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Understanding
and Promoting
Longevity
after Spinal
Cord Injury: A
Mixed Methods
Study of
Participation,
Employment,
and Quality of
Life



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Longevity after SCI Study NEWS & UPDATES

Research Highlight

Social Participation as a Mediator of the Relationships of Socioeconomic Factors and Longevity after Traumatic Spinal Cord Injury

Introduction

Previous research has indicated that socioeconomic factors affect longevity after traumatic spinal cord injury (SCI). Our purpose was to evaluate whether social participation mediates the relationship between socioeconomic factors and survival status after SCI.

Participants (N = 1540) met the following inclusion criteria: traumatic SCI of at least 1-year duration, minimum of 18 years of age, and having residual impairment from SCI. The main outcome measures were a) survival status as of December 31, 2019, identified by the National Death Index (NDI) search, b) socioeconomic status (SES), measured by education, employment status, and family income, and c) participation, measured by marital/relationship status, hours out of bed per day, days leaving home per week, and nights away from home during the past year.

Key Findings

- Thirty nine percent of participants (n = 602) were deceased by the end of 2019.
- Socioeconomic factors were associated with longevity controlling for demographic, injury characteristics, and health status.
- The association of socioeconomic status with longevity was mediated by three social participation mobility indicators (hours out of bed, days out of house, and nights away from home), such that socioeconomic status was no longer significantly related to longevity after inclusion of the participation variables.

Conclusions:

Although socioeconomic factors are related to longevity, their relationship appears to be accounted for by social participation mobility indicators. Intervention studies are needed to address the modifiable factors that may promote longevity, including promoting an active lifestyle.

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Longevity Study Updates

Study Update: **Understanding and Promoting Longevity after Spinal Cord Injury: A Mixed Methods Study of Participation, Employment, and Quality of Life**

Our goal is to promote longevity after spinal cord injury (SCI) through exploration and discovery of how non-health related factors impact long-term survival. Objectives are to identify how different aspects of participation, employment, and quality of life relate to longevity after controlling for demographic, SCI, and health variables; whether there are time points over the lifecycle where non-health factors are more highly predictive of longevity; and the extent to which a favorable history of participation, employment and quality of life may create a buffer leading to greater longevity.

We are beginning to work on the preliminary activities and will start collecting qualitative data later in the project year. As we noted before, we have had discussions with our consultant, Dr. Michael DeVivo, for assistance in participant identification.

We are still analyzing the data from the preliminary aims that are guiding our choice of questions for the qualitative study. In particular, we are looking at the variables that are most significantly related to aging and differential aging between those who have survived after reporting longitudinal data and those who did not survive. Therefore, we are going to be focusing on those areas where there was greater decline related to aging prior to mortality.

Upcoming Podcast

On August 29, 2022, Dr. James Krause will record a podcast for the MUSC Science Never Sleeps Series

Topics: The challenges, pitfalls, and triumphs of those with spinal cord injury: 50 years of research

[Science Never Sleeps Podcast | MUSC Research](#)



Recent Publications

The following manuscripts were recently accepted to be published in upcoming issues of *Topics in Spinal Cord Injury Rehabilitation* and *Archives of Physical Medicine and Rehabilitation*.

Cao, Y., DiPiro, N. D., Jarnecke, M., & Krause, J. S., (2022). Social participation as a mediator of the relationships of socioeconomic factors and longevity after traumatic spinal cord injury. *Spinal Cord*, epub, 0.

Upcoming podcast for the MUSC Science Never Sleeps Series