



## Annual Report for Fiscal Year 2000

[From the Executive Director](#)

[About the National Center](#)

[Serving the Veterans of Today, and Tomorrow](#)

[Research](#)

[Education](#)

[Consultation](#)

[Publications](#)

[In-Press Publications](#)

[Scientific Presentations](#)

[Educational Presentations](#)

[Editorial Board Memberships of National Center Staff](#)

[About the Directors](#)

[Acronyms Used in the Text](#)

### FROM THE EXECUTIVE DIRECTOR

The year 2000 has seen many exciting new initiatives and a continuing evolution of the National Center's international reputation as a leader in the field of traumatic stress. We are especially enthusiastic about the growing number of collaborative relationships and projects with other agencies such as the Departments of Defense (DoD) and Health and Human Services (HHS) on policy, research, and education.

A cluster of VA/DoD/HHS initiatives are underway, aimed at improving prevention, detection, and treatment for acute stress reactions during military deployments and in the aftermath of mass casualties. We are also proud of collaborative research endeavors with DoD for a new study of women veterans and active-duty female military personnel. Also, our educational and research program on detection and treatment of PTSD in the primary care setting has led to our second national conference on this topic.

After ten years of remarkable stability in leadership, Dennis Charney, Jessica Wolfe, and Sarah Miyahira have resigned their respective Director positions at the Clinical Neurosciences, Women's Health Sciences, and Pacific Islands Divisions to pursue different career opportunities. These three individuals have been deeply involved in the growth and development of the National Center and its programs, and were valued professional colleagues. They will be greatly missed.

I am pleased to report that new leadership is in place in all three Divisions. John Krystal, MD, has become Director at the Clinical Neurosciences Division and presided over an exceptionally smooth transition. Lynda King has accepted the Acting Director position at the Women's Health Sciences Division, and Fred Gusman has become Chief Operating Officer at the Pacific Islands Division.

These shifts in leadership, along with other key personnel changes, prompted us to initiate a strategic planning process that should position us well for the challenges of the next ten years. I am confident that this careful review of our mission, priorities, goals, and objectives will engender changes that can only strengthen our capacity to carry out our mandate of research, education, and consultation in the future.

The National Center has played a major role in promoting the rapid advance of the young field of traumatic stress. We have helped to set the research agenda, to influence clinical practice, and to advise policy makers. Our growing focus on prevention, early intervention, treatment, and primary care should enhance our ability to assist clinical personnel, researchers, veterans, their families, and the veterans of tomorrow.

Matthew Friedman, M.D., Ph.D.

## **ABOUT THE NATIONAL CENTER**

The National Center for Post-Traumatic Stress Disorder was created within the Department of Veterans Affairs in 1989, in response to a Congressional mandate to address the needs of veterans with military-related PTSD. Its mission was, and remains:

**To advance the clinical care and social welfare of America's veterans through research, education, and training in the science, diagnosis, and treatment of PTSD and stress-related disorders.**

The VA charged the Center with responsibility for promoting research into the causes and diagnosis of PTSD, for training health care and related personnel in diagnosis and treatment, and for serving as an information resource for PTSD professionals across the United States and, eventually, around the world.

Although initially considered primarily a problem of veterans of the Vietnam War, PTSD is now recognized as a major public and behavioral health problem affecting military veterans, active-duty personnel involved in open conflicts or hazardous peacekeeping operations, and victims of disasters, accidents, and interpersonal violence in the civilian arena. Today, the disorder is estimated to affect more than ten million Americans at some point in their lives, and many times more people around the world.

At the time that the Center was being established, a VA-wide competition was undertaken to decide on a site where the Center would be located. It was quickly determined that no single VA site could adequately serve in this role. As a result, the Center was established as a consortium of five (later expanded to seven) VA centers of excellence in PTSD, each distinguished by a particular area of expertise while also sharing common interests and concerns.



## **SERVING THE VETERANS OF TODAY AND TOMORROW**

The National Center for Post-Traumatic Stress Disorder (PTSD) was created in 1990 within the Department of Veterans Affairs (VA) to address the needs of veterans with military-related PTSD. The Center was charged with responsibility for promoting research into the causes and diagnosis of PTSD, for training health-care and related personnel in diagnosis and treatment, and for serving as an information resource for PTSD professionals across the United States and, eventually, around the world.

Scientific and clinical interest in PTSD grew exponentially during the 1990s. Although initially considered primarily a problem of veterans of the Vietnam War, PTSD is now recognized as a major public and behavioral health problem

affecting more than ten million Americans at some point in their lives. Its victims represent military personnel and civilian citizens, men and women, and adults and children, in locations throughout the US and around the world.

The primary focus of the Center's activities from its inception to the present day has been and remains America's veterans. But over the years it has become clear that by addressing and improving conditions during active military service, the Center can have a tremendously beneficial impact on the lives of veterans in their later years. This has led the Center to broaden its focus to include research, education, and consultation to the active-duty military of today – who are the veterans of tomorrow.

### **Crisis in the Persian Gulf**

In late 1990 and early 1991, the American military was building up for hostilities in the Persian Gulf. At the time, planning was difficult because of the lack of accurate information about the lethal capabilities of the notorious Iraqi Guards. US military leaders feared the worst, so the best course of action seemed to be to prepare for a worst-case scenario. The military medical establishment was told to prepare for the possibility of tens of thousands of patients needing hospital beds within 72 hours of the outbreak of hostilities.

Such a massive influx of patients would clearly overwhelm the number of available beds in military hospitals in Europe and the US, especially since military medical resources had been steadily downsized since the end of World War II. The military planners turned to the Department of Veterans Affairs and its network of hospitals for help. Some 80 VA hospitals, mainly those located in the eastern US near Air Force bases, were readied to receive fresh casualties.

But in addition to increasing the supply of hospital beds, planners were considering ways to reduce demand. By 1991, researchers had had ample time to study the phenomenon of post-traumatic stress on veterans of the Vietnam War, and had shown conclusively that a significant number of war-zone casualties were the result of traumatic stress. In addition, it was clear that traumatic stress was more likely to occur among personnel with physical injuries, thereby complicating and possibly prolonging the period of recovery. Would it be possible to reduce the demand for hospital beds by more effective treatment of post-traumatic stress?

The Department of Defense turned to the recently-established National Center for PTSD for assistance. Center staff were called upon to help design and implement two immediate large-scale training conferences, presented at Fort Benjamin Harrison and at the Northport Regional Medical Educational Center, to representatives from 80 VA hospitals and 80 Vet Centers, as well as to active-duty National Guard and military reserve personnel.

The Educational Division of the Center also quickly developed and distributed its Operation Desert Storm (ODS) Clinical Packet on the clinical approach to assessment and treatment of acute war-zone stress. The packet included information on critical incident stress debriefing, acute psychosocial intervention, intervention with families, ethnocultural issues, and psychopharmacotherapy. It also included psychometrically-based measures of combat-related PTSD and ODS monitoring and assessment materials.

In addition to their educational role, Center staff provided consultation services to DoD and VA personnel, advising military and medical personnel on overall policy, combat stress reactions, clinical approaches, intervention strategies, pharmacological approaches, and more. The Center came to be viewed as a leader and valuable resource at a time of national emergency. Moreover, the collaborations that began during this period of crisis formed the basis for working relationships that continued long after the Iraqi threat had ended.

But it was in the research realm that the most far-reaching work began. Virtually all of the soldiers who returned to the New England states from Southwest Asia were processed through Ft. Devens, a military base near Boston, MA. Dr. Jessica Wolfe, head of the Women's Health Sciences Division, worked with the Ft. Devens chaplain, the Rev. Bill Marks, to survey over 3,000 Gulf War returnees within a day of their return from Southwest Asia. The questionnaire included items about war-zone exposure, PTSD, the adequacy of the respondent's coping strategies, and social and occupational functioning.

This study provided a unique opportunity for the study of exposure to war-zone trauma within days or weeks of its occurrence, rather than years afterward. It also provided a discrete population that formed the basis for longitudinal research, and a small initial grant from the National Institute of Mental Health allowed ongoing research to be started. Four waves of follow-up research have now been conducted with this population.

### **After the Gulf War**

From these modest but promising beginnings, the Center's involvement with active-duty personnel has deepened and intensified. Although the Gulf War ended relatively quickly and with far less bloodshed than had been initially feared, the importance of the Center's educational and consultative activities and the need for continuing research was clearly recognized.

Not long after the hostilities ended in the Gulf, reports began to surface about unexplained medical complaints among Gulf War veterans, which came to be known as "Gulf War Syndrome." The White House challenged DoD, the VA, and the Department of Health and Human Services to work together to study Gulf War Syndrome and determine how to address this problem. The blue-ribbon panels that were established at this time gave personnel from all departments the opportunity to continue to work together – and pointed up the critical need for more research, better screening instruments, and better individual patient information.

Center staff who participated on these panels had an unparalleled opportunity to have their voices heard as research and clinical policy were being established. A key early example was Dr. Robert Rosenheck of the Center's Evaluation Division, who co-chaired a working group under a mandate from Congress. This group provided the first published account of the war-zone and readjustment experiences of the Persian Gulf troops, and Dr. Rosenheck was called upon to testify before a Senate Veterans Affairs Committee. In addition, Dr. Matthew Friedman served for five years on the blue-ribbon VA/DoD/HHS Persian Gulf Expert Scientific Committee that helped to set clinical and research policy for Gulf War veterans and active-duty personnel.

### **Research since the mid-1990s**

Research efforts in the first few years after the Gulf War concentrated on follow-up with the veterans of that conflict. But at the same time, research activities began to branch out along several paths.

Dr. Brett Litz of the Behavioral Sciences Division had been working with the Readjustment Counseling Service; using Dr. Wolfe's questionnaire methodology, he was studying veterans who were seeking assistance from 70 Vet Centers across the country. As the research progressed, he began to encounter personnel who were returning from peacekeeping duty in Somalia, and he became interested in studying the unique stresses of this type of duty. By 1995 he had begun research with peacekeeping forces in various places around the world, and he has now studied personnel in Bosnia and Kosovo, in addition to Somalia.

Another exciting avenue of research was begun in 1997 by Dr. Andrew Morgan of the Clinical Neurosciences Division in West Haven, CT. He began working with the Special Warfare Training Center at Ft. Bragg, NC and with the Navy Dive School, both of which conduct simulations of life-threatening situations as part of their training program. Dr. Morgan realized that – even though they know the situations are simulated – trainees exhibit stress reactions very similar in intensity to those they would experience in a real situation. This offered an unprecedented opportunity for controlled research.

Also in the mid-1990s, researchers from the Women's Health Sciences Division began studying female Marine Corps recruits at Parris Island to assess their adaptation to first-term enlistment. This study paid particular attention to the individuals' prior history of traumatic stress, both to establish baseline data for the individuals and to determine whether it is possible to predict success rates in advance. Dr. Julia Whealin of the Pacific Islands Division, in collaboration with military investigators at Tripler Army Medical Center in Hawaii, is currently researching the psychological impact of deployment stress on active-duty personnel.

The relationship with DoD, forged during the Gulf War, has also strengthened over the past decade and given rise to several cooperative research studies. The latest, which began in FY 2000, is a formal collaboration led by Drs. Paula Schnurr and Matthew Friedman of the Executive Division and Lt. Colonel Charles C. Engel of the Walter Reed Army Institute for Research. The project, focused on PTSD in women, will have Walter Reed Army Hospital in Washington, DC, along with eleven VA hospitals, as sites.

### **Implications for the future**

A thread running through all this activity has been the effort to study traumatic stress and treat PTSD closer and closer to the time of the trauma. Prior to 1991, research and educational publications were based almost entirely on work with military – and to an increasing extent, civilian – populations years after the trauma occurred. Dr. Wolfe's pioneering work at Ft. Devens in 1991 took place just days after troops returned from the Gulf War. Dr. Morgan's work with the special training facilities a decade later examines reactions just moments after the traumatic stress takes place. Dr. Litz's studies in Kosovo and Dr. Whealin's research at Tripler Army Medical Center in Hawaii are even collecting data prior to the individuals' deployment for military operations.

The Center's work with active-duty personnel has a number of positive implications for both the military of today and the veterans of tomorrow.

First, it has now become accepted practice to screen for symptoms of deployment stress and PTSD as soon as possible

after the individual has been removed from the stressful environment, so that effective treatments can begin quickly. Veterans of Vietnam and earlier wars often suffered debilitating symptoms for years, or decades, before they were diagnosed and treated. In the future, the psychological injuries of military service will be treated as promptly and thoroughly as physical wounds.

Second, in contrast to victims of violent crimes or natural disasters, military personnel know in advance when they are likely to encounter traumatic situations. In the future, through research and education, it will be possible to emphasize preventive strategies and to provide better preparation to soldiers heading to a war zone or to a hazardous peacekeeping mission. Training for "psychological fitness" may someday become as common as basic training for physical fitness is today.

### **For Further Reading**

The National Center for PTSD's research efforts with active-duty personnel have resulted in dozens of published articles, scholarly papers, speeches, and presentations to professional associations. The following published articles summarize the results of the major research projects undertaken with the veterans of tomorrow. Abstracts for these and related articles are available at [www.ncptsd.org](http://www.ncptsd.org)

#### **Research with personnel returning from Operation Desert Storm**

Southwick, S.M., Morgan, C.A., Nagy, L.M., Bremner, J.D., Nicolaou, A.L., Johnson, D.R., Rosenheck, R.A., & Charney, D.S. (1993). Trauma-related symptoms in veterans of Operation Desert Storm: A preliminary report. *American Journal of Psychiatry*, *150*, 1524-1528.

Wagner, A.W., Wolfe, J., Rotnitsky, A., Proctor, S.P., & Erickson, D.J. (2000). An investigation of the impact of posttraumatic stress disorder on physical health. *Journal of Traumatic Stress*, *13*, 41-55.

Wolfe, J., Sharkansky, E.J., Read, J.P., Dawson, R., Martin, J.A., & Ouimette, P.C. (1998). Sexual harassment and assault as predictors of PTSD symptomatology among U.S. female Persian Gulf War military personnel. *Journal of Interpersonal Violence*, *13*, 40-57.

#### **Research with peacekeeping forces**

Fontana, A., Litz, B.T., & Rosenheck, R.A. (2000). Impact of combat and sexual harassment on the severity of posttraumatic stress disorder among men and women peacekeepers in Somalia. *Journal of Nervous and Mental Disease*, *188*, 163-169.

Litz, B.T., King, L.A., King, D.W., Orsillo, S.M., & Friedman, M.J. (1997). Warriors as peacekeepers: Features of the Somalia experience and PTSD. *Journal of Consulting and Clinical Psychology*, *65*, 1001-1010.

Litz, B.T., Orsillo, S.M., Friedman, M.J., Ehlich, P.J., & Batres, A.R. (1997). Posttraumatic stress disorder associated with peacekeeping duty in Somalia for U.S. military personnel. *American Journal of Psychiatry*, *154*, 178-184.

#### **Studies with survival training populations**

Morgan, C.A., Wang, S., Mason, J.W., Southwick, S.M., Fox, P., Hazlett, G., Charney, D.S., & Greenfield, G. (2000). Hormone profiles in humans experiencing military survival training. *Biological Psychiatry*, *47*, 891-901.

Morgan, C.A., Wang, S., Southwick, S.M., Rasmusson, A.M., Hazlett, G., Hauger, R.L., & Charney, D.S. (2000). Plasma neuropeptide-Y concentrations in humans exposed to military survival training. *Biological Psychiatry*, *47*, 902-909.

Finally, it may be possible eventually to develop screening protocols that assess the degree to which specific individuals are likely to develop PTSD during their military service. An individual profile would certainly provide valuable baseline data for use by clinicians if the person is eventually hospitalized; the profile data could also be used to determine psychological fitness for military service, or could be a factor in duty assignments. As promising behavioral and drug therapies are identified, it might even be possible to treat at-risk individuals in advance.

Looking to the future, it is clear that the efforts of the staff of the National Center for PTSD, working with the Department of Defense and other committed professionals, are creating better lives for the active-duty military personnel of today, and for the veterans of tomorrow.

#### **About this Annual Report**

The National Center for PTSD has come to be regarded both in the US and around the world as the pre-eminent clearinghouse for information and activity related to PTSD, and is widely acclaimed for its research, education, and consultation expertise. This Annual Report describes the National Center's key accomplishments in FY 2000 in its three areas of endeavor:

- **Research:** Through its research publications, methodological breakthroughs, development of new assessment strategies, consortium projects, and promotion of innovative and collaborative research, the Center is a world leader in research on trauma and its aftermath. By integrating research programs with education and consultation activities, the Center is in the forefront of development of effective preventive strategies, cost-effective assessment and treatment protocols, and specialized training and consultation to practitioners working with PTSD.
- **Education:** The Center's educational initiatives aim to assimilate information and coordinate communication among top scientists in the field of PTSD, and to bring that information to clinicians and policymakers both inside and outside the VA. Information is rapidly disseminated through multiple channels and can be accessed by a diverse group of users through publications, presentations, consultation, training, teleconferences, satellite broadcasts, and the Center's database and website.
  - **Consultation:** Center expertise has been sought with increasing frequency by the top leadership, policy makers, and program directors in the VA and in other government agencies and branches. The Center has also been called upon for consultation by a growing number of academic and non-governmental organizations that are dealing with PTSD as a major public health problem within the civilian community. And, since PTSD occurs in locations around the world, the Center has become a resource for the United Nations (UN) as well as many national governments, some of which have requested help to establish similar centers of excellence in their own countries.

A series of tables at the back of this document provides details on the organization of the Center and its seven individual divisions and covers research grants, publications, and educational activities. Detailed reports of activities at the divisions can be obtained by contacting the individual locations directly or by visiting the Center's website at [www.ncptsd.org](http://www.ncptsd.org).

## RESEARCH

Research programs at the Center are wide-ranging, aimed at increasing the understanding of PTSD and other reactions to traumatic stress and improving the ability to diagnose, treat, and even prevent it. Treatment was a major focus of research activity at all locations of the Center during FY 2000, and major investigations also took place in psychobiology, behavioral science, and assessment, with special populations, and with veterans of tomorrow.

A complete listing of Center researchers' 110 professional publications, 95 in-press articles, and 227 educational and scientific presentations is included in Tables 1, 2, and 4.

