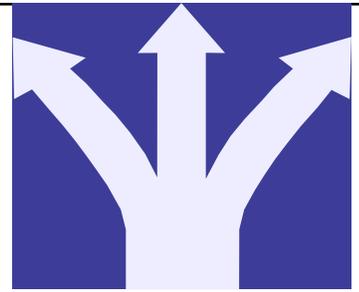


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Traumatic Brain Injury and Anger

Traumatic brain injury (TBI) receives more attention each year. The Centers for Disease Control data (2002 – 2006) shows that 1.7 million people a year experience a TBI. TBI is a factor in one third of all injury-related deaths. Concussions or mild TBIs account for 75% of head injuries each year.

Definition

TBI is defined as a sudden trauma that causes damage to the brain. A closed, or concussive, injury happens when the brain bangs against the skull either by impact with an object (car crashes, falls, contact sports) or sound and pressure waves (bomb blast, explosions). A penetrative injury occurs when an object (bullet, falling debris) breaks through the skull and enters brain tissue. Levels of injury are mild (a brief change in consciousness or mental status) to moderate (persistent headaches, vomiting or confusion) to severe (extended unconsciousness, amnesia, seizures or coma). All TBIs can cause problems with mood and responsiveness. Even mild and moderate TBI can cause memory and anger problems. Concussive TBI is a hidden injury making it frustrating to live with since there is no outer evidence of the damage. Penetrative TBI is more obvious.

Personality Changes

The effects of TBI on a person are wide-ranging. Major personality changes are common. Anger, paranoia, mood swings, depression and anxiety are symptoms of TBI. Social inappropriateness and aggression may occur because impulse control is affected. Insomnia, agitation, and frustration add another level. PTSD may also occur from the experience of trauma. Mental health symptoms look similar to TBI symptoms presenting a challenge for treatment and medication management. Sensory processing for each of the senses can be disturbed. Communication problems occur based on difficulties in understanding and expression of thoughts and feelings. Executive functioning, (problem-solving,

organization, and making judgments) is often impaired.

Stoddard (2011) studied teens and found that students who sustained a head injury reported more violent behavior. Recent TBIs were more likely to cause aggression; over time the brain does heal. Substance use is closely linked to TBI and aggression. People with TBIs have high rates of substance misuse. Half of TBI occurrences involve alcohol use. Psychiatric illness is a possible consequence of TBI and the risk of suicide increases. Substance use further lowers the capacity for impulse control and executive functioning.

Complexities of TBI and Anger

Anger management treatment with people with TBI is complex. Robin Tovell-Toubal, LMHC, an expert in working with people with TBI, illuminates considerations for treatment. She advises that all active service members and veterans be screened for TBI and PTSD. The Center for Substance Abuse Treatment advises screening for all substance users (2010). Differential diagnosis is essential. Treatment for TBI needs to take into consideration where the injury is in the brain. TBI affects the sleep/wake cycle. Fatigue, depression and sleep deprivation reduce capacity for impulse control. The effects of TBI decrease the ability to process information and disrupt affect regulation. The impact of memory loss and inability to make new memories is profound. People may have no memory of angry outbursts and consequences of anger. Remembering the strategies for anger management is a challenge.

Treatment guidelines for TBI anger management:

- Use a written anger log.
- Family members and friends also keep an anger log of incidents with the TBI patient.
- Clearly written guidelines of acceptable expressions of anger.

(Over)

Treatment guidelines for TBI anger management (continued):

- Use digital recordings to view therapy sessions for behavioral analysis of interactions. Provide feedback and discuss how to handle situations differently. Point out positive coping strategies and progress.
- Learn good sleep habits to decrease insomnia. Rest when tired.
- Control the environment as much as possible. Reduce stimulation and possible triggers. Avoid too much noise or brightness.
- Attention to medication compliance with reminders to take doses (use of text messages, cell phone alarms).
- Avoid or minimize use of alcohol.
- Social support and involvement of close family and friends in treatment.
- Written review of progress and new issues to address.

References

Center for Substance Abuse Treatment (2010). "Treating Clients with Traumatic Brain Injury." *Substance Abuse Treatment Advisory: Volume 9, Issue 2.*

National Institute of Neurological Disorders and Stroke. "Traumatic Brain Injury: Hope through Research." National Institutes of Health. Feb 2002 NIH Publication No: 02-158.

Raymont, V., Salazar, A.M., Krueger, F., and Grafman, J. "Studying Injured Minds— The Vietnam Head Injury Study and 40 Years of Brain Injury Research," *Frontiers in Neurology*, 2011: 2:15.

Stoddard, S.A. and Zimmerman, M.A., "Association of Interpersonal Violence with Self-Reported History of Head Injury," *Pediatrics* 2011: 127:6, 1074-1079.

Resources

Brain Injury Association of America
<https://secure.biausa.org>

Defense and Veterans Brain Injury Center
<http://www.dvbic.org>

(The article was done with the research/writing assistance of Alice Miele, LICSW)

FROM THE FILES:

Watching Parents Fight May Fuel Later Health Problems

Research shows that children who grow in homes where parents are violent towards each other are at increased risk of depression, conduct disorder and alcohol dependence in adulthood regardless of exposure to other forms of domestic violence and related psychosocial stressors. The results were published in the *Journal of Epidemiology and Community Health*.

To investigate the consequences of parental violence, researchers at INSERM— Universite Pierre et Marie Curie-Paris France, conducted face-to-face interviews with 3,023 adults representative of the general population in the Paris metropolitan area.

Sixteen percent of those interviewed said they had witnessed their parents fight before the age of 18 and these individuals had a higher risk of psychosocial maladjustment.

After adjusting for family and social level stressors, adults who were exposed to interparental violence in childhood had a 1.44-fold higher risk of having depression, 3.17 times more likely to be involved in conjugal violence, 4.75 times more likely to mistreat their own child and 1.75 more likely to have alcohol dependence, compared to those who had not been exposed to interparental violence.

Reuters Health Information, 2009

Alcoholics Have Hard Time Processing Emotions

Brain damage caused by excessive drinking can impair the ability to read facial expressions and blunt emotions even among those in long-term recovery from alcoholism as reported in *Science Daily*.

Alcohol-related deficits in the amygdala and hippocampus regions of the brain can hinder the ability of active and sober alcoholics from maintaining healthy relationships, researchers said. Study author Ksenija Marinkovic of the University of California at San Diego and colleagues based their conclusions on studies using functional MRI scans.

"Alcoholics also have problems in judging the emotional expressions on people's faces. This can result in miscommunication during emotionally charged situations..." said Marinkovic.

Join Together, August 17, 2009.