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DELIVERY OF SERVICES FOR PTSD

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Conventional research on the roots of psychopathology and on the efficacy of treatment in controlled trials are only the first steps toward the ultimate goal of health care systems: improving the health of the public at large. Health services research picks up the baton from basic and clinical research to examine how services are delivered, their costs, and above all, their effectiveness in "real world" settings. Research on the delivery of health care services can be thought of as addressing three goals. First, service use, along with epidemiological data on disease prevalence, is an indicator of the burden of disease on the general population and its economic consequences. Second, studies of service use provide information on the accessibility of services, i.e., the success or failure of the health care system to address the needs of its target population. Finally, studies of service use are important in simultaneously evaluating the effectiveness and cost of services, i.e., their ultimate value to the public.

Severity/Burden of Disease. In an important paper from the National Co-Morbidity Survey, Kessler et al. (1999) present information on the both the likelihood and intensity of service use among Americans with various mental illnesses. This study shows that PTSD is associated with nearly the highest rate of service use, and by implication, the highest per-capita cost of any mental illness. This study illustrates the central importance of PTSD to the public's mental health. In a more focused study of severe PTSD, Ford (1999) demonstrated exceptionally high levels of service use among combat veterans meeting criteria for DESNOS. Switzer et al. (1999), studying service use among clients with PTSD at an urban mental health center, found 94% with a history of trauma and 42% with PTSD, and documented especially high levels of service use among those with PTSD, as compared to others. Moving from mental health service use to general medical service use, both Leserman et al. (1998) and Friedman and Schnurr (1995) showed that PTSD is also associated with high levels of use of non-mental health services. An important HMO-based study (Walker et al., 1999) reported substantially increased health care costs among patients who reported childhood trauma.

Access to Care. While some studies have focused on the high levels of service use among people with PTSD, others have demonstrated considerable underuse of services. Although best known for its documentation of the high prevalence of PTSD in Vietnam Veterans, the National Vietnam Veterans Readjustment Study (Kulka et al., 1990) also documented dramatically low rates of service use among veterans and helped stimulate the development of a national network of specialized VA services for PTSD. Schwarz and Kowalski (1992) demonstrated that survivors of a man-made disaster were reluctant to use mental health services because of the fear that painful memories would be aroused, and they advocate special efforts to reach out to such people. Solomon and Davidson (1997) also suggest that while people with PTSD are high users of health care services, they are often reluctant to use mental health services. Hankin et al. (1996) showed that 30% of a sample of non-psychiatric patients in the VA system met criteria for PTSD and that the PTSD group reported more severe medical symptoms than other veterans.

There has been considerable concern that the low rates of service use among Vietnam veterans with PTSD reported by Kulka et al. (1990) might reflect a special reluctance of these veterans, and especially minority veterans, to use VA services because of their distrust of the government that sent them to war. Rosenheck and Fontana (1995), however, found that, after controlling for other factors, Vietnam veterans with PTSD were 1.8 times more likely than other veterans to use VA mental health services. Furthermore, minorities with PTSD were more likely to use VA services than other veterans, even after adjusting for income and other relevant factors (Rosenheck & Fontana, 1994), although they had similar outcomes (Rosenheck & Fontana, 1996).

Access can be thought of as having several components: having any contact with the health care system; obtaining adequate intensity of service; and receiving appropriate quality of service. While there are no well-established guidelines for the treatment of PTSD, program monitoring can allow continuous assessment of the characteristics of treatment. In a study of clinician-client racial pairing, Rosenheck, Fontana, and Cottrol (1995) demonstrated the use of such a quality monitoring system and showed that African-American veterans treated for PTSD had lower participation ratings than whites but no differences in clinician-reported outcomes. These findings

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are partially explained by the fact that participation was lower when African-American veterans were treated by white clinicians than when they were treated by African-American clinicians.

Outcome, Cost, and Value. The ultimate goal of health service delivery is improvement in health status—best measured with standardized evaluation instruments that are administered by trained research personnel at the beginning of treatment and periodically thereafter. In a multi-site 12-month follow-up study of 525 VA outpatients treated for PTSD in specialized PTSD Clinical Teams, Rosenheck and Fontana (1996) found significant clinical improvement that was comparable between African-American and white veterans as well as equivalent use of services and client satisfaction across racial groups. Unlike randomized clinical trials that demonstrate the efficacy of services under conditions that maximize internal validity by treating carefully selected patients under highly controlled conditions, this study documents outcomes associated with service delivery under more natural, “real-world” conditions and thus has greater external validity. While efficacy trials can tell us how well treatments can perform under the best of circumstances, effectiveness studies help us understand the performance of services as they are actually delivered by health care providers in real-world health care systems.

The ultimate evaluation of service delivery must consider its cost as well as its effectiveness. Although many clinicians consider cost to be an extraneous preoccupation of administrators and business executives, it is as crucial to the determination of the value of a service as is its effectiveness. Service X may be twice as effective as service Y, but if it is four times as expensive, it has only half the value. In a world in which health care resources are scarce—as they always are and always have been—value, the benefit obtained per dollar spent, must be the ultimate basis for resource allocation decisions. The ultimate problem with expensive treatments is that they can be provided to fewer people and thus generate less benefit to society than less expensive treatments. It is not a question of dollars versus health care, but of using dollars in the best service of health care.

