

Quick Review of Model System Research

Acute Trauma Factor Associations With Suicidality Across the First 5 Years After Traumatic Brain Injury¹

What is the study about?

This study tested if severity of head and extracranial injuries (ECI) after traumatic brain injury (TBI) is related to suicidal ideation (SI) or suicide attempt (SA). The study also looked at what people with TBI with reported SI or SA have in common.

Who participated in the study?

The study used data from the National Trauma Data Bank and Traumatic Brain Injury Model Systems (TBIMS) databases. There were 3,575 patients in the survey. All of the patients were 16 years old or older and had evidence of a moderate to severe TBI. All patients gave informed consent or a guardian provided consent.

How was the study conducted?

The database collected information 1, 2, and 5 years after TBI and used patients' responses to the Patient Health Questionnaire 9 (question 9). Question 9 asks about suicidal thoughts and is related to increased risk for SA. The study used the Injury Severity Scale to categorize ECI as none, mild, moderate, or severe. Head injury severity was measured with the maximum Abbreviated Injury Scale head score and the Glasgow Coma Scale score. Drug use at time of injury was obtained. Researchers compared those with SA and those with SI to those in the database with no SA or SI and looked to see what people with SA and/or SI had in common.

What did the study find?

The study found that there is a 3-fold chance of SI when ECI was severe, but ECI was not related to SA. Head injury severity and less severe ECI were not associated with SI or SA. Drug use at time of injury was also associated with a greater likelihood of SI. Overall, the study finds that more research is needed to identify factors associated with severe ECI that make individuals with severe ECI more susceptible to SI after TBI.

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¹ Kesinger, M.R., Juengst, S.B., Bertisch, H., Niemeier, J.P., Krellman, J.W., Pugh, M., Kumar, R.G., ... K. Wagner, A.K. (2016). Acute trauma factor associations with suicidality across the first 5 years after traumatic brain injury. Archives of Physical Medicine and Rehabilitation (97). <http://dx.doi.org/10.1016/j.apmr.2016.02.017>