



### Institute of Medicine's PTSD Report Available Online

The Institute of Medicine's (IOM's) report on the scientific evidence for treating posttraumatic stress disorder (PTSD) is available now in draft form online and will soon be available in print:

**Institute of Medicine. (2007). *Treatment of posttraumatic stress disorder: An assessment of the evidence*. Washington, DC: National Academy of Sciences. Available online at [http://books.nap.edu/catalog.php?record\\_id=11955#toc](http://books.nap.edu/catalog.php?record_id=11955#toc)**

This report, developed at the request of the Department of Veterans Affairs (VA), is an attempt "to review and assess the evidence on the efficacy of pharmacologic and psychologic treatment modalities for PTSD" (p. 1-1). The report is a response to specific questions posed by the VA, and the committee is careful to point out that it is not meant to be taken as a clinical practice guideline. When developing clinical practice guidelines most organizations consider four or five levels of evidence from the highest level of rigorous randomized controlled trials [RCTs] to expert opinions and studies with a small number of subjects, whereas IOM considered only research involving RCTs. Of 2,771 studies identified in the literature, only 90 are actually reviewed (37 centered on medications and 53 focused on psychotherapeutic interventions). Also, only studies with a primary focus on PTSD outcomes were reviewed.

The committee concludes there is inadequate evidence to determine the effectiveness of any of the pharmacological treatments reviewed, and that the only psychotherapeutic intervention that has sufficient evidence to support its efficacy is exposure therapy. However, the committee cautions that this does not mean that other interventions or treatment modalities were ineffectual or harmful; only that studies meeting their research design and data criteria were unavailable.

In presenting their findings, the committee noted a number of potential problems with current PTSD research. Findings regarding civilian populations may not be applicable to veterans (and that studies done on

veterans of earlier conflicts may not be applicable to veterans today). Problems in the design and implementation of many studies limited their ability to provide definite recommendations in some cases. Finally, and of particular interest here, there is typically a failure in PTSD research to address high rates of COD and that some studies even exclude this population that makes up a considerable percentage of all PTSD cases.

The report also makes recommendations concerning future directions for PTSD research, and states that more research should be undertaken comparing psychotherapeutic interventions to pharmacological ones, comparing the effectiveness of interventions delivered one-on-one to those that involve groups, and evaluating the effectiveness of combined psychotherapeutic and pharmacological interventions. It also comments on the lack of a clear and generally agreed upon definition for PTSD.

There are a number of new articles in this month's Review that address PTSD and co-occurring substance use, including a short review by Schafer and Najavits that reviews COD interventions from a clinical perspective. In contrast to the IOM's strict focus on the research quality of a select group of PTSD studies, Schafer and Najavits review treatment for co-occurring PTSD and substance use disorders with a focus on clinical information and considerations. For the reader who is also interested in the research evidence for those studies, the Schafer and Najavits article refers readers to this recent chapter: **Najavits, L. M. (2007). *Psychosocial treatments for posttraumatic stress disorder*. In P. E. Nathan and J. M. Gorman (Eds.), *A guide to treatments that work* (3rd ed., pp. 513-529). New York: Oxford University Press.**

This Review contains revisions of abstracts and is not generally the product of an original analysis of the actual articles cited. Readers interested in finding out more about COCE should visit the Web site: <http://coce.samhsa.gov/>

## COD Research

### Epidemiology

**Abram, K. M., Washburn, J. J., Teplin, L. A., Emanuel, K. M., Romero, E. G., & McClelland, G. M. (2007).** Posttraumatic stress disorder and psychiatric comorbidity among detained youths. *Psychiatric Services, 58* (10), 1311-1316.

The authors investigated the prevalence of posttraumatic stress disorder (PTSD) and both co-occurring mental and substance use disorders among 898 youths (ages 10 to 18) who had been arrested in Chicago. Among those who had PTSD diagnoses (n=54), 79 percent had a co-occurring substance use disorder (compared to 54 percent of those who did not have PTSD). For male participants, having any other disorder (mental or substance use) increased the odds of also having PTSD. For female participants, having an alcohol use disorder or both an alcohol and drug use disorder increased the odds of also having PTSD. Male participants with PTSD had a significantly higher prevalence rate of co-occurring psychiatric disorders than did females with PTSD.

