

Quick Review of Model System Research

Accuracy of Self-reported Length of Coma and Posttraumatic Amnesia in Persons With Medically Verified Traumatic Brain Injury¹

What is the study about?

There are three main indicators of severity of traumatic brain injury (TBI). These indices are length of coma, posttraumatic amnesia (PTA), and the degree of disturbance of consciousness soon after injury (Glasgow Coma Scale score). Researchers may sometimes rely on self-reported TBI severity. The goal of this study was to find out the accuracy of self-reports by people with TBI. Researchers also looked at factors that affect self-report of length of coma and PTA duration.

Who participated in the study?

Participants included 242 individuals between the ages of 18 to 64 years with medically documented TBI. Every participant consented and could tolerate a lengthy assessment at the research center. Individuals who could not speak English and were impaired due to medical conditions other than TBI did not participate.

How was the study conducted?

Researchers conducted interviews to ask participants about their lengths of coma and PTA. Participants' answers were compared to the documented injury severity data of participants. Researchers examined factors that affect self-reported length of coma and PTA duration. They considered age, sex, years of education, time since injury, and other predictors. Other factors included cognitive abilities, performance validity, depression, and documented length of coma.

What did the study find?

The average difference between documented and self-reported length of coma was 8.2 ± 21 days. The difference between recorded and self-reported PTA duration was 64 ± 172 days. The findings suggest persons with TBI may give inaccurate reports of length of coma and PTA duration. The differences were so great as to affect injury severity classification. Researchers found that self-reported length of coma and PTA were related to time since injury, performance on cognitive tests, and medical record values.

The contents of this quick review were developed under a grant (number H133A110004) from the U.S. Department of Education, National Institute on Disability and Rehabilitation Research. However, these contents do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government.

¹Sherer, M., Sander, A.M., Maestas, K.L., Pastorek, N.J., Nick, T.G., & Li, J. (2015). Accuracy of Self-reported Length of Coma and Posttraumatic Amnesia in Persons With Medically Verified Traumatic Brain Injury. *Archives of Physical Medicine & Rehabilitation*, 96(4). <http://dx.doi.org/10.1016/j.apmr.2014.10.024>