In a study that has been both very controversial and very influential in the VA system, Fontana and Rosenheck (1997) studied a sample of 785 veterans treated in 10 inpatient programs. While outcomes were similar in long-term Specialized Inpatient PTSD Units (SIPUs), short-term Evaluation and Brief Treatment PTSD Units (EBTPUs), and General Psychiatry Units (GPUs), SIPU treatment was about

\$18,000 more expensive per patient per year than the other programs. By shifting to less expensive but equally effective programs, it would thus be possible to provide equally beneficial inpatient services to larger numbers of veterans (Rosenheck, Fontana, & Errera, 1997).

In a similar study of outpatient treatment, Fontana and Rosenheck (1996) compared outcomes among patients who received high-intensity outpatient treatment and patients who received lower-intensity treatment. Comparison on numerous measures of health status and social adjustment showed virtually no baseline differences between high- and low-intensity patients and suggested no empirical basis for their receipt of more intensive services. Even so, on most of the measures where there were significant baseline differences, recipients of low-intensity services had more severe problems than high-intensity patients. Additionally, there were no differences on any outcome measure. Here too, evidence that lower-intensity services offer greater value (more clinical benefit per dollar) suggests an approach to treatment that can provide benefits to larger numbers of patients.

Endnote: Health Care Services Can Yield No Greater Benefits than the Service Systems that Deliver Them. When a clinician makes an error in treatment, there is both bad news and good news. The bad news is that a patient has been deprived of benefits that he or she might otherwise have enjoyed. The good news is that both the patient and the clinician have a good chance of discovering the error and fixing it. In contrast, when service systems malfunction, the cost to human well-being is far greater because the problems are far more widespread and far more difficult to detect and correct. Only systematic research and evaluation of operating service systems can determine: (1) when a society fails to understand the needs of its citizens for specific services, (2) when a service system, however unintentionally, excludes people from obtaining the benefits of health care by impeding access to appropriate services, or (3) when programs provide either too few or too many services, or provide inefficient services, thus wasting limited resources. Medical care has traditionally focused its research efforts on individual patients and illnesses, and this approach has yielded immense benefit for humanity. However, much potential benefit has been silently lost through the inopportune operation of service delivery systems. New research methods and perspectives are increasingly being brought into action to correct these deficiencies.

SELECTED ABSTRACTS

FONTANA, A. & ROSENHECK, R.A. (1997). **Effectiveness and cost of the inpatient treatment of posttraumatic stress disorder: Comparison of three models of treatment.** *American Journal of Psychiatry*, 154, 758-765. **OBJECTIVE:** This study compared the outcomes and costs of 3 models of Department of Veterans Affairs (VA) inpatient treatment for PTSD: (1) long-stay specialized inpatient PTSD units, (2) short-stay specialized evaluation and brief-treatment PTSD units, and (3) nonspecialized

general psychiatric units. **METHOD:** Data were drawn from 785 Vietnam veterans undergoing treatment at 10 programs across the country. The veterans were followed up at 4-month intervals for 1 year after discharge. Successful data collection averaged 66.1 percent across the 3 follow-up intervals. **RESULTS:** All models demonstrated improvement at the time of discharge, but during follow-up symptoms and social functioning rebounded toward admission levels, especially among participants who had been

treated in long-stay PTSD units. Veterans in the short-stay PTSD units and in the general psychiatric units showed significantly more improvement during follow-up than veterans in the long-stay PTSD units. Greatest satisfaction with their programs was reported by veterans in the short-stay PTSD units. Finally, the long-stay PTSD units proved to be 82.4 percent and 53.5 percent more expensive over 1 year than the short-stay PTSD units and general psychiatric units, respectively. **CONCLUSIONS:** The paucity of evidence of sustained improvement from costly long-stay specialized inpatient PTSD programs and the indication of high satisfaction and sustained improvement in the far less costly short-stay specialized evaluation and brief-treatment PTSD programs suggest that systematic restructuring of VA inpatient PTSD treatment could result in delivery of effective services to larger numbers of veterans.

FONTANA, A. & ROSENHECK, R.A. (1996). **Improving the efficiency of outpatient treatment for posttraumatic stress disorder.** *Administration and Policy in Mental Health, 23*, 197-210. This article uses service utilization and outcome data from the specialized PTSD outpatient programs of the Department of Veterans Affairs to illustrate a method of evaluating the required intensity of outpatient psychiatric treatment. The analyses presented suggest that PTSD treatment programs could offer intensive services for only the first four months of treatment, followed by a reduction in intensity to an average of only one visit per month, without loss of clinical gains. Workload projections suggest that applying such standards under a system of regulatory control would allow a 17 to 51 percent increase in patients treated.