**Dietz, T. L. (2007).** Predictors of reported current and lifetime substance abuse problems among a national sample of U.S. homeless. *Substance Use & Misuse, 42* (11), 1745-1766.

The author used data from the National Survey of Homeless Assistance Providers and Clients to determine rates of substance use disorders among the homeless. Approximately one third reported an alcohol use disorder and one fourth reported a drug use disorder. Rates of both disorders were higher for individuals with a co-occurring mental disorder.

**DiFranza, J. R., Savageau, J. A., Fletcher, K., Pbert, L., O'Loughlin, J., McNeill, A. D., Ockene, J. K., Friedman, K., Hazelton, J., Wood, C., Dussault, G., & Wellman, R. J. (2007).** Susceptibility to nicotine dependence: The development and assessment of nicotine dependence in youth 2 study. *Pediatrics, 120* (4), e974-e983.

The authors evaluated tobacco use among a group of 1,246 public school 6th-graders over a 4-year period. Among those who reported ever having inhaled tobacco (n=217), subsequent nicotine abuse/dependence was associated with depressed mood as well as a feeling of relaxation the first time the individual inhaled.

**Elkins, I. J., McGue, M., & Iacono, W. G. (2007).** Prospective effects of attention-deficit/hyperactivity disorder, conduct disorder, and sex on adolescent substance use and abuse. *Archives of General Psychiatry, 64* (10), 1145-1152.

The authors sought to determine the relationship between attention-deficit/hyperactivity disorder (AD/HD) and the later development of substance use disorders. Using data from the Minnesota Twin Family Study (from 760 female and 752 male twins specifically), they determined that for both boys and girls AD/HD was associated with higher levels of all types of substance use, nicotine dependence, and cannabis use disorders (even after controlling for co-occurring conduct disorder). However, symptoms of attention-deficit alone (after controlling for hyperactivity/impulsivity symptoms and conduct disorder) did not have a significant association with increased rates of substance use and use disorders.

**Green, B., Kavanagh, D. J., & Young, R. M. (2007).** Predictors of cannabis use in men with and without psychosis. *Addictive Behaviors, 32* (12), 2879-2887.

The authors evaluated cannabis use by men with psychosis and found that psychosis was associated with less use of cannabis but more frequent cannabis-related problems in comparison to cannabis use by men without psychosis. Men with psychosis were also more likely to moderate their use of the drug after experiencing negative effects than were the men without psychosis.

**Gustavson, C., Stahlberg, O., Sjdin, A.-K., Forsman, A., Nilsson, T., & Anckarster, H. (2007).** Age at onset of substance abuse: A crucial covariate of psychopathic traits and aggression in adult offenders. *Psychiatry Research, 153* (2), 195-198.

The authors looked at a group of 100 violent offenders in Sweden to determine the relation of early (i.e., prior to age 18) substance use disorders to measures of aggression, violent recidivism, traits of psychopathy, and mental disorders in childhood. Of their sample, 56 individuals had substance use disorders and 31 had an early-onset for those disorders. The

age of onset for substance abuse correlated strongly with measures of lifetime aggression and psychopathy, but the duration of substance abuse did not correlate significantly with those factors.

**Lubman, D. I., Allen, N. B., Rogers, N., Cementon, E., & Bonomo, Y. (2007). The impact of co-occurring mood and anxiety disorders among substance-abusing youth. *Journal of Affective Disorders, 103* (1-3), 105-112.**

The authors investigated the relationship of co-occurring anxiety and mood disorders among a group of younger Australians (mean age of 19.4) in substance abuse treatment (N=100). Half the sample had a co-occurring mental disorder, with 49 percent having a current mood or anxiety disorder and 68 percent having a lifetime history of one of those disorders. Common current, specific diagnoses were major depressive disorder (27 percent of sample) and post-traumatic stress disorder (26 percent). Individuals who had either of those two disorders reported a greater number of substance-related problems and a poorer quality of life than did those without such disorders.

