

SPRING 2023



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



“Being in a relationship, having less severe depressive symptoms, having greater emotional and social support, were significantly associated with home life satisfaction”

## 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

Life satisfaction, a core component of subjective well-being, is a very important part of understanding quality of life after spinal cord injury (SCI) because it reflects how a person evaluates their own life. Individuals with traumatic SCI may experience significant physiological, psychological, and social changes after injury, and they have reduced life satisfaction compared with people without SCI. Aging further contributes to health and physiological changes, as well as decreased satisfaction with social life. Our objective is to investigate relationships between self-reported biological, psychological, and social factors and global, vocational, and home life satisfaction in individuals with traumatic spinal cord injury (SCI) an average of more than 30 years postinjury.

##### Key Findings

- Less severe depressive symptoms, greater emotional social support, and greater instrumental social support were significantly associated with greater global life satisfaction.
- Being in a relationship, having less severe depressive symptoms, having greater emotional social support, and having greater instrumental social support, **tangible assistance or help in physical ways**, were significantly associated with home life satisfaction.
- Being White, non-Hispanic, having more years of education, being in a relationship, having less severe depressive symptoms, and having greater emotional social support were significantly associated with greater vocational satisfaction.

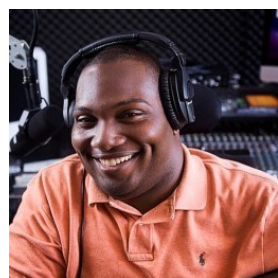
##### What does this mean?

This study identified significant individual relationships between life satisfaction and biological, psychological, and social factors. Together these biopsychosocial factors account for a large variability in global, home life, and vocation life satisfaction, and support the need for inclusive consideration of biopsychosocial variables for how a person sees themselves. Emotional social support appears to be a unique facilitator of greater life satisfaction, whereas depressive symptoms is a barrier. Identifying modifiable facilitators and risk factors associated with life satisfaction in individuals aging with SCI may help improve intervention strategies to improve quality of life.

Supported by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) (grant nos. 90IF0112 90DPCP0009). NIDILRR is a Center within the Administration for Community Living (ACL), Department of Health and Human Services (HHS). The contents of this publication do not necessarily represent the policy of the SCSCIRF, NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal Government.



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



"I don't let my disability deter me from achieving my goals and enjoying my life. I will be sharing my experiences of living with a spinal cord injury." **Alex Jackson**

### 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 continue to work on the preliminary activities and have started collecting qualitative data (participant interviews). 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 continue to look 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.

### Tuesday Talk with Alex Blog

Tuesday Talk With Alex posted: "You may know them as personal aides or personal care attendants, but regardless of the title, they play a vital role in helping people with disabilities live as independently as possible. They can be hired through an agency or you can hire someone you know."

To access his latest blog post, "The Importance of Attendant Care, visit the following link:"

<https://tuesdaytalk-withalex.wordpress.com/2023/01/17/the-importance-of-attendant-care/>

### Upcoming Presentations

We have had 5 presentations accepted to the annual conference of the American Spinal Injury Association. We will present on the following topics in April 2023:

- Social participation as a mediator of the relationships to socioeconomic factors and longevity
- Changes in employment, health, participation, and quality-of-life and the relationships with survival
- Risk and protective factors for emergency department visits among those who walk
- Differences in personal characteristics and hospital utilization among walking and non-walking adults
- Impact of COVID-19

SPRING 2023



Aging and Participation after Spinal Cord Injury: Promoting Utilization to Enhance Community Outcomes Study



“Over 50% of the group had a history of substance abuse, and 94% reported moderate or severe pain”

## Health, Employment and Longevity Project Aging and Participation after SCI Study NEWS & UPDATES

### Research Highlight

#### Mediating Effects of Pain Interference on the Relationships Between Pain Intensity and Probable Major Depression Among Participants with Spinal Cord Injury

##### Introduction

Pain and depression are 2 highly prevalent secondary health conditions among those with spinal cord injury (SCI). Our purpose was to test whether pain interference affected the daily living the participants' life mediates, the relationship of pain intensity, and depression among individuals with SCI.

##### 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.

##### What does it mean?

A history of substance abuse and post-injury pain are widespread 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 will need future investigation to prevent and minimize poor outcomes among vulnerable SCI patients.

The contents of this research brief were developed under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) grants 90DPCP0009, H133A060103, and H133N060005. The contents do not necessarily represent the policy of NIDILRR, ACL, HHS, and you should not assume endorsement by the Federal Government.



## Aging and Participation after Spinal Cord Injury: Promoting Utilization to Enhance Community Outcomes

### Study Updates

#### **Study Update:** **Aging and Participation after Spinal Cord Injury: Promoting Utilization to Enhance Community Outcomes**

Our qualitative aim is to identify aging related changes in participation, barriers and facilitators to maintaining participation, and strategies to promote successful participation from the perspective of those with the full range of lived experience with SCI. This will be done to help us understand successful participation and identify items that may ultimately be incorporated into the quantitative, self-report assessments that will be obtained in the larger second phase of the project.

We have collected the qualitative data for this study. We have enrolled 46

participants who completed virtual focus groups, each of which was comprised of an average of 4-5 people with SCI. In addition, we have collected over 20 life stories from our study participants.

We are currently finalized the quantitative self-report assessment. We will pilot test our assessment with 30 participants and make revisions as needed. We have taken some additional time to add some new questions to the self-report assessment.

Thank you to everyone who has participated in our SCI research over the years. This study is only successful because of the community support of people with SCI.

Interested in sharing some thoughts about your SCI journey?

Contact us at 843-792-2605 or by email [aust@musc.edu](mailto:aust@musc.edu) for more information

### Share your life story

We are collecting the life stories of people who have lived with spinal cord injury. Our goal is to tell life stories that help others understand how you have dealt with your SCI and to bring to life some of the research findings as they really apply to individuals.



If you are interested in sharing some thoughts about your SCI journey, and or a picture of you, please give us a call: Richard, 843-792-2605 or email: [aust@musc.edu](mailto:aust@musc.edu).

### Recent Publications

The following manuscripts were recently accepted to be published in upcoming research publications:

Cao, Y., DiPiro, N.D., Jarnecke, M. et al. Social participation as a mediator of the relationships of socioeconomic factors and longevity after traumatic spinal cord injury. *Spinal Cord* **60**, 799–804 (2022).

Barrios, T.A., Manley, K., Dixon, N., Schnur, P., Pilarski, C.R., Krause, J.S., Warschausky, S.A., & Meade, M.A. (in press). Feasibility and Acceptability of a Remote, Hands-Free Cognitive Battery for Adults with Traumatic Spinal Cord Injury. *Rehabilitation Psychology*.