Improving Educator Response to Traumatic Brain Injuries

Spotlight on Technology, Arts, Research, and Scholarship
University of Dayton  STARS 2011
Susan Davies, Ed.D., NCSP
Brain injuries, especially severe ones, can produce deficits in:

- alertness and orientation
- intellectual functioning
- language skills
- nonverbal skills
- attention and memory
- corticosensory and motor skills
- academic functioning
- executive functions
- adaptive functioning
- behavioral adjustment
TBI is not a low-incidence disability

• More than 130,000 children with TBI have functional limitations that are significant enough to warrant special education services (Glang et al., 2004)

• However, in 2007, only 23,805 students received special education services under the TBI category (IDEA, 2007)
My Current Research on TBI

• Educator Knowledge and Skills
  – Evaluating survey data in collaboration with Western Oregon University
• Efficacy of Specific Interventions
  – Single-case design across participants
• College Services
  – Collecting interview data
• Consultation to Improve School Re-Entry
• Consultation to Improve Concussion Response
  – Program evaluations
Purpose

• Stop current cycle of under-identification and under-service of students with TBI
• Improve evaluation and intervention for students with TBI
• Improve school re-entry for students with TBI (from hospital or rehab)
• Improve educator response to suspected concussions
Educator Knowledge and Skills

• Surveys of teachers, school psychologists, and training programs
  – What do practicing teachers and school psychologists *know* about traumatic brain injury?
  – What do practicing teachers and school psychologists *do* in terms of assessment and intervention to meet the needs of students with TBI (or suspected TBI)?
  – How do school psychology training programs and teacher training programs address TBI? (e.g., amount and type of course content)
# Teacher Training Programs

## Training in TBI?

<table>
<thead>
<tr>
<th>Train in TBI?</th>
<th>Regular Ed</th>
<th>Special Ed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>7.5%</td>
<td>72.5%</td>
</tr>
<tr>
<td>No</td>
<td>83.5%</td>
<td>16.5%</td>
</tr>
</tbody>
</table>

## TBI Coverage

<table>
<thead>
<tr>
<th>TBI Coverage</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minutes</td>
<td>24%</td>
</tr>
<tr>
<td>Hours</td>
<td>40%</td>
</tr>
<tr>
<td>One Class</td>
<td>10%</td>
</tr>
<tr>
<td>Two + Classes</td>
<td>10%</td>
</tr>
<tr>
<td>Weeks</td>
<td>8%</td>
</tr>
<tr>
<td>Alt. Method</td>
<td>8%</td>
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</tbody>
</table>
## School Psychologist Training

<table>
<thead>
<tr>
<th>Training</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>53%</td>
</tr>
<tr>
<td>No Training</td>
<td>46%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Training</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class/Seminar</td>
<td>2%</td>
</tr>
<tr>
<td>Miniseminar or Inservice</td>
<td>15%</td>
</tr>
<tr>
<td>Conference/Workshop</td>
<td>39%</td>
</tr>
<tr>
<td>A Class Session Within a Course</td>
<td>42%</td>
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</tbody>
</table>
Teacher Knowledge

• By subgroups, regular education teachers scored 45.03% correct and special education teachers scored 52% correct. Teachers with TBI training scored 57% correct, whereas teachers with no TBI training scored 45% correct.
School Psychologist Knowledge and Skills

- School psychologists who received TBI training were more knowledgeable about TBI compared to school psychologists who had not received training.
- The difference in self-reported skills between school psychologists with and without training was not statistically significant.
Efficacy of Interventions

• Examined the efficacy of behavioral interventions for students with traumatic brain injuries (TBI).

• Evaluated whether or not students with TBI could learn to accurately self-monitor and whether self-ratings were associated with positive behavior changes.
Self-Monitoring Intervention

- The strategy improved performance for all three children, as well as self-monitoring accuracy.
Self-Monitoring Results
College Services

• Qualitative Research
• What are best practices in transition planning for students entering or returning to college after sustaining a traumatic brain injury?
• What supports or accommodations do college students with traumatic brain injuries (TBI) need at the postsecondary level in order to successfully adjust to the academic and social demands of college?
• How can these supports or services be implemented in order to increase the likelihood of student success?
Consultation to Improve School Re-Entry

• School Psychologists
  – Consult with district personnel
  – Attend IAT meetings
  – Conduct TBI initial/ reevaluations
  – Attend children’s hospital school re-entry meetings
  – Conduct in-services
  – Conduct periodic review evaluations
  – Work with sports medicine/ athletic trainers to educate coaches/ athletes about concussion
Upcoming Research:
Consultation to Improve Concussion Response

• Examine the efficacy of a school-based training paired with ongoing consultation to improve educator knowledge and response related to concussions

• Compare outcomes of school staffs who receive a concussion in-service plus ongoing follow-up and consultation to school staffs who only receive a concussion in-service