**Meshberg-Cohen, S. & Svikis, D. (2007). Panic disorder, trait anxiety, and alcohol use in pregnant and nonpregnant women. *Comprehensive Psychiatry, 48* (6), 504-510.**

The authors evaluated a group of 412 pregnant and 139 nonpregnant women to determine the relationship of panic disorder, trait anxiety, and alcohol use. Women who were pregnant were less likely to have a panic disorder than those who were not, but there were no significant differences in trait anxiety between the two groups. After controlling for various demographic factors, both panic disorder and trait anxiety were significantly associated with greater alcohol use among both pregnant and nonpregnant women. However, high levels of trait anxiety were associated with significantly greater alcohol use among nonpregnant women in comparison to pregnant women.

**Min, M., Farkas, K., Minnes, S., & Singer, L. T. (2007). Impact of childhood abuse and neglect on substance abuse and psychological distress in adulthood. *Journal of Traumatic Stress, 20* (5), 833-844.**

The authors studied a population sample of 285 mothers who gave birth at a large, urban, teaching hospital to evaluate the relationship of education, childhood trauma experiences, and coping methods. Approximately 33 percent of the sample had a history of childhood sexual abuse, 29 percent had experienced physical abuse in childhood, and 22 percent reported emotional abuse. The authors found a significant relationship between childhood experiences of trauma and greater amounts of substance abuse and psychological distress, with educational attainment and use of avoidant coping strategies mediating that relationship.

**Mitchell, K. J., Ybarra, M., & Finkelhor, D. (2007). The relative importance of online victimization in understanding depression, delinquency, and substance use. *Child Maltreatment, 12* (4), 314-324.**

The authors compared interpersonal victimization online to that which occurred in person among a group of 1,501 Internet users between the ages of 10 and 17. Both types of victimization were independently associated with higher levels of depressive symptoms, delinquent behavior, and substance use. However, youth who experienced online sexual solicitation were almost twice as likely to have high levels of depressive symptoms and high levels of substance use.

**Moss, H. B., Chen, C. M., & Yi, H. (2007). Subtypes of alcohol dependence in a nationally representative sample. *Drug and Alcohol Dependence, 91* (2-3), 149-158.**

The authors present their five empirically derived subtypes of alcohol dependence based on data from the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) study. The largest subtype (comprising 31 percent of those with alcohol dependence) were young adults who were unlikely to seek help for drinking, had moderately high levels of binge drinking, relatively low levels of co-occurring disorders, and a low rate of family histories of alcohol dependence. The second largest subtype (making up 21 percent of the sample) was composed of younger, antisocial individuals who were in their mid-20s and had an early onset of drinking—they were likely to have a family history of alcoholism, co-occurring mental problems, and to be illicit drug and tobacco users. Two other subtypes made up approximately 19 percent of the sample each: a functional subtype (who were generally middle-aged, well educated, with families, had family histories of alcoholism and personal histories of depressive disorders, and had stable employment) and an intermediate subtype (typically middle-aged, smokers, and often users of other substances who had an even greater likelihood of a family history of alcoholism and of co-occurring mental disorders). Finally, the smallest percentage of the sample (9 percent) belonged to the chronic/severe subtype, which has an early-onset of drinking, high rates of antisocial

personality disorders and criminal behavior, high rates of other mental disorders, high rates of illicit drug use and smoking, and family histories of alcohol use disorders. The chronic/severe group was also likely to have sought help for their alcohol problems.

**Waldrop, A. E., Hanson, R. F., Resnick, H. S., Kilpatrick, D. G., Naugle, A. E., & Saunders, B. E. (2007). Risk factors for suicidal behavior among a national sample of adolescents: Implications for prevention. *Journal of Traumatic Stress, 20* (5), 869-879.**

The authors investigated possible risk factors for suicidality among a national, general population sample of adolescents. They found a positive association between suicidal ideation and a family history of substance related problems, exposure to violence, a lifetime diagnosis of depression, and/or posttraumatic stress disorder (PTSD). They also found a significant positive association between suicide attempts and substance use disorders, experiences of sexual or physical assault, a lifetime diagnosis of depression, and/or PTSD.

