



Witness Justice™

Trauma – the “Common Denominator”

Prepared with Assistance from CMHS’s National Center for Trauma-Informed Care

What is Trauma?

The American Psychiatric Association’s *Diagnostic and Statistical Manual (DSM-IV)* defines a “traumatic event” as one in which a person experiences, witnesses, or is confronted with actual or threatened death or serious injury, or threat to the physical integrity of oneself or others. A person’s response to trauma often includes intense fear, helplessness, or horror.¹ Trauma can result from experiences that are “private” (e.g. sexual assault, domestic violence, child abuse/neglect, witnessing interpersonal violence) or more “public” (e.g. war, terrorism, natural disasters).

Trauma is becoming increasingly recognized as a significant factor in a wide range of health, behavioral health, and social problems.^{2 3} Trauma resulting from prolonged or repeated exposures to violent events can be the most severe.⁴

Trauma is a central mental health concern and the one “common denominator” of all violence and disaster victims. Clearly, different individuals react to trauma in their own way, depending on the nature of and circumstances surrounding their traumatic experiences. For example, trauma associated with repeated childhood physical or sexual abuse can become a central defining characteristic to a survivor’s identity, impacting nearly every aspect of his or her life. However, whether the cause of the trauma is a hurricane, loss of a loved one, sexual assault, child abuse, or domestic violence, or other incident(s), the trauma experience is one thing that all victims share.

¹ American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (DSM IV-TR)*, fourth edition. Washington, DC: APA.

² Felitti, V. J. (2003). The Relationship of Adverse Childhood Experiences to Adult Health Status. Presented September 2003 at the "Snowbird Conference" of the Child Trauma Treatment Network of the Intermountain West. DVD published by The National Child Traumatic Stress Network.

³ Felitti, V., Anda, R., Nordenberg, D., Williamson, D., Spitz, A., Edwards, V., Koss, M., Marks, J. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, 14(4), 245-258.

⁴ National Child Traumatic Stress Network Complex Trauma Task Force (2003). *Complex trauma in children and adolescents: white paper*. Eds. Cook A., Blaustein, M., Spinazzola, J., vanderKolk, B.

Human and Social Impacts

Trauma, especially when untreated, can have severe negative impacts on a person's physical and emotional well-being. Trauma has been linked to hallucinations and delusions, depression, suicidal tendencies, chronic anxiety, hostility, interpersonal sensitivity (i.e. poor "social skills"), somatization (i.e. "chronic fatigue syndrome"), eating disorders, and dissociation.⁵

Trauma victims are at a much higher risk for co-occurring mental health and substance abuse disorders, violence victimization and perpetration, self-injury, and a host of other coping mechanisms which themselves have devastating human, social, and economic costs. Trauma has been linked to social, emotional, and cognitive impairments, disease, disability, serious social problems, and premature death.⁶

In fact, between 51 percent and 98 percent of public mental health clients diagnosed with severe mental illness have trauma histories,⁷ and prevalence rates within substance abuse treatment programs and other social services are similar.⁸ In children, trauma may be incorrectly diagnosed as depression, attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), conduct disorder, generalized anxiety disorder, separation anxiety disorder, and reactive attachment disorder.^{9 10}

The Adverse Childhood Effects (ACE) study, which examined the health and social effects of traumatic childhood experiences over the lifespan of 18,000 participants, has demonstrated that ***trauma is far more prevalent than previously recognized***, that the impacts of trauma are cumulative, and that unaddressed trauma underlies a wide range of health problems (e.g. heart disease, cancer, chronic lung disease, liver disease, skeletal fractures, HIV-AIDS) and social problems (e.g. homelessness, prostitution, delinquency and criminal behavior, inability to hold a job).^{11 12 13}

⁵ Mueser, KI., Rosenberg, S., Goodman, L., & Trumbetta, S. (2002). Trauma, PTSD, and the course of severe mental illness: an interactive model. *Schizophrenia Research*, 53, 123-143

⁶ Anda, R., Felitti, V., Walker, J., Whitfield, C., Bremner, J., Perry, B., Dube, S., Giles, W. The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology. (Submitted for publication) (ACE Study).

⁷ Mueser, K., Goodman, L.A., Trumbetta, S.L., Rosenberg, S.D., Osher, F.C., Vidaver, R., Auciello, P., & Foy, E.W. (1998). Trauma and post-traumatic stress disorder in severe mental illness. *Journal of Consulting and Clinical Psychology*, 66, 493-499.

⁸ Center for Substance Abuse Treatment. (2000). *Substance abuse treatment for persons with child abuse and neglect issues Treatment Improvement Protocol (TIP) series*. (DHHS Publication No. SMA 00-3357, Number 36. Washington, DC: U.S. Government Printing Office.

⁹ *The Science of Early Childhood Development: Closing the Gap Between What We Know and What We Do*. Jack P. Shonkoff, Dean of the Heller School for Social Policy and Management, and Chair of the National Scientific Council on the Developing Child. Presentation to the 15th National Conference on Child Abuse and neglect, Boston, MA April 19, 2005. Powerpoint: National Scientific Council on the Developing Child.