FORD, J.D. (1999). **Disorders of extreme stress following war-zone military trauma: Associated features of posttraumatic stress disorder or comorbid but distinct syndromes?** *Journal of Consulting and Clinical Psychology, 67*, 3-12. Disorders of extreme stress not otherwise specified (DESNOS) and PTSD were found to be comorbid but distinct among military veterans seeking inpatient PTSD treatment: 31 percent qualified for both conditions, 29 percent were diagnosed PTSD only, 26 percent were classified DESNOS only, and 13 percent met criteria for neither. PTSD diagnosis was associated with elevated levels of war-zone trauma exposure and witnessing atrocities and with impairment on the Mississippi Scale for Combat-Related PTSD and the Penn Inventory. DESNOS classification (but not PTSD) was associated with (a) early childhood trauma and participation in war-zone atrocities, (b) extreme levels of intrusive trauma reexperiencing, (c) impaired characterological functioning (object relations), and (d) use of intensive psychiatric services. PTSD and DESNOS may be comorbid but distinct posttraumatic syndromes and, as such, warrant careful clinical and scientific investigation.

FRIEDMAN, M.J. & SCHNURR, P.P. (1995). **The relationship between trauma, post-traumatic stress disorder, and physical health.** In M.J. Friedman, D.S. Charney, & A.Y. Deutch (Eds.), *Neurobiological and clinical consequences of stress: From normal adaptation to post-traumatic stress disorder* (pp. 507-524). Philadelphia: Lippincott-Raven. First we review the literature on the physical health outcomes associated with traumatic events. Despite the extensive literature suggesting that exposure to stressful events may be associated with adverse health outcomes, much less has been written on the medical and somatic consequences of exposure to extreme stress. Nonetheless, reviewers have suggested that physical health may be severely and chronically impaired following traumatic experiences. Second, we review the literature on the physical health outcomes associated with PTSD. We

argue that PTSD is an important mediator through which trauma may be related to adverse outcomes. Third, we review biological and psychological correlates of PTSD that might predispose affected individuals toward increased risk for medical problems. [Adapted from Text]

HANKIN, C.S., ABUEG, F.R., GALLAGHER-THOMPSON, D.E., & LAWS, A. (1996). **Dimensions of PTSD among older veterans seeking outpatient medical care: A pilot study.** *Journal of Clinical Geropsychology, 2*, 239-246. We examined PTSD arising from a variety of stressors among a sample ($n = 30$) of male veterans 60 years of age or older seeking outpatient medical treatment. 30 percent of this nonpsychiatric sample satisfied criteria for lifetime PTSD. We compared PTSD and nonPTSD groups along the following dimensions: health care utilization, somatic complaints, alexithymia, and developmental timing of trauma occurrence. We found no significant differences between groups for demographics, military history, health care utilization, or alexithymia. The PTSD-positive group reported significantly more chest pain, arthritis, and greater frequency and distress from trauma occurring in adolescence.

KESSLER, R.C., ZHAO, S., KATZ, S.J., KOUZIS, A.C., FRANK, R.G., EDLUND, M.J., & LEAF, P. (1999). **Past-year use of outpatient services for psychiatric problems in the National Comorbidity Survey.** *American Journal of Psychiatry, 156*, 115-123. **OBJECTIVE:** The authors present nationally representative descriptive data on 12-month use of outpatient services for psychiatric problems. They focused on the relationship between DSM-III-R disorders [including PTSD] and service use in four broadly defined service sectors as well as the distribution of service use in multiple service sectors. **METHOD:** Data from the National Comorbidity Survey were examined. **RESULTS:** Summary measures of the seriousness and complexity of illness were significantly related to probability of use, number of sectors used, mean number of visits, and specialty treatment. One-fourth of the people in outpatient treatment were seen in multiple service sectors, but no evidence was found of multisector offset in number of visits. **CONCLUSIONS:** Use of outpatient services for psychiatric problems appears to have increased over the decade between the early 1980s and early 1990s, especially in the self-help sector. Aggregate allocation of treatment resources was related to need, highlighting the importance of making provisions for specialty care in the triage systems currently evolving as part of managed care.

KULKA, R.A., SCHLENGER, W.E., FAIRBANK, J.A., HOUGH, R.L., JORDAN, B.K., MARMAR, C.R., & WEISS, D.S. (1990). *Trauma and the Vietnam War generation: Report of findings from the National Vietnam Veterans Readjustment Study.* New York: Brunner/Mazel. Chapter IX presents findings on the patterns of use of services for physical and mental health problems. Separate analyses are provided for a number of subtypes of mental and physical health services. Only one significant difference was found between male Vietnam theater and era veterans in their use of VA facilities for physical health care. Among women, more differences were found between Vietnam theater and era veterans. Overall, theater veterans with PTSD, a service-connected physical disability (SCPD), or a lifetime diagnosis of substance dependence or abuse were more likely to have used VA services for physical health problems than their counterparts without these conditions. Vietnam theater veterans as a group (both men and women) were more likely to have used the VA for mental health services than their era veteran counterparts. The data

suggests that Vietnam theater veterans—especially those exposed to high levels of war-zone stress—have made greater use of mental health care resources than their era veteran and civilian counterparts. White/other Hispanic subgroups used all mental health resources in much the same way as the total population of theater veterans. Male and female theater veterans with PTSD were significantly more likely than theater veterans without this disorder to have ever used any type of formal mental health service. Yet, the findings also indicate that three-eighths of male and one-quarter of female Vietnam theater veterans with current PTSD have never seen a health professional about a mental health problem. Since PTSD is a major and debilitating psychiatric disorder, a considerable unmet need for mental health services probably remains. [Adapted from Text]

