

# ACADEMY OF SPINAL CORD INJURY PROFESSIONALS



## Social Isolation and Individuals with Spinal Cord Injury During Covid-19 Pandemic

Jennifer A. Piatt, PhD, CTRS, FDRT, Indiana University  
 Cedimir Stanojevic, PhD, CTRS, Clemson University  
 Melissa L. Zahl, PhD, CTRS, MTRS, FDRT, University of Utah



### Implications for Rehabilitation

**Perceived Social Isolation** can lead to:

- Cardiovascular disease;
- Type 2 Diabetes and obesity
- Decreased cognitive functioning
- Post-traumatic stress disorder
- Increased unemployment rates
- Increase mortality by 50%

**Social Connections** can lead to:

- Overall improved health
- Increased longevity
- Decreased negative stress
- Improved immune system



### Methods

**Design:** This exploratory nonexperimental study employed a cross-sectional web-survey design.

**Methods:** A convenience sample of 131 adult males and females currently living with an SCI were recruited through rehabilitation hospitals, flyers, and social media platforms. Individuals were asked to complete an 83-item battery of instruments to understand specific psychosocial constructs. The UCLA loneliness scale (20 items) was used to assess participants' subjective feelings of loneliness as well as feelings of social isolation. To measure anxiety, positive affect, well-being, and resilience we used the SCI-QOL instrument consisting of the Anxiety item bank (9 items), Positive Affect and Well-being bank (10 items), and Resilience item bank (10 items). All instruments were a Likert scale-based. Responses for the UCLA loneliness scale items range from one to four (never-often) while SCI-QOL items range from one to five (never-always). Additionally, we asked basic demographic questions (19 items) as well as asked if the participants have had any secondary health conditions (9 items). We also requested participants to share with us how long they sheltered in place and their experiences during that time (6 items).

### Discussion

Preliminary results indicate that participants were experiencing loneliness and were not socially connected. They are reporting that they did not have the structure and support required to help them navigate everyday life situations on "new normalcy". Most of the participants felt tense and needed help to overcome their anxieties. Even though these negative aspects of shelter in place did impact their lives, the participants became more resilient and mostly had a positive outlook on life.

We are assuming that shelter in place was a shared trauma for all Americans and that words of encouragement that were emitted from the authorities and on the media contributed to the participants' resilience. This may be the reason why even while feeling lonely, socially isolated, anxious, and experiencing increased rates of pain, the preliminary results indicate that the participants have had a positive disposition while under shelter in place. We might assume that these individuals became stronger because of this experience. Additionally, more than half of the participants (59.7%) reported lack of companionship during shelter in place with 58.9% feeling that sometimes they did not have anyone to turn to.

### Future Research

- Because pain has been shown to be problematic in participation, it may be helpful to determine at which point in time pain actually impacts participation. Also, it may be helpful to determine a trigger to pain that may be preventing participation.
- Examination of non-pharmacological treatment interventions for pain management within community-based rehabilitation would be beneficial for this population.
- Further research should determine what aspects of autonomy are affected by pain and to what extent these impact participation.

**Financial Support:** Indiana University-Bloomington, Department of Health and Wellness Design internal funds supported this project.



### Background

A spinal cord injury (SCI) is a debilitating injury with many secondary medical complications that can create further barriers to full engagement in one's life during a pandemic. Secondary health issues such as respiratory and cardiovascular complications, pressure ulcers, urinary tract infections, and chronic and neuropathic pain, made sheltering in place with social distancing a priority to reduce the chances of exposure to COVID-19 these past two years which could further complicate health status of these individuals. Yet, it is unclear how the shelter in place impacted the SCI population's ability to still be fully engaged in life and socially engage with others. Severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) leading to COVID-19 disease had a significant impact on daily life functioning, so much so that many states enacted shelter in place protocols and physical distancing recommendations.

For the general public, these protocols and recommendations placed a great burden on an individual's psychosocial functioning insofar as there was reporting of increased rates of depression, anxiety, stress, and feelings of social isolation. For the population with SCI, whose primary rehabilitation outcome is community integration and typically has a more sedentary lifestyle, the impact of the shelter in place protocols presented even more challenges than they experience on a typical day. Even during the shelter in place orders, individuals with SCI still saw increased barriers to transportation, mobility, and healthcare. Shelter in place, physical distancing, and the increased barriers created by the pandemic may have placed a greater burden on their psychosocial functioning.

