Comprehensive Program Planning for Students with Traumatic Brain Injury

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Overview of Presentation

• Prevalence of TBI
• TBI Definition
• Comprehensive Program Planning
• Overview of TBI Effects
• TBI Assessment
• Intervention Planning
• Implementation

TBI: The Silent Epidemic

• 30,000 children sustain a TBI each year and have persisting disabilities as a result (National Trauma Registry)
• 415,000 children and youth over a 15 year school career (ages 3-5 yrs and 6-18 yrs)
• Only 23,805 students were identified under IDEA nationwide in 2007
• 391,995 missed or misidentified

Why is TBI a Silent Epidemic?

• Most individuals don’t know about brain injury, let alone its consequences or impact on behavior
• Minor blows to the head or “concussions” are often not perceived as “brain injuries,” yet 15% of these individuals will have chronic problems post injury
• Most people assume one needs to lose consciousness to have a brain injury

Severity of TBI

Mild
• 85% of all TBIs
• Seen in ER or MD office
• “Identified as a concussion”
• Not followed by medical community in many cases

Causes:
Domestic violence, child abuse, sport injuries

Moderate to Severe
• 15% of all TBIs
• Typically hospitalized
• “Identified as TBI”
• Known and followed by medical community

Causes:
Car accidents
Loss of consciousness, coma, skull fracture

Traumatic Brain Injury Defined

• Acquired injury to the brain caused by an external force or by other medical conditions, including but not limited to stroke, anoxia, infectious disease, aneurysm, brain tumors, and neurologic insults resulting from medical or surgical treatments.
• Results in total or partial functional disability or psychosocial impairments or both.
• Does not apply to brain injuries that are congenital or degenerative, or induced by birth trauma.

Ohio’s 2008 Ohio Operating Standards, p. 18

Donna Owens and Amy Bixler Coffin
How a Normal Brain Functions

How the Brain Might Look After TBI

Steps for Developing A Comprehensive Plan

Executive Functioning

- Planning
- Organization
- Timing/pacing
- Self-regulation
- Attention/concentration
- Getting things done
- Information processing speed
- Memory—short term, working, long term
- Shifting focus or attention, topics
### Social/Emotional Functioning

- Difficulty attending to social cues
- Misinterpreting social skills
- Emotional Lability
- Personality changes
- Irritability
- Depressed
- Anxiety
- Low motivation
- Disinhibition

### Cognitive Functioning

- Language processing
- Thinking abstractly
- Problem solving
- Academic deficits
- Difficulty with new learning
- Inconsistent/irregular performance
Physical Difficulties

• Headaches
• Dizziness
• Chronic pain
• Seizures
• Decreased coordination
• Vision problems
• Sensory limitations

Major Educational Approaches for Students with TBI

• Teaching new skills and concepts;
• Teaching student to use compensatory strategies;
• Making environmental changes to help the student compensate for losses in physical and cognitive abilities; and
• Adapting instructional approaches.

Planning for the Educational Environment

• Environmental factors (e.g., distances between classes, architectural barriers, distractions in the classroom)
• Scheduling (fatigue and attention factors may require frequent breaks, shortened periods or day, re-sequencing of academic subjects)
• Adaptations of material and assistive technology (e.g., communication devices, computers, calculators, tape recorders)

Planning for the Educational Environment, cont.

• Staffing needs
• Transportation
• Support to assist with organizational skills
• Curriculum expectations and performance requirements (written, spoken, assignments, etc.)

Supported Interventions

• Modified schedule
• Peer to assist in note taking, locating classes, etc.
• Rest breaks
• Teacher to provide notes or outlines of unit information
• Tape recorder to assist in remembering lessons and assignments
• Classroom aide for behavior or academic assistance.

* Initially, it is beneficial to provide more intensive support in order to minimize stress, frustration, and failure.
**Characteristics**

- Executive Functioning
- Social/Emotional Functioning
- Cognitive Functioning
- Physical/Motor Deficits
- Sensory Differences

**Interventions**

- Skills to Teach
- Task Demands
- Structure and Visual/Tactile Supports
- Reinforcement
- Sensory Differences and Biological Needs

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**Intervention Design Planning Sheet**

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<tr>
<th>Characteristics</th>
<th>Skills to Teach</th>
<th>Interventions/Modifications/Accommodations</th>
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**Implementation Plan**

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<th>Characteristics</th>
<th>Data</th>
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**Tips for Teachers**

- Teachers will work to improve the child's deficits and teach the child how to compensate for skills he or she may never regain.
- Students with newly acquired TBI may make change rapidly. Therefore, the child's IEP goals and objectives must be developed initially for achievement over short periods of time, 4-6 weeks, rather than six months to a year as is traditionally done.
- Ensure regular communication occurs between the child's parents, medical personnel including the neurologist and rehabilitation personnel, any outside therapists the child is seeing, social workers, and school staff.
Tips for Teachers, continued

- The student may need more frequent informal assessments than other children with disabilities.
- Because the student may not have memory skills and/or lack the ability to determine cause and effect, any behavior intervention plan must be concrete and short-term.
- Educators must consider a student’s physical protection. Whether because of loss of balance, impaired judgment, or an increase in impulsive behavior, these children are prone to additional head injuries.

TBI Resources

- Brain Injury Association of America, Inc.  [www.biausa.org](http://www.biausa.org)
- Traumatic Brain Injury Internet Resource  [www.trauumaticbraininjury.com](http://www.trauumaticbraininjury.com)
- National Resource Center for Traumatic Brain Injury  [www.neuro.pmr.vcu.edu](http://www.neuro.pmr.vcu.edu)
- North American Brain Injury Society  [www.nabis.org](http://www.nabis.org)
- Brainline  [brainline.org](http://brainline.org)
- TBI Educator  [www.tbied.org](http://www.tbied.org)
- Brain Injury Association of Ohio  [www.biaoh.org](http://www.biaoh.org)
- Nationwide Children's Hospital  [www.nationwidechildrens.org/research](http://www.nationwidechildrens.org/research)
- Ohio Valley Center for Brain Injury Prevention & Rehabilitation (OSU)  [www.ohiovalley.org](http://www.ohiovalley.org)
- Brainline  [brainline.org](http://brainline.org)
- TBI Educator  [www.tbied.org](http://www.tbied.org)

THANKS FOR LEARNING WITH

Please visit our website for resources on ASD, AT and low incidence disabilities:  [http://www.ocali.org](http://www.ocali.org)