

Study underscores need to assess behavioral sequelae of TBI

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Kessler researchers assessed moderate to severe traumatic brain injury (TBI) for frontal behavioral syndromes and cognitive function. Their finding suggest that adding the Frontal Systems Behavior Scale to neuropsychological assessment may yield useful information about the behavioral sequelae of TBI. The article, Assessing frontal behavioral syndromes and cognitive functions in traumatic brain injury, DOI:10.1080/23279095.2013 was published in *Applied Psychology: Adult.* The authors are Jeannie Lengenfelder, PhD, Aparna Arjunan, Nancy Chiaravalloti, PhD, Angela Smith, MA, and John DeLuca, PhD, of Kessler Foundation.

Brain injuries commonly involve damage to the frontal lobes, which results in <u>behavioral problems</u> and difficulties with cognition, most notably, executive function. The Frontal Systems Behavioral Scale, which has been used in Alzheimer disease, stroke, frontal dementia, Huntington disease and Parkinson disease, measures apathy, disinhibition and executive dysfunction. Researchers administered the Frontal Systems Behavior Scale and neuropsychological tests to 33 participants (age 18-60 y) one-year post TBI and 19 healthy controls. The Frontal Systems Behavior Scale was also completed by a close family member of each participant. No significant difference was found between the reports of behavior by individuals with TBI and their caregivers. The Frontal Systems Behavior Scale revealed evidence for negative effects of TBI on behavior that were not apparent on neuropsychological assessment alone.



"Our results provide a broader perspective of the impact of frontal lobe damage on behavior and cognition," said Dr. Lengenfelder, associate director of neuropsychology at Kessler Foundation. "It is equally important to address cognitive deficits and behavioral difficulties after TBI. Both impede recovery and are detrimental to quality of life and long-term outcomes. This study underscores the importance of more comprehensive assessment, which will enable clinicians to address behavior through tailored interventions."

Future research should include larger samples stratified by duration of injury. Correlation of cognitive and behavioral symptoms with neuroimaging data would aid the development of targeted interventions in this population.

Provided by Kessler Foundation

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