### Treatment Research

In a major effort completed during the year, Drs. Terence Keane and Matthew Friedman, along with Dr. Edna Foa at the University of Pennsylvania, produced the first Practice Guidelines for PTSD treatment. This project, conducted under the auspices of the International Society for Traumatic Stress Studies (ISTSS), involved the coordination of quantitative literature reviews as a basis for the guidelines. This work was published in book form during FY 2000, and will be a significant step forward in the use of evidence-based treatment in the VA and beyond.

During FY 2000, the Center engaged in a number of studies to evaluate different forms of cognitive-behavioral therapies, which currently have the strongest support of any available psychotherapeutic approach. In July, data collection was completed for VA Cooperative Study #420, a test of cognitive-behavioral group psychotherapy for PTSD in male Vietnam veterans. The project, led by the Executive Division in collaboration with other divisions, involved 10 sites and 360 patients and is the largest study of psychotherapeutic treatment for PTSD that has been conducted to date. Results will be made public during FY 2001. The Executive Division, in collaboration with DoD and the Women's Health Sciences and Behavioral Science Divisions, also submitted a proposal to the Cooperative Studies program for a new multi-site study of cognitive-behavioral treatment for PTSD. The study will enroll 384 female veterans and active-duty personnel across 10 VA and two DoD sites. The proposal will be reviewed in October 2000 and, if funded, would likely begin in late FY 2001 or early FY 2002.

Work continued on several other projects that investigated cognitive-behavioral psychotherapy, with specific projects focusing on:

- Female survivors of domestic violence and sexual abuse.
- Individuals who have PTSD and a serious mental illness such as schizophrenia.
- Treating PTSD and comorbid substance abuse, including one specific study of individuals with Human Immunodeficiency Virus (HIV).
- Individuals who have been traumatized through torture, either as a result of being a prisoner of war (POW) or through government-sanctioned torture.

In addition to these efforts to study psychotherapeutic interventions, the Center continued its program of research on pharmacologic treatments for PTSD. The Clinical Neurosciences Division led efforts on several treatment trials with pharmacological agents, including clonidine and guanfacine, that appear promising for patients with symptoms of hyperarousal and re-experiencing. A pharmacological trial of naltrexone and sertraline in veterans with PTSD and comorbid alcohol dependence is just beginning, and trial of the drug risperidone continued.

Medication trials also were performed in the Clinical Laboratory at the Education Division. Among these trials is a collaboration between the Clinical Laboratory and the Clinical Neurosciences Division on a study of the anticonvulsant topiramate for treating impulsive aggression and startle responses in male veterans with PTSD.

The Evaluation Division issued the fifth report of the National Mental Health Program Performance Monitoring System, which evaluates PTSD as well as mainstream mental health care provided at each VA medical center and in each of VA's 22 Veterans Integrated Service Networks (VISNs). In addition, the Division issued the fourth report on the effects of specialized intensive PTSD programs (inpatient, residential, and day hospital) on veterans' PTSD symptoms, alcohol abuse, drug abuse, violence, and work. These data are widely used in making programmatic changes as part of VA's commitment to continuous improvement in the cost-effectiveness of service delivery.

## **Psychobiology**

The Clinical Neurosciences Division is the leader on research into the neurobiological changes associated with PTSD, but other divisions complement this program as well. The Behavioral Science Division, for example, is the leader on research to understand the psychophysiological changes associated with PTSD; the Education Division houses a Sleep Laboratory. Collaboration across divisions is encouraged to support multi-disciplinary protocols.

One current area of investigation involves the use of neuroimaging to examine the structure and functioning of the brain in people who have been exposed to trauma. During the past year, studies at the Clinical Neurosciences Division synthesized new pharmacological tracers to identify chemical systems in the brain that may be altered in PTSD. These efforts included the synthesis of a probe of the brain's nicotine receptor, relevant in part because of the high prevalence of smoking in PTSD patients.

The Division also used imaging technologies to study whether disturbances in limbic-cortical glutamatergic communication might contribute to the development of dissociative symptoms, a hallmark of PTSD. Several studies examined how changes in the hippocampus and other brain areas relate to memory performance in male veterans. One study of the hippocampus is being carried out in a collaborative project between the Behavioral Science Division and the Sleep Laboratory.

Neurotransmitters and neurohormones constitute another area of investigation. Findings from a recent study at the Clinical Neurosciences Division support the notion that norepinephrine may contribute to over-consolidation of memory and recurrent intrusive memories. The Division continued to investigate multidimensional hormonal profiles in combat veterans, prisoners of war, civilian women, and adolescents.

Data from a large sample of Vietnam combat veterans studied the production of urinary cortisol, a hormone produced by the hypothalamic-pituitary-adrenal (HPA) axis in response to stress. This study revealed no differences in urinary cortisol between PTSD and non-PTSD groups, which was contrary to findings in previous studies; efforts are underway to explore these contrasting findings. Division researchers are also looking at the effect of dexamethasone, a substance that suppresses the release of cortisol, on memory function in PTSD. Studies are also planned to understand how the function of the HPA axis changes across the menstrual cycle in women with PTSD.

A number of psychobiological projects are underway throughout the Center, including research on:

- The effect of the beta-blocker propranolol on the acquisition and extinction of fear; information from the study may be relevant to the prevention of fear conditioning and to the development of PTSD.
- Sleep difficulties in veterans with PTSD and their twins, conducted at the Center's Sleep Laboratory.

- Whether neurohormonal and psychophysiological alterations in PTSD are normalized following successful psychotherapy .
- The protein molecule CD163, a marker that is regulated by the stress hormone cortisol; the investigators hope that the CD163 marker will become a useful tool in investigating the stress system in individuals with PTSD.
- Electrical activity of the brain as one of several measures of an individual's ability to direct and sustain attention on designated targets; this work is based on evidence that psychological trauma both heightens sensitivity to signs of danger and diminishes the ability to maintain attention on tasks.

## **Behavioral Science and Assessment**

The Behavioral Science Division is the leader of the Center's efforts to understand trauma and PTSD from a psychobehavioral perspective, although other sites also contribute to the behavioral science research program. The Division is also the leader in developing and refining methods of assessing trauma, PTSD, and other stress-related disorders.

During FY 2000, the Center expanded its efforts to study the physical health consequences of trauma and PTSD. Investigators examined the impact of PTSD on cardiovascular activity by using ambulatory monitors to record heart rate and blood pressure over 24-hour periods in the home and work environments of study participants. A meta-analysis found that individuals with PTSD show elevated resting heart rate and blood pressure relative to comparable individuals without PTSD. Findings from these studies may provide important information about health risks associated with chronic PTSD.

Another project involved the analysis of archival Navy records to investigate the physical and mental health of repatriated Vietnam-era prisoners of war. The Center reported the first results linking PTSD to increased incidence of physician-diagnosed medical disorders in older veterans, and also reported on physical health and PTSD in World War II veterans who were exposed to mustard gas.

Other important areas of investigation were domestic violence and the impact of PTSD on family functioning. One project, funded by the National Institute of Justice, conducted a sequence of inquiries into marital dysfunction and domestic violence within Vietnam veteran families. Another project assessed interpersonal functioning in Vietnam veterans with PTSD and found that interpersonal problems within the marital relationships of these men appear to be influenced by the PTSD symptoms of both the veterans and their wives.

Two projects focused specifically on young adults, one on the development of violence within relationships, and the other investigating how gender-role attitudes of both female and male young adults account for attributions about interpersonal violence within heterosexual relationships. A recent study of women who were battered by their partners found that psychological abuse is stronger than physical abuse as a predictor of PTSD symptoms.

At the Behavioral Science Division, a new focus of particular relevance to the VA system is testing the utility of the Global Assessment of Functioning scale (GAF), a mandated measure by which the effectiveness of VA care is now determined. The Division was involved in studies seeking to identify the best methods for training clinicians to assign reliable and valid GAF ratings to PTSD clinical and compensation cases. The Division also continued its project to develop an efficient instrument for PTSD screening in primary care patients.

A project at the Education Division is concerned with the measurement of gun possession and safety practices among veterans with chronic combat-related PTSD. As part of this project, the investigators are developing a way to measure a veteran's readiness to change gun safety practices, in an attempt to identify the best way to help the veteran change.

## **Special Populations**

***Gulf War Veterans:*** The Behavioral Science and Women's Health Sciences Divisions completed several studies using state-of-the-art statistical methods to identify factors contributing to PTSD and comorbid depression among a large cohort of Gulf War veterans. Other projects at the two divisions used neuroimaging to investigate whether there are structural and functional changes in the brains of Gulf War veterans with PTSD. Several projects targeted memory and concentration problems, a particular concern for Gulf War veterans.

The Women's Health Sciences Division published another series of findings on the longitudinal Ft. Devens study, based on a large sample of active-duty personnel that was initially assessed within five days of returning from the Gulf. The Clinical Neurosciences Division completed data collection in a project that investigated possible stress-related alterations in memory function and hippocampal volume. Another project studied benzodiazepine receptors in Gulf War

veterans with PTSD; the results will have useful implications for treatment.

**Asian-American Vietnam Veterans:** The Pacific Islands Division completed development of the Race-Related Stressor Scale, a questionnaire instrument that measures exposure to race-related experiences in the military among Asian-Americans who served in the Vietnam War. Findings show that race-related stressors may partially explain the development of PTSD in these veterans. The Executive Division continued analyses of the Hawaii Vietnam Veterans Project, which is focused on assessing the effects of Native Hawaiian and Japanese ancestry on the development of PTSD in male Vietnam veterans.

**Women:** Research at the Women's Health Sciences Division addressed how gender is linked via various mechanisms to post-traumatic stress and associated syndromes. Along with national changes in the delivery of VA health care, the research has increasingly focused on assessing domains of health service delivery, including access, quality, satisfaction, and outcome.

During FY 2000, a Health Services Research & Development (HSR&D) project focused on employees' gender awareness in VA health care, studying core concepts such as beliefs about the proper roles of men and women, gender sensitivity in the delivery of care, and knowledge of health care programs and services available to women veterans. The project produced a gender awareness assessment inventory for organizational monitoring throughout the VA health care system. An application to develop and evaluate a computerized interactive learning model as an intervention to enhance gender awareness has been submitted for funding.

**Adolescents and Children:** Almost since its inception in 1989, the Center has received some funding from outside the VA to study PTSD in children. In FY 2000, the Center was directed by Senate Report 106-410 to include family issues as a topic in its research program generally, so that adolescents and children will remain an important focus of Center research.

The Clinical Neurosciences Division conducted several projects on inner-city adolescents who have PTSD and recently published a study on the functional implications of a PTSD diagnosis in inner-city adolescent girls. Other projects involved research on startle responses in adolescent girls with PTSD, and a study of salivary cortisol responses to low-dose dexamethasone in adolescents with PTSD compared to traumatized controls and healthy control adolescents. A project is planned to evaluate a new intervention for children who are removed from their parents' care due to abuse or neglect, and to evaluate outcomes due to this intervention. Another planned project will use neuroimaging to study alterations of brain development in traumatized children.

**Aging Veterans:** The physical health of older veterans is a topic of concern, and several projects investigated aspects of PTSD in World War II and Korean conflict veterans. The Education Division surveyed approximately 1,000 male members of the American Ex-Prisoner of War Association of California to determine the prevalence of PTSD and its relationship to POW trauma, POW knowledge of PTSD, and quality of intimate dyadic relationships among POWs and their significant partners. Other studies include investigations of PTSD in older adult veterans in long-term care settings, adjustment to aging in treatment-seeking Vietnam veterans with PTSD, and the history of traumatic experiences in depressed older adult primary care patients in the general community.

## **Veterans of Tomorrow**

During FY 2000, the Clinical Neurosciences Division, in collaboration with DoD colleagues (including the JFK Special Warfare Training Center and School at Ft. Bragg, NC), completed several projects that evaluated the impact of both acute and extended stress. This important work has investigated several key neurobiological changes associated with acute, extreme stress, and has identified characteristics that predict successful performance during a stressful task as well as quicker recovery from the stress. The fact that individuals in these studies exhibited traits prior to the training that predicted subsequent performance, as well as biological and psychological responses to stress, reinforces the notion that some individuals are more at risk than others for a stress-related illness such as PTSD.

Work continued during FY 2000 on a number of other research projects aimed at the veterans of tomorrow:

- The Behavioral Science Division found that frustrations and demands associated with peacekeeping duties among personnel deployed to Bosnia are among the strongest predictors of long-term stress symptoms. The Division is collaborating with Army researchers to determine if psychological debriefing for soldiers returning from Kosovo is effective in preventing mental health problems.
  - The Pacific Islands Division initiated a study at Tripler Army Medical Center that evaluates the role of prior trauma and current emotional condition on the ability of active-duty personnel to adapt to severe stress conditions, such as those experienced during military deployment.
  - The Women's Health Sciences Division concluded DoD-funded research on women in the Marine Corps

and their adaptation to first-term enlistment. The investigation is aimed at informing policymakers and clinicians concerned with improving retention of Marine Corps women, as well as optimizing their adaptation to military service.

## **Education**

The educational activities of the National Center for PTSD are designed to enable practitioners to deliver trauma-related services in a manner that exemplifies best practice and the latest findings from empirical research. Delivered through research and clinical publications, web-based services, training programs and conferences, and collaborative projects, educational services aim to improve the knowledge and skills of practitioners, disseminate treatment innovations, facilitate research, and create a process through which clinical practice is informed and enhanced by new developments in theory and research.

## **Research and Clinical Publications**

The Center regularly publishes two quarterly journals that summarize and disseminate PTSD information. The *National Center for PTSD Clinical Quarterly* serves busy VA practitioners by publishing topical articles related to assessment and treatment of trauma-related problems. *Clinical Quarterly* issues in FY 2000 included articles by nationally-recognized experts from both within and outside the VA in the areas of trauma and physical health, dialectical behavior therapy, the effect of writing about traumatic experiences, emotion-focused therapy, assessment of PTSD in couples, and counter-transference and the management of anger. The featured columns, "Women and Trauma: A Clinical Forum" and "New Directions," addressed interpersonal stressors and health, self-care models, social support, psychotraumatology in the twenty-first century, and practice guidelines for PTSD.

The second quarterly publication, the *PTSD Research Quarterly*, is a guide to the scientific literature on traumatic stress and PTSD. During FY 2000 the *Research Quarterly* included articles on risk factors, acute stress disorder, pharmacotherapy, and trauma and memory.

The Center's PTSD Resource Center, located at the Executive Division, houses the world's largest single collection of traumatic stress literature, with over 1,200 books and more than 12,000 reprints of journal articles and book chapters. Its book catalog was made available for online searching on the Dartmouth College Information System. The PILOTS database, the National Center's online index to Published International Literature on Traumatic Stress, has grown to over 18,000 entries. It is heavily used; nearly 27,000 connections were made to the database during FY 2000.

"Science-into-Practice" is a major new educational initiative that is intended to help reduce the gap between research and practice in PTSD care, and to assist clinicians and administrators in sorting through the abundance of information on traumatic stress and PTSD. An interdivision team will review the traumatic stress literature periodically, select recent publications with important clinical care implications, and translate these publications into brief digestible summaries with clinical commentary regarding application. The final summaries will be electronically distributed to PTSD treatment providers both in and outside the VA and placed on the Center's website.

In the assessment arena, the Center collaborated with the Veterans Benefits Administration and the VISN to develop best-practice guidelines for the compensation and pension examinations through which veterans receive disability compensation for PTSD. Center staff also continued their collaboration with the Sierra-Pacific Mental Illness Research, Education, and Clinical Center (MIRECC) to produce an educational CD-ROM to be used by VA clinicians treating PTSD patients on the Clinician-Administered PTSD Scale (CAPS). Developed at the Center in the early 1990s and still regarded as state-of-the-art, CAPS is a structured interview instrument for diagnosing PTSD.

Another initiative launched during FY 2000, in collaboration with the Sierra-Pacific MIRECC and Dr. Lisa Najavits of Harvard Medical School, dealt with cognitive-behavioral group therapy for concurrent PTSD and substance abuse. Dr. Najavits's "Seeking Safety" treatment protocol, originally designed to help women who suffer from combined PTSD and substance abuse problems, is being modified for application with male and female veterans. Pilot clinical services have been established in both residential and outpatient PTSD services in the VA Palo Alto Health Care System, and training and support activities are being designed to promote implementation of the approach in additional facilities.

## **Web-Based Services**

In response to significant demand for online information – especially introductory information about PTSD – the Center's web-based educational services underwent significant modifications and upgrades during FY 2000. With consultation from the Koop Institute at Dartmouth Medical School, the Center's website ([www.ncptsd.org](http://www.ncptsd.org)) was expanded to contain substantially more content and redesigned to give it a more easily navigable structure, a simpler URL, and a new logo.

Preliminary data suggest that these changes have produced significantly more traffic, with visitors remaining online longer. Overall, bulk traffic is up by 55%, and the number of pages visited is up by 84%. Average requests for pages per day increased from approximately 3,000 to 5,700. There was 50% growth in visitors seeking information about research, a 100% increase in those seeking information specifically for veterans, and a whopping 500% increase in people seeking introductory information. People are spending more time on the site and visiting more pages; and primary referral to the website has shifted from VA-based websites to major search engines and professional organizations.

In collaboration with the Sierra-Pacific MIRECC, Education Division staff began development of PTSD materials to be placed on both the SP-MIRECC and Center websites. The SP-MIRECC site includes video-streaming services, so that clinicians and veterans and their families can watch videotaped educational materials on their computers. The first trauma-related videos were streamed this year. Also this year, Executive and Education Division staff participated in the Veterans Health Administration Office of Special Projects Executive Loan program, delivering a set of PTSD-related patient education materials to be offered to veterans through the national VA website.

### **Training Programs and Conferences**

During FY 2000, Center investigators presented a total of 87 workshops, training sessions, and papers in a wide range of educational settings. Key topics included the neurobiology of PTSD, disaster mental health, acute stress and prevention of PTSD, and cognitive-behavioral treatment of PTSD and related problems. A complete list of programs and presentations is included in Table 4.

The Center's week-long Clinical Training Program continues to be the primary PTSD-related training forum in the country for VA health care staff. The curriculum includes a comprehensive range of trauma-related topics, including assessment of PTSD, anger management, PTSD/substance abuse comorbidity, the psychobiology and psychopharmacology of PTSD, and trauma theory. During FY 2000, 129 participants completed the program, including 48 psychologists and interns, eight psychiatrists, 30 social workers and interns, seven marriage and family counselors, three drug counselors, 17 nurses, and a chaplain.

