

Introduction

Previous studies have shown an increased risk of traumatic brain injury for individuals who suffer an initial traumatic brain injury (TBI). The current study hypothesized that individuals with recurrent neurotrauma would originate from populations considered “vulnerable”, i.e., low income and with psychiatric comorbidities.

Methods

Data were obtained form the Agency for Health Research and Quality’s (AHRQ) Healthcare Cost and Utilization Project (HCUP). The Michigan State Inpatient Database (SID) from 2006 to 2014 for the Detroit metropolitan area was queried, entailing 50,744 neurotrauma patients. Binary logistic regression was used to assess risk factors associated with becoming a repeat neurotrauma patient in comparison to those with a single neurotrauma admission. Patients who died in hospital after an initial neurotrauma were excluded from analysis.

Conclusions

The current study validated the hypothesis that comorbid psychiatric conditions are a significant risk factor for recurrent neurotrauma and validate prior studies which have shown correlations between gender and race as significant risk factors.

Results

Demographically, repeat neurotrauma patients were similar to one-time neurotrauma patients in terms of age at first admission and neighborhood income levels. However, repeat neurotrauma patients were more likely to be male (p < .001) and African American (p < .001). Women and white neurotrauma patients were less likely to be admitted for repeated neurotrauma. Comorbid alcohol use and drug use were 39% and 15% less likely to be readmitted with neurotrauma. Co-morbid conditions associated with greater risk of repeat neurotrauma included: depression, psychosis, and neurological disorders, which increased risk by 38%, 22%, and 58%, respectively.

Learning Objectives

1. Participants will be able to identify cohorts at risk for repeat neurotrauma.

References

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