSD symptoms against DSM-III-R criteria for PTSD in 130 Vietnam combat veterans. Significant positive correlations were found between these instruments and the number of DSM-III-R symptoms endorsed, supporting the validity of psychometric instruments as continuous measures of PTSD symptom severity. The various psychometric measures also correlated moderately with one another, suggesting that they assess related but somewhat separate PTSD phenomena. Finally, predicted relationships between stressors and symptoms were supported by significant correlations between degree of traumatic combat exposure and DSM-III-R and psychometric indexes of PTSD.

MCFALL, M.E., SMITH, D.E., MACKAY, P.W. & TARVER, D.J. (1990). **Reliability and validity of Mississippi Scale for Combat-Related Posttraumatic Stress Disorder.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 2, 114-121. This study examined the reliability and validity of the Mississippi Scale for Combat-Related Posttraumatic Stress Disorder (M-PTSD) in a sample of Vietnam combat veterans with PTSD (n = 101) and substance-abusing patients without combat-related PTSD (n = 102). The M-PTSD was found to have high internal consistency, and a principal-components analysis indicated that its items measure three dimensions: intrusive reexperiencing/numbing-avoidance, anger/lability, and social alienation. Discriminant validity of the M-PTSD was supported by its high sensitivity in identifying PTSD patients (93 percent) and specificity in discriminating them from substance-abusing control subjects (88.2 percent). Finally, convergent validity of the M-PTSD was substantiated by significant correlations of the instrument with measures of combat exposure and interview and psychometric measures of PTSD symptomatology. The M-PTSD was shown to be a highly reliable and valid measure of the spectrum of PTSD symptoms in Vietnam combat veterans.

MCNALLY, R.J. (1991). **Assessment of posttraumatic stress disorder in children.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 531-537. Although most studies on PTSD concern traumatized adults, increasing attention is being paid to the assessment and treatment of children with PTSD. In this article, the research on methods used to assess childhood PTSD is reviewed and suggestions for further investigations are provided.

MOLLICA, R.F. & CASPI-YAVIN, Y. (1991). **Measuring torture and torture-related symptoms.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 581-587. The medical and psychiatric assessment of torture survivors is a field in its infancy. Over the past 15 years investigators have shifted from the use of open-ended interviews to standardized interview schedules. Preliminary results have not elucidated the psychometric properties of these instruments. The development of valid and reliable instruments is confounded by many unique characteristics of torture survivors such as the horrific nature of the experience, the instability of memory, and the potential upset generated by the assessment. While translations of depressive and trauma related symptoms have been attempted in several languages, cultural and psychological constructs for torture-induced disease states remain elusive. The relationship between PTSD and the torture response has not been defined. Advances in the development of instruments for assessing American combat veterans can serve as a model for the torture field only if they are adapted to the unique cultural and psychological context of torture survivors.

PITMAN, R.K., ORR, S.P., FORGUE, D.F., DE JONG, J.B. & CLAIBORN, J.M. (1987). **Psychophysiological assessment of post-traumatic stress disorder imagery in Vietnam combat veterans.** *Archives of General Psychiatry*, 44, 970-975. This study utilized psychophysiological techniques to assess emotional arousal during imagery of psychologically traumatic experiences. All subjects were medication-free Vietnam combat veterans, classified on the basis of DSM-III-R criteria into groups with PTSD (N = 18) and no mental disorder (control, N = 15), which did not differ in extent of combat or in the judged severity of the traumatic experiences reported. "Scripts" describing each subject's combat experiences as well as other experiences were read to them in the laboratory, and they were instructed to imagine the events the scripts portrayed, while heart rate, skin conductance, and frontalis electromyogram were recorded. The PTSD subjects' physiologic responses to their combat scripts were markedly higher than the controls'. The combined physiologic variables identified PTSD subjects with a specificity of 100 percent and a sensitivity of 61 percent. The results demonstrate exaggerated physiologic arousal during recollection of traumatic experiences in PTSD.

