BRAIN INJURY ASSOCIATION OF MICHIGAN

Certification Exam Preparation Course
Chapter 6: Children and Adolescents with Brain Injuries

WEBINAR

Trainer:
Carol Green, OTRL, CBIST, CAPS
Michael O'Connor, OTRL, CBIST

Introduction

Children have 3 of the top 4 incidence rates for TBI:

- Ages 0-4: 1121 per 100,000 incidences
- Ages 15-19: 914 per 100,000 incidences
- Ages 5-9: 659 per 100,000 incidences

Module Objectives

- Recognize developmental issues for children and adolescents after brain injury.
- Understand the public special education laws for children and adolescents with brain injuries.
- Understand the practice of individualized educational planning for children and adolescents.

Introduction

- Children are just as vulnerable to trauma as adults (children don't just "bounce back" after brain injury)
- Children may initially look well after trauma
- Effects of trauma may not be immediately apparent, as the child's brain is still developing
- As child gets older, that part of the brain previously damaged may not work as well as it should

Age Effects

Peak Maturation Mileposts

- Ages 1-6
  - Period of overall rapid brain growth in all regions of the brain
  - Perfecting ability to form images, use words, and place things in serial order
  - Begin developing tactics for problem solving

- Ages 7-10
  - Sensory and motor systems continue to mature in tandem
  - Frontal executive system begins accelerated development
  - Maturation of sensory motor regions of the brain peak
  - Begin to perform simple operational functions (e.g. determining weight and mathematical reasoning)

Age Effects

- Ages 11-13
  - Elaboration of visuospatial functions
  - Maturation of visuoauditory regions
  - Able to perform formal operations (e.g., calculations) and perceive new meaning in familiar objects

- Ages 14-17
  - Successive maturation of visuoauditory, visuospatial & somatic systems (maturational peak reached within one-year intervals of each other)
  - Enter the stage of dialectic ability
  - Able to review formal operations, recognize flaws, and create new ones

Age Effects

- Ages 18-21
  - Rapid maturation of frontal executive region of the brain
  - Frontal executive functions mature
  - Begin to question information they are given, reconsider it, and form new hypotheses incorporating their own ideas

Brain Growth

- The greatest percentage of brain maturation occurs from ***birth through age 5***.
- ***Before age 5*** may be the most devastating time for a child to sustain an injury.
- May be why infants and toddlers who have severe brain trauma from being "shaken and impacted" have such poor outcomes.
- Children with ***frontal lobe*** injuries early in life tend to develop long-term psychosocial and behavioral problems.

Collaborating with Medical and Rehabilitation Systems

- Medical services are the ***"beginning"*** of the continuum of services necessary to support long-term needs of children with BI.
- Important for local hospitals and schools to develop policies and procedures that promote effective communication and discharge planning.
- ***Referral systems*** that facilitate communication between hospitals, schools, and families increase chances of child receiving appropriate services.
- Children who are properly referred will be better managed, both medically and educationally.

School Reintegration

- Students need to be carefully transitioned into schools with support plans already in place.
- Students may need to be reintegrated into school on a ***part-time basis*** or they may need homebound instruction for a period.
- ***Families*** are a natural link between hospital, home, and school.
- Families need the full support of professionals to plan for their child's successful reintegration to school.

Persisting Effects of Brain Injury

- Cognitive Effects
  - Memory
  - Attention and concentration
  - Higher level problem solving
  - Language skills
- Sensorimotor effects
- Behavioral effects

Qualifying for Special School Services

- ***Individuals with Disabilities Education Act*** (IDEA)
- ***Section 504*** of the Rehabilitation Act of 1973

Individuals with Disabilities Education Act (IDEA)

- Applies to those with an open or closed head injury (not ***congenital***, degenerative, or induced by birth trauma) that results in one or more of the following impairments that adversely affects the child's ***educational performance***:
  - Cognition
  - Language
  - Memory
  - Attention
  - Problem solving
  - Psychosocial functioning
  - Physical functions
  - Information processing
  - Speech
  - Sensory, perceptual and motor abilities

Section 504 of the Rehabilitation Act of 1973

- Requires schools receiving federal funding to provide ***reasonable accommodations*** to allow an individual with a disability to participate.
- Students qualify for a 504 Plan if they have a "presumed disability".
- The term disability means that an individual has a physical or mental impairment that ***substantially limits*** one or more major activities; has a record of the impairment; or is regarded as having an impairment.

