PREVALENCE OF DEMENTIA IN INJURED OLDER ADULTS
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Purpose
The purpose of this research is to explore the prevalence of dementia diagnoses in a population of injured older adults and compare injury etiologies and outcomes of older adults with and without dementia diagnoses.

Background
The fact that older adults are at a higher risk for injury, particularly falls, is well documented. However, very few studies have examined the association of mental illness, including dementia, with injury incidence and outcomes in the older adult population. In a previous retrospective review of injured older adults, we discovered that a significant number were diagnosed with a mental illness at the time of their injury. Because the impact of dementia, specifically, on injury etiology and outcomes is not well described, and given the projected increase in dementia diagnoses in older adults, we further analyzed our data in order to determine the prevalence of dementia in injured older adults.

Methods
A secondary analysis of a retrospective database of older adult injuries was undertaken to describe differences in injury etiology and outcomes between injured older adults with and without dementia. The database contains information on 29,368 older adult (65 years and older) injuries captured in state Department of Health emergency department (ED), hospital discharge, and/or vital record death databases from 2007-2008. Individuals were classified as having a mental illness, including dementia, if any records contained ICD-9 codes 290-319 (ED or hospital discharge records) or ICD-10 codes F01-F99 (death records). Descriptive statistical analyses, using SPSS version 20, were used to describe the demographic, injury etiology, and outcome data of injured older adults with and without dementia. Significance was set at p < 0.05.

Results
A diagnosis of mental illness was found in 20.7% of injured older adults; 11.6% had a diagnosis of dementia. Injured older adults with a dementia diagnosis were older (t(29,384) = -40.513, p < .001), more likely to be female (χ²(1, N = 29,363) = 69.62, p < .001) and widowed (χ²(6, N = 20,562) = 288.29, p < .001) than those without dementia. Falls accounted for 57.3% of injuries, including a significantly higher proportion of the injuries occurring to older adults with dementia (χ²(1, N = 29,386) = 365.48, p < .001). Injured older adults with dementia had significantly more ED visits (χ²(29,384) = -28.59, p < .001) and hospitalizations (χ²(29,384) = -38.59, p < .001) during the study period compared to those without dementia; they were also more likely to die from injury or non-injury related causes (χ²(3, N = 29,386) = 2,344.28, p < .001) during that time.

Implications
While a number of studies have examined injuries occurring to older adults with dementia, very few studies have looked at the prevalence of dementia in the injured older adult population. We found that over 1/5 of injured older adults have a mental illness diagnosis, and over half of which are dementia related. While the proportion of injured older adults with dementia in our study was similar to reported proportions of older adults diagnosed with dementia in the U.S. population, our results highlight the impact of dementia on resources and injury outcomes – a concerning finding given the projected increase in the number and percentage of older adults with dementia that will out-pace even the growth of the older adult population. Our results support the need for injury risk assessments and injury prevention programs targeted towards older adults with dementia.