¹⁰ Cook, A., Blaustein, M., Spinazzola, J., and van der Kolk, B. (2003). Complex trauma in children and adolescents: White Paper from the *National Child Traumatic Stress Network: Complex Trauma Task Force*.

¹¹ Felitti, V., Anda, R., Nordenberg, D., Williamson, D., Spitz, A., Edwards, V., Koss, M., Marks, J. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, 14(4), 245-258.

Financial Costs

The financial burden to society of undiagnosed and untreated trauma is staggering. Untreated trauma significantly increases the use of and further strains the financial resources of health care and behavioral health services, decreases productivity in the workplace, increases reliance on public welfare, and increases incarceration rates. The economic costs of untreated trauma-related alcohol and drug abuse alone were estimated at \$160.7 billion in 2000.¹⁴ The estimated cost to society of child abuse and neglect is \$94 billion per year, or \$258 million per day.¹⁵ For child abuse survivors, long-term psychiatric and medical health care costs are estimated at \$100 billion per year.¹⁶

Disaster-related Trauma

Research on the consequences of recent public disasters, including the 1995 Oklahoma City bombing, the 2002 Challenger disaster, and the September 11, 2001 terrorist attacks illustrates that disasters can induce severe and long-term trauma, particularly in those with prior histories of mental health problems, addiction, or trauma.^{17 18 19} All disaster victims are likely to experience some form of trauma. While many disaster survivors “recover” from grief and shock after a few months, 25 percent to 30 percent of those directly affected may develop full-blown Post-traumatic Stress Disorder (PTSD).^{20 21}

¹² Felitti, V. J. (2003). *The Relationship of Adverse Childhood Experiences to Adult Health Status*. Presented September 2003 at the "Snowbird Conference" of the Child Trauma Treatment Network of the Intermountain West. DVD published by The National Child Traumatic Stress Network.

¹³ See www.ACEstudy.org

¹⁴ The Economic Costs of Drug Abuse in the United States 1992-1998. Report prepared by The Lewin Group.

¹⁵ Prevent Child Abuse America. (2001). *Total estimated cost of child abuse and neglect in the United States: Statistical evidence*. Report funded by the Edna McConnell Clark Foundation.

¹⁶ The Ross Institute (www.rossinst.com)

¹⁷ Galea, S., Ahern, J., Resnick, H., Kilpatrick, D., Bucuvalas, M., Gold, J., & Vlahov, D. (March 28, 2002). Psychological sequelae of the September 11 terrorist attacks in New York City. *New England Journal of Medicine*, Vol. 346, No. 13, pp. 982-987

¹⁸ Terr, L. C., Bloch, D. A., Michel, B. A., Shi, H., Reinhardt, J. A., & Metayer, S. (1999). Children's symptoms in the wake of Challenger: a field study of distant-traumatic effects and an outline of related conditions. *American Journal of Psychiatry*, 156, 1536-1544.

¹⁹ Breslau, N., Chilcoat, H. D., Kessler, R. C., Davis, G. C. (1999). Previous exposure to trauma and PTSD effects of subsequent trauma: Results from the Detroit Area Survey of Trauma. *American Journal of Psychiatry*, 156:902-907.

²⁰ North, C.S. (2001). The course of post-traumatic stress disorder after the Oklahoma City bombing. *Mil Med*, 166 (12 Suppl): 51-2

²¹ Abenhaim, L., Dab, W., & Salmi, L. R. (February 1992). Study of civilian victims of terrorist attacks (France 1982-1987). *Journal of Clinical Epidemiol*, 45(2);103-9.

People with severe mental illness, addictions, and previous histories of trauma are particularly vulnerable to the psychological impact of disasters.^{22 23} People with prior exposure to domestic violence (including physical or sexual abuse) in childhood or adulthood have significantly heightened susceptibility to severe and chronic PTSD following exposure to any type of traumatic event.^{24 25 26} Similarly, refugees who had been previously traumatized in their native countries and who had been diagnosed with PTSD are at risk.²⁷

For those with previous trauma histories, PTSD symptoms, and/or substance abuse problems, trauma symptoms can actually *increase* with time following a disaster. Often they are able to maintain stability during the initial crisis, but after the immediate crisis passes, they may re-experience thoughts, emotions, symptoms, and anxiety levels like those associated with their previous traumas, causing a kind of “relapse,” increased demand on mental health services, and increased suicide rates.^{28 29}

In addition, research has shown that domestic violence incidents can increase 30 percent to 50 percent within three to six months following a disaster in those communities affected.³⁰

The Science of Trauma

Especially when experienced in childhood, trauma produces neurobiological impacts on the brain, causing dysfunction in the hippocampus, amygdala, medial prefrontal cortex, and other limbic structures.^{31 32} When confronted with danger, the brain moves from a normal

²² North, C., Nixon, S., Shariat, S., Mallonee, S., McMillen, J., Spitzanagel, E., & Smith, E. (1999). Psychiatric disorders among survivors of the Oklahoma City bombing. *Journal of the American Medical Association*, 282, 755-762.

