



Research Brief

Differences in functional improvement based on history of substance abuse and pain severity following spinal cord injury

Introduction

People with a history or current diagnosis of substance abuse are at risk of poor health outcomes. This study explored the relationship between history of substance abuse and pain severity during inpatient rehabilitation following traumatic spinal cord injury (SCI). We used secondary analysis of a longitudinal study to examine differences in functional improvement based on history of substance abuse and pain severity.

Key Findings

- Over 50% of the group had a history of substance abuse, and 94% reported moderate or severe pain.
- There was a significant interaction between the history of substance abuse and pain severity.
- A difference in functional improvement was found among individuals who reported low pain; those with a history of substance abuse achieved less functional improvement than those without a history of substance abuse.
- For participants without a history of substance abuse, the amount of functional improvement decreased as pain severity increased.
- Participants with a history of substance abuse; the amount of functional improvement tended to increase as pain severity increased. It is possible that individuals with a history of substance abuse received more pain medication, which may explain the unexpected finding.

Conclusion

A history of substance abuse and post-injury pain are common among individuals with SCI in rehabilitation, and there may be a meaningful relationship between these two patient characteristics and functional improvement. The results provide potential new insights into the characteristics of vulnerable subpopulations during SCI rehabilitation. Furthering our understanding of these results, we will need future investigation to prevent and minimize poor outcomes among vulnerable SCI patients.