LESERMAN, J., LI, Z., DROSSMAN, D.A., & HU, Y.J.B. (1998). **Selected symptoms associated with sexual and physical abuse history among female patients with gastrointestinal disorders: The impact on subsequent health care visits.** *Psychological Medicine*, 28, 417-425. **BACKGROUND:** Despite a growing literature pointing to the deleterious health effects of sexual and physical abuse history, few studies provide evidence about which medical symptoms are most affected. The aim of this paper is to determine the impact of sexual and physical abuse history on a selected set of medical symptoms, and to test how such abuse, medical symptoms and functional disability may affect subsequent health care visits. **METHODS:** We studied 239 women from a referral-based gastroenterology clinic; follow-up data were available on 196 of these women. All women were interviewed about sexual and physical abuse history. **RESULTS:** Women with abuse history, particularly those with severe abuse, were much more likely to report somatic symptoms related to panic (e.g., palpitations, numbness, shortness of breath), depression (e.g., difficulty sleeping, loss of appetite), musculoskeletal disorders (e.g., headaches, muscle aches), genito-urinary disorders (e.g., vaginal discharge, pelvic pain, painful intercourse), skin disturbance (e.g., rash) and respiratory illness (e.g., stuffy nose). Furthermore, we found that the severity of abuse history, somatic symptoms and functional disability predicted 30 percent of the variance in health care visits during the subsequent year, and that the effect of abuse severity on visits was explained by abused women having more somatic symptoms and functional disability. **CONCLUSIONS:** Patients' reports of abuse history, somatic symptoms and functional disability appear to be important factors in explaining the number of health care visits among a clinic sample of women with gastrointestinal disorders.

ROSENHECK, R.A. & FONTANA, A. (1994). **Utilization of mental health services by minority veterans of the Vietnam era.** *Journal of Nervous and Mental Disease*, 182, 685-691. This study sought to identify differences in utilization of mental health services among members of five minority groups who served in the military during the Vietnam era. Data on utilization of mental health services from five different types of provider (Veterans Affairs [VA] and non-VA mental health providers, nonpsychiatrist physicians, clergy, and self-help groups) were obtained from a national survey of Vietnam era veterans (the National Vietnam Veterans Readjustment Study) along with information on sociodemographic characteristics, health status, income, and health insurance coverage. Chi-square tests and multivariate logistic regression analyses were used to compare use of various services among whites, blacks, Puerto Rican Hispanics, Mexican Hispanics, and others. Black veterans and Mexican Hispanic veterans were significantly less likely than white veterans to have

used non-VA mental health services or self-help groups, after adjusting for health status and other factors. There were no differences between ethnocultural groups in use of VA mental health services, or services provided by nonpsychiatrist physicians or clergy, even after adjustment was made for health and economic factors. Although military service during the Vietnam conflict may have alienated many minority veterans from the federal government, the reluctance of minorities to use non-VA mental health services does not extend to the VA system. Further studies are needed to clarify the reasons for less non-VA service use among some minority groups.

ROSENHECK, R.A. & FONTANA, A. (1995). **Do Vietnam-era veterans who suffer from posttraumatic stress disorder avoid VA mental health services?** *Military Medicine*, 160, 136-142. It has been suggested that Vietnam veterans who suffer from PTSD avoid Department of Veterans Affairs (VA) health services because their experiences in the military engendered a profound distrust of the Federal Government and its institutions. Data from a national survey of 1,676 veterans who served during the Vietnam era show that veterans with PTSD were 9.6 times more likely than other veterans to have used VA mental health services; but only 3.3 times more likely to have used non-VA services. After controlling for other factors, veterans suffering from PTSD were 1.8 times more likely than other veterans to have used VA services, but were no more likely to have used non-VA services. Contrary to conventional belief, veterans with PTSD show a preference for VA compared to non-VA mental health services.

ROSENHECK, R.A. & FONTANA, A. (1996). **Ethnocultural variations in service use among veterans suffering from PTSD.** In A.J. Marsella, M.J. Friedman, E.T. Gerrity, & R.M. Scurfield (Eds.), *Ethnocultural aspects of posttraumatic stress disorder: Issues, research, and clinical applications* (pp. 483-504). Washington: American Psychological Association. Empirical studies conducted in recent decades have suggested that ethnocultural minorities make less use of both physical and mental health services than other Americans. In this report, we extend our examination of ethnocultural factors in the treatment of combat-related PTSD through a detailed examination of treatment received by veterans who came to VA for help with psychological problems related to their war zone experiences. Data for this study were derived from structured interviews conducted as part of the national evaluation of the implementation of the Department of Veterans Affairs PTSD Clinical Teams (PCT) Program. The sample included 3,879 Whites (70.8 percent), 918 African Americans (16.8 percent), 249 Puerto Rican Hispanics (4.5 percent), 195 Mexican Hispanics (3.6 percent), 124 American Indians (2.3 percent), and 110 others (2.0 percent). There were no differences in the ethnocultural proportions of veterans who had made prior use of at least one type of psychiatric or substance abuse service, nor were there any differences in prior use of specialized PTSD services, in overall satisfaction with VA services, or in clinical improvement in the majority of domains. Although differences between Whites and minorities were not found in overall use of services, there are clear differences among ethnocultural minority groups in use of specific mental health services. First, the differences may reflect epidemiologic differences in the type or severity of the disorders for which ethnocultural groups seek help. Second, differences in service use and outcome may reflect differences in receptiveness or responsiveness to the treatments offered, whether ethnoculturally or socioeconomically determined. Third, there may be differences among groups that are attributable to the way providers treat them, either by providing different amounts or

types of services or by providing a different quality of services. [Adapted from Text]