Section 504 of the Rehabilitation Act of 1973

- Examples of academic accommodations that may be written into a 504 Plan include, extended time on tests/assignments, note-takers for lectures, and preferential seating.
- In elementary/secondary schools, a 504 plan is generally reserved for students who do not require direct special education instruction or services and can participate in the general education setting if ***accommodations*** are provided.

Preparing for School Re-Entry

- As soon as a student ***is admitted to a health care facility***, the school reintegration and transition process should begin.
- Hospital and/or rehabilitation staff need to immediately inform the school that they are presently caring for one of their students.
- Family and/or attending physician should formally request that the school begin the evaluation process.
- With the referral for evaluation, school-based special educators or psychologists can then visit the student in the health care facility and begin the process to determine if the child will require special education services.

Sharing Information with the School

Let the school staff know:

- When the child was injured
- How the child was injured
- When the child will return to school
- How the BI has affected the child
- How the child best learns
- What medications the child is taking
- What special equipment may be needed in the school
- What environmental accommodations the child will need
- How long the child was in the hospital or rehab center

Hospital/Rehabilitation Staff Responsibilities

- Identify someone responsible for coordinating planning with the school
- Determine with the school if child needs to be referred for a special ed evaluation
- Meet with the child's teacher, school nurse, and special education director
- Visit the child's school and complete an environmental assessment
- Keep in contact with the school staff by phone for updates
- Conduct a brain injury inservice training for school staff
- Be available for follow-up planning and consultation

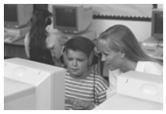
The Individual Education Plan (IEP)

- A contract between the ***student's family*** and the ***school system*** designating the kinds and extent of services that the student needs
- A joint venture among the health care facility, the school, and the family
- A tool that describes what help the student will be given
- Identifies the skills, strategies, and behaviors that the student needs to learn and function at school
- Should be reviewed more frequently than the required 12 month period (e.g., every 2-4 months) with changes made as needed.

Examples of Teaching Strategies

- Attention/Concentration
  - Reduce ***distractions*** in student's work area
  - Divide work into small sections – have student complete one section at a time.
- Memory
  - Frequently repeat and summarize information
  - Teach student to use devices such as sticky notes, calendars, and assignment books as ***self-reminders*** to compensate for memory problems

Examples of Teaching Strategies



- Organization
  - Provide student with additional time for review
  - Provide written ***checklists*** of steps for complex tasks
- Direction Following
  - Ask student to repeat instructions back to teacher or a peer
  - Underline or highlight significant parts of directions on written assignments

Within School Transitions

Multiple transitions over the years – grade to grade, elementary to middle to high school, to graduation can be difficult at times for any student – particularly troublesome for students with BI.

- Recognize the need for ***transition planning***
- Begin transition planning early
- Assess the new environment and determine needs
- Prepare the receiving teachers (e.g., BI in-service)
- Provide teachers with specific information about the student
- Involve ancillary personnel (medical, psychological, rehab)
- Continually ***monitor progress***

Transition to Post-Secondary Education

- If special education services were needed in high school, student is ***likely*** to need special assistance or accommodations at the post secondary level.
- PL 101-476 (IDEA) which provided funding for special education, ***does not apply*** to college. Individuals with BI can receive services under Section 504 of the Rehabilitation Act in post-secondary settings.
- Types of accommodations are determined by individual ***institutions***.

