

RESEARCH MATTERS

THE IMPACT OF BRAIN INJURIES SUSTAINED BEFORE AGE 9 ON EDUCATIONAL OUTCOMES

PURPOSE

The purpose of this study was to examine the relationship between head injuries and traumatic brain injuries (TBI) sustained before age 9 and their impact on school outcomes and behavioral challenges. The authors also analyzed the findings by sex to explore potential differences between males and females.

KEY FINDINGS

Authors used data from a previously published study (Adolescent Brain Cognitive Development (ABCD) Study) which included almost 12,000 students between the ages of 9 and 10. School outcomes and behavioral challenges were measured using various assessments designed to capture relevant data including grades, detention, suspensions, use of special services in school, internalizing and externalizing behaviors, anxiety, depression, problems with sleep, and mental health or substance-use related services.

- Children with a head injury performed worse at school than children without head injury
- Males with head injury or TBI had poorer school outcomes and behavioral challenges than females

IMPLICATIONS FOR EDUCATORS

- Screening for head injury is critical.
 - Did anyone on your educational team ask the student's caregiver about any history of head injury? If not, who on your team would be the most appropriate person to have that conversation?
 - Are there any staff members in your district who have training in TBI? If not, does your state have any educational TBI resources?
- Head injury and TBI were associated with increased odds of a child performing poorly in school.

- After a head injury or TBI, temporary academic adjustments (accommodations) might be helpful in recovery.
 - Are temporary accommodations following a TBI allowed under your state’s educational law or guidance? If not, how can you collaborate with your multidisciplinary team to ensure the student receives appropriate educational support during recovery?
 - Who is responsible for ensuring temporary accommodations are consistently applied across school settings?
 - Is anyone monitoring or evaluating the effectiveness of the accommodations?

REFERENCE

Waltzman, D., Haarbauer-Krupa, J., Daugherty, J., Sarmiento, K., Yurgelun-Todd, D. A., & McGlade, E. C. (2024). Lifetime history of head or traumatic brain injury before age 9 and school outcomes: Results from the adolescent brain cognitive development study. *The Journal of School Health, 94*(12), 1129–1140. <https://doi.org/10.1111/josh.13508>