ROSENHECK, R.A., FONTANA, A., & COTTROL, C. (1995). **Effect of clinician-veteran racial pairing in the treatment of posttraumatic stress disorder.** *American Journal of Psychiatry, 152*, 555-563. **OBJECTIVE:** This study explored the effect of veterans' race and of the pairing of veterans' and clinicians' race on the process and outcome of treatment for war-related PTSD. **METHOD:** As part of the national evaluation of the PTSD Clinical teams program of the Department of Veterans Affairs, data on assessment of 4,726 white and black male veterans at admission to the program and on the race and other characteristics of their 315 primary clinicians were obtained. Measures of service delivery and treatment emphasis were obtained 2, 4, 8, and 12 months after program entry, along with clinicians' ratings of improvement. **RESULTS:** After control for sociodemographic characteristics, clinical status, and clinicians' characteristics, multivariate analysis showed that black veterans had significantly lower program participation ratings than white veterans on 10 of 24 measures, but no differences in clinicians' improvement ratings were noted. Additional analyses showed that pairing of white clinicians with black veterans was associated with lower program participation on 4 of the 24 measures and with lower improvement ratings on 1 of 15 measures. When treated by either black or white clinicians, black veterans had poorer attendance than white veterans, seemed less committed to treatment, received more treatment for substance abuse, were less likely to be prescribed antidepressant medications, and showed less improvement in control of violent behavior. **CONCLUSIONS:** Although no differences were noted on most measures, the pairing of black veterans with white clinicians was associated with receiving fewer services. According to some other measures, black veterans received less attentive services regardless of the clinician's race.

ROSENHECK, R.A., FONTANA, A. & ERRERA, P. (1997). **Inpatient treatment of war-related posttraumatic stress disorder: A 20-year perspective.** *Journal of Traumatic Stress, 10*, 407-413. These papers show that long-stay inpatient PTSD programs provide treatment that is quite different from other programs but that they are neither as effective, from a psychometric perspective, nor as helpful, from the veterans' subjective perspective, as has been expected. VA treatment of PTSD is changing its focus and is being influenced by three distinct societal forces, in addition to data from studies like these: (1) the continuing effort of American society to come to terms with its Vietnam War experience; (2) the crisis of U.S. health care costs; and (3) the emergence of a movement to "re-invent" government and to increase public accountability through performance data.

SCHWARZ, E. & KOWALSKI, J.M. (1992). **Malignant memories: Reluctance to utilize mental health services after a disaster.** *Journal of Nervous and Mental Disease, 180*, 767-772. This report describes the reluctance of individuals exposed to a man-made disaster to utilize formal mental health services. Measures were obtained in an initial screening 6 months after a shooting for 24 exposed school personnel. Data from the initial screening were compared for those who did not participate in a follow-up screening 12 months later ($n = 11$) and those who did ($n = 13$). Follow-up nonparticipants reported: more PTSD symptoms, especially avoidance; recall of life threat during the event; feeling depressed; and an increase in positivity toward victims but not about their work or mental health professionals. The authors

conclude that some individuals may avoid formal mental health services because they serve as cues for malignant memory retrieval and discuss implications for service delivery.

SOLOMON, S.D. & DAVIDSON, J.R.T. (1997). **Trauma: Prevalence, impairment, service use, and cost.** *Journal of Clinical Psychiatry, 58, Supplement 9*, 5-11. A review of the literature on the epidemiology of trauma reveals that traumatic events are common: most Americans experience at least one over the course of their lives. According to recent estimates, 5 percent of men and 10 percent to 12 percent of women will suffer from PTSD sometime in their lives, and for victims of traumas such as rape, the rate may be as high as 60 percent to 80 percent. For at least a third of sufferers, PTSD is a persistent condition lasting many years. Over 80 percent of persons with PTSD suffer from other psychiatric disorders. Many also experience marital, occupational, financial, and health problems. While trauma victims are disproportionate users of the health care system, they are reluctant to seek mental health treatment. Consequences of exposure to trauma are enormously costly, not only to the victims, but also to our health care system and to society as a whole.

SWITZER, G.E., DEW, M.A., THOMPSON, K., GOYCOOLEA, J.M., DERRICOTT, T., & MULLINS, S.D. (1999). **Posttraumatic stress disorder and service utilization among urban mental health center clients.** *Journal of Traumatic Stress, 12*, 25-39. Although the urban poor are at high risk for exposure to trauma, community mental health clinics rarely diagnose clients with PTSD. Failure to diagnose PTSD may undermine the effectiveness of services provided. Our objectives were to (1) assess prevalence of traumatic experiences and PTSD, and (2) examine differences in service utilization between those who had PTSD and those who did not. Interview data were gathered from 181 urban psychiatric outpatients. A substantial number of clients had experienced at least one lifetime trauma (94 percent), and of those, 42 percent had PTSD during the past year. Analyses comparing service use between PTSD and nonPTSD clients supported our expectation that clients with PTSD would use more mental health services, and would be less satisfied with services than their nonPTSD counterparts.