RESNICK, H.S., KILPATRICK, D.G. & LIPOVSKY, J.A. (1991). **Assessment of rape-related posttraumatic stress disorder: Stressor and symptom dimensions.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 561-572. Sound assessment procedures for the identification of PTSD following rape are urgently needed, given the prevalence of this type of trauma and the prevalence of rape-related PTSD. Progress has been made in development of measures to assess complex histories of rape and other trauma exposure. Structured diagnostic interviews have been developed that appear to have high agreement with other measures thought to be indicators of the construct of PTSD. New findings from longitudinal assessment of PTSD following rape indicate that it may be possible to make predictions about the course of PTSD on the basis of initial symptoms and responses on self-report measures. The utility of psychophysiological indexes in assessment of rape-related PTSD is unknown at this time. Research on rape-related PTSD is in the early stages and can benefit from advances made in the study of combat-related PTSD.

SAUNDERS, B.E., ARATA, C.M. & KILPATRICK, D.G. (1990). **Development of a crime-related post-traumatic stress disorder scale for women within the Symptom Checklist-90-Revised.** *Journal of Traumatic Stress*, 3, 439-448. A community sample of 355

adult women were administered the Symptom Checklist-90-Revised and were assessed with structured interviews for a lifetime history of criminal victimization and crime-related PTSD (CR-PTSD). Using a criterion group classification approach, a 28-item scale within the SCL-90-R was developed that successfully discriminated between the CR-PTSD positive and negative respondents. Though replication and further research is needed, the developed scale may be of use for initial screening for CR-PTSD as well as for ongoing clinical assessment and research purposes.

SUTKER, P.B., UDDO-CRANE, M. & ALLAIN, A.N. (1991). **Clinical and research assessment of posttraumatic stress disorder: A conceptual overview.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 520-530. This article examines some of the conceptual issues that influence identification and assessment of PTSD as it occurs in the context of life stresses and trauma more generally as well as in association with accompanying psychological symptoms and psychiatric comorbidity. Highlighting needs for more clear conceptualizations of such key constructs as extraordinary stress, this effort outlines critical issues in defining stressful events and in studying their presumed impact on diverse domains of functioning. Emphasis is devoted to discussion of a longitudinal assessment perspective incorporating measurement of relevant person and environmental factors that interact to influence the course of stress outcomes over time.

WATSON, C.G. (1990). **Psychometric posttraumatic stress disorder measurement techniques: A review.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 2, 460-469. The strengths and weaknesses of twelve representative psychometric PTSD measures are reviewed. Only five follow DSM-III/III-R criteria precisely. No comprehensive reliability assessments have appeared, but encouraging partial studies are available on seven. Consistently robust concurrent validations have appeared on four. Weaker and/or inconsistent validations are available on four more, and the relationships of the remaining four instruments to other PTSD measures are unknown. None of the twelve have been shown to have good concurrent validity in nonclinical populations. Ten furnish both continuous severity/frequency measures and dichotomous present/absent outputs; five also generate continuous and binary outputs on individual symptoms, maximizing the number of uses to which they can be put. All but one can be administered by subprofessionals. At present, the literature seems to recommend Keane et al.'s Mississippi Scale for Combat-Related PTSD, Spitzer & Williams' Structured Clinical Interview for DSM-III PTSD module, and Watson et al.'s PTSD Interview.

WATSON, C.G., JUBA, M.P. & ANDERSON, P.E.D. (1989). **Validities of five combat scales.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 1, 98-102. The validities of five combat scales in a sample of 63 Vietnam veteran patients and normals were compared in order to facilitate research on the effect of battle. The criteria were military record information, an independent trauma measure, and each of the other scales. The measures developed by Gallops, Laufer, & Yager (1981), Figley & Stretch (1980), Watson, Kucala, Manifold, Vassar, & Juba (1988), and Solomon, Mikulincer, & Hobfoll (1987), in that order, generated the highest validation coefficients. The correlations involving the innovative Combat Exposure Scale offered by Lund, Foy, Sippelle, & Strachan (1984) were uniformly lower than the correlations for the other four measures. Compared to the other three, the Watson et al. and Gallops

et al. scales appeared to be more sensitive to combat and less influenced by the presence of PTSD. This implies they may be more useful as combat measures than the other instruments studied.

