



## Research Brief

### *Pain Interference and Depressive Symptom Severity Across 10 Years in Individuals with Long-Term Spinal Cord Injury*

#### Introduction

Spinal cord injury (SCI) affects many aspects of a person's life. Depression and pain are secondary health conditions that can occur after SCI diagnosis, and they often occur together. While the relationship between pain severity and depression in those with SCI is known, research examining whether pain interference predicts future depression is limited, especially as years post-SCI progress.

This study's goal was to examine change in pain interference, the consequences of pain on daily activities, and depression over a 10-year time period in individuals with long-term traumatic SCI. Participants were 504 adults with and were assessed three times over a 10-year period. To conduct this study, we used a longitudinal analyses of self-report assessment data. On average, the participants were 59 years old and 32 years post-SCI onset. We used the Patient Health Questionnaire (PHQ-9) to assess depressive symptoms severity and the 7-item pain interference scale from the Brief Pain Inventory (BPI) to assess pain interference.

#### Key Findings

- At the time of the first assessment, most participants experienced moderate-level pain intensity.
  - Pain interference significantly decreased over time.
- Mild depressive symptom severity was reported, however, severity significantly increased over time.
- Our findings suggested that change in pain interference was positively associated with change in depressive symptom severity over the 10-year study follow-up.

#### What does this mean?

The average severity of depressive symptoms worsened over time. Change in pain interference was positively associated with change in severity of depressive symptoms. These results point to the complexity of aging related changes in depressive symptoms and pain interference. They further support the need for continued assessment of mood and pain experiences, particularly among individuals reaching aging milestones with SCI. Examining this is important in identifying the extent to which changes in pain interference over time predict change in depressive symptoms.