WALKER, E.A., UNUTZER, J., RUTTER, C., GELFAND, A., SAUNDERS, K., VONKORFF, M., KOSS, M.P., & KATON, W. (1999). **Costs of health care use by women HMO members with a history of childhood abuse and neglect.** *Archives of General Psychiatry, 56*, 609-613. **BACKGROUND:** Early childhood maltreatment has been associated with adverse adult health outcomes, but little is known about the magnitude of adult health care use and costs that accompany maltreatment. We examined differences in annual health care use and costs in women with and without histories of childhood sexual, emotional, or physical abuse and neglect. **METHODS:** A random sample of 1225 women members of a health maintenance organization completed a 22-page questionnaire inquiring into childhood maltreatment experiences as measured by the Childhood Trauma Questionnaire. Health care costs and use data were obtained from the automated cost-accounting system of the health maintenance organization, including total costs, outpatient and primary care costs, and emergency department visits. **RESULTS:** Women who reported any abuse or neglect had median annual health care costs that were \$97 (95 percent confidence interval, \$0.47 - \$188.26) greater than women who did not report maltreatment. Women who reported sexual abuse had median annual health care costs that were \$245 (95 percent confidence interval, \$132.32 - \$381.93)

greater than costs among women who did not report abuse. Women with sexual abuse histories had significantly higher primary care and outpatient costs and more frequent emergency department visits than women without these histories. CONCLUSION: Although the absolute cost differences per year per woman were relatively modest, the large number of women in the population with these experiences suggests that the total costs

ADDITIONAL CITATIONS

Annotated by the Editors

BLAKE, D.D., COOK, J.D., & KEANE, T.M. (1992). **Post-traumatic stress disorder and coping in veterans who are seeking medical treatment.** *Journal of Clinical Psychology, 48*, 695-704.

Assessed coping and mental health treatment histories in 36 combat veteran medical patients and 38 war-era controls. Participants with PTSD or who had sought mental health treatment tended to use more emotional-focused coping, relative to other participants. Among those who had sought mental health treatment, Vietnam veterans were more likely than veterans of earlier conflicts to have received individual treatment.

BROWN, P.J., RECUPERO, P.R., & STOUT, R. (1995).

PTSD substance abuse comorbidity and treatment utilization. *Addictive Behaviors, 20*, 251-254.

Examined self-reported mental health service utilization in a sample of 84 male and female substance abuse patients on a substance abuse detoxification unit. Individuals with PTSD, relative to those without PTSD, reported a greater number of lifetime admissions for substance abuse treatment: 6.5 versus 2.8.

BRYANT, R.A. (1998). **An analysis of calls to a Vietnam veterans' telephone counselling service.** *Journal of Traumatic Stress, 11*, 589-596.

Analyzed the pattern of calls to an after-hours telephone crisis line for Vietnam veterans in Australia. During the 9-week period, 274 calls involved psychiatric issues, including domestic conflict, substance abuse, and traumatic memories. Twenty-three percent required a referral, and 18% required an emergency referral.

DRUSS, B.G. & ROSENHECK, R.A. (1997). **Use of medical services by veterans with mental disorders.** *Psychosomatics, 38*, 451-458.

Examined medical service use in a national sample of 44,533 veterans who had been discharged from a VA psychiatric unit with a comorbid medical disorder. Patients were classified into diagnostic groups on the basis of their primary discharge diagnosis. Relative to a comparison group of patients with disorders including adjustment disorder and dysthymia, patients with all types of other disorders, including PTSD, were less likely to use medical services.

FRIEDMAN, M.J. & ROSENHECK, R.A. (1996). **PTSD as a persistent mental illness.** In S.M. Soreff (Ed.), *Handbook for the treatment of the seriously mentally ill* (pp. 369-389). Seattle: Hogrefe & Huber.

Reviews findings on the persistence of PTSD and considers evidence that PTSD can be a chronic mental illness in a subset of cases. The authors present data on veterans with PTSD who seek VA care, provide recommendations for treating this population, and also comment on the treatment of chronic trauma reactions among individuals who do not have a primary diagnosis of PTSD.

HANSEN, T.E. & ELLIOTT, K.D. (1993). **Frequent psychiatric visitors to a Veterans Affairs medical center emergency care unit.** *Hospital and Community Psychiatry, 44*, 372-375.

Examined 1,144 veterans who had visited a VA Medical Center for emergency care in order to determine the characteristics of frequent treatment-seekers. During the one-year study, 26% were occasional repeaters and 8% were frequent repeaters whose visits accounted for 24% of all emergency visits. The authors suggest that the percentage of patients with repeat visits, which was high relative to the percentage observed in large urban non-VA hospitals, may be due to methodological factors as well as characteristics of veterans and their environments.