WATSON, C.G., JUBA, M.P., MANIFOLD, V., KUCALA, T. & ANDERSON, P.E.D. (1991). **The PTSD Interview: Rationale, description, reliability, and concurrent validity of a DSM-III based technique.** *Journal of Clinical Psychology*, 47, 179-188. This paper describes the PTSD Interview (PTSD-I). It was developed to meet four specifications: (a) close correspondence to DSM-III standards; (b) binary present-absent and continuous severity/frequency outputs on each symptom and the entire syndrome; (c) administrable by trained subprofessionals; and (d) substantial reliability and validity. It was written to meet the first three criteria. It demonstrated very high internal consistency ($\alpha = .92$) and test-retest reliability (Total score $r = .95$; diagnostic agreement = 87 percent). It is correlated strongly with parallel DIS criteria (Total score vs. DIS diagnosis $r_{bis} = .94$, sensitivity = .89, specificity = .94, overall hit rate = .92, and $kappa = .84$). Earlier studies revealed correlations with a military stress scale and Keane et al.'s MMPI PTSD subscale. It is apparently the only PTSD instrument that meets all of the above criteria.

WEISS, D.S., HOROWITZ, M.J. & WILNER, N.R. (1984). **The stress response rating scale: a clinician's measure for rating the response to serious life-events.** *British Journal of Clinical Psychology*, 23, 203-215. The impact of a serious life-event on an individual's psychological well-being has long been appreciated, but not until recently has it become the subject of more thorough and careful research. Clinical, field, and experimental studies of the effects of potentially distressing life-events have suggested the presence of two primary modes of response: episodes of denial and numbing, oscillating with periods of intrusive thoughts, images, and pangs of emotion. Although self-report measures are available for determining the degree of distress experienced in each of these modes of response, there is no measure that can be used by a clinical observer to assess these same phenomena. We offer the Stress Response Rating Scale (SRRS) as such a measure, and present empirical data to support its reliability and validity. In addition, we present some initial normative data, a discussion of issues encountered in developing the scale, and potential difficulties that may be encountered in its use.

WOLFE, J. & CHARNEY, D.S. (1991). **Use of neuropsychological assessment in posttraumatic stress disorder.** *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 3, 573-580. This article addresses issues related to neuropsychological assessment in PTSD. Specifically, it is proposed that neuropsychological evaluation offers valuable methods for objectively assessing complaints of cognitive dysfunction in patients with this disorder. Various psychological and organic conditions often associated with PTSD are discussed and their impact on cognitive status is reviewed. The general conditions for using neuropsychological testing with PTSD patients are outlined. The article also includes an overview of future assessment directions in this field, emphasizing the diversity of variables associated with PTSD and how they are likely to affect both clinical presentation and related test performance.

PILOTS UPDATE

In the last *PTSD Research Quarterly* we promised to describe some ways in which we are using computer networking to advance work in PTSD. This month we are able to announce one of the most important: the availability of a new, free version of our PILOTS database.

Dartmouth College has long been a leader in academic and library computing. For several years Dartmouth has been developing and supporting a powerful but easy-to-use interface for their online catalog. Through our affiliation with the Dartmouth Medical School, we have been able to add the PILOTS database to the Dartmouth College Library Online System.

We are distributing with this issue a four-page guide to "PILOTS at Dartmouth," a user-friendly way of searching of the database. No account or password is needed to use PILOTS on the Dartmouth College Library Online System, and there is no charge for search time or for retrieving citations. Try it out by dialing Dartmouth's Kiewit Computer Network at (603) 643-6310; at the network prompt, type `c lib`. (Or, using the Internet, telnet to `lib.dartmouth.edu`). At the Online System prompt, type `select file PILOTS` and you're in business. Consult "PILOTS at Dartmouth" for more details.

Here is another way in which we are using computer networking to disseminate information about PTSD. The *PILOTS User's Guide* and other publications of the National Center for PTSD are available for anonymous FTP from Internet host `dartvax.dartmouth.edu` [129.170.16.4]. You may connect to `dartvax` for ftp, login as "anonymous," and give any password. The files are in directory `pub/PTSD` and are stored in binhex format; use *binary* mode ftp to retrieve them.

If terms like "telnet" and "anonymous ftp" seem unfamiliar, you might want to learn more about the Internet. Two good books for this purpose are *Crossing the Internet Threshold: An Instructional Handbook*, by Roy Tennant, John Ober, and Anne G. Lipow (Berkeley: Library Solutions Press, 1992; ISBN 1-882208-01-3) and *Zen and the Art of the Internet* by Brendan P. Kehoe (Englewood Cliffs, New Jersey: Prentice-Hall, 1992; ISBN 0-13-010778-6).

