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# Technical Assistance Bulletin

## BRAIN INJURY AND SEXUAL ASSAULT: BASIC CONCEPTS (PART 1)

Prior brain injury should be considered when an advocate observes cognitive, behavioral, emotional and/or physical changes in a victim-survivor over the course of a conversation, phone call or forensic exam. These irregularities may be a sign of need for professional care, for accommodations by the advocate and for special attention to safety planning, testimony, legal representation and court appearances. This technical Assistance Bulletin will outline some background on traumatic brain injury (TBI), some possible signs of an injury, and some resources for learning more.



### WHAT IS A BRAIN INJURY?

The term brain injury or acquired brain injury means significant irregularities in processing information, behavior, emotions, or physical functioning following an event such as an injury, illness or poisoning. Genetic conditions, prenatal injuries, birth injuries and chronic degenerative diseases are excluded from this definition.

Some acquired brain injuries are given special names depending on the cause:

- An anoxic brain injury is due to a lack of oxygen that may be a result of strangulation, choking, respiratory problems, and other situations that would limit the flow of oxygen to the brain;

A traumatic brain injury or TBI is due to contact with an outside force such as an explosion, a fall, a gunshot wound to the head, shaking, whiplash or impact with an object. TBI is a leading cause of disability from birth through young adulthood<sup>1</sup>. There are 1.7 million TBI's per year, with assault causing 10 percent or 170,000 of these injuries<sup>2</sup>. There are 52,000 deaths, 275,000 hospitalizations, and 1,365,000 emergency department visits associated with TBI annually. Each year, 124,626 individuals are permanently disabled by TBI and join the 3.5 - 5.3 million<sup>3</sup> (hospital records) or 21 million Americans<sup>4</sup> (household survey) already living with this disability.

- Many people experience a non-force acquired brain injury each year from causes such as: allergic reactions (anaphylactic shock); anesthesia; aneurysm; alcoholism; bleeding (hemorrhage); AVM (avascular formation); brain surgery; brain tumor; carbon monoxide poisoning; cardiac arrest; cardiac bypass surgery;

choking; dehydration; diabetic coma; drugs (illegal or prescription); heat stroke (hyperthermia); high fever; lack of oxygen (anoxia); meningitis; near drowning; near electrocution; near freezing (hypothermia); near suffocation; poisoning; radiation; seizures; sepsis (blood poisoning); starvation; stroke; or any other event that poisons the brain or interferes with the delivery of blood, oxygen, or glucose to the brain.

Regardless of the cause, the same potential for problems due to cognitive, behavioral, emotional and physical irregularities exists.

Some terms related to brain injury include:

- Open/closed head injury—whether or not the skull was cracked or broken
- Severe/moderate/mild brain injury—the level of immediate medical care required
- Focal/diffuse—injury to a specific location (generally less disabling) and/or diffuse axonal injury which involves disruption to neural networks throughout the brain
- Neuropsychiatrist (Medical Doctor)—specializes in brain injury for medication management
- Neuropsychologist—specializes in brain injury to assess cognition, plan cognitive rehabilitation and provide counseling to individual and family
- Physiatrist (Medical Doctor)—to assess and plan rehabilitation for physical irregularities

The “HELPS” brain injury screening tool is an easy, one-page tool that checks for events that may cause a brain injury and for the irregularities revealed by problems that commonly follow a brain injury<sup>5</sup>. It can be found free of charge at: [www.hnfs.com/va/static/rmh/4\\_helps\\_tbi.pdf](http://www.hnfs.com/va/static/rmh/4_helps_tbi.pdf).

### WHAT IRREGULARITIES COMMONLY FOLLOW A BRAIN INJURY?

An individual with a brain injury typically will struggle with issues related to irregularities in cognitive, behavioral, emotional and physical functioning. Some problems will improve suddenly while others will require rehabilitation. When confusion persists for several months after an injury, significant recovery may take 5 to 10 years. The problems that do not appear to change will require acceptance, accommodation, compensatory strategies and possibly assistive technology (computer readers, reminder watches) and/or durable medical equipment (ventilators, wheelchairs). Fortunately, we now understand that the brain can work, to a certain degree, toward healing itself<sup>7</sup>. Helping brain injury survivors follow their own interests fits a model for recovery that encourages empowerment.