HOFF, R.A. & ROSENHECK, R.A. (1998). **Long-term patterns of service use and cost among patients with both psychiatric and substance abuse disorders.** *Medical Care, 36*, 835-843.

Used VA administrative data to examine VA service use in 9,813 inpatients and 58,001 outpatients over a 6-year interval. Among inpatients, costs did not differ as a function of dual diagnosis. Among outpatients, total costs over the entire observation period were greater among dually diagnosed patients, compared with singly diagnosed patients. Within the outpatient group, all specific types of costs except outpatient psychiatric and inpatient medical were greater for the dually diagnosed.

MARSHALL, R.P., JORM, A.F., GRAYSON, D.A., DOBSON, M. & O'TOOLE, B. (1997). **Help-seeking in Vietnam veterans: Post-traumatic stress disorder and other predictors.** *Australian and New Zealand Journal of Public Health, 21*, 211-213.

Investigated factors predictive of seeking VA care among a sample of 461 Australian Vietnam veterans. Even after adjustment for numerous predictors, including physical health, non-PTSD psychiatric disorders, predisposing characteristics, and combat exposure, the authors found that PTSD was associated with greater help-seeking.

MARSHALL, R.P., JORM, A.F., GRAYSON, D.A. & O'TOOLE, B.I. (1998). **Posttraumatic stress disorder and other predictors of health care consumption by Vietnam veterans.** *Psychiatric Services, 49*, 1609-1611.

Assessed self-reported utilization during a 2-week period in 641 randomly sampled Australian Vietnam veterans. Using multivariate regression to adjust for numerous variables (age, mental health, predisposition to PTSD, military service, repatriation, and membership in service organizations), the authors found that PTSD was associated with an additional \$79 in total health care costs. Other important predictors of cost were depression, education, the quality of the repatriation experience, and social support.

PRIEBE, S. & ESMALI, S. (1997). **Long-term mental sequelae of torture in Iran—who seeks treatment?** *Journal of Nervous and Mental Disease, 185*, 74-77.

Assessed 34 Iranian torture victims who had emigrated to Germany. Treatment-seekers differed from individuals who had not sought treatment in many ways, including: greater anxiety, depression, and PTSD symptom severity; a greater likelihood of PTSD; poorer coping; and less knowledge of German.

RONIS, D.L., BATES, E.W., GARFEIN, A.J., BUIT, B.K., FALCON, S.P., & LIBERZON, I. (1996). **Longitudinal patterns of care for patients with posttraumatic stress disorder.** *Journal of Traumatic Stress, 9*, 763-781.

Assessed patterns of utilization of VA mental healthcare in 939

patients with PTSD, 923 patients with schizophrenia, and 907 patients with major depression. The authors defined types of use and nonuse intervals and applied their system to characterize temporal patterns. Patients with PTSD had substantial but episodic use. The authors discuss the implications of their findings for understanding the long-term course of PTSD.

ROSENHECK, R.A., LEDA, C. & GALLUP, P. (1992). **Combat stress, psychosocial adjustment, and service use among homeless Vietnam veterans.** *Hospital and Community Psychiatry*, 43, 145-149.

Studied service use among a sample of 627 homeless male Vietnam combat veterans who received care from VA homelessness programs. The authors defined combat stress and no-combat-stress groups on the basis of intrusive symptoms during the 30 days prior to assessment. Combat stress was associated with greater psychiatric comorbidity and service utilization, as well as a greater likelihood of having a VA psychiatric disability. However, many homeless veterans with mental disorders received no mental health services.

SANSONE, R.A., WIEDERMAN, M.W., & SANSONE, L.A. (1998). **Borderline personality symptomatology, experience of multiple types of trauma, and health care utilization among women in a primary care setting.** *Journal of Clinical Psychiatry*, 59, 108-111.

Reviewed 12 months of medical records in 166 women who were consecutively recruited from routine gynecological appointments at an HMO. Multiple types of trauma was related to increased utilization of various types: telephone contacts, physician visits,

acute prescriptions, and ongoing prescriptions. Borderline personality disorder was related to greater levels of all types of utilization except specialist care.

SINNERBRINK, I., SILOVE, D.M., MANICAVASAGAR, V.L., STEEL, Z. & FIELD, A. (1996). **Asylum seekers: General health status and problems with access to health care.** *Medical Journal of Australia*, 165, 634-637.

Assessed 40 asylum seekers who sought assistance from a community based program for asylum seekers in Australia. The group reported numerous medical complaints, although they also reported better physical functioning than normative samples of medical and psychiatric patients. Roughly half of the sample reported poor access to medical and dental care.

TOOMEY, T.C., SEVILLE, J.L., MANN, J.D., ABASHIAN, S.W. & GRANT, J.R. (1995). **Relationship of sexual and physical abuse to pain description, coping, psychological distress, and health-care utilization in a chronic pain sample.** *Clinical Journal of Pain*, 11, 307-315.

Assessed self-reported healthcare utilization in 22 abused and 58 nonabused chronic pain patients. Although the groups did not differ in reported pain or functional interference, the abused group had lower self-control and perceived control over their pain, and greater distress. The abused group was more likely than the nonabused group to use emergency care for pain symptoms, but the groups did not differ on other measures of utilization. The authors suggest that prior trauma should be considered as a factor in the development of strategies for managing chronic pain.