Many of the presentations during the year were custom-designed to meet the needs of specific audiences. For example, the Center provided a week-long training program for 12 prison psychologists from around the country designed to improve their ability to provide mental health services to veteran inmates who have survived various forms of trauma. The aim of the program is to increase awareness of the needs of incarcerated veterans with PTSD, and to improve planning for the release of such veterans. Custom training programs were also provided in the international arena, including training sessions for visitors from Australia, Canada, Kosovo, Uzbekistan, and the U.K.

The Education and Evaluation Divisions continued to provide cost-effective education for the nation's specialized PTSD treatment program staffs through regular telephone conference calls. In FY 2000, calls focused on Vet Center telehealth services for veterans with PTSD, Gulf War veterans seeking VA primary care services, trauma-related beliefs and PTSD treatment, assessment and treatment of males who were sexually abused as children, and an intervention to reduce gun availability in veterans with chronic PTSD.

Six psychology interns successfully completed the year-long Pacific Islands Division course that incorporates clinical activities, individual and group supervision, seminars, and case presentations, with an emphasis on ethnoculturally sensitive approaches to care. In addition, all Divisions continued to offer internships and post-graduate fellowships in a variety of disciplines. When possible, members from all Divisions provide training to trainees at different Divisions via videoteleconference technology.

The Center relies on feedback from clinicians and patients, treatment research, clinical experience, and practice guidelines to inform the selection and design of educational activities. During FY 2000, Education Division staff, in collaboration with the Sierra-Pacific MIRECC, conducted several focus groups with VA PTSD clinicians to assess their training needs; they also conducted a focus group with patients to learn about their needs for educational programs.

In collaboration with the Evaluation Core of the Sierra-Pacific MIRECC, a written practice survey was conducted to establish the PTSD-related treatment practices of all mental health staff in VISN 21. As a result of this survey, the Education Division launched a major initiative to provide trauma-related distance learning delivered via video-teleconferencing (real-time training via video-based technology) to selected VA PTSD providers. This delivery format will provide a first-of-its-kind, multidisciplinary curriculum with real-time access to experts in the field of traumatic stress.

### **Collaborative Education Projects**

**Primary Care:** A key goal of the Center's education programs is to increase attention to problems associated with traumatic stress throughout the healthcare system, not just in mental health settings. Primary care practitioners have become a particular focus of effort, because many people with PTSD visit their primary care practitioners rather than mental health professionals.

To address this issue, the Education and Executive Divisions organized the second VA Primary Care/Mental Health Summit and Town Hall Meeting. The session was held in Washington, DC during the Behavioral Healthcare Tomorrow and Behavioral Informatics Tomorrow conferences, the largest annual gathering of mental healthcare provider organizations in the country. A total of 110 participants heard from leaders in government and private healthcare organizations about the advantages of integrating mental health into primary and outpatient care settings.

Also last year, the Education Division staff worked with the MIRECCs to organize a conference, scheduled for 2001, that will have PTSD and anxiety in elderly veterans as one of its major areas of focus.

**Disaster and Violent Crime Response:** The VA plays an important role in the Federal Emergency Medical Disaster System, and the Center supports this role through its work on disaster mental health care.

As part of a project funded by the Office of Victims of Crime in the Department of Justice, the Center will collaborate with the Center for Mental Health Services to produce recommendations about best practices in the management of natural and human-caused disasters, including incidents of mass violence. Center staff will coordinate reviews of the effectiveness of disaster- and violence-related mental health services, current practices in the field, current training materials used by leading national organizations, and organizational relations of emergency response agencies. The eventual aim will be to develop strategies to improve training of personnel involved in response to disaster and incidents of violence.

Center staff provided a variety of training sessions and presentations last year: examples included two-day training sessions conducted for the Contra Costa and Orange County mental health emergency response programs and for the VA Palo Alto Healthcare System, all in California. Staff specialists also continued to provide direct services as needed in the aftermath of major disasters, including, for example, services to airline employees and victims' families following the crash of Alaskan Airlines flight 261.

**Early Intervention:** As research efforts have increasingly focused on early intervention to prevent the development of PTSD, a number of collaborative projects have begun to concentrate on education in this area as well. Education and Executive Division staff co-founded an Early Intervention Special Interest Group within the International Society for Traumatic Stress Studies to draw together international experts in this emerging area.

The Education and Executive Divisions are now regular participants in the U.S. Army Combat Stress Control/Stress Management Team's monthly video conference calls, working with the DoD to improve management of combat stress among active-duty personnel. They are also working with DoD to plan a major conference for next year on early intervention for acute combat stress reactions.

Education Division staff have also continued a collaboration with the California Coalition Against Sexual Assault, a state organization supporting 97 rape crisis centers throughout California. Center staff helped the Coalition develop a model training manual, and have been working to develop and evaluate new training protocols for the follow-up counseling sessions provided by crisis counselors.

Education Division staff also collaborated with Dr. Joseph Scotti of West Virginia University to develop a semester-long undergraduate course for participants in the University's forensic identification degree program, the only program of its kind in the world. The course prepares students for encounters with traumatic stressors found at crime scenes, and is designed to reduce the impact of the trauma exposure associated with careers in forensic science.

**Bureau of Prisons Program:** In FY 2000, the Education Division worked with the Federal Bureau of Prisons to provide a week-long training program for 12 prison psychologists from around the country. The Bureau of Prisons Special Training Session was designed to improve prison psychologists' ability to provide mental health services to inmates who have survived various forms of trauma, such as military combat, exposure to community violence, and sexual abuse. An important goal of the training program was to increase awareness of the needs of incarcerated veterans with PTSD, and to improve planning for the release of such veterans.

## **CONSULTATION**

National Center staff routinely consult with individual clinicians, researchers, administrators, policymakers, teachers, students, and journalists, as well as veterans and their family members, to provide information about trauma and PTSD. These consultations range from phone calls and e-mails to elected or invited roles on national and international

boards and committees to less formal consultation through phone calls and e-mails.

## **Consultation to the VA**

The Center is frequently called upon to consult with VA's Mental Health Strategic Healthcare Group on clinical, research, and educational policy. Other ongoing consultative activities with VA groups include Readjustment Counseling Service, Medical Research Service, Women Veterans, Emergency Medical Strategic Healthcare Group, Gulf War Veterans, and Minority Veterans. The Evaluation Division works with the Undersecretary for Health's Special Committee on PTSD on planning and program development issues.

During FY 2000, National Center staff served on a variety of VA committees, including the following:

- Dr. Matthew Friedman served on the New Knowledge Committee for Mental Health, the Mental Health Field Advisory Board, and the Undersecretary for Health's Special Committee on PTSD.
- Dr. Terence Keane chaired the Technical Advisory Committee for the National Vietnam Veterans Readjustment Study and served as Co-Chair of the New Knowledge Committee for Mental Health. He is also a member of the Mental Health Field Advisory Board and serves on its Executive Committee.
- Dr. Dennis Charney served on the VA Medical Research Advisory Board for Mental Health.
- Dr. Robert Rosenheck served on the Undersecretary's Special Committee on the Treatment of Seriously Mentally Ill Veterans. He, along with Dr. Susan Orsillo and Fred Gusman, is also a member of the Undersecretary's Special Committee on PTSD.
- Dr. Greg Leskin was Program Chair of the VA Primary Care/Mental Health Integration Initiative.
- Dr. Paula Schnurr was a member of the Millennium Task Force and the In-Country Health Effects Workgroup.
- Drs. Josef Ruzek and Patricia Watson were members of the Executive Loan Program committee for the Office of Special Projects.
- Dr. Jeff Knight served on the VA Headquarters Advisory Committee on Mental Health Instrumentation.

National Center staff members played leadership roles in several of the MIRECCs around the country: Dr. Robert Rosenheck as Co-Director of the Connecticut-Massachusetts MIRECC; Fred Gusman as Education Director of the Sierra-Pacific MIRECC; Dr. Matthew Friedman as a member of the Advisory Board of the Sierra Pacific MIRECC; and Drs. Josef Ruzek and Robin Walser as members of the National MIRECC Education Group. Dr. Friedman also participates in the monthly MIRECC Executive Directors' conference calls.

Center staff routinely consult to VA clinicians on the assessment and treatment of PTSD and other trauma-related problems, playing a key role in efforts to improve the outcomes for individuals suffering from PTSD. Fred Gusman was particularly active in consultations to clinicians; he was instrumental in helping Spokane develop a new program for complex PTSD, and he assisted sites in Las Vegas, Clarksburg, New Orleans, and Omaha to develop and refine their PTSD services.

Also during FY 2000 the Education Division launched the "Vet Center Consultation," an on-going bi-monthly telephone curriculum and case consultation to Vet Centers, helping them with their supervision and consultation requirements.

## **Other Government Agencies**

Over the years, the Center has developed many collaborative initiatives with DoD. A major consultation on acute combat stress reaction during FY 2000 involved Drs. Friedman, Watson, and Ruzek and Mr. Bruce Young from the Center, Lt. Colonel E. Cameron Ritchie, MD, at the Pentagon, and Col. James Stokes, MD, at Fort Sam Houston. Also during FY 2000, Drs. Friedman and Krystal began planning a joint DoD/VA Brain Bank, along with Dr. Larry Lehmann from VA and Drs. Robert Ursano, Beth Osuch, and Harry Holloway from the Uniformed Services University of Health Sciences. Drs. Friedman and Schnurr were involved in a variety of VA/DoD meetings concerning the establishment of a National Center for War-Related Illnesses, including a meeting convened by the Institute of Medicine in which Dr. Friedman participated.

Collaborative initiatives with HHS included the start of a major multi-year initiative with the Center for Mental Health Services (CMHS) of the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Department of Justice's Office for Victims of Crime (OVC). This project is aimed at developing practice guidelines for emergency responses to mass casualties due to criminal activity, such as the Oklahoma City bombing, or natural disasters. Dr. Patricia Watson is leading this initiative with major support from Drs. Ruzek and Friedman and Mr. Young. In related activities, Dr. Paula Schnurr participated in an OVC meeting on the mental health needs of crime victims and Dr. Friedman was part of a CMHS/OVC focus group on emergency mental health intervention following mass casualties.

Consultation activities with other government agencies also included the following:

- Drs. Friedman, Susan Orsillo, and Danny Kaloupek served as members of National Institute of Mental Health (NIMH) research study sections. Dr. Friedman also served on the NIMH Constituency Outreach and Partners Program.
- Dr. Keane served as an ad hoc reviewer for several study sections in the National Institutes of Health (NIH); he also served as an advisor on HIV and Trauma for a delegation from the NIMH to South Africa. He is on the Scientific Advisory Board of the Mitchell Center for Repatriated Prisoners of War in Pensacola, Florida and is a Distinguished Visiting Professor at the Wilford Hall Air Force Medical Center.
- Dr. Robert Rosenheck served on advisory panels for a national survey by the Federal Interagency Council on the Homeless, a national symposium on homelessness for the Department of Health and Human Services, and SAMHSA.
- Dr. Dennis Charney served on the major strategic planning committee for the extramural divisions of the National Institute of Mental Health and the Board of Scientific Counselors for the NIMH intramural research program.

### **Professional Societies**

Center staff played key roles in the International Society for Traumatic Stress Studies, a multidisciplinary professional organization devoted to the study and treatment of trauma. During FY 2000, Drs. Eve Carlson and Steven Southwick served as Board Members, and Dr. Kaloupek served on the Board as Treasurer; Dr. Paula Schnurr was elected to the Board for a term beginning in November, 2000. In November, 1999, Dr. Friedman was honored with the ISTSS Lifetime Achievement Award.

In other work with the ISTSS, Drs. Friedman and Keane, along with Dr. Edna Foa, chaired an effort to develop the authoritative text *Effective Treatment for PTSD: Practice Guidelines from the International Society for Traumatic Stress Studies*, which was published during FY 2000. Drs. Daniel King, Lynda King, Greg Leskin, Brett Litz, Josef Ruzek, and Patricia Watson served on various ISTSS committees during the year.

Dr. Terence Keane served on the Council of Representatives for the American Psychological Association (APA), and Dr. Miyahira served as President of APA's Ethnic Minority Psychologists. Dr. Jeff Knight served on a workgroup that is creating a division of trauma studies within APA. Dr. Robert Rosenheck received the Carl Taube Award from the American Public Health Association and was designated as a Senior Scholar in Health Services Research. Dr. Annmarie McDonagh-Coyle was named the New Hampshire Psychiatrist of the Year.

Dr. Dennis Charney served on the Scientific Advisory Boards for several patient advocacy groups, including the National Depression and Manic Depression Association, the Anxiety Disorders Association of America, and the National Association for Research in Schizophrenia and Depression. Dr. Friedman also served on the Scientific Advisory Board of the Anxiety Disorders Association of America.

### **International**

The Center is increasingly sought-after for its expertise in both research and clinical issues by individuals and organizations around the world. Ongoing consultation between the Center's Executive Division and the Canadian Department of National Defense and VA Canada has led to various spin-offs, including consultation to North Atlantic Treaty Organization psychiatrists at a recent meeting in Ottawa and training of Canadian mental health professionals in Halifax.

Drs. Keane and Friedman have joined Drs. Bonnie Green, John Fairbank, Susan Solomon, and Joop de Jong in leading a large-scale ISTSS-sponsored initiative at the UN on psychosocial interventions for people exposed to forced migration, disasters, social deprivation, torture, social injustice, sexual/physical abuse, and other traumatic experiences. Dr. Friedman presented a preliminary report on this initiative at the UN's Economic and Social Division's Panel on Traumatic Stress in Humanitarian Emergencies in July, 2000.

Drs. Friedman, Keane, and Schnurr consulted to the Australian National Center for PTSD on the expansion of their program to include activities targeted at civilian and military populations. Dr. Friedman consulted at several sites and joined leaders in meetings in Canberra with officials from Australian Defense Forces and Veterans Affairs. He also presented to health-care professionals and students at Babes-Bolyai University in Cluj-Napoca, Romania.

Dr. Keane served as a consultant to the British War Pensions Agency regarding the provision of clinical services to British veterans who developed PTSD during their military service. He also presented information regarding treatment of PTSD to primary care physicians in Sao Paulo, Brazil, and at the University of Uppsala, Sweden. Dr. Litz consulted to professionals from Uzbekistan about assessment, treatment, and program development.

## PUBLICATIONS BY NATIONAL CENTER STAFF

- Anand, A., & Charney, D.S. (2000). Norepinephrine dysfunction in depression. *Journal of Clinical Psychiatry, 61*, 16-24.
- Anand, A., Charney, D.S., Oren, D.A., Berman, R.M., Hu, X.S., Capiello, A., & Krystal, J.H. (2000). Lamotrigine attenuates ketamine effects in humans: Support for hyperglutamatergic effects of NMDA antagonists. *Archives of General Psychiatry, 57*, 270-276.
- Becker, D.F., Weine, S.M., Vojvoda, D., & McGlashan, T.H. (1999). Case series: PTSD symptoms in adolescent survivors of "ethnic cleansing": Results from a 1-year follow-up study. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*, 775-781.
- Berman, R.M., Narasimhan, M., Miller, H.L., Anand, A., Capiello, A., Oren, D.A., Heninger, G.R., & Charney, D.S. (1999). Transient depressive relapse induced by catecholamine depletion. *Archives of General Psychiatry, 56*, 395-403.
- Bollinger, A.R., Riggs, D.S., Blake, D.D., & Ruzek, J.I. (2000). Prevalence of personality disorders among combat veterans with posttraumatic stress disorder. *Journal of Traumatic Stress, 13*, 255-270.
- Bremner, J.D. (1999). Alterations in brain structure and function associated with posttraumatic stress disorder. *Seminars in Clinical Neuropsychiatry, 4*, 249-255.
- Bremner, J.D. (2000). Neuropsychological and neurobiological mechanisms underlying dissociation and PTSD in the aftermath of trauma. In L. Sanchez-Planell & C. Diez-Quevedo (Eds.), *Dissociative states* (pp. 86-105). Heidelberg: Springer-Verlag.
- Bremner, J.D. (2000). Changes in brain function in PTSD. In M. Kojima (Ed.), *Encyclopedia of Clinical Psychiatry, Vol. 6, posttraumatic stress disorder* (pp. 61-74). Tokyo: Nakayama-Shoten Co.
- Bremner, J.D., Baldwin, R., Horti, A., Staib, L.H., Ng, C.K., Tan, P-Z., Zea-Ponce, Y., Zoghbi, S., Seibyl, J.P., Soufer, R., Charney, D.S., & Innis, R.B. (1999). Quantification of benzodiazepine receptor binding with PET [11C] iomazenil and SPECT [123I] iomazenil: Preliminary results of a direct comparison in healthy human subjects. *Psychiatry Research Neuroimaging, 91*, 79-91.
- Bremner, J.D., Horti, A., Staib, L.H., Zea-Ponce, Y., Soufer, R., Charney, D.S., & Baldwin, R. (1999). Kinetic modeling of benzodiazepine receptor binding with PET and high specific activity [11C] iomazenil in healthy human subjects. *Synapse, 35*, 68-77.
- Bremner, J.D., Innis, R.B., Southwick, S.M., Staib, L., Zoghbi, S., & Charney, D.S. (2000). Decreased benzodiazepine receptor binding in prefrontal cortex in combat-related posttraumatic stress disorder. *American Journal of Psychiatry, 157*, 1120-1126.
- Bremner, J.D., Innis, R.B., White, T., Fujita, M., Silbersweig, D., Goddard, A.W., Staib, L., Stern, E., Capiello, A., Woods, S., Baldwin, R., & Charney, D.S. (2000). SPECT [I-123] iomazenil measurement of the benzodiazepine receptor in panic disorder. *Biological Psychiatry, 47*, 96-106.
- Bremner, J.D., Narayan, M., Anderson, E.R., Staib, L.H., Miller, H., & Charney, D.S. (2000). Hippocampal volume reduction in major depression. *American Journal of Psychiatry, 157*, 115-117.
- Bremner, J.D., Narayan, M., Staib, L.H., Southwick, S.M., McGlashan, T., & Charney, D.S. (1999). Neural correlates of memories of childhood sexual abuse in women with and without posttraumatic stress disorder. *American Journal of Psychiatry, 156*, 1787-1795.
- Bremner, J.D., Shobe, K.K., & Kihlstrom, J.F. (2000). False memories in women with self-reported childhood sexual abuse: An empirical study. *Psychological Sciences, 11*, 333-337.
- Bremner, J.D., Vermetten, E., & Mazure, C.M. (2000). Development and preliminary psychometric properties of an instrument for the measurement of childhood trauma: The early trauma inventory. *Depression and Anxiety, 12*, 1-12.
- Buckley, T.C., & Blanchard, E.B. (2000). Stress effects of motor vehicle accidents. In G. Fink (Ed.), *Encyclopedia of stress, Volume II* (pp. 777-781). San Diego: Academic Press.
- Carlson, E., & Dalenberg, C. (2000). A conceptual framework for the impact of traumatic experiences. *Trauma,*

