

Module VII: Supporting Students with Mild Brain Injury

MIKE

Mike is an 11th grader who sustained a concussion in a school football game on a Friday night in October. He lost consciousness for about five minutes following a tackle during the game. When he regained consciousness, he experienced nausea, vomiting, and a headache. Mike was conscious when he arrived at the hospital; he was not assessed on a coma scale. He was aware of his surroundings, recognized his family, and asked about the outcome of the game. However, he was unable to recall the beginning of the game or events leading up to his injury. He was discharged to his home after several hours of observation. No neuro-imaging studies were completed at the hospital; the doctor cautioned Mike's parents to keep an eye on him.

Mike's parents kept him at home on Saturday and Sunday. He had difficulty remembering what his mother told him Saturday; he seemed better on Sunday, except for his continuing headache. Usually a good student, Mike did not complete his homework over the weekend because of his headache, his difficulty focusing on the materials, and his fatigue. He watched television and dozed most of the time; his mother thought he was unusually cranky.

On Monday Mike returned to school. His math teacher remarked that Mike's homework was not completed, but gave him additional time in class to work on it. The teacher noticed, however, that Mike seemed to have difficulty getting started on the assignment; he sharpened his pencil several times and stared at the page. Mike told the teacher he still had a headache and was frustrated because he just couldn't concentrate on the assignment.

Mike's math teacher raised his concerns about Mike at Tuesday's Building Team meeting. One member of the team said Mike just "had his bell rung" and would be okay in a few days. Another team member raised the question of whether Mike experienced a traumatic brain injury and needed an IEP Team evaluation. No one on the Building Team had seen a student with this type of injury and no one was certain how to proceed. They decided to wait to see what happened.

Four weeks after Mike's injury, several of his teachers talked in the teachers' lounge about Mike's lack of interest in school and his missing homework assignments. One teacher said Mike was having second thoughts about taking the SAT exam. Another teacher noted that Mike lost his temper during a group activity. The teachers agreed that Mike wasn't his old self.

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Traumatic Brain Injury: A Training Program for School Personnel in Indiana
POST-TEST

- 1. How many students are expected to sustain brain injuries before high school graduation in the US?**
 - a. 1 in 25
 - b. 1 in 100
 - c. 1 in 200
 - d. 1 in 500

- 2. According to Indiana Article 7's definition of traumatic brain injury, TBI is**
 - a. An acquired injury
 - b. An injury caused by an external physical force
 - c. An open or closed injury
 - d. All of the above

- 3. Which of the following is NOT true of closed head/brain injury?**
 - a. Closed head/brain injury is not serious because the brain is not penetrated
 - b. The brain swelling cannot be accommodated in the enclosed skull cavity
 - c. Diffuse damage is more common than focal damage
 - d. School-aged children sustain many more closed than open head/brain injuries

- 4. The areas of the cerebral cortex that are most susceptible to injury include**
 - a. The brainstem and midbrain
 - b. The occipital lobe and parietal lobe
 - c. The frontal lobe and temporal lobe
 - d. The limbic system and cerebellum

- 5. The term "contrecoup" refers to**
 - a. The area of most serious injury
 - b. The site of injury opposite from the original point of impact
 - c. The location of the original injury
 - d. The location of injury resulting from surgical procedures

- 6. A referral should be made for a special education evaluation if**
 - a. A doctor suggests a referral
 - b. The parent requests a referral
 - c. The teacher suspects the student might have an impairment/need special education
 - d. All of the above

- 7. A student who was unconscious for 36 hours sustained a**
 - a. Mild injury
 - b. Moderate injury
 - c. Severe injury
 - d. Profound injury

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- 8. The longest time a student with a “mild” brain injury might experience effects from the injury would be**
 - a. Up to one month
 - b. Up to three months
 - c. Up to one year
 - d. Lifelong

- 9. The effects of brain injury on a young child can be particularly difficult to predict because**
 - a. The student may be unconscious for a period of time
 - b. The child’s school records may be incomplete
 - c. The child’s limitations may become more apparent over time
 - d. The child may not be able to verbalize difficulties

- 10. Which of the following is true of post-traumatic amnesia in cases of TBI?**
 - a. It is not common
 - b. Its duration is a good indicator of severity of injury
 - c. It refers only to amnesia for events before the accident
 - d. It occurs in moderate and severe injuries, but not mild injuries

- 11. Students with TBI may face academic difficulties because**
 - a. Disruptions of executive functions limit their ability to identify goals and plan and initiate goal-oriented actions
 - b. Speed of processing may be decreased
 - c. Memory for new learning may be impaired
 - d. All of the above

- 12. Which of the following might influence assessment practices with a student with TBI?**
 - a. The student might have preserved higher level skills and disrupted foundation skills
 - b. The student may have a slowed rate of responding
 - c. Both A and B
 - d. Neither A nor B

- 13. Before planning an intervention to address the behavior of a student with TBI, the teacher would want to**
 - a. Understand how the brain injury influences behavior
 - b. Examine the function(s) of the behavior
 - c. Identify a goal/replacement behavior
 - d. All of the above

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- 14. If you had a student who had difficulty getting started on assignments, planning multiple steps in a project, and organizing even simple tasks, you might suspect the student had injured**
- Parietal lobes
 - Cerebellum
 - Midbrain
 - Frontal lobes
- 15. Which of the following is the biggest challenge many students with TBI face?**
- Orthopedic problems
 - Spatial problem solving
 - Seizures
 - Memory for new learning
- 16. “Executive functions” refer to**
- Functions of the brainstem, which regulates respiration, heart rate, and blood pressure
 - Functions such as planning and initiating goal-directed behavior
 - Functions involved in expressive language
 - Functions of the cerebellum
- 17. Students with TBI may exhibit challenging behavior because**
- They are disinhibited
 - They are impulsive
 - They have memory problems
 - All of the above
- 18. A student with mild brain injury should be referred for an IEP team evaluation if**
- The symptoms last longer than three months
 - The symptoms last longer than one year
 - The teacher suspects the student has an impairment/need for special education
 - The student’s grades begin to fall
- 19. An example of a proactive strategy for a challenging behavior is**
- The student is given ear plugs to wear in a noisy gym class
 - The student is given a time-out after misbehaving
 - The student is not allowed to go on a field trip
 - The student works independently after misbehaving
- 20. Parents of a student with TBI may be**
- Unfamiliar with special education laws and procedures
 - Extremely knowledgeable about TBI
 - Strong IEP team members
 - All of the above

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True/False Questions

Please circle true or false for each of the following statements:

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| 1. Seizures are more common in open than closed head/brain injuries. | True | False |
| 2. Students with mild brain injuries may need referral for an IEP evaluation. | True | False |
| 3. Parents are sometimes more knowledgeable about TBI than educators. | True | False |
| 4. Young children are more susceptible to brain damage than older children or adults. | True | False |
| 5. Students with TBI may remember events from years earlier better than than they remember events from today. | True | False |
| 6. Students with TBI may have academic difficulty because of memory, sensory, executive function, speed of processing, and/or psychosocial difficulties. | True | False |
| 7. Sometimes the interventions we would use with typically developing students do not work with students with TBI. | True | False |
| 8. The effects of TBI may manifest differently at different ages. | True | False |
| 9. Friends of a student with TBI may find it difficult to understand the changes in their friend following the injury. | True | False |
| 10. Over time, the functioning of students with TBI generally improves. | True | False |