Transition to Post-Secondary Education

- Evaluating an institution's capacity to provide such services is critical.
- High school is responsible for helping the student choose an appropriate post-secondary setting if the student was injured prior to graduation
- For students first entering or returning to college after a BI, the hospital or rehab staff should provide assistance.

Transition to Work and Community

- Independent living centers, community-based advocacy agencies, and other support systems need to be involved in student's education program before graduation.
- Transition planning team must be aware of and informed about the range of available vocational services.
- Planning should include ***vocational assessment*** and ***counseling*** to help identify suitable occupations.
- Linkages with adult service providers (e.g., social security programs, independent living centers, residential service providers) must be established during ***the high school years***.
- Some program have waiting lists – begin planning well in advance of the need for services.

BRAIN INJURY ASSOCIATION OF MICHIGAN

Certification Exam Preparation Course
Chapter 7: Brain Injury: A Family Perspective

WEBINAR

Trainer:
Carol Green, OTRL, CBIST, CAPS
Michael O'Connor, OTRL, CBIST

Module Objectives

- Describe the impact of brain injury on the family.
- Understand the severity of trauma that families experience.
- Educate the family about current and future brain-related challenges.
- Identify different methods for interacting with families.

Introduction

- BI impacts families, friends, and community.
- To maximize recovery during rehabilitation, staff must recognize the magnitude of challenges for the individual with BI, the family, and other support systems.
- Education about BI must be fused with the needs of those caring for the individual with BI.
- This combination of ***education and support*** is a delicate balance.

A Family's Point of View

- Pre-injury cohesiveness
- Attitudes about illness and responsibilities
- Economic supports
- Social supports

A Family's Point of View

- Isolation
- Loss of emotional support
- Restricted independence
- Financial strain
- Bewilderment
- Frustration
- Guilt
- Trepidation
- Depression
- Fear
- Confusion
- Anger
- Desolation

A Family's Point of View

- BI creates complex and long-term demands on the family system and community.
- A common denominator for all families is the awareness that they have been ***forcibly changed forever***, with no idea what the future holds.
- Staff must be aware of the multiple needs of families and understand:
  - The devastation associated with the physical injury
  - The emotional instability of the family
  - The financial burdens associated with care

Working with the System

- The BI of a family member challenges the core values and resources of the family system.
  - The family's understanding of brain injury depends on the kind of information provided and the ability of family members to understand and comprehend complexities of the BI.
  - The ability of staff to provide information in clear and understandable terms, to answer questions directly, and to provide diagrams to illustrate complex anatomy and procedures directly affects the family's comprehension.
  - The ***interpersonal communication skills*** of staff during the delivery of difficult news also affect the family's understanding, as families need compassion and support as they try to absorb clinical information.

Working with the System

- The ***timing*** of imparting information is crucial
  - Healthcare and rehabilitation professionals must listen to the needs of the family to determine how much information they can process at this time and to what extent.
  - ***Early and appropriate*** communication of information by professionals will greatly diminish family's anxiety and allow them to start working toward the inevitable changes that occur
  - Offering a small packet or booklet about the basics of brain injury often reduces confusion and allows the family to read the information at their own speed and in their own time.
  - Advantageous to provide information from the Brain Injury Association of America (website, address, phone number, and family help line information)

Family's Reactions to Change

- Standard patterns of family functioning that can place families at high risk for becoming ***dysfunctional***:
  - Pre-morbid history of family problems such as marital stress, abuse, or alcoholism
  - Persistent and severe cognitive or physical impairments of the person with the brain injury.
  - Extended period of denial
  - Lack of basic supports
- These difficulties must be identified by staff in the beginning of the rehab process and their influences on the family unit distinctly clarified.