*Violence, and Abuse, 1, 4-28.*

- Charney, D.S., & Bremner, J.D. (1999). Psychobiology of posttraumatic stress disorder. In S. Bunney, E. Nestler, & D.S. Charney (Eds.), *Neurobiology of psychiatric disorders* (pp. 494-517). New York: Oxford Press.
- Charney, D.S., Nestler, E.J., & Bunney, B.S. (Eds.). (1999). *Neurobiology of mental illness*. New York: Oxford University Press.
- Corcoran, C.B., Green, B.L., Goodman, L.A., & Krinsley, K.E. (2000). The complex task of assessing trauma history: Data from two instrument development studies. In A. Shalev, R. Yehuda, & A. McFarlane (Eds.), *International handbook of human responses to trauma* (pp. 223-232). New York: Plenum Press.
- Descamps, M.J., Rothblum, E.D., Bradford, J.A., & Ryan, C. (2000). Mental health impact of child sexual abuse, rape, intimate partner violence and hate crimes in a national sample of women. *Journal of Gay and Lesbian Social Services, 11, 27-55.*
- D'Souza, D.C., Berman, R.M., Krystal, J.H., & Charney, D.S. (1999). Symptom provocation studies in psychiatric disorders: Scientific value, risks and future. *Biological Psychiatry, 46, 1060-1080.*
- D'Souza, D.C., Gil, R., Cassello, K., Abi-Saab, D., White, J., Sturwold, R., Bennett, A., Karper, L., Zuzarte, E., Charney, D.S., & Krystal, J.H. (2000). IV glycine and oral D-cycloserine effects on plasma and CSF amino acids in healthy humans. *Biological Psychiatry, 47, 450-462.*
- Duman, R.S., & Charney, D.S. (1999). New vistas for an old neurotransmitter. *Biological Psychiatry, 46, 1121-1123.*
- Duman, R.S., Malberg, J., & Thome, J. (1999). Neural plasticity to stress and antidepressant treatment. *Biological Psychiatry, 46, 1181-1191.*
- Duman, R.S., & Nestler, E.J. (1999). Signal transduction pathways for catecholamine receptors. In H. Meltzer (Ed.), *Psychopharmacology: The fourth generation, modified for the CD-ROM version* (pp. 303-320). New York: Raven Press.
- Duman, R.S., & Nestler, E.J. (2000). Role of gene expression in stress and drug induced neural plasticity. *The Economics of Neuroscience, 2, 53-56.*
- Erwin, B.A., Newman, E., McMackin, R.A., Morrissey, C., & Kaloupek, D. (2000). PTSD, malevolent environment, and criminality among criminally involved male adolescents. *Criminal Justice and Behavior, 27, 196-215.*
- Foa, E.B., Keane, T.M., & Friedman, M.J. (Eds.). (2000). *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies*. New York: Guilford Press.
- Foa, E.B., Keane, T.M., & Friedman, M.J. (2000). Introduction. In E.B. Foa, T.M. Keane, & M.J. Friedman (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (pp. 1-17). New York: Guilford Press.
- Fontana, A., Litz, B., & Rosenheck, R. (2000). Impact of combat and sexual harassment on the severity of PTSD among men and women peacekeepers in Somalia. *Journal of Nervous and Mental Disease, 188, 163-169.*
- Foy, D.W., Glynn, S.M., Schnurr, P.P., Weiss, D.S., & Jankowski, M.K. (2000). Group psychotherapy for posttraumatic stress disorder. In E.B. Foa, T.M. Keane, & M.J. Friedman (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (pp. 155-175). New York: Guilford.
- Friedman, M.J. (2000). *Post-traumatic stress disorder*. Kansas City, MO: Compact Clinicals.
- Friedman, M.J. (2000). What might the psychobiology of PTSD teach us about future approaches to pharmacotherapy? *Journal of Clinical Psychiatry, 61 (Suppl 7), 44-51.*
- Friedman, M.J. (Guest Editor). (1999). Psychobiological Aspects of PTSD. *Seminars in Clinical Neuropsychiatry*. Philadelphia: W.B. Saunders.
- Friedman, M.J., Davidson, J.R.T., Mellman, T.A., & Southwick, S.M. (2000). Pharmacotherapy. In E.B. Foa, T.M. Keane, & M.J. Friedman (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (pp. 84-105). New York: Guilford Press.
- Friedman, M.J., Davidson, J.R.T., Mellman, T.A., & Southwick, S.M. (2000). Pharmacotherapy: Description. In E.B. Foa, T.M. Keane, & M.J. Friedman (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (pp. 326-329). New York: Guilford Press.

- Friedman, M.J., Davidson, J.R.T., Mellman, T.A., & Southwick, S.M. (2000). Pharmacotherapy: Theory/conceptual framework. In E.B. Foa, T.M. Keane, & M.J. Friedman (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (pp. 84-105). New York: Guilford Press.
- Fujita, M., Seibyl, J.P., Verhoeff, N.P., Ichise, M., Baldwin, R.M., Zoghbi, S.S., Burger, C., Staley, J.K., Rajeevan, N., Charney, D.S., & Innis, R.B. (1999). Kinetic and equilibrium analyses of [<sup>123</sup>I]epidepride binding to striatal and extrastriatal dopamine D2 receptors. *Synapse*, *34*, 290-304.
- Goddard, A.W., Coplan, J.D., Gorman, J.M., & Charney, D.S. (1999). Principles of the pharmacotherapy of the anxiety disorders. In D.S. Charney, E.J. Nestler, & B.S. Bunney (Eds.), *Neurobiology of mental illness* (pp. 548-563). New York: Oxford University Press.
- Goddard, A.W., Woods, S.W., Money, R., Pande, A.C., Charney, D.S., Goodman, W.K., Heninger, G.R., & Price, L.H. (1999). Effects of the CCKB antagonist CI-988 on responses to mCPP in generalized anxiety disorder. *Psychiatry Research*, *85*, 225-240.
- Grilo, C.M., Sanislow, C., Fehon, D.C., Lipschitz, D., Martino, S., & McGlashan, T.H. (1999). Correlates of suicide risk in adolescent inpatients who report histories of childhood abuse. *Comprehensive Psychiatry*, *40*, 422-428.
- Ichise, M., Fujita, M., Seiby, I.J.P., Verhoeff, N.P., Baldwin, R.M., Zoghbi, S.S., Rajeevan, N., Charney, D.S., & Innis, R.B. (1999). Graphical analysis and simplified quantification of striatal and extrastriatal dopamine D2 receptor binding with [<sup>123</sup>I]epidepride SPECT. *Journal of Nuclear Medicine*, *40*, 1902-1912.
- Jacobs-Rebhun, S., Schnurr, P.P., Friedman, M.J., Peck, R., Brophy, M., & Fuller, D. (2000). Posttraumatic stress disorder and sleep difficulty [Letter to the Editor]. *American Journal of Psychiatry*, *157*, 1525.
- Kaufman, J., & Henrich, C. (2000). Exposure to violence and early childhood trauma. In C. Zeanah (Ed.), *Handbook of infant mental health* (pp. 195-207). New York: Guilford.
- Keane, T.M., Street, A.E., & Orcutt, H.K. (2000). Posttraumatic stress disorder. In M. Hersen & M. Biaggio (Eds.), *Effective brief therapy: A clinician's guide* (pp. 139 —155). San Diego, CA: Academic Press.
- Keane, T.M., Kaufman, M., & Kimble, M.O. (2000). Peritraumatic dissociative symptoms, acute stress disorder, and posttraumatic stress disorder: Causation, correlation or epiphenomena. In L. Sanchez-Planell & C. Diez-Quevedo (Eds.), *Dissociative states* (pp. 21-43). Barcelona: Springer-Verlag.
- Keane, T.M., Zimering, R.T., & Kaloupek, D.G. (2000). Posttraumatic stress disorder. In M. Hersen & A. Bellack (Eds.), *Psychopathology in adulthood*, 2<sup>nd</sup> Edition (pp. 208-231). Boston: Allyn & Bacon.
- Kilpatrick, D.G., Acierno, R., Saunders, B., Resnick, H.S., Best, C.L., & Schnurr, P.P. (2000). Risk factors for adolescent substance abuse: Data from a national sample. *Journal of Consulting and Clinical Psychology*, *68*, 19-30.
- Kimble, M.O., Kaloupek, D., Kaufman, M., & Deldin, P. (2000). Stimulus novelty differentially affects attentional allocation in PTSD. *Biological Psychiatry*, *47*, 880-890.
- Kimerling, R., Clum, G.A., & Wolfe, J. (2000). Relationship among trauma exposure, chronic posttraumatic stress disorder, and self reported health in women: Replication and extension. *Journal of Traumatic Stress*, *13*, 115-128.
- Kleespies, P.M., Deleppo, J.D., Gallagher, P.L., & Niles, B.L. (1999). Managing suicidal emergencies: Recommendations for the practitioner. *Professional Psychology: Research and Practice*, *30*, 454-463.
- Krystal, J.H., Bennett, A., Abi-Saab, D., Belger, A., Karper, L.P., D'Souza, D.C., Lipschitz, D., Abi-Dargham, A., & Charney, D.S. (2000). Dissociation of ketamine effects on rule acquisition and rule implementation: Possible relevance to NMDA receptor contributions to executive cognitive functions. *Biological Psychiatry*, *47*, 137-143.
- Krystal, J.H., Bremner, J.D., D'Souza, D.C., Anand, A., Southwick, S.M., & Charney, D.S. (2000). The emerging neurobiology of dissociation states. In A.Y. Shalev, R.Yehuda, & A.C. McFarlane (Eds.), *International handbook of human response to trauma* (pp. 307-320). New York: Kluwer Academic/Plenum.
- Krystal, J.H., D'Souza, D.C., Belger, A., Anand, A., Charney, D.S., Aghajanian, G.K., & Moghaddam, B. (1999). Therapeutic implications of the hyperglutamatergic effects of NMDA antagonists. *Neuropsychopharmacology*, *22*, 143-S157.
- Krystal, J.H., D'Souza, D.C., Petrakis, I.L., Belger, A., Berman, R., Charney, D.S., Abi-Saab, W., & Madonick, S.

- (1999). NMDA agonists and antagonists as probes of glutamatergic dysfunction and pharmacotherapies for neuropsychiatric disorders. *Harvard Review of Psychiatry*, 7, 125-133.
- Lindley, S., Carlson, E., & Sheikh, J. (2000). Psychotic symptoms in PTSD. *CNS Spectrum*, 5, 52-57.
- Linnoila, M., & Charney, D.S. (1999). *The neurobiology of aggression*. In D.S. Charney, E.J. Nestler, & B.S. Bunney (Eds.), *Neurobiology of mental illness* (pp. 855-871). New York: Oxford University Press.
- Lipschitz, D., Rasmusson, A.M., Anyan, W., Cromwell, P., & Southwick, S.M. (2000). Clinical and functional correlates of posttraumatic stress disorder in urban adolescent girls at a primary care clinic. *Journal of American Academy of Child and Adolescent Psychiatry*, 39, 1104-1111.
- Lipschitz, D.S., Bernstein, D.P., Winegar, R.K., & Southwick, S.M. (1999). Hospitalized adolescents' reports of sexual and physical abuse: A comparison of two self-report measures. *Journal of Trauma and Stress*, 12, 641-655.
- Lipschitz, D.S., Grilo, C.M., Fehon, D., McGlashan, T.M., & Southwick, S.M. (2000). Gender differences in the associations between posttraumatic stress symptoms and problematic substance use in psychiatric inpatient adolescents. *Journal of Nervous and Mental Disease*, 188, 349-356.
- Lipschitz, D.S., Rasmusson, A.M., & Southwick, S.M. (1999). Childhood posttraumatic stress disorder: A review of neurobiological sequelae. *Psychiatric Annals*, 28, 452-457.
- Litz, B.T. (1999). Fractured memory: The lasting psychological legacy of trauma. *Contemporary Psychology*, 44, 248-250.
- Litz, B.T., & Bolton, E. (2000). The psychological impact of peacekeeping. In G. Fink (Ed.), *Encyclopedia of stress* (pp. 134-137). San Diego: Academic Press.
- Litz, B.T., Orsillo, S.M., Kaloupek, D., & Weathers, F. (2000). Emotional-processing in posttraumatic stress disorder. *Journal of Abnormal Psychology*, 109, 26-39.
- Marikangas, K.R., Avenevoli, D., Dierker, L.C., & Grillon, D. (1999). Vulnerability factors among children at risk for anxiety disorders. *Biological Psychiatry*, 46, 1523-1535.
- McFall, M., Fontana, A., Raskind, M., & Rosenheck, R. (1999). Analysis of violent behavior in Vietnam combat veteran psychiatric inpatients with posttraumatic stress disorder. *Journal of Traumatic Stress Studies*, 12, 501-518.
- McFall, M., Malte, C., Fontana, A., & Rosenheck, R. (2000). Effects of an outreach intervention on utilization of mental health services for posttraumatic stress disorder. *Psychiatric Services*, 51, 369-374.
- Morgan, C.A. III, & Grillon, C. (1999). Abnormal mismatch negativity in women with sexual assault-related posttraumatic stress disorder. *Biological Psychiatry*, 45, 827-832.
- Morgan, C.A. III, & Southwick, S.M. (2000). Biological alterations in posttraumatic stress disorder: Implications for research and the U.S. Military. In G.A. Bray & D.H. Ryan (Eds.), *Pennington center nutrition series, countermeasures for battlefield stressors* (pp. 9-25). Baton Rouge: Louisiana State University Press.
- Morgan, C.A. III, Wang, S., Southwick, S.M., Rasmusson, A., Hazlett, G., Hauger, R.L., & Charney, D.S. (2000). Plasma neuropeptide-Y concentrations in humans exposed to military survival training. *Biological Psychiatry*, 47, 902-909.
- Morgan, C.A. III, Wang, S., Mason, J., Southwick, S.M., Fox, P., Hazlett, G., Charney, D.S., & Greenfield, G. (2000). Hormone profiles in humans experiencing military survival training. *Biological Psychiatry*, 47, 891-901.
- Morrow, B.A., Elsworth, J.D., Rasmusson, A.M. & Roth, R.H. (1999). The role of mesoprefrontal dopamine neurons in the acquisition and expression of conditioned fear in the rat. *Neuroscience*, 92, 553-564.
- Narayan, M., Bremner, J.D., & Kumar, A. (1999). Neuroanatomical substrates of late-life mental disorders. *Journal of Geriatric Psychiatry and Neurology*, 12, 95-106.
- Newton, T.L., & Doron, S.E. (2000). Cognitive-behavioral processes in managing the stress and anxiety of medical illness. In D.I. Mostofsky & D.H. Barlow (Eds.), *The management of stress and anxiety in medical disorders* (pp. 84-99). Boston: Allyn & Bacon.
- Nibuya, M., Takahashi, M., Russell, D.S., & Duman, R.S. (1999). Chronic stress increases catalytic TrkB mRNA in rat hippocampus. *Neuroscience Letters*, 267, 81-84.

- Niles, B.L., Newman, E., & Fisher, L. (2000). Obstacles to assessment of PTSD in longitudinal research. In A. Shalev, R. Yehuda, & A.C. McFarlane (Eds.), *International handbook of human response to trauma* (pp. 213-222). New York: Plenum Press.
- Oretega, A.N., & Rosenheck, R.A. (2000). The risk of posttraumatic stress disorder for Hispanic Vietnam veterans. *American Journal of Psychiatry*, *157*, 615-619.
- Prigerson, H.G., Bridge, J., Maciejewski, P., Beery, L.C., Rosenheck, R.A., Iyengar, S., Bierhals, A.J., Kupfer, A.J. & Brent, D.A. (1999). The influence of traumatic grief on suicidal ideation in young adults. *American Journal of Psychiatry*, *156*, 1994-1995.
- Prigerson, H.G., Shear, M.K., Jacobs, S., Kasl, S.V., Maciejewski, P.K., Silverman, G.K., Narayan, M., & Bremner, J.D. (2000). Grief and its relation to posttraumatic stress disorder. In D. Nutt & J.R.T. Davidson (Eds.), *Posttraumatic stress disorders: Management and treatment* (pp. 163-186). New York: Martin Dunitz Ltd.
- Prins, A., & Ruzek, J.I. (1999). Crisis counseling for sexual assault survivors. In *Support for survivors: Training for sexual assault counselors* (pp. 125-206). Oakland, CA: California Coalition Against Sexual Assault.
- Rasmusson, A.M., & Charney, D.S. (2000). Post-traumatic therapy. In G. Fink (Ed.), *Encyclopedia of stress, Vol. 3* (pp. 192-200). San Diego: Academic Press.
- Rasmusson, A.M., Hauger, R.L., Morgan, C.A., Bremner, J.D., Charney, D.S., & Southwick, S.M. (2000). Low baseline and yohimbine-stimulated plasma neuropeptide Y (NPY) levels in combat-related PTSD. *Biological Psychiatry*, *47*, 526-539.
- Rosen, C.S., Drescher, K.D., Moos, R.H., Finney, J.F., Murphy, R.T., & Gusman, F. (2000). Six and ten item indexes of psychological distress based on the Symptom Checklist-90. *Assessment*, *7*, 103-111.
- Rosenberg, H.J., Rosenberg, S.D., Williamson, P.D., & Wolford, G.L. (2000). A comparative study of trauma and posttraumatic stress disorder prevalence in epilepsy patients and psychogenic nonepileptic seizure patients. *Epilepsia*, *41*, 447-452.
- Rosenheck, R., & Fontana, A. (2000). War-related posttraumatic stress disorder, treatment of. In G. Fink (Ed.), *Encyclopedia of stress, Vol. 3* (pp. 672-678). New York: Academic Press.
- Rosenheck, R., & Fontana, A. (1999). Changing patterns of care for war-related posttraumatic stress disorder at Department of Veterans Affairs medical centers: A model of data-guided program management. *Military Medicine*, *164*, 795-802.
- Rosenheck, R., Stolar, M., & Fontana, A. (2000). Outcomes monitoring and the testing of new psychiatric treatments: Work therapy in the treatment of chronic posttraumatic stress disorder. *Health Services Research*, *35*, 133-151.
- Ruef, A.M., Litz, B.T., & Schlenger, W.E. (2000). Hispanic ethnicity and risk for combat-related posttraumatic stress disorder. *Cultural Diversity and Ethnic Minority Psychology*, *6*, 235-251.
- Ruzek, J.I., & Zatzick, D.F. (2000). Ethical considerations in research participation among acutely injured trauma survivors: An empirical investigation. *General Hospital Psychiatry*, *22*, 27-36.
- Sakai, N., Tolbert, L., & Duman, R.S. (1999). Chronic stress increases catalytic TrkB mRNA in rat hippocampus. *Molecular Pharmacology*, *56*, 917-925.
- Sanacora, G., Rothman, D., & Krystal, J.H. (1999). Applications of magnetic resonance spectroscopy to psychiatry. *Neuroscientist*, *5*, 192-196.
- Schnurr, P.P. (2000). The legacy of "Midtown" [Review of the book *Personal health and history: The Midtown Longitudinal Study*]. *Journal of Nervous and Mental Disease*, *188*, 56.
- Schnurr, P.P., & Jankowski, M.K. (1999). Physical health and posttraumatic stress disorder: Review and synthesis. *Seminars in Clinical Neuropsychiatry*, *4*, 295-304.
- Schnurr, P.P., & Spiro, A., III. (1999). Combat exposure, PTSD, and health behaviors as predictors of self-reported physical health in older military veterans. *Journal of Nervous and Mental Disease*, *187*, 353-359.
- Schnurr, P.P., Ford, J.D., Friedman, M.J., Green, B.L., Dain, B.J., & Sengupta, A. (2000). Predictors and outcomes of PTSD in World War II veterans exposed to mustard gas. *Journal of Consulting and Clinical Psychology*, *68*, 258-268.