Survivors of TBI may struggle with academic or learning-related activities such as reading, writing or calculating due to a number of outcomes from the injury itself;

- Difficulty anticipating outcomes; attaching meaning to what is heard;
- Difficulty stringing together thoughts that are not related in an attempt to communicate
- Difficulty making decisions quickly or at all;
- Difficulty concentrating or staying focused on one thing at a time;
- Being unable to locate the word needed—may substitute another word
- Being unable to recognize faces of familiar people
- Difficulty recalling the meaning of the word that is heard or read—may pretend to understand and many more...

Many of these problems can interfere with the perception of danger and may lower

the IQ. The person will be considered intellectually disabled if the IQ drops below 70 prior to age 18 (or age 22 - depending on the program's criteria). "People who have a cognitive impairment such as intellectual disability, acquired brain injury or dementia are more vulnerable to sexual assault and abuse because they depend on other people for assistance with daily life. Statistics indicate that 50-90 percent of people with an intellectual disability will be sexually assaulted in their lifetime; however there are few prosecutions of these offences"<sup>8</sup>. For those who are considered intellectually disabled due to brain injury<sup>9</sup>, the key to working with them will be in understanding each person's individual struggles and strategies to keep them engaged in healing.

Other areas of struggle and examples of difficult activities for survivors of TBI include:

- Behavioral irregularities may result in: arrests; blaming others; egocentric thinking; fights; inability to begin speaking or moving; inability to change topics; inappropriate social behavior; lack of inhibition; lack of emotional reaction (apathy); sexual acting out; lack of awareness of (the impact of?) personal behavior (anosognosia); lack of awareness of responsibilities; etc. Because these behavioral challenges may be dangerous or potentially harmful to an individual, conversations about self care and consistency should focus on strengths.
- Emotional irregularities: anxiety; catastrophic stress reaction (an extreme emotional reaction provoked by cognitive overload); depression; easy agitation; excessive anger; irrational reactions; rapid mood swings; unexplained laughter or tears; violence; etc. Since emotions after brain injury are largely spontaneous, they are rarely logically related to the current situation, and not under personal control, advocacy and counseling sessions may be more challenging or slower-paced.
- Physical irregularities which may result in: loss of balance; dizziness; exhaustion after slight mental or physical exertion; fatigue; hearing problems; hunger (never or all the time); sense of smell and/or taste; small motor control; sphincter control; muscle weakness; nausea; one-sided weakness; paralysis; unequal pupils; sensitivity to light, motion and/or noise; severe and unremitting headache; sleepy during day; slow reaction times; slow speech; spasticity; speech delays; speech impairment; swallowing difficulties; insomnia; unable to wake; unsteady gait; days and nights reversed; vision problems with 20/20 vision (such as right side neglect); etc. Many of these problems will make individual assistance necessary for activities of daily living.

As with all survivors of sexual violence, counseling and advocacy should remain strengths-based and empowerment-focused. Survivors who may also have TBI may need some additional support and planning as she or he moves through the healing process. For more tips on working with survivors with TBI, read BRAIN INJURY AND SEXUAL ASSAULT: SPECIAL CONSIDERATIONS & RECOMMENDATIONS FOR ADVOCATES (PART 2).

*PCAR would like to acknowledge Barbara A. Dively, Executive Director, Acquired Brain Injury Network of Pennsylvania (ABIN-PA) for creating this Technical Assistance Bulletin. For more information on ABIN-PA's work, head to their website: <http://www.abin-pa.org/>.*

### Resources

Acquired Brain Injury Network of Pennsylvania - [www.abin-pa.org](http://www.abin-pa.org).

Brain Injury Association of America - [www.biausa.org](http://www.biausa.org).

