

Quick Review of Model System Research

Pre-injury Psychosocial and Demographic Predictors of Long-term Functional Outcomes post-TBI¹

What is the study about?

This study aims to explore which psychosocial and demographic variables, in combination with the Glasgow Coma Scale (GCS), a measure of severity of traumatic brain injury (TBI), are predictive of TBI functional outcomes five to fifteen years post-injury.

Who participated in the study?

Participants in this study (n=149) were 16-75 years of age with either a mild complicated, moderate, or severe TBI. All participants were enrolled in the TBI Model System and had functional outcome data five to fifteen years post-injury.

How was the study conducted?

The Craig handicap assessment and reporting technique (CHART) uses five domains to assess how impairments and disabilities impact individuals' abilities to fulfill a number of social roles in the years following rehabilitation. These domains include: Cognitive Independence, Physical Independence, Mobility, Occupation, and Social Integration. For this study, multiple statistical analyses were used to account for the level of differences between the CHART domains and participants' GCS scores, age at injury, years of education, pre-injury incarceration and pre-injury psychiatric history.

What did the study find?

The findings were somewhat surprising in that injury severity, as measured by GCS, was not the major factor contributing to cognitive independence and physical independence. Psychosocial factors, including psychiatric history and prior incarceration, were found to be more related to these outcomes. Pre-injury psychosocial factors were also better predictors of post-injury occupation than age at injury. Psychiatric history was also the strongest predictor of occupation. Injury severity (GCS) and age at injury were the best predictors for mobility 5-15 years after TBI. For predicting some long-term functional outcomes post-TBI, pre-injury psychosocial and demographic factors may be more important than injury severity.

¹ Katharine S. Seagly, Rochelle L. O'Neil & Robin A. Hanks (2017) Pre-injury psychosocial and demographic predictors of long-term functional outcomes post-TBI, *Brain Injury*, 32:1, 78-83, DOI: 10.1080/02699052.2017.1374467