- Schnurr, P.P., Friedman, M.J., Sengupta, A., Jankowski, M.K., & Holmes, T. (2000). PTSD and utilization of medical treatment services among male Vietnam veterans. *Journal of Nervous and Mental Disease, 188*, 496-504.
- Schnurr, P.P., Spiro, A., III, & Paris, A.H. (2000). Physician-diagnosed medical disorders in relation to PTSD symptoms in older male military veterans. *Health Psychology, 19*, 91-97.
- Seibyl, J.P., Scanley, E., Krystal, J.H., & Innis, R.B. (1999). Neuroimaging methodologies utilizing radiotracers or nuclear magnetic resonance. In D.S. Charney, E. Nestler, & B.S. Bunney (Eds.), *Neurobiology of mental illness* (pp. 170-189). New York: Oxford University Press.
- Shalev, A.Y., Friedman, M.J., Foa, E.B., & Keane, T.M. (2000). Integration and summary. In E.B. Foa, T.M. Keane, & M.J. Friedman (Eds.), *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (pp. 359-379). New York: Guilford Press.
- Sharkansky, E.J., King, D.W., King, L.A., & Wolfe, J. (2000). Coping with Gulf War combat stress: Mediating and moderating effects. *Journal of Abnormal Psychology, 109*, 188-197.
- Southwick, S.M., Paige, S., Morgan, C.A., Bremner, J.D., Krystal, J.H., & Charney, D.S. (1999). Neurotransmitter alterations in PTSD: Catecholamines and serotonin. *Seminars in Clinical Neuropsychiatry, 4*, 242-248.
- Southwick, S.M., Vojvoda, D., Morgan, C.A., & Lipschitz, D. (2000). Stress effects of the Persian Gulf War. In G. Fink (Ed. in chief), *Encyclopedia of stress* (pp. 142-148). San Diego: Academic Press.
- Stamm, B.H., & Friedman, M.J. (2000). Cultural diversity in the appraisal and expression of trauma. In A.Y. Shalev, R. Yehuda, & A.C. McFarlane (Eds.), *International handbook of human response to trauma* (pp. 69-85). New York: Kluwer Academic/Plenum Publishers.
- Vaidya, V.A., & Duman, R.S. (2000). Alterations in heavy and light neurofilament proteins in hippocampus following chronic ECS administration. *Synapse, 35*, 137-143.
- Vermetten, E., & Bremner, J.D. (2000). Dissociative amnesia: Re-remembering traumatic memories. In G.E. Berrios & J.R. Hodges, Jr. (Eds.), *Memory disorders in clinical practice* (pp. 400-431). London: Cambridge University Press.
- Wagner, A.W., Wolfe, J., Rotnitsky, A., Proctor, S.P., & Erickson, D.J. (2000). A longitudinal investigation of post-traumatic stress disorder on physical health: Does gender play a role? *Journal of Traumatic Stress, 13*, 41-55.
- Wolfe, J., Chrestman, K.R., Ouimette, P.C., Kaloupek, D., Harley, R.M., & Bucsela, M. (2000). Trauma-related psychophysiological reactivity in women exposed to war-zone stress. *Journal of Clinical Psychology, 56*, 1371-1379.
- Woodward, S.H., Murburg, M.M., & Bliwise, D.L. (2000). PTSD-related hyperarousal assessed during sleep. *Physiology and Behavior, 70*, 197-203.**

## **IN PRESS PUBLICATIONS BY NATIONAL CENTER STAFF**

- Ameli, R., Ip, C., & Grillon, C. Contextual fear-potentiated startle conditioning in humans: Replication and extension. *Psychophysiology*.
- Antony, M., Orsillo, S.M., & Roemer, L. *Practitioner's guide to empirically-based measures of anxiety*. New York: Kluwer Academic/Plenum Publishing.
- Bolton, E., Litz, B.T., Britt, T., & Roemer, L. Reports of exposure to potentially traumatic events and PTSD in troops poised for deployment. *Journal of Traumatic Stress*.
- Bremner, J.D. A biological model for delayed recall of childhood abuse. *Journal of Aggression, Maltreatment and Trauma*.
- Bremner, J.D. Controversies related to the effects of stress on the hippocampus: A reply to Pitman and Yehuda. *Hippocampus*.

- Bremner, J.D. Hypotheses and controversies related to the effects of stress on the hippocampus: An argument for stress-induced damage to the hippocampus in patients with posttraumatic stress disorder (PTSD). *Hippocampus*.
- Bremner, J.D. Stress and development: Behavioral and biological consequences. *Development and Psychopathology*.
- Bremner, J.D., Narayan, M., & Charney, D.S. Increased amygdala volume in major depression [Letter to the editor]. *American Journal of Psychiatry*.
- Bremner, J.D., Narayan, M., McGlashan, T., Heninger, G., Rasmusson, A., Southwick, S.M., & Charney, D.S. Long term effects of early childhood sexual abuse on the hypothalamic-pituitary-adrenal (HPA) axis in women with and without posttraumatic stress disorder (PTSD). *Archives of General Psychiatry*.
- Buckley, T.C., Blanchard, E.B., & Hickling, E.J. Automatic and strategic processing of threat stimuli: A comparison between PTSD, panic disorder, and non-anxiety controls. *Cognitive Therapy and Research*.
- Buckley, T.C., Blanchard, E.B., & Neill, W.T. Information processing and PTSD: A review of the empirical literature. *Clinical Psychology Review*.
- Carlson, E. Assessing experiences and responses of crime victims. *Office of Crime Victims Bulletin*.
- Carlson, E. Psychometric study of a brief screen for PTSD: Assessing the impact of multiple traumatic events. *Assessment*.
- Carson, M.A., Paulus, L.A., Lasko, N.B., Metzger, L.J., Wolfe, J., Orr, S.P., & Pitman, R.K. Psychophysiologic assessment of post-traumatic stress disorder in Vietnam nurse veterans who witnessed injury or death. *Journal of Consulting and Clinical Psychology*.
- Cassidy, E.L., Swales, P.J., & Sheikh, J.I. Clinical features of anxiety disorders. In J. Copeland, M. Abou-Saleh, & D. Blazer (Eds.), *Principles and practice of geriatric psychiatry (2nd Ed.)*. Sussex, England: John Wiley & Sons.
- Dalenberg, C., & Carlson, E. Ethical issues in the treatment of recovered memory trauma victims and patients with false memories of trauma. In S. Bucky (Ed.), *The comprehensive textbook of ethics and law in the practice of psychology*.
- Dey, H.M., Seibyl, J.P., Woods, S.W., Goddard, A.W., Zoghbi, S.S., Baldwin, R.M., Sea-Ponce, Y., Zubal, I.G., Charney, D.S., Hoffer, P.B., & Innis, R.B. Human biodistribution and dosimetry of the SPECT benzodiazepine receptor radioligand [<sup>123</sup>I]iomazenil. *Journal of Nuclear Medicine*.
- Deykin, E.Y., Keane, T.M., Kaloupek, D.G., Fincke, G., Rothendler, J., Siegfried, M., & Creamer, K. Posttraumatic stress disorder and utilization of health services. *Psychosomatic Medicine*.
- D'Souza, D.C., Gil, R., MacDougall, L., Cassello, K., Boutros, N., Innis, R.B., & Krystal, J.H. GABA-serotonin interactions in healthy subjects: Implications for psychosis and dissociation. *Archives of General Psychiatry*.
- Duman, R.S., Malberg, J., Nakagawa, S., & D'Sa, C. Neuronal plasticity and survival in mood disorders. *Biological Psychiatry*.
- Erickson, D.J., Wolfe, J., King, D.W., King, L.A., & Sharkansky, E.J. Posttraumatic stress disorder and depression symptomatology in a sample of Gulf War veterans: A prospective analysis. *Journal of Consulting and Clinical Psychology*.
- Fairbank, J., Friedman, M., & Southwick, S.M. Veterans of armed conflicts. In T.M. Keane, E. Gerrity, & F. Tuma (Eds.), *Mental health consequences of torture and related violence and trauma*. New York: Guilford Press.
- Fairbank, J., Friedman, M.J., & Basoglu, M. Psychosocial models. In T.M. Keane, E. Gerrity, & F. Tuma (Eds.), *Mental health consequences of torture and related violence and trauma*. New York: Guilford Press.
- Fairbank, J., Friedman, M.J., & Southwick, S. Veterans of armed conflicts. In T.M. Keane, E. Gerrity, & F. Tuma (Eds.), *Mental health consequences of torture and related violence and trauma*. New York: Guilford Press.
- Flack, W.F., Litz, B.T., Kaloupek, D., & Keane, T.M. Predictors of emotional numbing revisited: A replication and extension. *Journal of Traumatic Stress*.
- Foa, E.B., Keane, T.M., & Friedman, M.J. Guidelines for treatment of PTSD: Introduction. *Journal of Traumatic Stress*.
- Foy, D.W., Schnurr, P.P., Weiss, D.S., Wattenberg, M.S., Glynn, S.M., Marmar, C.R., & Gusman, F.D. Group

- psychotherapy for posttraumatic stress disorder. In J. Wilson, M.J. Friedman, & J. Lindy (Eds.), *Treating psychological trauma and PTSD*. New York: Guilford Press.
- Friedman, M.J. Pharmacotherapy for posttraumatic stress disorder: A status report. *Psychiatry and Clinical Neurosciences*.
- Frueh, B.C., Hamner, M.B., Bernat, J., Turner, S.M., Keane, T.M., & Arana, G.W. Racial differences in psychotic symptoms among combat veterans with PTSD. *Depression and Anxiety*.
- Fujita, M., Seibyl, J.P., Verhoeff, N.P., Ichise, M., Baldwin, R.M., Zoghbi, S.S., Burger, C., Staley, J.K., Rajeevan, N., Charney, D.S., & Innis, R.B. Kinetic and equilibrium analyses of [<sup>123</sup>I]epidepride binding to striatal and extrastriatal dopamine D2 receptors. *Synapse*.
- Gandelman, M.S., Scanelly, B.E., Laruelle, M.S., Zea-Ponce, Y., Baldwin, R.M., Zoghbi, S.S., Hoffer, P.B., Charney, D.S., Wang, S., Neumeyer, J.L., & Innis, R.B. A model-based comparison of [<sup>123</sup>I]IPCIT and [<sup>123</sup>I]&beta;-CIT as SPECT tracers for the dopamine transporter in nonhuman primates. *Journal of Neurochemistry*.
- Goddard, A.W., Mason, G.F., Almai, A., Rothman, D.L., Behar, K.L., Petroff, O.A.C., Charney, D.S., & Krystal, J.H. Reductions in cortical GABA levels in panic disorder detected with <sup>1</sup>H-magnetic resonance spectroscopy. *American Journal of Psychiatry*.
- Goddard, A.W., Mason, G.F., Rothman, D.L., Sanacora, G., Epperson, N., Behar, K.L., Charney, D.S., & Krystal, J.H. Reduction in cortical GABA levels in panic disorder assessed using [<sup>1</sup>H] magnetic resonance spectroscopy. *Archives of General Psychiatry*.
- Hayes, S.C., & Walser, R.D. Prescription privileges for psychologists: Constituencies and conflicts. *Journal of Consulting and Clinical Psychology*.
- Jaranson, J.M., Kinzie, J.D., Friedman, M., Ortiz, D., Friedman, M.J., Southwick, S.M., Kastrup, M., & Mollica, R. Assessment, diagnosis, and intervention. In T.M. Keane, E. Gerrity, & F. Tuma (Eds.), *Mental health consequences of torture and related violence and trauma*. New York: Guilford Press.
- Johnson, D.R., Lubin, H., Rosenheck, R., Fontana, A., Southwick, S., & Charney, D. Comparison of outcome between homogeneous and heterogeneous treatment environments in combat-related PTSD. *Journal of Traumatic Stress*.
- Kaufman, J., & Charney, D.S. Comorbidity of mood and anxiety disorders. *Journal of Depression and Anxiety*.
- Kaufman, J., & Charney, D.S. Effects of early adverse experience on brain structure and function: Implications for understanding the relationship between child maltreatment and depression. *Development and Psychopathology*.
- Kaufman, J., Martin, A., King, R.A., & Charney, D.S. Are child, adolescent, and adult-onset depression one and the same disorder? *American Journal of Psychiatry*.
- Kaufman, J., Plotsky, P., Nemeroff, C., & Charney, D.S. Effects of early adverse experience on brain structure and function: Clinical implications. *Biological Psychiatry*.
- Keane, T.M. A call to action: Summarizing the issues in responding to social and humanitarian crises. In B.L. Green, J. deJong, J.A. Fairbank, M.J. Friedman, E. Frey-Wouters, S. Solomon, & T. M. Keane (Eds.), *Psychosocial interventions for traumatic experiences worldwide*.
- Keane, T.M. Entering the secret garden: The interface of cognitive neuroscience and trauma. *Journal of Child Abuse and Neglect*.
- Keane, T.M., Gerrity, E., & Tuma, F. (Eds.), *Mental health consequences of torture and related violence and trauma*. New York: Guilford Press.
- Keane, T.M., & Kaloupek, D.G. Posttraumatic stress disorder: Diagnosis, assessment, and monitoring outcomes. In R. Yehuda (Ed.), *Treating trauma survivors: Bridging the gap between intervention research and practice*. Washington: American Psychiatric Press.
- Keane, T.M., Kimble, M.O., Kaufman, M., & Kaloupek, D.G. Diagnosis and assessment of posttraumatic stress disorder in adults. *Journal of Interpersonal Violence*.
- Kimble, M. The case of Howard. *Cognitive and Behavioral Practice*.
- Kimble, M. Treating PTSD in the presence of multiple comorbid disorders. *Cognitive and Behavioral Practice*.

- King, A.C., Bernardy, N.C., & Hauner, K. Stressful events, personality, and mood disturbance in female and male alcoholics, problem drinkers, and light drinkers. *Addictive Behaviors*.
- King, D.W., King, L.A., Erickson, D.J., Huang, M.T., Sharkansky, E.J., & Wolfe, J. Posttraumatic stress disorder and retrospectively reported stressor exposure: A longitudinal prediction model. *Journal of Abnormal Psychology*.
- King, L.A., Orcutt, H.K., & King, D.W. Understanding and evaluating gender differences in PTSD: Methodological approaches. In R. Kimmerling, P.C. Ouimette, & J. Wolfe (Eds.), *Gender and PTSD*. New York: Guilford.
- Krystal, J.H., Belger, A., D'Souza, C.D., Anand, A., Charney, D.S., Aghajanian, G.K., & Moghadam, B. Therapeutic implications of the hyperglutamatergic effects of NMDA antagonists. *Neuropsychopharmacology*.
- Krystal, J.H., Bennett, A., Abi-Saab, D., Belger, A., Karper, L.P., D'Souza, C.D., Abi-Dargham, A., & Charney, D.S. Ketamine, the Wisconsin Card Sort Test, and executive functions: Implication of NMDA receptors in initial, but not subsequent, WCST performance. *Psychopharmacology*.
- Krystal, J.H., D'Souza, D.C., Sanacora, G., Goddard, A., & Charney, D.S. Current perspectives on the pathophysiology of schizophrenia, affective disorder, and anxiety disorders. *Medical Clinics in North America*.
- Lipschitz, D.S., Morgan, C.A. III, & Southwick, S.M. Neurobiological disturbances in youth with childhood trauma and in youth with conduct disorder. *Journal of Aggression, Maltreatment and Trauma*.
- Litz, B.T., Miller, M.W., Ruef, A.M., & McTeague, L.M. Assessment of adults exposed to trauma. In M.M. Antony & D.H. Barlow (Eds.), *Handbook of assessment, treatment planning, and outcome evaluation: Empirically supported strategies for psychological disorders*. New York: Guilford Press.
- Mason, J., Wang, S., Yehuda, R., Lubin, H., Johnson, D., Bremner, J.D., Riney, S., Charney, D.S., & Southwick, S.M. Marked liability of urinary free cortisol levels in sub-groups of combat veterans with posttraumatic stress disorder. *Psychosomatic Medicine*.
- Mason, J.W., Wang, S., Yehuda, R., Riney, S., Charney, D.S., & Southwick, S. Relationships between urinary cortisol levels and a symptom complex of emotional numbing-disengagement, shame-guilt, and self-critical depression in combat-related posttraumatic stress disorder. *Psychosomatic Medicine*.
- Miller, H.L., & Charney, D.S. Suicide. In B. Johnson (Ed.), *Collier's Encyclopedia*.
- Miller, M.W., & Patrick, C.J. Trait differences in affective and attentional responding to threat revealed by emotional Stroop interference and startle response modulation. *Behavior Therapy*.
- Miller, M.W., Peirce, J.M., & Keane, T.M. Posttraumatic stress disorder in adults. In W.E. Craighead & C.B. Nemeroff (Eds.), *Encyclopedia of psychology and neuroscience*, 3rd Edition. New York: John Wiley & Sons.
- Morgan, C.A. III, Hazlett, G., Wang, S., Schnurr, P., & Southwick, S.M. Symptoms of dissociation in humans experiencing acute uncontrollable stress. *American Journal of Psychiatry*.
- Morgan, C.A. III, Wang, S., Hazlett, G., Rasmussen, A., Anderson, G., & Charney, D.S. Relationships among cortisol, catecholamines, neuropeptide Y and human performance during uncontrollable stress. *Psychosomatic Medicine*.
- Narayan, M., Anderson, E., Goddard, A., Woods, S.W., Staib, L., Charney, D.S., & Bremner, J.D. Temporal lobe volume in panic disorder – A quantitative magnetic resonance imaging study. *American Journal of Psychiatry*.
- Narayan, M., Anderson, G.M., Owens, M.J., Halaszynski, T., Bremner, J.D., Carpenter, L., Heninger, G.R., Nemeroff, C.B., & Charney, D.S. Cerebrospinal fluid corticotropin releasing hormone (CRH) in healthy humans: Effects of yohimbine and naloxone. *Journal of Clinical Endocrinology & Metabolism*.
- Overbeek, T., Vermetten, E., & Griez, E. Epidemiology of anxiety disorders. In E. Griez, C. Faravelli, D. Nutt, & J. Zohar (Eds.), *The European certificate textbook on anxiety disorders*. Chichester, England: John Wiley & Sons.
- Peirce, J.M., Newton, T.L., Buckley, T.C., & Keane, T.M. Gender and psychophysiology in posttraumatic stress disorder. In R. Kimmerling, P.C. Ouimette, & J. Wolfe (Eds.), *Gender and PTSD*. New York: Guilford Press.
- Rasmussen, A.M., & Charney, D.S. Peptidergic modulation of anxiety: A role for peptide ligands in the treatment of anxiety disorders. In U. Halbreich, (Ed.), *Hormonal modulation of brain and behavior*. New York: American Psychiatric Press.