²³ Mueser, K. T., Trumbetta, S. L., Rosenberg, S. D., Vidaver, R. M., Goodman, L. B., Osher, F. C., Auciello, P., Foy, D. W. (1998). Trauma and Posttraumatic Stress Disorder in severe mental illness. *Journal of Consulting and Clinical Psychology*, 66(3), 493-499.

²⁴ North, C., Nixon, S., Shariat, S., Mallonee, S., McMillen, J., Spitzanagel, E., & Smith, E. (1999). Psychiatric disorders among survivors of the Oklahoma City bombing. *Journal of the American Medical Association*, 282, 755-762.

²⁵ King et al. (1999). Stretch, Knudson, & Durand (1998). Bremner, Southwick, Brett, & Fontant (1992). Breslau et al. (1998). Green et al. (2000). Nishith, Mechanic, & Resnick (2000). In B. Litz, M. Gray, R. Bryant, & A. Adler. *Early intervention for trauma: Current status and future directions*. A National Center for PTSD Fact Sheet. See www.ncptsd.org/facts/disasters/fs_earlyint_disaster.html

²⁶ Breslau, N., Chilcoat, H. D., Kessler, R. C., Davis, G. C. (1999). Previous exposure to trauma and PTSD effects of subsequent trauma: Results from the Detroit Area Survey of Trauma. *American Journal of Psychiatry*, 156:902-907.

²⁷ Kinzie, J. D., Boehnlein, J. K., Riley, C., Sparr, L. (July 2002). The effects of September 11 on traumatized refugees: Reactivation of Post Traumatic Stress Disorder. *J Nerv Ment Dis*, 190(7):437-41

²⁸ Nader, K. (1998). Violence: Effects of a parents' previous trauma on currently traumatized children. In Y. Danieli (Ed.), *An international handbook of multigenerational legacies of trauma* (pp. 571-583), New York, NY: Plenum Press.

²⁹ Brewin, C. R., Andrews, B., Valentine, J. D. (2000). Meta-analysis of risk factors for Posttraumatic Stress Disorder in trauma-exposed adults. *J of Consulting and Clinical Psychology*, 68:748-766.

³⁰ Norris, F. H. *Prevalence and impact of domestic violence in the wake of disasters*. A National Center for PTSD Fact Sheet. (See www.ncptsd.org/facts/disasters/fs_domestic.html)

³¹ Hull, A. (2002). Neuroimaging findings in post-traumatic stress disorder. *British Journal of Psychiatry*, 181, 102-110.

“information-processing” state to a survival-oriented, reactive “alarm state.” Trauma causes the body’s nervous system to experience: an extreme adrenaline rush; intense fear; information processing problems; and a severe reduction or shutdown of cognitive capacities, leading to confusion and a sense of defeat.

If there are insufficient biological or social resources to assist in coping, the “alarm state” may persist even when the immediate danger has passed, and this can lead to PTSD. Excessive and repeated stress causes the release of chemicals that disrupt brain architecture by impairing cell growth and interfering with the formation of healthy neural circuits. When trauma occurs repeatedly, permanent changes in the brain can occur, compromising core mental, emotional, and social functioning – and resulting in a brain that is focused on surviving trauma.³³

Developments in neuroscience show a multi-directional interconnection between the body, brain, and mind. Post-traumatic stress is not a permanent neuropsychological condition, but a functional and largely reversible distortion in the multi-dimensional somatic and autonomic pathways that meld the mind and body. These discoveries, together with a range of new therapy approaches, are opening new perspectives on healing,³⁴ and new treatments are being explored within this context. For example, cognitive behavioral therapy is thought to bolster cortical function, especially that of the prefrontal cortex. The healing journey is now seen to include biological as well as psychological transformation.³⁵

Hurricane Katrina has provided a new sense of urgency for the long-standing need for trauma education and awareness-building. A greater understanding of the nature and impact of trauma is necessary to promote the health and well-being of survivors and their families and to set the stage for mental health professionals, service providers, law enforcement and criminal justice officials, emergency responders, and others to effectively and seamlessly integrate trauma understanding into their programs and procedures. The positive consequences of an education and awareness campaign will stretch far beyond the immediate context of Katrina, reaching survivors of many different types of trauma and facilitating healing for generations to come.

³² Van der Kolk, B., Pelcovitz, D., Roth, S., Mandel, F., McFarlane, A., Herman, J. *Dissociation, affect dysregulation and somatization: The complex nature of adaptation to trauma*. May 2005

³³ Anda, R., Felitti, V., Walker, J., Whitfield, C., Bremner, J., Perry, B., Dube, S., Giles, W. *The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology*. (Submitted for publication) (ACE Study).

³⁴ Bessel van der Kolk. (2002) *In Terror’s Grip: Healing the Ravages of Trauma*. Cerebrum, 4, 34-50. NY: The Dana Foundation.

³⁵ Peter A. Levine, Ph.D. (1997) *Waking the Tiger: Healing Trauma: The Innate Capacity To Transform Overwhelming Experiences*. Berkeley: North Atlantic Books.