Centers for Disease Control and Prevention - [www.cdc.gov](http://www.cdc.gov) - search on "brain injury".  
 "Domestic Violence and Traumatic Brain Injury". November 2008. Host: Gerry Brooks, MA, CCC, CBIST. Guest: Sarah M. DeWard, MS, New York State Coalition Against Domestic Violence. Time: 26:56. [www.northeastcenter.com/podcast-traumatic-brain-injury-025.htm](http://www.northeastcenter.com/podcast-traumatic-brain-injury-025.htm)

Gordon, Wayne, Ph.D., Mount Sinai Medical Center - [www.brainline.org](http://www.brainline.org) for video interviews.

HELPS Brain Injury Screening Tool - [www.hnfs.com/va/static/rmh/4\\_helps\\_tbi.pdf](http://www.hnfs.com/va/static/rmh/4_helps_tbi.pdf).

"The Brain That Changes Itself" Norman Doidge, M.D. 2007. Penguin Books (amazon.com).

"Sexual Assault", 2007 Hot Topics 56. [http://www.legalanswers.sl.nsw.gov.au/hot\\_topics/pdf/sexual\\_assault\\_56.pdf](http://www.legalanswers.sl.nsw.gov.au/hot_topics/pdf/sexual_assault_56.pdf)

"Victimization of Persons with Traumatic Brain Injury or Other Disabilities", [www.cdc.gov/traumaticbraininjury/pdf/VictimizationTBI\\_Fact%20Sheet4Pros-a.pdf](http://www.cdc.gov/traumaticbraininjury/pdf/VictimizationTBI_Fact%20Sheet4Pros-a.pdf)

### Endnotes

<sup>1</sup>Centers for Disease Control and Prevention - [www.cdc.gov/traumaticbraininjury/tbi\\_report\\_to\\_congress.html](http://www.cdc.gov/traumaticbraininjury/tbi_report_to_congress.html)

<sup>2</sup>[www.cdc.gov/Features/dsTBI\\_BrainInjury/](http://www.cdc.gov/Features/dsTBI_BrainInjury/)

<sup>3</sup>[www.cdc.gov/mmwr/preview/mmwrhtml/ss6005a1.htm?s\\_cid=ss6005a1\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/ss6005a1.htm?s_cid=ss6005a1_w)

<sup>4</sup>Wayne Gordon, Ph.D. -<http://www.brainline.org/content/multimedia.php?id=4635>

<sup>5</sup>HELPS Brain Injury Screening Tool - [www.hnfs.com/va/static/rmh/4\\_helps\\_tbi.pdf](http://www.hnfs.com/va/static/rmh/4_helps_tbi.pdf).

<sup>6</sup>"Domestic Violence and Traumatic Brain Injury", [www.northeastcenter.com/podcast-traumatic-brain-injury-025.htm](http://www.northeastcenter.com/podcast-traumatic-brain-injury-025.htm). November 2008. Host: Gerry Brooks, MA, CCC, CBIST. Guest: Sarah M. DeWard, MS, New York State Coalition Against Domestic Violence. Time: 26:56.

<sup>7</sup>"The Brain That Changes Itself" Norman Doidge, M.D. 2007. Penguin Books

<sup>8</sup>Criminal Justice Sexual Offences Taskforce Report – Responding to sexual assault: the way forward at p 130, Criminal Law Review Division, NSW Attorney General's Department, December 2005. [www.lawlink.nsw.gov.au/lawlink/clrd/ll\\_clrd.nsf/pages/CLRD\\_reports](http://www.lawlink.nsw.gov.au/lawlink/clrd/ll_clrd.nsf/pages/CLRD_reports). As included on page 3 of "Sexual Assault", 2007 Hot Topics 56, [http://www.legalanswers.sl.nsw.gov.au/hot\\_topics/pdf/sexual\\_assault\\_56.pdf](http://www.legalanswers.sl.nsw.gov.au/hot_topics/pdf/sexual_assault_56.pdf).

<sup>9</sup><http://www.cdc.gov/ncbddd/dd/mr3.htm>