**Weaver, M. F., Dupre, M. A., Cropsey, K. L., Koch, J. R., Sood, B. A., Wiley, J. L., & Balster, R. L. (2007). Addiction epidemiology in adolescents receiving inpatient psychiatric treatment. *Addictive Behaviors, 32* (12), 3107-3113.**

The authors compared rates of co-occurring substance use disorders among adolescents at two different, public psychiatric institutions in the Commonwealth of Virginia. The first was located in a major urban area and the other in a small city; the second used formalized screening procedures for substance use disorders while the first did not. Rates of co-occurring substance use disorders were significantly higher among youth at the second institution (39.1 percent) compared to the first (16.5 percent). There were also other significant differences in the populations at the two institutions (including significantly higher levels of past legal involvements, parental involvement in the criminal justice system, and family histories of mental illness), with higher levels at the second institution. However, the difference in screening practices may also be detecting more cases of substance use disorders.

### Infrastructure

#### *Workforce Development*

**Stoneking, B. C. & McGuffin, B. A. (2007). A review of the constructs, curriculum and training data from a workforce development program for recovery support specialists. *Psychiatric Rehabilitation Journal, 31* (2), 97-106.**

The authors explore the use of a program for developing a recovery support specialist workforce to assist people with psychiatric and/or substance use disorders. They discuss the reasons for the use of such staff, the training methods involved in the program, and the success of the program (as determined by trainee self-ratings and supervisor ratings after participation).

### Services & Service Systems

#### *Prevention*

**Geisner, I. M., Neighbors, C., Lee, C. M., & Larimer, M. E. (2007). Evaluating personal alcohol feedback as a selective prevention for college students with depressed mood. *Addictive Behaviors, 32* (12), 2776-2787.**

The authors evaluated the use of a brief alcohol use intervention delivered by mail for a group of 177 college students who scored as having elevated symptoms of depression on the Beck Depression Inventory. Participants who received the intervention were sent personalized information about their alcohol use as well as information on normal drinking and strategies to obtain a more moderate level of drinking. In comparison to a control group who did not receive the intervention, those who did receive it were more likely to change their views on normative drinking but showed no significant reductions in drinking or drinking related problems. However, changes in perceptions of normative drinking were associated with significantly fewer drinks per week.

### Screening & Assessment

**Garnick, D. W., Horgan, C. M., Merrick, E. L., & Hoyt, A. (2007). Identification and treatment of mental and substance use conditions: Health plans strategies. *Medical Care*, 45 (11), 1060-1067.**

The authors surveyed a national sample of 368 health plans (including: health maintenance organizations, point-of-service plans, and preferred provider organization) to determine what strategies were used to screen for substance use and mental disorders. Screening for mental disorders in primary care was provided by 34 percent of the plans, but only 8 percent of plans screened for substance abuse/dependence. Screening via mail, phone, or Internet was undertaken in 31 percent of the plans. Guidelines regarding depression were distributed to primary care doctors in 78 percent of managed care programs, while 33 percent sent guidelines regarding substance abuse.

**Harrington, T. & Newman, E. (2007). The psychometric utility of two self-report measures of PTSD among women substance users. *Addictive Behaviors*, 32 (12), 2788-2789.**

The authors investigated the utility of two self-administered assessment instruments for posttraumatic stress disorder (PTSD) (i.e., the Penn Inventory and the PTSD Checklist Civilian Version) with a population of women who abused substances (N=44). Scores on these instruments were compared to results from a clinician-administered diagnostic interview for PTSD (the Clinician-Administered PTSD Scale) and to results of questionnaires concerning previous trauma exposure and trauma-related symptoms. The authors found that 38.6 percent of their sample met criteria for PTSD. They also determined that a PTSD Checklist Civilian Version score of 38 or higher and a Penn Inventory score of 25 or higher minimized the number of false reports while maximizing the identification of actual cases of PTSD.

