



# 17<sup>th</sup> Annual Brain Injury Conference

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**Poster #: 8**

**Abstract Title:** The impact of time since injury following mTBI on emotional distress and return to driving

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**ABSTRACT:**

**Abstract Theme:** Mild TBI / Concussion

**Topic(s) of Interest:** Clinical Research, Knowledge Translation

**Purpose of Project:** Many mild TBI (mTBI) cases result from motor vehicle accidents (MVA). Returning to driving is imperative for recovery, typically achieved within the first year since injury. MTBI is also associated with high rates of emotional distress that peak in the first year following injury. This study examines emotional distress and return to driving following mTBI based on time since injury.

**Methods, Procedure, Results/Outcome, Conclusion:**

**Methods:** This study uses a retrospective cohort design. Participants are individuals who sustained an mTBI following an MVA (n=99) either as a driver or passenger, or as a pedestrian struck by a motor vehicle. Participants underwent a clinical assessment and completed the Hospital Anxiety and Depression Scale (HADS-A; HADS-D), the Accident Fear Questionnaire (AFQ), and indicated whether they have returned to driving (RTD) as a driver or passenger. The cohorts are comprised of two groups divided by time since injury as indicated by the time elapsed from the MVA until the clinical interview (Group 1=0-12 months, n=47; Group 2=13+ months, n=52).

**Results:** Independent samples t-tests were conducted to determine differences between the cohorts based on the HADS-A, HADS-D, AFQ, and RTD. Test results show no statistically significant differences between the groups. Three linear regressions were conducted to test for associations between time since injury and the HADS-A, HADS-D, and AFQ, and all show non statistically significant associations. A logistic regression was conducted to test for an association between time since injury and RTD, showing a marginal but non statistically significant association (p=0.08). Exploratory independent samples t-tests were conducted to determine the influence of gender on the HADS-A, HADS-D, AFQ, and RTD. Results show a statistically significant difference between gender on RTD (p=0.001), but this effect was not found on other variables.

**Conclusions:** Findings suggest that time since injury is not associated with differences in levels of emotional distress (i.e., anxiety, depression, accident phobia), and is marginally associated with RTD. This contradicts previous findings that the first year since injury is a vulnerable period for emotional distress, and moderately support prior findings that individuals with an mTBI who have RTD in their lifetime typically do so within the first year since recovery. Findings also show that being of female gender may negatively impact RTD but has no effect on emotional distress. Further research on the impact of time since injury on functional recovery outcomes are imperative to promote RTD following an mTBI that was sustained in an MVA.