PILOTS UPDATE

The PILOTS database contains much more than bibliographical citations and abstracts. By displaying or printing search results in the optional "long" format, you can learn many useful details about the publications your search has found. In this column we describe some of the fields contained in the full PILOTS database record, and the information they provide.

The "Affiliation" field tells you where the work described in a publication was performed. By searching on this field, work performed at a particular institution or in a particular state, province, or country can be identified. By combining this process with a subject-oriented search of the database, it would be possible to find someone in Colorado who knows about alcohol abuse in Vietnam War veterans, or a Canadian expert on PTSD in adolescents.

The "Instruments" field lists the assessment instruments used in the research or clinical work reported. This information can provide some idea of the research methodology or clinical strategy employed, beyond what is implied in the title or stated in the abstract. If you have a special interest in assessment, it can be useful in choosing or evaluating an instrument—or in seeing who has used an instrument that you have created. By combining a search of the "Instruments" field with the use of appropriate Descriptors (such as "PTSD Assessment Instruments") you can find publications that discuss the reliability, validity, or psychometric properties of a particular instrument whose use you might be considering.

We use the "Note" field to describe the relationship of a document to other publications or presentations, and to provide any other information that we think might be helpful to PILOTS database users.

If the material contained in the document has been presented elsewhere, we give the name, place, and date of the lecture, meeting, or conference at which this happened. If it has been published elsewhere, we give the bibliographical details. You can use this information to verify that a particular document is in fact the one you are seeking (for example, when you know that the paper you want is based on a poster you saw at the ISTSS conference in Boston). Or you can use it to find a substitute for a publication that would be difficult to obtain (such as a journal article that reports the research findings from a doctoral dissertation). If a translation of a document has been published, that too will be noted in the "Note" field.

Some journals, such as the *Annals of the New York Academy of Sciences*, devote individual issues to specific topics, and publish them simultaneously as books with separate titles and ISBNs. We index contributions to these publications as journal articles, but use the "Note" field to give particulars of the book version.

When a journal article is published in several parts, we list the other parts in the "Note" field. If a correction or retraction has been published, this will be listed in there as well. And if a comment on an article has been published, we will note that fact and give the pertinent bibliographical

information. Similarly, the entry for such a comment will contain a reference to the publication it discusses. By checking the "Note" field, you can determine whether you need to examine any other publications in order to evaluate the document in question.

Sometimes the references for a book chapter are not placed at the end of the chapter, but are included in a general reference list at the end of the book. When this is the case, this will be reported in the "Note" field, along with the page numbers of the references. Knowing this can help you avoid the frustration of receiving a photocopy of a book chapter, only to learn that you cannot look up any of the cited references. Likewise any other material pertinent to a book chapter or journal article is noted in this field. When we apply the Descriptor "Literature Review" or "Meta Analysis" to a document, we include the number of

publications referenced in the "Note" field.

Whenever in the "Note" field we mention another document indexed in the PILOTS database, we provide the PILOTS ID number of that publication. To find the full PILOTS record for that document, select "All Indexes" from the pull-down menu and type in its ID number.

While both the "Affiliation" and "Instruments" fields can be searched using the pull-down menus provided by the PILOTS Web interface, the "Note" field does not appear on that menu. However, the contents of this field are searchable through the "All Indexes" menu.

Many users of the PILOTS database find that searching by author, descriptor, or topic satisfies their information needs. For those whose needs are more complex, the features described in this column can help to improve and refine access to the traumatic stress literature.

CHANGES IN THE NATIONAL CENTER WEB SITE

<<http://www.dartmouth.edu/dms/ptsd>>

The National Center has collected a vast amount of clinical and empirical material on trauma and PTSD. In this 10th anniversary year, we are looking at our website as an ideal tool for disseminating this information to a wide variety of audiences. To make it as user-friendly as possible, we are undertaking significant reconstruction of the site. Webdesign experts from the Koop Institute at the Dartmouth Medical School are helping us to make it easier to navigate. To better reflect the extensive range of expertise contained within the National Center's seven divisions, our website will contain a significantly larger collection of information resources, including the complete contents of all back issues of our newsletters, profiles of our professional staff and their research and clinical activities, and journal publications from National Center staff. We will continue to offer free access to the PILOTS database and detailed instructions for searching it. And we plan to take advantage of continuing developments in Internet technology to present information on PTSD in audiovisual media as well as text form.

CLARIFICATION

There are three points that warrant clarification in my article entitled "Research on Eye Movement Desensitization and Reprocessing (EMDR) as Treatment for PTSD (*PTSD Research Quarterly*, Winter 1999, 10(1)). First, Shapiro's (1995) statement that eye "fixation" is functionally equivalent to eye movement occurs on page 25, not on page 95, of her textbook. Second, although twice as many patients dropped out of EMDR than CBT in Devilly and Spence's (1999) comparative trial, the *ratings* of "treatment distress" were nearly identical for both treatments. Third, Pitman et al. (1996) computed correlations between treatment fidelity and six treatment outcome variables. Although Pitman et al. published only the two correlations that were significant, the average correlation between fidelity and all six outcome variables was $r = .23$.

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