- Rasmusson, A.M., & Friedman, M.J. Gender and biological models of PTSD. In R. Kimerling, P.C. Ouimette, & J. Wolfe (Eds.), *Gender and PTSD*. New York: Guilford Press.
- Rasmusson, A.M., & Friedman, M.J. The neurobiology of PTSD in women. In R. Kimerling, P.C. Ouimette, & J. Wolfe (Eds.), *Gender and PTSD*. New York: Guilford Press.
- Read, J.P., Bollinger, A.R., & Sharkansky, E.J. Assessment of co-morbid alcoholism and posttraumatic stress disorder. In P.C. Ouimette & P.J. Brown (Eds.), *PTSD and substance use disorder comorbidity*. Washington, DC: American Psychological Association Press.
- Riggs, D.S., Caulfield, M.B., & Street, A.E. Risk for domestic violence: Factors association with perpetration and victimization. *Journal of Clinical Psychology*.
- Roemer, L., & Orsillo, S.M. Developing a new conceptualization of and treatment for generalized anxiety disorder: Integrating mindfulness/acceptance-based approaches with existing cognitive behavioral models. *Clinical Psychology: Science and Practice*.
- Roemer, L., Litz, B.T., Orsillo, S.M., & Wagner, A.W. A preliminary investigation of the role of strategic withholding of emotions in PTSD. *Journal of Traumatic Stress*.
- Rosenberg, H.J., Rosenberg, S.D., Wolford, G.L., Manganiello, P.D., Brunette, M.F., & Boynton, R.A. The relationship between trauma, PTSD, and medical utilization in three high risk medical populations. *International Journal of Psychiatry in Medicine*.
- Rosenberg, S.D., Hulsey, T.L., & Rosenberg, H.J. The language of sexual abuse: An exploratory lexical analysis. *Journal of Trauma and Dissociation*.
- Ruzek, J.I. When problems interact: Concurrent PTSD and substance use disorder among combat veterans. In P.C. Ouimette & P.J. Brown (Eds.), *PTSD and substance use disorder comorbidity*. Washington, DC: American Psychological Association Press.
- Ruzek, J.I. The role of hospitals in delivering early intervention services following traumatic events. In R. Orner & U. Schnyder (Eds.), *Reconstructing early intervention after trauma*. Oxford, England: Oxford University Press.
- Ruzek, J.I., Young, B.H., & Friedman, M.J. Emergency psychiatry and disaster response. *Emergency Psychiatry*.
- Schnurr, P.P. [Review of the book *Trauma: A genealogy*]. *New England Journal of Medicine*.
- Schnurr, P.P., Friedman, M.J., Lavori, P.J., & Hsieh, F.Y. Design of VA Cooperative Study #420: Group treatment of PTSD. *Controlled Clinical Trials*.
- Sheikh, J.I., Cassidy, E.L., & Swales, P.J. Acute management of anxiety disorders. In J. Copeland, M. Abou-Saleh, & D. Blazer (Eds.), *Principles and practice of geriatric psychiatry* (2nd Ed.). Sussex, England: John Wiley & Sons.
- Southwick, S., & Friedman, M.J. Neurobiological models of posttraumatic stress disorder. In T.M. Keane, E. Gerrity, & F. Tuma (Eds.), *Mental health consequences of torture and related violence and trauma*. New York: Guilford Press.
- Southwick, S.M., Morgan, C.A. III, & Rosenberg, R. Social sharing of gulf war experiences: Association with trauma-related psychological symptoms. *Journal of Nervous and Mental Disease*.
- Street, A.E., & Arias, I. Psychological abuse and posttraumatic stress disorder in battered women: Examining the roles of shame and guilt. *Violence and Victims*.
- Swales, P.J., Cassidy, E.L., & Sheikh, J.I. Prognosis of anxiety disorders. In J. Copeland, M. Abou-Saleh, & D. Blazer (Eds.), *Principles and practice of geriatric psychiatry* (2nd Ed.). Sussex, England: John Wiley & Sons.
- Varrone, A., Fujita, M., Verhoeff, N.P., Zoghbi, S.S., Baldwin, R.M., Rajeevan, N., Charney, D.S., Seibyl, J.P., & Innis, R.B. Test-retest reproducibility of extrastriatal dopamine D2 receptor imaging with [<sup>123</sup>I]epidepride SPECT in humans. *Journal of Nuclear Medicine*.
- Vermetten, E., Charney, D.S., & Bremner, J.D. Anxiety. In V.S. Ramachandran (Ed.), *Encyclopedia of the human brain*. San Diego: Academic Press.
- Vermetten, E., Charney, D.S., & Bremner, J.D. Posttraumatic stress disorder. In H. Helmchen, F.A. Henn, H. Lauter, & N. Sartorius (Eds.), *Current concepts in psychiatry*. Heidelberg: Springer Verlag.

Vermetten, E., Charney, D.S., & Bremner, J.D. Posttraumatic stress disorder. In F. A. Henn (Ed.), *Contemporary psychiatry*. Heidelberg: Springer Verlag.

Vythilingam, M., Anderson, G.M., Owens, M.J., Halaszynski, T., Bremner, J.D., Carpenter, L., Heninger, G.R., Nemeroff, C.B., & Charney, D.S. Norepinephrine and opioid regulation of cerebrospinal fluid corticotropin releasing factor (CRF) in healthy humans. *Journal of Clinical Endocrinology Metabolism*.

Weathers, F.W., Keane, T.M., & Davidson, J.R.T. The Clinician Administered Posttraumatic stress disorder Scale (CAPS): A review of the first ten years of research. *Depression and Anxiety*.

Wilson, J.P., Friedman, M.J., & Lindy, J.D. (Eds.), *Treating psychological trauma and PTSD*. New York: Guilford Press.

Wolfe, J., & Melia, K. History of post-military service adjustment. In A.E. Kazdin (Ed.), *The encyclopedia of psychology*. Oxford: American Psychological Association.

Woodward, S.H., Arsenault, N.J., Murray, C., & Bliwise, D.L. Laboratory sleep correlates of nightmare complaint in PTSD inpatients. *Biological Psychiatry*.

Young, H. Developing cultural competency in the assessment and treatment of posttraumatic stress disorder in Native American clients: Case study of a Lakota veteran. In J. Shiang (Ed.), *Psychological practice in a multicultural society*. New York: Oxford University Press.

## **SCIENTIFIC PRESENTATIONS ON PTSD BY NATIONAL CENTER STAFF**

### **INTERNATIONAL SOCIETY FOR TRAUMATIC STRESS STUDIES**

#### **Miami, FL, November 1999**

Bernardy, N.C. "Prior trauma in alcoholic women influences disease course and treatment."

Bolton, E., McTeague, L., & Litz, B. "Substance use in military peacekeepers prior to and following deployment."

Bremner, J.D. "False memories in women with childhood sexual abuse with and without PTSD: An empirical study."

Bremner, J.D. "Lasting effects of childhood sexual abuse on the hypothalamic-pituitary-adrenal axis in women with and without posttraumatic stress disorder (PTSD)."

Carlson, E.B. "Anger, trauma, and posttraumatic symptoms in female veterans in residential treatment."

Carlson, E.B. "Perceived usefulness and distress in response to trauma research interviews."

Carlson, E.B. "Problems with the symptom criteria for PTSD."

Descamps, M.J., McDonagh-Coyle, A., & Mueser, K. "Treatment of adult women with PTSD secondary to childhood sexual abuse: From research to clinical practice."

Descamps, M.J., Mueser, K., Rosenberg, S., Salyers, M., Jankowski, M.K., Friedman, M.J., & Goguen, C. "Modification of a protocol for treating PTSD in women with severe mental illness."

Fisher, L., Niles, B.L., Munroe, J., Grace, M., Krinsley, K., Quinn, S., Zimering, R., Vielhauer, M., & King, D.W. "A group treatment program for PTSD: Model, protocols, instruments, outcome."

Foa, E.B., Keane, T.M., & Friedman, M.J. "Process overview."

Friedman, M.J. "Expert consensus treatment guidelines for PTSD."

Friedman, M.J. "Health problems and medical morbidity risk factors in chronic PTSD."

Friedman, M.J. "Pharmacotherapy for PTSD."

Gold, J.I., Stone, E.R., Suvak, M.K., Savarese, V.W., King, D.W., & King, L.A. "Predicting positive life adjustment in female Vietnam veterans."

Gold, J.I., Vogt, D.S., King, D.W., & King, L.A. "Family adjustment in a sample of female Vietnam veterans."

Grilo, C.M., Lipschitz, D.S., & Fehon, D. "Psychological functioning in adolescent inpatients who report being violence

perpetrators."

Jakupcak, M., Roemer, L., & Orsillo, S.M. "Emotional numbing patterns across gender."

Jankowski, M.K. "Treatment of PTSD in a woman with severe mental illness."

Kaloupek, D.G., Peirce, J., Miller, M., Kaufman, M., Kimble, M., & Keane, T.M. "Antisociality, substance use, and dissociation as potential influences on psychophysiological non-response in PTSD."

Kimble, M., Kaufman, M., & Kaloupek, D.G. "An electrophysiological study of attention, arousal, and dissociation in PTSD."

Kimble, M., Leonard, L., Kaufman, M., Riggs, D., & Kaloupek, D.G. "Bias in sentence completions shown by combat veterans with PTSD."

Knight, J.A., Zimering, R.T., Munroe, J., & Vielhauer, M. "GAF unreliability: Is training beneficial?"

Leskin, G.A., & Westrup, D.A. "Theoretical and empirical approaches to PTSD screening measurement construction."

Lipschitz, D.S. "Adolescents' trauma narratives and PTSD symptoms."

Loo, C. "Research study on race-related experiences of Asian American Vietnam veterans: Objectives, design, and preliminary findings."

McDonagh-Coyle, A. "Development of brief integrative treatment for childhood sexual abuse survivors with PTSD."

McDonagh-Coyle, A., Friedman, M.J., McHugo, G., Ford, J., Mueser, K., Demment, C., & Descamps, M. "Cognitive-behavioral treatment for childhood sexual abuse survivors with PTSD."

McDonagh-Coyle, A., Friedman, M.J., McHugo, G.J., Ford, J., Mueser, K., Demment, C., Schnurr, P.P., Descamps, M.J., & Fournier, D. "Treatment of PTSD in female childhood sexual abuse survivors."

McTeague, L.M., Bolton, E.B., Fourt, L., & Litz, B.T. "Perceived personal needs and barriers to mental health services of U.S. peacekeepers."

Miller, M.W., Bolton, E., & Litz, B.T. "A prospective investigation of personality traits predictive of psychiatric outcome in peacekeepers."

Miller, M.W., & Litz, B.T. "Exposure-based treatment of conditioned gagging in a motor vehicle accident survivor with PTSD."

Miller, M.W., McTeague, L.M., & Litz, B.T. "Exaggerated startle in PTSD: A multimodal examination of NVVRS data."

Niles, B.L., Grace, M., Lambert, J., LoCastro, J.S., Orlander, J., & Mori, D.L. "PTSD in primary care: Identification, comorbidity, service utilization."

Orcutt, H.K., Erickson, D.J., & Wolfe, J. "A prospective analysis of re-exposure: Effects of PTSD and prior trauma."

Peirce, J., McTeague, L., Bolton, E., Orsillo, S., Roemer, L., & Litz, B. "Coping, combat exposure, and PTSD in Somalia peacekeepers."

Rosen, C.S., Murphy, R.T., Chow, H., Ramirez, G., & Ruddy, R. "Readiness for change among combat PTSD rehabilitation patients."

Ruddy, K., Kimble, M., Deldin, P., & Kaufman, M. "Event-related potential (CNV) indices of attentional disturbances in PTSD."

Ruef, A.M., Bolton, E., & Litz, B.T. "Hostility and aggression in military peacekeepers: Links to physical health complaints and PTSD symptoms."

Ruzek, J.I. "PTSD and substance use disorder comorbidity."

Ruzek, J.I., & Zatzick, D. "Ethical considerations in research with acutely injured trauma survivors: An empirical investigation."

Saxe, G., Stoddard, F., Sheridan, R., Cunningham, K., Courtney, D., King, D.W., & King, L.A. "PTSD in children with burns: A longitudinal study."

Schnurr, P.P. "Screening for PTSD in primary care."

Schnurr, P.P. "The impact of trauma on physical health."

Schnurr, P.P., Spiro, A. III, & Paris, A.H. "Physician-diagnosed medical disorders in older military veterans."

Schnurr, P.P., Spiro, A. III, Vielhauer, M., Findler, M., & Paris, A.H. "Trauma in the lives of older men."

Suvak, M.K., Vogt, D.S., Gold, J.I., Savarese, V.W., Stone, E.R., King, L.A., & King, D.W. "Retrospective appraisals of wartime experiences and adjustment among Vietnam veterans."

Vermetten, E., & Bremner, J.D. "Olfaction as a precipitant in PTSD."

Vogt, D.S., Savarese, V.W., King, D.W., King, L.A., & Gold, J.I. "Long-term positive adjustment in a national sample of Vietnam veterans."

Vojvoda, D., Weine, S.M., McGlashan, T., Becker, D.F., & Southwick, S.M. "PTSD symptoms in Bosnian refugees 3 years after resettlement."

Wang, S. "New advances in the study of the hypothalamic-pituitary axis in PTSD."

Woodward, S.H., Arsenault, N.J., Groves, W.K., & Stewart, L.P. "Threats to the validity of psychophysiological diagnosis of PTSD."

## **ASSOCIATION FOR THE ADVANCEMENT OF BEHAVIOR THERAPY**

**Toronto, Canada, November 1999**

Beaudreau, S.A., & Litz, B.T. "Sexual history of male veterans seeking treatment for sexual dysfunction."

Bolton, E., McTeague, L., Orsillo, S., Roemer, L., & Litz, B.T. "Schema changes following exposure to potentially traumatic events in the context of the modern military."

Buckley, T.C., Blanchard, E.B., Hickling, E.J., & Applegate, B.W. "Automatic and strategic processing of threat stimuli: A comparison between PTSD, panic disorder, and non-anxiety controls."

Dixon, A., Turner, K., & Caulfield, M. "Overall childhood abuse and adult sexual victimization: Results from a female military sample."

Evans, B.A., Gant, J.C., & Orsillo, S.M. "The effect of trauma on future life stressors."

Evans, B.A., Robbins, R., & Orsillo, S.M. "The effects of expectations regarding future resource loss on psychological distress."

Keane, T.M. "Roundtable on EMDR."

Kuhn, E., Dowdall, D.J., Street, A.E., & Riggs, D.S. "Trauma memory priming: Impact on cognitions, affect and physiology."

Levitt, J.T., Hoffman, E., Greene, K., Hofmann, S., Litz, B.T., & Barlow, D.H. "The relationship between severity of anxiety disorder and trauma history."

Leskin, G.A. "Witness to violence: The experience of African-American males in urban settings."

Luterek, J., Evans, B.A., Orsillo, S.M., & Myers, A. "Experiential avoidance as a predictor of psychological distress."

Luterek, J., Orsillo, S.M., Lundgren, J.D., Cargile, B., & Hestand, T. "An experimental assessment of emotional responding in individuals with a history of sexual assault."

McTeague, L.M., Litz, B.T., & Orsillo, S.M. "Evaluative affective thresholds in combat veterans: PTSD, arousal, and emotion activation."

McTeague, L.M., McNally, R.J., & Litz, B.T. "Prewar, war-zone, and postwar predictors of current PTSD in female Vietnam veteran healthcare providers."

Orcutt, H.K., Erickson, D.J., & Wolfe, J. "The course of PTSD among Gulf War veterans: A latent growth curve modeling approach."

Street, A.E., Lam, L., & Riggs, D.S. "The decision to leave a violent dating relationship: The impact of relationship quality, commitment and positive feelings toward the partner."

Street, A.E., Riggs, D.S., Dowdall, D.J., & Kuhn, E. "Problem solving deficits and the perpetration of intimate violence."

Tolin, D.F., Foa, E.B., Ehlers, A., Clark, D.M., Watlington, C., & Orsillo, S.M. "Development and validation of the Post-traumatic Cognitions Inventory."

**Turner, K., Dixon, A., Caulfield, M., & Wolfe, J. "Witnessing community violence: Implications for adaptation in young adults."**

**WORLD CONFERENCE FOR THE INTERNATIONAL SOCIETY FOR TRAUMATIC STRESS STUDIES  
Melbourne, Australia, March 2000**

Friedman, M.J. "Post-traumatic syndromes in the 21<sup>st</sup> century: Does PTSD have a future?"