Family's Reactions to Change

- Identification of family strengths
  - Ability of the family to listen
  - Shared and common perceptions of reality within the family
  - Spirituality of the family
  - Ability of the family to realize the redemptive power of a seemingly tragic event

  - Ability of family members to accept and assist in any disability-related problems
  - Ability of the family to compromise within the family unit

Family's Reactions to Change

- Identification of family strengths (continued)
  - Family members' willingness to take good care of themselves
  - Ability to focus on the present, rather than on past events or disappointments
  - Ability of family members to provide reinforcements for each other
  - Ability of family members to discuss concerns
  - Ability of family members to provide an atmosphere of belonging
  - Use of the family's effective trans-generational coping strategies

Blaming and Grieving

- Grief is a normal and healthy reaction to loss.
- This emotion is not a simple feeling, as it is combined with the past, present, and future dreams for this loved one.
- To help families, staff should:
  - Pay attention to lost dreams while offering comfort, education, and support
  - Facilitate ***coping strategies*** for dealing with their losses
  - Allow families to ***express their feelings*** of grief, anger, disappointment
  - Remember that these emotions are the natural process grieving
  - Not personalize family's anger
  - Encourage family or individual counseling during the rehabilitation process

Care-taking

- The parents or spouse of the person with the BI are often pushed into or take on the role of the primary caretaker, even if the survivor is an adult.

- Retired family members often take on the full time job as the primary caregiver.
- Working family members may have to leave their current career, which often strains the finances, as well as the emotional stability, of the family.

Care-taking

- Families need to make preparations for the lifelong care and well-being of the survivor.
- Problems may arise ***when family members disagree*** over the care of the individual.
- Family members may experience feelings of neglect, as they become overwhelmed by the demands of caretaking.

Children and Siblings

- Staff should remember that children often:
  - Physiologically lack the conceptual maturity to comprehend what has happened
  - Lack the abilities to process large amounts of information
  - Lack the abilities to tolerate the abrupt changes in the family and situation
  - May not understand the severity of the problem
  - Do not understand how permanent a disability can be

Children and Siblings

- Following the BI of a parent or sibling, children may:
  - React to what has occurred with responses ranging from ***hysteria*** to ***shock***
  - Show signs of extremes in areas of behaviors (e.g., under-responding or over-responding)
  - Feel the void of not having the loved one available and the attention that they provided
  - Feel some ***guilt***, even if they were not involved or present when the injury occurred

Children and Siblings

- Staff can help children by:
  - Understanding what they may be feeling from the crisis
  - Ensuring the child ***that they had nothing to do*** with the injury
  - Educating the primary adult family members about how to talk with young children about the injury, the process of rehabilitation, and answering basic questions
  - Alerting other adults (e.g., teachers, neighbors, extended family members, etc) to identify the early signs of stress and notify and work with the treating professionals

Sexual Concerns

- Sexual issues for adults with BI, as well as their partners, are often altered
- Damage to specific areas of the brain can effect sexual behaviors
- ***Depression*** and ***role changes*** can affect sexual functioning
  - Spouses may have a difficult time changing their role from caregiver to sexual partner

Sexual Concerns

- Many persons with BI are very vulnerable as their cognitive abilities are often immature, which leaves them at risk for harm by persons who could ***take advantage*** of the situation
- Understanding the causes of any behavioral changes, while learning about ways to ***communicate concerns***, can maximize sexual adjustment after trauma.

PTSD and Families

- Trauma is defined as "an emotional shock that creates ***substantial*** and ***lasting*** damage to the psychological development of an individual" and the main components are feelings of victimization, loss, and individual or family pathology.
- Symptoms of Posttraumatic Distress
  - Vigilance and scanning
  - Elevated startle responses
  - Blunted affect or psychic numbing
  - Aggressive, controlling behavior
  - Interruption of memory and concentration

PTSD and Families

- Symptoms of Posttraumatic Distress (continued)
  - Depression
  - Generalized anxiety
  - Episodes of rage
  - Substance abuse
  - Intrusive recall
  - Disassociative "flashback" experiences
  - Insomnia
  - Suicidal ideation
  - Survivor guilt

If a family member starts exhibiting many of these symptoms, ***a counselor*** must be contacted.