education status, marital status, family type and place of residence. Both groups were similar with regard to mode of injury and duration of injury. With regard to treatment during admission both group had significant differences. Among severe TBI group 90% underwent surgical intervention whereas among moderate TBI group only 45% underwent surgical intervention. Significant difference was present in GCS score at discharge between both the groups.
After 6 months of injury both group had no significant difference with regard to functional status, global cognitive functioning, anxiety and depression. With regard to quality of life significant difference emerged between the groups on QOLIBRI total score. On various subscales of QOLIBRI – significant differences were noted only in the domains of social relationship and emotions. There were no differences between them on domains of cognition, self, daily life and physical problems.
Conclusions: After 6 months of TBI, the participants in both groups (Moderate TBI and severe TBI) had similar functioning with regard to daily activities and psychological functioning. With regard to quality of life both groups emerged to be significantly different on overall quality of life and domains of social relationship and emotions.

Categories: Acquired Brain Injury (TBI/Cerebrovascular Injury & Disease - Adult)
Keyword 1: brain injury
Keyword 2: quality of life
Keyword 3: neuropsychological assessment
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7 Domain-Specific Assessments for Metacognition in Older Adults Sustaining Traumatic Brain Injury

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Objective: Metacognitive deficits are common following traumatic brain injury (TBI), and this has important implications for recovery, social relationships, and rehabilitative outcomes (Chiou et al., 2011; Flashman & McAllister, 2002; Ownsworth & Fleming, 2005). Metacognitive deficits have historically been measured using self-report (Allen & Ruff, 1990; Newman et al., 2000; Sherer et al., 1995; Sherer et al., 1998), which is problematic as individuals with an awareness of deficit cannot accurately reflect on their own condition (Akturk & Sahin, 2011). In the past two decades, studies have transitioned to using more objective measures to assess metacognition, including error monitoring tasks (McAvinue et al., 2005; Yeung & Summerfield, 2012) and tasks using retrospective confidence judgments (RCJs) (Busey et al., 2000). Importantly, both tasks are used to study "metacognition," but clear distinctions as to what domains these tasks measure has not been elucidated. Additionally, both tasks have been linked to executive functioning broadly, but error detection tasks are uniquely associated with measures of attention and self-reported anxiety (Hoerold et al., 2008; O'Keefe et al., 2007), indicating that there may be distinct processes that comprise metacognition. It is a goal to determine what domains these tasks represent so proper assessments of metacognitive ability can be conducted in this population.
Participants and Methods: Participants included 23 older adults with moderate-severe TBI and 16 age, sex, and education matched healthy control (HC) individuals ages 53-80. All participants received identical neuropsychological test batteries, including two tasks of metacognition (error monitoring task, RCJ task), neurocognitive tasks of attention (Digit Span – Forward, Trail Making Test A) and executive functioning (Digit Span – Backward, Trail Making Test B), and a self-report measure of anxiety (Brief Symptom Inventory – Anxiety subscale). To determine overlapping constructs measured by the two metacognitive tasks, these tasks were correlated with each other and with an attention composite, executive functioning (EF) composite, and anxiety measure in the TBI and HC groups.
Results: In the TBI group, the metacognitive tasks were significantly correlated with each other (r=-0.47, p=0.022). The RCJ task was associated with EF (r=0.47, p=0.025), but not with attention (r=0.20, p=0.358) or anxiety (r=0.25, p=0.248). The error detection task was associated with EF (r=-0.48, p=0.021) and attention (r=-0.46, p=0.026), but not with anxiety (r=-0.19, p=0.383). In the HC group, there were

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no significant associations between the metacognitive tasks, or between either metacognitive task and EF, attention, or anxiety. **Conclusions:** For older adults sustaining TBI, tasks of error detection and tasks using retrospective confidence judgments measured an overlapping construct, with both having an association with executive functioning and only the error detection task being associated with attention. Interestingly, these associations were not found in a healthy control sample of older adults. Both metacognitive tasks have been used in the literature to measure errors of awareness, but this study provides insight that these tasks are measuring different domains of metacognitive ability in older individuals with TBI. Use of multiple tasks of metacognitive ability in this population can help to describe where the deficits of awareness occur following TBI.

Categories: Acquired Brain Injury (TBI/Cerebrovascular Injury & Disease - Adult)
Keyword 1: metacognition
Keyword 2: traumatic brain injury
Keyword 3: neuropsychological assessment
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8 Incident TBI among a Nationwide Cohort of US Older Adults

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Objective: Traumatic brain injury (TBI), very common in the United States (US) and occurring at highest rates in older adulthood, is a documented risk factor for cognitive impairment and dementia. However, the full scope of the problem is unknown, as comparative incidence of TBI among older adults is poorly characterized. Moreover, the effect of demographics (race/ethnicity, sex) and cognitive and medical status, as well as education, socioeconomic status, and other social determinants of health (SDOH) on TBI risk is not well understood. We aimed to explore the impact of demographics, cognitive and medical status, and SDOH on vulnerability to new TBIs among older adults.
Participants and Methods: Enrollees 65 and older in the nationally representative Health and Retirement Study (HRS) who consented to have their survey data linked to Medicare claims and had not experienced a head injury prior to HRS enrollment were studied. We used claims data 2000-2018 to obtain incident TBI diagnoses and harnessed the detailed demographic, cognitive, medical, and SDOH information available in the HRS. Incident TBI was defined using inpatient and outpatient International Classification of Disease (ICD 9 and 10) codes received the same day as an emergency room (ER) visit code and a computed tomography (CT) scan code, occurring after the enrollee's baseline HRS interview. We calculated descriptive statistics and bivariate associations for TBI status with demographic and SDOH characteristics measured at baseline using sample weights to account for the complex survey design.
Results: Of respondents meeting inclusion criteria (n=9273) during the study follow-up period of 18 years, 8.9% received emergency room treatment for a TBI. Older adults who experienced TBI during the study period were more likely to be female (p=0.0006), and white (p=0.0001), to have normal cognition (vs. cognitive impairment or dementia, p=0.0011), higher education (p<0.0001), and higher income (p=0.01). Having lung disease (p=0.0003) or functional impairment (p=0.03) at baseline were protective against experiencing a TBI.
Conclusions: Our results suggest that almost 9% of US older adults received ER treatment for a new TBI during the 18-year study period, and that race, sex, and SDOH factors may increase risk for, or be protective against, TBI. This novel investigation into the impact of demographics and SDOH on incident TBI suggests access to care may impact who gets treatment for TBI. Further study is indicated and may lead to opportunities for both targeted intervention (e.g., primary TBI prevention) to groups most at risk as well as identification and mollification of the most relevant structural and contextual factors (e.g., access to care) to reduce risk of TBI among older adults.

Categories: Acquired Brain Injury (TBI/Cerebrovascular Injury & Disease - Adult)
Keyword 1: traumatic brain injury

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