**Ley, A., Jeffery, D., Shaw, S., & Weaver, T. (2007). Development of a brief screen for substance misuse amongst people with severe mental health problems living in the community. *Journal of Mental Health*, 16 (5), 679-690.**

The authors applied the Dartmouth Assessment of Lifestyle Instrument (DALI), a screening instrument developed to screen for substance misuse among people with severe mental illness who were living in institutions, to a population of individuals with psychosis who were living in community settings (n=216). Of those individuals, 160 were screened and 56 were used as a validation group to analyze the scoring system and develop a shorter version of the screening instrument. The authors found that a single item on the DALI was a good measure for alcohol problems and two others were for drug problems. From this work, they developed another scale (the Simple Substance Use Screening Scale), which was able to correctly classify 86 percent of the sample as having problematic alcohol use (with a sensitivity of 88 percent and a specificity of 84 percent) and 84 percent as having problematic drug use (with a sensitivity of 82 percent and a specificity of 84 percent).

### Treatment Planning & Services

**Baker, K. D., Lubman, D. I., Cosgrave, E. M., Killackey, E. J., Yuen, H. P., Hides, L., Baksheev, G. N., Buckby, J. A., & Yung, A. R. (2007). Impact of co-occurring substance use on 6 month outcomes for young people seeking mental health treatment. *Australian and New Zealand Journal of Psychiatry*, 41 (11), 896-902.**

The author studied mental health treatment outcomes for young people (ages 15 to 24) with COD. They followed 106 young people who had non-psychotic DSM-IV Axis I disorders and had been referred to specialist public mental health services for young people. At the initial assessment, 23 participants met criteria for a co-occurring substance use disorder—those individuals also had significantly poorer psychosocial functioning than did participants with a mental disorder alone. At followup 6 months later, participants without COD had significant improvements in symptoms and functioning that were not seen among those with COD.

**Brady, K. T., Verduin, M. L., & Tolliver, B. K. (2007). Treatment of patients comorbid for addiction and other psychiatric disorders. *Current Psychiatry Reports*, 9 (5), 374-380.**

The authors studied the literature on COD with particular attention to psychotic, personality, affective, and anxiety disorders. They report current treatment recommendations and suggest directions for future research.

**Cerullo, M. A. & Strakowski, S. M. (2007). The prevalence and significance of substance use disorders in bipolar type I and II disorder. *Substance Abuse Treatment, Prevention, and Policy*, 2 (29).**

The authors reviewed current literature on the epidemiology of and treatment for co-occurring bipolar and substance use disorders. They included in the review all articles found except case studies. The authors estimated that 40 percent of bipolar I patients will meet criteria for a substance use disorder diagnosis at some point during their lives. The research they reviewed consistently shows that co-occurring substance use disorders are associated with more frequent and longer affective episodes, less compliance with treatment, poorer quality of life, and greater suicidality. Some recent research has found a subgroup of patients with bipolar disorder who have a milder form of the affective disorder that only becomes apparent after prolonged alcohol abuse. There is limited evidence to suggest the use of quetiapine, aripiprazole, and lamotrigine to treat patients with these co-occurring disorders. Also, two trials have found valproate in combination with lithium improves mood and alcohol abuse/dependence symptoms

**Druss, B. G., Wang, P. S., Sampson, N. A., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2007). Understanding mental health treatment in persons without mental diagnoses: Results from the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 64 (10), 1196-1203.**

Using data from the National Comorbidity Survey Replication (NSC-R), the authors sought to determine rates of substance abuse and mental health service use by individuals who had no mental or substance use disorders in the prior year. In NCS-R, 61.2 percent of those who used a mental health or substance abuse treatment service in the prior year had a past-year DSM-IV diagnosis, 21.1 percent met criteria for a lifetime diagnosis but not a past-year one, and 9.7 percent had some indicators of a need for treatment without meeting diagnostic criteria for a disorder. The remaining 8 percent used approximately 5.6 percent of all services, with lower percentage of use for specialty services (1.9 to 2.4 percent) and general medical services (3.7 percent) but a higher percentage of human services appointments (18.9 percent) and complementary and alternative medicine services (7.6 percent).

