

# ` Quick Review of Model System Research

## The Longitudinal Effects of Comorbid Health Burden on Functional Outcomes for Adults With Moderate to Severe Traumatic Brain Injury

### What is the study about?

### This study aims to evaluate the impact of physical, mental, and total health condition burden on functional outcome and life satisfaction, among individuals who are 10 years post moderate to severe traumatic brain injury (TBI). Having more than one medical condition at the same time (i.e., comorbidity) in addition to TBI may negatively affect an individual’s long-term outcomes. Comorbid conditions are common among individuals who seek medical care for TBI, so it is important to understand the total burden of comorbid conditions on individuals with TBI and their recovery.

### What did the study find?

This study found that physical and mental health comorbidity negatively affects long-term functional outcome and life satisfaction outcomes after TBI. Nearly 70% of participants reported having two or more conditions, not including TBI. Additionally, having a higher total health burden was linked with poorer functional motor and cognitive rate of recovery and lower life satisfaction. These findings suggest that better identification and treatment of comorbidities may benefit life satisfaction, functional outcome, reduce healthcare costs, and decrease reinjury.

### Who participated in the study?

Individuals 16 years old or older at time of injury (n=393) enrolled in the Traumatic Brain Injury Model Systems National Database (TBIMS-NDB).

### How was the study conducted?

This study was a retrospective cohort study using data at 1,2, 5, and 10 years post injury from the TBIMS-NDB.

### How can people use the results?

### Individuals with TBI and their families can use the results of this study to better understand that the combination of preexisting and new-onset medical conditions may impact recovery for individuals with TBI. Practitioners can use these findings to think about how to develop specific guidelines for screening people with TBI for medical co-morbidities and overseeing their management.

### Reference

Kumar, R.G., Ketchum, J.M., Corrigan, J.D., Hammond, F.M., Sevigny, M., & Dams-O’Connor, K. (2020). The longitudinal effects of comorbid health burden on functional outcomes for adults with moderate to severe traumatic brain injury. *Journal of Head Trauma Rehabilitation* *25*(4), E372-E381. doi:10.1097/HTR.0000000000000572

**Disclaimer**

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