Friedman, M.J., & Schnurr, P.P. "Trauma-focus group therapy for chronic PTSD."

Kaloupek, D.W., McWilliams, J., & Keane, T.M. "Psychophysiological irregularity as a marker for posttraumatic stress disorder in combat veterans."

Keane, T.M. "Recent advances in the treatment of combat-related PTSD."

Keane, T.M. "Treatments of PTSD."

King, L.A., King, D.W., Savarese, V.W., Suvak, M.K., Riggs, D.S., Street, A.E., & Orcutt, H.K. "PTSD and alcohol abuse as predictors of veterans' marital outcomes."

Schnurr, P.P. "Physical health and PTSD: A review of the empirical evidence."

Schnurr, P.P. "Treating the long-term sequelae of war: Military and civilian perspectives."

Suvak, M.K., Savarese, V.W., King, D.W., & King, L.A. "Social support and positive life adjustment among Vietnam veterans."

## **AMERICAN PSYCHIATRIC ASSOCIATION**

**Chicago, IL, May 2000**

Bremner, J.D. "Decreased frontal cortical benzodiazepine receptor binding in PTSD."

Bremner, J.D. "HPA axis and hippocampus in sexually abused women with PTSD presentation in symposium HPA axis and neuroanatomical findings in PTSD."

Friedman, M.J., Marmar, C., Clary, C.M., & Farfel, G.M. "Effects of sertraline and placebo in men with posttraumatic stress disorder (PTSD)."

Narayan, M., Chen, J., Bremner, J.D., & Nelson, J.C. "Mortality in psychotic depression."

Southwick, S.M. "Arousal and memory in posttraumatic stress disorder."

## **OTHER**

Alpert, J., & Keane, T.M. "Psychological trauma." Annual Meeting of the American Psychological Association, Washington, DC, August 2000.

Bracha, H.S. "A new laboratory estimate of cumulative autonomic perturbations during early brain development." The Xth International Symposium on the Autonomic Nervous System, Kohala, HI, November 1999.

Bremner, J.D. "Alterations in brain structures involved in memory in PTSD." New York Academy of Sciences and New York Neuropsychological Society, New York, NY, May 2000.

Bremner, J.D. "Decreased frontal cortical benzodiazepine receptor binding in posttraumatic stress disorder." Annual Meeting of the American College of Neuropsychopharmacology, Acapulco, Mexico, December 1999.

Bremner, J.D. "Does stress damage the brain? Evidence from neuroimaging studies in PTSD." Lecture for Department of Psychiatry and Psychotherapy, Freiburg University Clinic, Freiburg, Germany, October 1999.

Bremner, J.D. "Does stress damage the brain?" New York State Chapter of the American Psychiatric Association,

Mystic, CT, October 1999.

Bremner, J.D. "Hippocampal function in PTSD." Veterans Administration Medical Advisory Group Meeting, Houston, TX, March 2000.

Bremner, J.D. "HPA axis function and hippocampus in sexually abused women with and without PTSD." Annual Meeting of the American College of Neuropsychopharmacology, Acapulco, Mexico, December 1999.

Bremner, J.D. "Lasting effects of childhood sexual abuse on the hypothalamic-pituitary-adrenal axis in women with and without posttraumatic stress disorder (PTSD)." Annual Meeting of the Society for Neuroscience, Miami, FL, October 1999.

Bremner, J.D. "Neurological and neuropsychological consequences of stress." The Connecticut Neuropsychological Society, West Haven, CT, September 2000.

Bremner, J.D. "Stress, hormones, and neural circuits: Basic and clinical perspectives." Annual Meeting of the American College of Neuropsychopharmacology, Acapulco, Mexico, December 1999.

Buckley, T.C. "A meta-analytic examination of basal cardiovascular functioning in PTSD." Annual Meeting of the Society of Behavioral Medicine, Nashville, TN, April 2000.

Cook, J.M., Thompson, L.W., & Drescher, K. "Relationships between PTSD, quality of life, anger, and coping in treatment-seeking older adult combat veterans." Annual Meeting of the Gerontological Society of America, San Francisco, CA, November 1999.

Duman, R.S. "Chronic antidepressant treatment increases granule cell neurogenesis." Annual Meeting of the American College of Neuropsychopharmacology, Acapulco, Mexico, December 1999.

Duman, R.S. "Neural plasticity to stress and antidepressant treatment. New discoveries in depression." Neurobiology of Stress, Laguna, CA, February 2000.

Duman, R.S. "Novel targets for the development of antidepressant agents." Drug Discovery, New York, NY, March 2000.

Duman, R.S. "Molecular and cellular actions of antidepressant treatment." University of Connecticut Department of Neuroscience, Farmington, CT, April 2000.

Duman, R.S. "Neurotrophic actions of antidepressant treatment." Congress of International Neuropsychopharmacology, Brussels, Belgium, July 2000.

Duman, R.S. "Signal transduction mechanisms." International Congress on Hormones, Brain, and Neuropsychopharmacology, Rhodes, Greece, July 2000.

Friedman, M.J. "Detection and treatment of acute combat stress reactions." Annual Meeting of NATO Psychiatrists, Ottawa, Canada, October 1999.

Friedman, M.J. "Early detection and treatment of PTSD." Australian Defense Forces and Department of Veterans Affairs, Canberra, Australia, March 2000.

Friedman, M.J. "Recent research on PTSD treatment." National Centre for PTSD, West Heidelberg, Australia, March 2000.

Friedman, M.J. "Treating PTSD: Are there any safe ports in the storm?" Westmead Hospital, Sydney, Australia, March 2000.

Friedman, M.J., Foy, D., & Litz, B. "Assessment and treatment of post-traumatic stress disorder." Canadian Department of National Defense, Halifax, Nova Scotia, April 2000.

Friedman, M.J. "Mental health problems of refugees and internally displaced people." International conference, Stressful changes: Psychological aspects of postcommunist transformations, Babes-Bolyai University, Cluj-Napoca, Romania, June 2000.

Friedman, M.J. "Evidence-based intervention research—state-of-the-art interventions." OVC/CMHS (Dept. Justice: Office of Victims of Crimes/SAMHSA: Center for Mental Health Services) working group meeting on mental health response to incidents of mass criminal victimization, Washington, DC, July 2000.

- Friedman, M.J. "Mission-related stress among UN peacekeepers and civilian field personnel." ECOSOC meeting, United Nations, New York, NY, July 2000.
- Friedman, M.J. "The National Center for PTSD." Conference on PTSD, VA Canada, Charlottetown, Prince Edward Island, September 2000.
- Friedman, M.J. "Treating adults with PTSD." 5th African American Conference on PTSD, Howard University, Washington, DC, September 2000.
- Friedman, M.J. "Treatment of mental disorders in VA medical settings." VA Primary Care/Mental Healthcare Town Hall Meeting, Washington, DC, September 2000.
- Keane, T.M. "Enhancing the VA research environment." VISN 16 Mental Illness Research, Education and Clinical Center, New Orleans, LA, January 2000.
- Keane, T.M. "Milestones at the millennium invited symposium on posttraumatic stress disorder." Anxiety Disorders Association of America, Washington, DC, March 2000.
- Keane, T.M., Deykin, E., & Kaloupek, D.G. "Assessment of previously undetected PTSD in medical primary care clinics." Anxiety Disorders Association of America, Washington, DC, March 2000.
- Kubany, E.S. "Cognitive trauma therapy for battered women with PTSD." 5<sup>th</sup> International Conference on Family Violence, San Diego, CA, September 2000.
- Kubany, E.S. "Factors that complicate the treatment of battered women." 5<sup>th</sup> International Conference on Family Violence, San Diego, CA, September 2000.
- Loo, C. "The multidimensional nature of race-related stress: Validation of the Race-Related Stressor Scale (RRSS) and qualitative analysis." RACE 2000 Conference, Tempe, AZ, September 2000.
- Loo, C. "The Race-Related Stressor Scale (RRSS): Development and validation." Fifth African American Conference on Post Traumatic Stress Disorder, Washington, D.C., September 2000.
- Miller, M.W., Kaloupek, D.G., & Keane, T.M. "Antisocially and physiological hypo-responsivity during exposure to trauma-related stimuli in patients with PTSD." Society for Psychophysiological Research, Granada, Spain, October 1999.
- Morgan, C.A. III. "DHEAS, cortisol and dissociation in humans exposed to acute uncontrollable stress." Society for Biological Psychiatry Annual Meeting, Chicago, IL, May 2000.
- Morgan, C.A. III. "The joint personnel recovery association (U.S. Army, Navy and Airforce)." Annual conference on Psychobiological and Neuroendocrine Profiles of Military Personnel Participating in Survival School Training, Ft. Bragg, NC, May 2000.
- Morgan, C.A. III. "Toward a biology of excellence." Society for Biological Psychiatry Neuroendocrine Indices in Special Forces Assessment and Selection, Chicago, IL, May 2000.
- Narayan, M., Anderson, E.R., Goddard, A., Woods, S.W., Staib, L.D., Charney, D.S., & Bremner, J.D. "Hippocampal and temporal lobe volume in panic disorder." Annual Meeting of the Society for Neuroscience, Miami Beach, FL, October 1999.
- Narayan, M., Chen, J., Bremner, J.D., & Nelson, J.C. "Psychotic depression, hypercortisolemia and mortality." Annual Meeting of the Society for Biological Psychiatry, Chicago, IL, May 2000.
- Newton, T.J., & Sanford, J.M. "Marital conflict structure moderates associations between blood pressure reactivity and behavioral competitiveness." Annual Meeting of the Society of Behavioral Medicine, Nashville, TN, April 2000.
- Rasmusson, A.M., Lipschitz, D.S., Wang, S., Bremner, J.D., Southwick, S.M., & Charney, D.S. "HPA axis regulation in premenopausal women with PTSD." Annual Meeting of the Society of Biological Psychiatry, Chicago, IL, May 2000.
- Rosenberg, H.J. "The Impact of an Expressive Disclosure Intervention on the Health of Prostate Cancer Patients." XXX Congress of the European Association for Behavioral & Cognitive Therapies, Granada, Spain, September 2000.
- Ruef, A.M., Litz, B.T., & Bolton, E. "PTSD: Exposure therapy using a 'Virtual Vietnam' environment." Annual Meeting of the American Psychological Association, Washington, DC, August 2000.

Salgado, D.M., Suvak, M.K., Savarese, V.W., & King, D.W. "General life adjustment in a national sample of Vietnam veterans." Annual Meeting of HSR&D Service, Washington, DC, February 2000.

Schnurr, P.P. "Trauma, PTSD, and physical health." VA Primary Care/Mental Healthcare Town Hall Meeting, Washington, DC, September 2000.

Southwick, S.M. "Posttraumatic stress disorder and memory: The unforgettable past." Grand Rounds, The University of Florida, Gainesville, FL, November 1999.

Southwick, S.M. "PTSD, neurobiology and memory: The unforgettable past." Grand Rounds, University of Washington Steven Risse Lecture, Seattle, WA, September 2000.

Swales, P.J., & Sheikh, J.I. "Coping and childhood abuse history in older women with panic disorder." Gerontological Society of America, San Francisco, CA, November 1999.

Vermetten, E. "Dissociative amnesia: Neurobiological, psychobiological and diagnostic aspects." The 16<sup>th</sup> International Society for Dissociative Disorders, Miami, FL, November 1999.

Vermetten, E. "Psychophysiological markers of hypnotic trance state." Annual Meeting of the American Psychological Association, Washington, DC, August 2000.

Vermetten, E., & Bremner, J.D. "A neurobiological perspective on the delayed recall of early childhood trauma." International Academy of Law and Mental Health, Sienna, Italy, July 2000.

Wang, S. "The intergenerational cycle of child abuse: Special research series." Japanese Public Television, West Haven, CT, January 2000.

**Woodward, S.H., Arsenault, N.J., Groves, W.K., Stewart, L.P., Santerre, C. & Michel, G. "Polysomnographic characteristics of trauma-related nightmares." Association of Professional Sleep Societies, Las Vegas, NV, June 2000.**

## **EDUCATIONAL PRESENTATIONS ON PTSD BY NATIONAL CENTER STAFF**

### **INTERNATIONAL SOCIETY FOR TRAUMATIC STRESS STUDIES**

#### **Miami, FL, November 1999**

Bremner, J.D. "Data warehousing in PTSD."

Carlson, E.B., & Briere, J. "Screening for traumatic experiences and responses in mental health treatment settings."

Fisher, L.M., Niles, B., Munroe, J., & Quinn, S. "A group treatment program for PTSD: Model, protocols, instruments, outcome."

King, D.W. "Introduction to longitudinal data analysis: Growth modeling and incomplete data."

Rasmusson, A.M., Sernyak, M.J., Charney, D.S., & Southwick, S.M. "Risperidone treatment of core PTSD symptoms and stress-induced borderline thought disorder in chronic combat-related PTSD."

Ruzek, J.I. "PTSD and substance use disorder comorbidity."

Schnurr, P.P., Falsetti, S., & Mellman, T. "A practical orientation to treatment research."

Schnurr, P.P., Foy, D., & Glynn, S.M. "Trauma focus group therapy for chronic PTSD."

#### **VA**

Fisher, L.M., Niles, B., Munroe, J., & Krinsley, K. "Comprehensive treatment for PTSD." Massachusetts VA Social Work Inservice Training, March 2000.

Gusman, F.D., & Ruzek, J.I. "Towards web-based education and support for PTSD care providers and their families." Veterans Health Administration Consensus Congress, Las Vegas, NV, May 2000.

Keane, T.M. "Assessment of posttraumatic stress disorder and monitoring clinical outcomes." Minneapolis VA Medical Center, Minneapolis, MN, October 1999.

King, L.A., & King, D.W. "Domestic violence in Vietnam veteran families." Psychiatry/Psychology Grand Rounds, Bedford VAMC, April 2000.

Knight, J.A., & Munroe, J. "Using the GAF scale with PTSD veterans." Annual Meeting of Veterans Re-adjustment Counseling Services Team Leaders, Mystic, CT, July 2000.

Sharkansky, E.J. "Managing PTSD and dissociation in primary care." Mini-Residency on Women's Mental Health in Primary Care, Boston VAMC, August 2000.

Walser, R.D. "Acceptance and commitment therapy: Theory and clinical application." VA Palo Alto Health Care System, Palo Alto, CA, September 2000.

Walser, R.D. "PTSD and substance abuse." VA Hawaii, September 2000.

Walser, R.D. "Seeking Safety: Manual-based treatment for PTSD and substance abuse." Mental Health Clinic, VA Palo Alto Health Care System, June 2000.

Young, B.H. "Department of Veterans Affairs & disaster mental health." VA PTSD Summit. Sponsored by VA Medical New Orleans and Tulane University Medical Center. New Orleans, LA, July 2000.

Young, B.H. "Psychological first aid, early intervention, and the discriminate use of debriefing." Assessment and Treatment of Acute and Chronic Stress Disorders. Sponsored by VA Medical New Orleans and Tulane University Medical Center. New Orleans, LA, July 2000.

Young, B.H., Gusman, F.D., & Ruzek, J.I. "Towards improvement in VA disaster mental health response." Veterans Health Administration Consensus Congress, Las Vegas, NV, May 2000.

Young, H.E. "A forgiveness intervention for Vietnam combat veterans with PTSD." VA Palo Alto Health Care System, Palo Alto, CA, May 2000.

Young, H.E. "The National Center for PTSD: Medical and psychiatric criteria for admission to its residential rehabilitation program." VA Palo Alto Health Care System, Palo Alto, CA, October 1999.

## **OTHER**

Baker, C.B. "PTSD and community violence." National Association of Legal Aid and Public Defenders Conference, Washington, DC, March 2000.

Baker, C.B. "PTSD in mitigation and defense." National Association of Legal Aid and Public Defenders Conference, Washington, DC, March 2000.

Bremner, J.D. "Neuroimaging in psychiatry." SmithKline Beecham Forum 2000, Honolulu, Hawaii, May 2000.

Bremner, J.D. "Neuroimaging of PTSD." New York State Chapter of the American Psychiatric Association, Mystic, CT, October 1999.

Bremner, J.D. "Trauma and memory, the debate goes international." Annual Meeting of the American Psychiatric Association, Chicago IL, May 2000.

Duman, R.S. "Neural plasticity to stress and anxiolytics." ADAA Milestones and the Millennium, Washington, DC, March 2000.

Duman, R.S. "Neural plasticity to stress and psychotropic drugs." St. Vincents Department of Psychiatry Grand Rounds, New York, NY, April 2000.

Duman, R.S. "Plasticity of hippocampal circuits to stress." Interface between Neurology and Psychiatry, Columbia, MO, March 2000.

Friedman, M.J. "Advances in psychobiological approaches to the diagnosis and treatment of PTSD." Grand Rounds, University of Vermont, Burlington, VT, January 2000.

Friedman, M., & Watson, P. "Early intervention and treatment of PTSD in adolescents and young adults." Howard Center for Human Services, Burlington, VT, April 2000.

Gusman, F.D. "Cultural considerations in the treatment of PTSD." Assessment and Treatment of Acute and Chronic Traumatic Stress Disorders Conference, New Orleans, LA, July 2000.

Gusman, F.D. "Disaster mental health." Orange County Mental Health Services, Santa Ana, CA, May 2000.

Gusman, F.D. "Opening the door to understanding: Posttraumatic stress disorder." Crisis Intervention Team Training, San Jose Police Department, San Jose, CA, February 2000; March 2000.

Gusman, F.D. "Provider self-care." Disaster Mental Health Training: Emergency and Early Interventions Conference, Palo Alto, CA, August 2000.

Jankowski, M.K. "Treatment of PTSD in men and women with severe mental illness." Grand Rounds Presentation at Manchester Mental Health Center, Manchester, NH, April 2000.

Keane, T.M. "Caring for victims of torture." United States Center for Victims of Torture, Minneapolis, MN, October 1999.

Keane, T.M. "Plenary debate on the value of social policy in the ISTSS." World Conference ISTSS, Melbourne, Australia, March 2000.

Keane, T.M. "Psychological assessment and treatment of PTSD." Annual Meeting of the Association for the Advancement of Behavior Therapy, Toronto, Canada, November 1999.

Keane, T.M. "Recent advances in the psychological treatment of posttraumatic stress disorder." Yale University School of Medicine, New Haven, CT, October 1999.

Keane, T.M. "The psychological treatment of posttraumatic stress disorder." Mount Auburn Hospital, Cambridge, MA, April 2000.