**Faraone, S. V. & Wilens, T. E. (2007). Effect of stimulant medications for attention deficit/hyperactivity disorder on later substance use and the potential for medication misuse, abuse, and diversion [CME activity]. *Journal of Clinical Psychiatry*, 68 (Supplement 11), 15-22.**

The authors review current literature on the use of stimulant medications for the treatment of attention-deficit/hyperactivity disorder (AD/HD) and its relation to later substance use. They consider issues such as patients' misuse/abuse of these medications and diversion of them. They note that misuse and diversion are both more common among patients with conduct or substance use disorders and that long-acting stimulants may be less likely to be misused or diverted.

**Hermos, J. A., Young, M. M., Lawler, E. V., Rosenbloom, D., & Fiore, L. D. (2007). Long-term, high-dose benzodiazepine prescriptions in veteran patients with PTSD: Influence of preexisting alcoholism and drug-abuse diagnoses (Paper presented at the 29th annual meeting of the Research Society on Alcoholism, June 23-29, 2006, Baltimore, MD). *Journal of Traumatic Stress*, 20 (5), 909-914.**

The authors analyzed data concerning the prescription of benzodiazepines to PTSD patients in the VA system in New England (N=2,183). Approximately 10 percent (n=234) of the sample received high doses of alprazolam, clonazepam, diazepam, or lorazepam (i.e., doses above the typical dosage recommendations). Receiving high doses of these medications was more common among patients who had substance use disorders.

**Levin, F. R. (2007). Diagnosing attention deficit/hyperactivity disorder in patients with substance use disorders [CME activity]. *Journal of Clinical Psychiatry*, 68 (Supplement 11).**

The author discusses problems in diagnosing adult attention-deficit/hyperactivity disorder (AD/HD) in patients who also have substance use disorders. Potential problems include high rates of other co-occurring disorders, cognitive deficits from substance abuse that affect the individual's ability to recall symptoms, withdrawal or intoxication symptoms that may mimic AD/HD symptoms, and patients who feign AD/HD symptoms to receive stimulant medications.

**Schafer, I. & Najavits, L. M. (2007). Clinical challenges in the treatment of patients with posttraumatic stress disorder and substance abuse. *Current Opinion in Psychiatry*, 206 (6), 614-618.**

## COD Research and Resources Monthly Review

The authors review the literature on co-occurring posttraumatic stress disorder (PTSD) and substance use disorders paying particular attention to clinical issues and newer interventions that integrate treatment for the two disorders. The authors review evidence for both psychotherapy treatments (i.e., Seeking Safety, concurrent treatment of posttraumatic stress disorder and cocaine dependence, substance dependence posttraumatic stress disorder therapy, collaborative care, and the Transcend model) and pharmacotherapy treatments. They also note the high rates of co-occurring PTSD and substance use disorders and the greater severity of symptoms for both disorders found in this population.

**Upadhyaya, H. P. (2007). Managing attention deficit/hyperactivity disorder in the presence of substance use disorder [CME activity]. *Journal of Clinical Psychiatry*, 68 (11), 23-30.**

The author discusses practices for managing co-occurring attention-deficit/hyperactivity disorder (AD/HD) and substance use disorders, noting that these individuals typically have an earlier age of onset for substance use disorders, take longer to obtain recovery from substance use disorders, have poorer substance abuse treatment outcomes, and have higher rates of other co-occurring disorders. While research suggests that stimulant medications for AD/HD do not worsen substance use disorders, they may still be diverted or misused and nonstimulant medications or long-acting, time-released stimulant medications are often a better option for this population.

**Wilens, T. E. (2007). The nature of the relationship between attention deficit/hyperactivity disorder and substance use [CME activity]. *Journal of Clinical Psychiatry*, 68 (Supplement 11), 9-14.**

The author looks at the developmental relationship between attention-deficit/hyperactivity disorder (AD/HD) and substance use disorders, noting that AD/HD is a risk factor for substance use disorders in adulthood. He estimates that about 20 percent of adults with substance use disorders have AD/HD.