The Internet is no longer restricted to the academic world. There are now several companies offering Internet access to unaffiliated customers. Many popular computer magazines have recently published articles on this new industry with lists of these vendors. Another source of this information would be local computer user groups. The situation changes too rapidly for us to publish the information here. We intend to keep up as best we can, with the aim of making information as widely accessible as modern technology makes possible.

The National Center for PTSD is pleased to announce the establishment of a Womens' Health Sciences division in its multi-site consortium. The new division will be located at the Boston VAMC and will be directed by Dr. Jessica Wolfe. The division will be devoted to the study of war-zone related and other sources of trauma experienced by female veterans. In our next issue of the *PTSD Research Quarterly*, Dr. Wolfe will provide readers with a review of the existing literature on this topic.

RELEASE OF NVVRS DATABASE

Thomas L. Murtaugh, PhD
Perry Point VAMC

The data collected in the National Vietnam Veterans Readjustment Study represent one of the most comprehensive sources of information ever assembled about Vietnam and Vietnam era veterans. While an impressive series of published articles by study authors continues to grow from analyses that have been conducted to date, the opportunity for further analysis of the database will soon be available to the scientific community at large. The database has been refined to Public Use Criteria with the production of additional documentation to facilitate further analyses. Interested scientists, particularly those familiar with large databases, should have little difficulty in pursuing further research.

The development of the NVVRS database has been the responsibility of the study's principal authors: William Schlenger, PhD; John Fairbank, PhD; Kathleen Jordan, PhD; Charles Marmar, MD; Daniel Weiss, PhD and Richard Hough, PhD. It has been achieved through a contractual relationship with the Research Triangle Institute and represents a joint venture of the Department of Veterans Affairs and the National Institute of Mental Health.

The database will be accessible to the scientific community through the Inter-university Consortium for Political and Social Research at the University of Michigan in Ann Arbor. It is anticipated that ICPSR will receive the major components of the database in the spring of 1993. The initial shipment will consist of the raw data to the National Survey of the Vietnam Generation (NSVG). The NSVG is a three-to-five hour face-to-face survey of Vietnam Theater veterans, Vietnam Era veterans, and civilian counterparts. The components of the database contain the responses of 1,632 Theater veterans, 716 Era veterans, and 668 civilian counterparts. It contains 22 separate data files, each representing a segment of the NSVG questionnaire. Included in this component are the statistical weights necessary for its utilization. The segments include Marital, Parenting, Educational, Occupational, and Childhood Histories, as well as indices of adjustment. Additional segments bear upon military history, Vietnam experience, and post-service adjustment (where applicable). Further segments include stressful/traumatic life events, self perceptions, physical health status, and portions of the Diagnostic Interview Schedule (PTSD, Anxiety, Affective Disorder, Substance Abuse, and Personality Disorder).

Another component that will be available is the raw data of the NSVG Family Survey. This is a sampling of NSVG spouse/partners (N=466) employing an interview of approximately one hour duration. This file will also contain the necessary weights for its use. The third component that will be initially available is the Analysis Data File and documentation. This file includes higher-order constructed variables utilized in the National Vietnam Veterans Readjustment Study. At a subsequent date, data from the Clini-

cal Examination stage will be available through ICPSR. This will include data from the Impact of Events Scale, the Minnesota Multiphasic Personality Inventory, and the Structured Clinical Interview (SCID) for a subset of NSVG Vietnam Theater and Era veterans.

Prospective users should be advised to employ a statistical program appropriate to stratified random samples. Moreover, users should be advised that only those files directly utilized by the NVVRS have been completely cleaned. All other files have been machine-edited.

For further information and assistance, interested parties should contact Thomas L. Murtaugh, PhD, Project Officer, VAMC, Perry Point, MD 21902, phone 410-642-1100.

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SCHLENGER, W.E., KULKA, R.A., FAIRBANK, J.A., HOUGH, R.L., JORDAN, B.K., MARMAR, C.R. & WEISS, D.S. (1992). **The prevalence of post-traumatic stress disorder in the Vietnam generation: A multimethod, multisource assessment of psychiatric disorder.** *Journal of Traumatic Stress*, 5, 333-363.

WEISS, D.S., MARMAR, C.R., SCHLENGER, W.E., FAIRBANK, J.A., JORDAN, B.K., HOUGH, R.L. & KULKA, R.A. (1992). **The prevalence of lifetime and partial post-traumatic stress disorder in Vietnam theater veterans.** *Journal of Traumatic Stress*, 5, 365-376.