Keane, T.M. "War pensions agency meeting on psychological injury: Understanding and support." Royal College of Physicians, London, United Kingdom, March 2000.

Kubany, E.S. "Cognitive trauma therapy for battered women with PTSD." Colloquium, Department of Psychology, University of Hawaii, April 2000.

Kubany, E.S. "Cognitive trauma therapy for battered women with PTSD." Crime Victims Compensation Commission, Honolulu, HI, May 2000.

Kubany, E.S. "Cognitive trauma therapy for battered women with PTSD." Suicide and Crisis Center, Honolulu, HI, June 2000.

Kubany, E.S. "Cognitive trauma therapy for battered women with PTSD." Grand Rounds, Department of Psychiatry, Tripler Army Medical Center, Hawaii, September 2000.

Lindley, S.E. "Psychobiology of PTSD." Mid Peninsula Psychiatric Association, Palo Alto, CA, July 2000.

Lindley, S.E. "Psychobiology of PTSD." San Mateo County Psychiatric Association, San Mateo, CA, June 2000.

Lipschitz, D.S. "Posttraumatic stress disorder in urban adolescent girls." Faces of Family Violence and Trauma – We Are Not Who You Think We Are, New Haven, CT, May 2000.

Litz, B.T. "Assessment and cognitive-behavioral treatment of PTSD." Canadian Formation Health Services, Operational Trauma Stress Centre Atlantic, Department of National Defense, Halifax, Nova Scotia, April 2000.

Loo, C., "Asian American Vietnam veterans: The race-related study." National Center for PTSD, Pacific Islands Division, Honolulu, HI, October 1999.

Morgan, C.A. III. "Diagnosis and treatment of combat related post traumatic stress disorder." U.S. Army European Medical Command Workshop, Bad Kissengen, Germany, May 2000.

Morgan, C.A. III. "Diagnosis and treatment of PTSD." Grand Rounds, St. Raphael's Hospital Department of Internal Medicine, New Haven, CT, June 2000.

Morgan, C.A. III. "Neurobiological aspects of posttraumatic stress disorder." Internal Medicine, Norwalk Hospital, Norwalk, CT, August 2000.

Morgan, C.A. III. "PTSD: The debate goes international." Annual Meeting of the American Psychiatric Association, Chicago, IL, May 2000.

Ruzek, J.I. "Cognitive-behavioral therapies for trauma." Assessment and Treatment of Acute and Chronic Traumatic Stress Disorders Conference, New Orleans, LA, July 2000.

Ruzek, J.I. "Current developments in early intervention." Disaster Mental Health Training: Emergency and Early Interventions Conference, Palo Alto, CA, August 2000.

Ruzek, J.I. "Dual diagnosis: Substance abuse, PTSD, and other mental health problems." Crisis Intervention Team Training, San Jose Police Department, San Jose, CA, December 1999.

Ruzek, J.I. "Overview of acute stress and PTSD." Disaster Mental Health Training: Emergency and Early Interventions Conference, Palo Alto, CA, August 2000.

Ruzek, J.I. "Post-traumatic stress disorder." Satellite Dialysis Centers, Inc., San Jose, CA, January 2000.

Ruzek, J.I. "PTSD and relapse prevention." Las Vegas and Chico Readjustment Counseling Services, Palo Alto, CA, July 2000.

Ruzek, J.I. "Treatment of PTSD." Yountville Veterans Home, Napa, CA, June 2000.

Ruzek, J.I. & Cordova, M. "Prevention of negative emotional consequences of traumatic injury." Division of Trauma/Critical Care Teaching Conference, Stanford University Medical Center, Palo Alto, CA, October 1999.

Schnurr, P.P. "Trauma and physical health: Somatic presentations of trauma and their impact on recovery." Trauma Counseling Program, University of Wisconsin, Milwaukee, WI, July 2000.

Schnurr, P.P., & Green, B.L. "PTSD and physical health." Behavioral Healthcare Tomorrow meeting, Washington, DC, September 2000.

Southwick, S.M. "Ask the doctor: Post-traumatic stress disorder." NAMI 2000 Annual Convention, San Diego, CA, June 2000.

Southwick, S.M. "PTSD: A brain disorder and chronic mental illness." NAMI 2000 Annual Convention, San Diego, CA, June 2000.

Southwick, S.M. "PTSD: Hypervigilance and memory." Steven Risse Lecture, Tacoma, WA, September 2000.

Southwick, S.M. "PTSD and memory." Advance Practice Nurse Retreat, North Haven, CT, April 2000.

Swales, P.J. "CBT for anxiety and panic reactions in PTSD." Las Vegas and Chico Readjustment Counseling Services, Palo Alto, CA, September 2000.

Swales, P.J. "Opening the door to understanding: Posttraumatic stress disorder." Crisis Intervention Team Training, San Jose Police Department, San Jose, CA, December 1999; July 2000.

Swales, P.J. "Opening the door to understanding: Posttraumatic stress disorder." Workshop, Santa Clara County Homeless Shelter Providers, Santa Clara, February 2000.

Swales, P.J., & Sheikh, J.I. "Coping and childhood abuse history in women with panic disorder." Symposium: Positive Adaptation in Older Adult Trauma Survivors. Gerontological Society of America, San Francisco, CA, November 1999.

Watson, P. "Empirically-based treatment for PTSD." Vermont Commission on Psychological Trauma. August 2000.

Watson, P. "The National Center for PTSD and early intervention for trauma." Emmetsburg Training for state disaster mental health coordinators, Center for Mental Health Services and FEMA, September 2000.

Watson, P., & Ruzek, J. "Vicarious trauma in clinical practice." Behavioral Health Services North, Lake Placid, NY, May 2000.

Young, B.H. "Delivering disaster mental health services." Disaster Mental Health Training: Emergency and Early Interventions Conference, Palo Alto, CA, August 2000.

Young, B.H. "Delivering disaster mental health services." Orange County Mental Health Services, Santa Ana, CA, May 2000.

Young, B.H. "Disaster mental health services: Delivery considerations." California Institute of Integral Studies, San Francisco, CA, July 2000.

Young, B.H. "Managing personnel acute stress reactions following suppression of prison violence." United States Bureau of Prison Psychologists, Menlo Park, CA, March 2000.

Young, B.H. "The discriminate use of debriefing." Turkish Psychiatric Association Annual Conference, Antalya, Turkey, April 2000.

Young, B.H. "When disaster strikes: Immediate, early, and long-term mental health program response in the United States." Turkish Psychiatric Association Annual Conference, Antalya, Turkey, April 2000.

Young, B.H., Ruzek, J.I., & Gusman, F.D. "Delivering disaster mental health services." Contra Costa County Mental Health Services. Martinez, CA, November 1999.

Young, H.E. "PTSD in law enforcement crisis intervention." San Jose Police Department, San Jose, CA, June 2000.

**EDITORIAL BOARD MEMBERSHIPS OF NATIONAL CENTER STAFF**

<i>Acta Psychiatrica Scandinavica</i>	Charney
<i>Anxiety</i>	Charney
<i>Assessment</i>	Keane, King, L.
<i>Biological Psychiatry</i>	Bremner, Charney (Editor), Innis (Deputy Editor), Krystal
<b><u>Clinical Psychology: Science and Practice</u></b>	Wolfe
<i>CNS Spectrums</i>	Charney
<i>Critical Reviews in Neurobiology</i>	Duman
<i>Depression</i>	Charney
<i>Drugs in R&amp;D</i>	Charney
<i>European Journal of Nuclear Medicine</i>	Innis
<i>Human Psychopharmacology</i>	Charney
<i>International Journal of Emergency Mental Health</i>	Keane
<i>Journal of Abnormal Psychology</i>	Litz
<i>Journal of Affective Disorders</i>	Charney
<i>Journal of Aggression, Maltreatment and Trauma</i>	Carlson, Friedman, Riggs
<i>Journal of Anxiety Disorders</i>	Charney, Keane
<i>Journal of Biological Psychiatry</i>	Duman
<i>Journal of Cultural Diversity and Ethnic Minority Psychology</i>	Loo
<i>Journal of Dissociation and Trauma</i>	Carlson

<i>Journal of Interpersonal Violence</i>	Keane, Riggs
<i>Journal of Mental Health</i>	Ruzek (North American Editor)
<i>Journal of Neurochemistry</i>	Duman (Handling Editor)
<i>Journal of Nuclear Medicine</i>	Innis
<i>Journal of Pharmacology and Experimental Therapeutics</i>	Duman (Associate Editor)
<i>Journal of Psychopharmacology</i>	Charney
<i>Journal of Serotonin Research</i>	Charney
<i>Journal of Trauma Practice</i>	Keane
<i>Journal of Traumatic Stress</i>	Carlson, Friedman, Kaloupek, King, D., King, L., Krystal, Litz, Schnurr (Deputy Editor), Southwick
<i>Molecular Pharmacology</i>	Duman
<i>Neuropsychopharmacology</i>	Duman (Associate Editor)
<i>Neuroscience and Biobehavioral Reviews</i>	Bracha
<i>Neuroscience Net</i>	Innis
<i>Psychiatric Services</i>	Rosenheck
<i>Psychiatry Research</i>	Innis
<i>Psychological Assessment</i>	King, D., King, L.
<i>Psychopharmacology</i>	Bremner (Field Editor), Krystal (Field Editor)
<i>Seminars in Clinical Neuropsychiatry</i>	Charney
<i>Synapse</i>	Innis
<i>Trauma, Abuse &amp; Violence</i>	Keane
<i>Traumatology</i>	Friedman, Ruzek
<i>Yale Psychiatry</i>	Krystal

## ABOUT THE DIRECTORS

### Executive Division

**Matthew J. Friedman**, M.D., Ph.D., a professor of psychiatry and pharmacology at Dartmouth Medical School, is recognized as a world leader in the field of traumatic stress studies. He is the author, co-author, or editor of numerous influential publications, including the most widely cited book on the neurobiology of PTSD, and sits on a

number of important scientific review panels, such as the VA/DoD/HHS Persian Gulf Expert Scientific Committee. He was principal investigator of the congressionally mandated Matsunaga Vietnam Veterans Project. At present, he and the deputy director, Dr. Paula Schnurr, are co-principal investigators of the largest PTSD treatment study ever funded by VA. He is a former president of ISTSS and a fellow of the American Psychiatric Association, and has received many awards for research and clinical service, including a Lifetime Achievement Award from the ISTSS.

### **Behavioral Science Division**

**Terence M. Keane**, Ph.D., professor and vice-chair of the Department of Psychiatry at Boston University School of Medicine, is also recognized as a world leader in the field of traumatic stress. He developed many of the most widely used PTSD assessment measures and is considered an authority on the behavioral treatment of PTSD. Dr. Keane has participated in many important scientific review panels and was co-chair of the National Institute of Mental Health Consensus Conference that established national standards for the diagnosis and assessment of PTSD. He is a past president of ISTSS, a fellow of the American Psychological Association and the American Psychological Society, and has received many awards, including a Fulbright scholarship.

### **Clinical Neurosciences Division**

**Dennis S. Charney**, M.D. (Division Director through July, 2000), professor of psychiatry and deputy chair of academic and scientific affairs at Yale School of Medicine, is one of the nation's foremost investigators in neurobiology and treatment of anxiety and affective disorders. He has made fundamental contributions to basic knowledge about PTSD and has published over 300 original scientific articles and chapters. He is director of the NIMH Yale Mental Health Clinical Research Center and has served on many national committees, including the Food and Drug Administration's Psychopharmacologic Drug Advisory Committee and the Board of Scientific Counselors for NIMH. His work has been honored by numerous awards, including the Efron Award from the American College of Neuropsychopharmacology.

**John H. Krystal**, M.D. (Division Director beginning September, 2000), professor and deputy chairman for research for the Department of Psychiatry at the Yale University School of Medicine, is one of the nation's leading investigators on the neurobiology and psychopharmacology of PTSD. Dr. Krystal has published over 200 original scientific articles and chapters and has served on the editorial boards of several journals. He has also served on many national advisory committees, including a DoD-VA collaborative research program initiative on stress, PTSD, and related Gulf War illnesses; NIH Director's Advisory Group on Young Investigators; and the NIMH Board of Scientific Counselors. His work has been honored by numerous awards, including the ISTSS Presidents Award and the ISTSS Danielli Award, both for PTSD research contributions. Currently he also serves as Director of the Alcohol Research Center funded by the Department of Veterans Affairs.

### **Education and Clinical Laboratory Division**

**Fred D. Gusman**, M.S.W., is an internationally recognized expert educator and program administrator who is often called upon to consult on program development, reorganization, and problem-solving. He developed the first and largest PTSD inpatient program in the VA system and the only specialized inpatient PTSD treatment for women veterans. His Clinical Training Program, the Center's mini-residency for PTSD clinicians, attracts national and international attention. Mr. Gusman is a consultant to numerous federal, state, and local programs, including the American Red Cross. He is currently a member of the Under Secretary for Health's Special Committee on PTSD, the Specialized PTSD Program Task Force, the Management Oversight Committee, and the Interdepartmental Task Group on Disaster, Crisis, and Counseling; the latter group includes DoD, Emergency Mental Health Strategic Healthcare Group, Veterans Health Administration, and the American Red Cross.

Mr. Gusman is also serving as Chief Operating Officer of the Pacific Islands Division until a permanent Director is named for that Division.

### **Women's Health Sciences Division**

**Jessica Wolfe**, Ph.D. (Division Director through December, 1999), associate professor of psychiatry at Boston University School of Medicine, is an international authority on issues relating to trauma and severe stress as they

pertain to gender. Dr. Wolfe is widely respected for the development of innovative instruments to assess traumatic stressors and their effects on women veterans, and is recognized as a national expert on the health and mental health concerns of Gulf War veterans. Dr. Wolfe serves on the Board of Directors of the ISTSS and has been a leader in the development of VA's clinical programs for women. She is co-associate director of the Boston University Medical Center/Boston VA National Center of Excellence in Women's Health and recently received an award from the Department of Health and Human Services.

**Lynda King**, Ph.D. (Acting Division Director since January, 2000), is a quantitative psychologist with expertise in psychometric theory and techniques. She is the primary author of several published measurement instruments, including the Sex-Role Egalitarianism Scale, a well-regarded device to assess gender-role attitudes. She has published investigations of the psychometric properties of widely used measures of PTSD and combat exposure, and her work has served as a model for the development of new instruments in the field of traumatic stress. She joined the VA in 1995; she also holds the rank of Research Professor of Psychiatry at Boston University School of Medicine.

### **Pacific Islands Division**

**Sarah Miyahira**, Ph.D. (Division Director through June, 2000), a noted educator, served as Dean of the East-West Center, an international research and education institution, prior to joining the National Center for PTSD. She has spent almost two decades in higher education as an administrator, educator, and mental health practitioner. Dr. Miyahira is an expert in cross-cultural psychology and psychotherapy, particularly with Asian American and Pacific Islander populations. She consults on cross-cultural dynamics and workforce diversity; is active in mental health policy-making, consumer protection, and education; and serves on a number of national professional organization boards and committees.

**Fred Gusman** of the Education and Clinical Laboratory Division is serving as Acting Director of the Pacific Islands Division until a replacement for Dr. Miyahira is named.

### **Evaluation Division**

**Robert Rosenheck**, M.D., is a clinical professor of psychiatry and public health at Yale University School of Medicine, where he also is director of the Division of Mental Health Services and Outcomes Research. He is a nationally known mental health services researcher and a leader in cost-effectiveness studies of behavioral health interventions. In addition to monitoring and evaluating VA's specialized PTSD programs, Dr. Rosenheck also monitors VA programs for homeless veterans and veterans who suffer from severe mental illness. He has served as a prime architect of national VA collaborative programs with both the Department of Housing and Urban Development and the Social Security Administration. He also directs the client-level evaluation of the Substance Abuse and Mental Health Services Administration's ACCESS program for homeless mentally ill Americans.

### **ACRONYMS USED IN TEXT**

ACCESS Access to Community Care and Effective Supportive Services

ADAA Anxiety Disorders Association of America

APA American Psychological Association

CAPS Clinician-Administered PTSD Scale

CMHS Center for Mental Health Services

DoD Department of Defense

DVA Department of Veterans Affairs

DWHRP Defense Women's Health Research Program

GAF Global Assessment of Functioning scale

HHS (Department of) Health and Human Services  
HIV Human Immunodeficiency Virus  
HPA Hypothalamic-pituitary-adrenal  
HSR&D Health Services Research and Development  
ISTSS International Society for Traumatic Stress Studies  
MAVERIC Massachusetts Veterans' Epidemiology Research and Information Center  
MIRECC Mental Illness Research, Education, and Clinical Centers  
NAMRL Naval Aerospace Medical Research Lab  
NARSAD National Alliance for Research in Schizophrenia and Depression  
NHLBI National Heart, Lung, and Blood Institute  
NIAAA National Institute on Alcohol Abuse and Alcoholism  
NIDA National Institute of Drug Abuse  
NIH National Institutes of Health  
NIJ National Institute of Justice  
NIMH National Institute of Mental Health  
ODS Operation Desert Storm  
OVC Office for Victims of Crime  
PILOTS Published International Literature on Traumatic Stress  
POW Prisoner of War  
PTSD Post-Traumatic Stress Disorder  
RCS Readjustment Counseling Service  
SAMHSA Substance Abuse and Mental Health Services Administration  
TNRP TriService Nursing Research Program  
UN United Nations  
VA (Department of) Veterans Affairs  
VISN Veterans Integrated Service Network

[Top](#) | [Format for printing](#)

---

[Español](#) | [VA Forms](#) | [Facilities Locator](#) | [Contact the VA](#) | [Frequently Asked Questions \(FAQs\)](#)  
[Privacy Policy](#) | [Web Policies & Important Links](#) | [Annual Performance and Accountability Report](#)  
[Freedom of Information Act](#) | [Small Business Contacts](#) | [Site Map](#)  
[FirstGov](#) | [White House](#) | [USA Freedom Corps](#)

The information on this Web site is presented for educational purposes only. It is not a substitute for informed medical advice or training. Do not use this information to diagnose or treat a mental health problem without consulting a qualified health or mental health care provider.

All information contained on these pages is in the public domain unless explicit notice is given to the contrary, and may be copied and distributed without restriction.

For more information call the PTSD Information Line at (802) 296-6300 or send email to [ncptsd@ncptsd.org](mailto:ncptsd@ncptsd.org). This page was last updated on Thu Jul 20 17:00:54 2006.