Executive Functioning and Acquired Brain Injuries in the Pediatric Population

Abstract:
Acquired Brain Injury (ABI) has become the leading cause of death and disability in children under the age of 15. Results indicate that pediatric populations with ABI experience deficits in inhibition, emotional control, and social skills. Many of these children are deemed eligible to receive special education services under IDEA. Under this Act, speech-language pathologists serve as a member of the child's multidisciplinary team. The purpose of this presentation is to inform speech-language pathologists of the importance of their role in the recovery process of children who have an acquired brain injury.

Learning Outcomes:
•List the components of executive functioning that are likely to be affected by an acquired brain injury in school-aged children.
•Describe strategies to aid in the development of executive functioning in school-aged children with acquired brain injuries.
•List a variety of acquired brain injuries that are likely to occur in the pediatric population.
•Identify members of the multidisciplinary team that SLP's are likely to collaborate with when caring for pediatric clients with ABI and summarize each role

Acquired Brain Injury:
-Refers to damage to the brain occurring after birth

Causes:
•Diseases- meningitis
•Trauma-motor vehicle accident, falling, shaken baby etc.

ABI's are acquired in many ways and often impact cognitive ability such as executive functioning.

Executive Functioning:
-A set of higher order regulatory capacities including attentional control, inhibition, working memory, goal setting, planning, problem solving, mental flexibility, and abstract reasoning that enable goal-directed behavior

Components:
•Planning
•Organization
•Working Memory
•Task Initiation
•Flexibility
•Self-Monitoring
•Impulse Control
•Emotional Control

Higher order Functioning is necessary for academic success.

Who to Collaborate with:
SLP's part of multidisciplinary team:
•Teachers

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- Parents
- Psychiatrists
- Doctors, etc.

Must work with team members to teach strategies to help the child overcome EF deficits.

Strategies for Intervention:
- Personalized maps
- Mnemonics
- Disinhibition
- Expressive writing
- Social integration
- External aids (notebooks, colored folders, etc.)

Component-Specific Strategies for Intervention:
- **Mental Flexibility**
  - •Require students to shift between activities
- **Initiation and planning**
  - •Create to-do lists
  - •Establish a buddy system
- **Organization**
  - •Rehearse out loud
  - •Develop outlines
- **Emotional Issues**
  - •Help client accept limitations
  - •Teach strategies for emotional situations
- **Regulation**
  - •Self-regulatory scripts

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