However, it is unclear if shelter in a place impacted the SCI population's psychosocial functioning. Additionally, it is unclear if shelter in place had an impact on other secondary conditions that are typically experienced by individuals with SCI. Thus, the purpose of this study was to explore the effects of shelter in place during the COVID-19 pandemic on people with SCI.

### Results

Forty-six percent of participants were actively under shelter in place between 11 and 30 days. The majority of participants (77.9%) felt less socially connected during shelter in place and 55.7% reported experiencing more SCI-related pain issues during this time. Additionally, more than half of the participants (59.7%) reported a lack of companionship during shelter in place with 58.9% feeling that sometimes they did not have anyone to turn to. Moreover, the majority of participants (64.6%) reported feeling loneliness and most participants (61.2%) felt isolated from society. Additionally, approximately one-third (31.8%) of the participants sometimes felt tense and 47.3% often felt tense. The majority of participants (71.6%) reported needing some help to overcome their anxieties. Moreover, 21.4% of participants responded that they have not felt emotionally stronger coming out of this experience and 25.2% felt they have not used positive approaches to cope with their injury during shelter in place. Conversely, 79.3% of participants thought positively and could get through these difficult times created by shelter in place. The majority of participants (87.8%) were aware they would need to overcome challenges that shelter in place holds. A higher number of participants (76.4%) made an extra effort to find positive aspects of the reality they were living. Interestingly, 79.2% found new things they would enjoy during shelter in place.

**Table 3 - SCI-QOL ANXIETY (selection)**

During shelter in place:	Never N(%)	Rarely N(%)	Sometimes N(%)	Often N(%)	Always N(%)
I felt tense	10 (7.6%)	17 (13.2%)	41 (31.8%)	43 (33.3%)	18 (14%)
My worries overwhelmed me	12 (9.2%)	19 (14.6%)	49 (37.7%)	30 (23.1%)	20 (15.4%)
I felt like I needed help for my anxiety	12 (9.2%)	25 (19.2%)	52 (40%)	30 (23.1%)	11 (8.5%)

**Table 2 - UCLA Loneliness Scale (selection)**

	Never N(%)	Rarely N(%)	Sometimes N(%)	Often N(%)
How often do you lack companionship	6 (4.7%)	46 (35.7%)	48 (37.2%)	29 (22.5%)
How often do you feel alone	10 (7.7%)	36 (27.7%)	49 (37.7%)	35 (26.9%)
How often do you feel that people are around you but not with you	11 (8.5%)	47 (36.4%)	49 (38%)	22 (17.1%)
How often do you feel that there are people you can turn to?	2 (1.5%)	55 (42%)	54 (41.2%)	20 (15.3%)



**Table 1 - Demographics**

Demographic category	N (%)
<b>Gender</b>	
Male	79 (61.7%)
Female	48 (37.5%)
Non-binary	1 (0.8%)
<b>Age</b>	
18-24	5 (6.8%)
25-34	45 (60.8%)
35-44	15 (20.3%)
45-54	6 (8.1%)
55-64	3 (4.1%)
<b>Years Since Onset of SCI</b>	
0-5	65 (68.4%)
6-10	12 (12.6%)
11-20	12 (12.6%)
21-30	3 (3.2%)
31-45	2 (2.1%)
45-60	1 (1.1%)
<b>Education</b>	
Some high school or lower	1 (0.8%)
High school graduate	18 (14%)
GED	7 (5.4%)
Attend some college	34 (26.4%)
Associates degree	17 (13.2%)
Bachelor's degree	38 (29.5%)
Post-college graduate	14 (10.9%)
<b>Employment</b>	
Full time	37 (29.4%)
Part time (30h or less/week)	41 (32.5%)
Not employed	48 (38.1%)

### Selected References

\*Bashir Bhatti A ul Haq A (2017). The pathophysiology of perceived social isolation: Effects on health and mortality. *Cueres*. DOI: 10.7759/cueres.994.  
 \*Cacioppo JT, Patrick, W. (2008). *Loneliness*. New York, NY: Norton Publishing.  
 \*Cacioppo JT, Hawkley LC. Perceived social isolation and cognition. *Trends Cogn Sci*. 2009;13(10):447-54.  
 \*Douglas M Vittal Katikireddi S Taulbut M McKee M McCartney G (2020). Mitigating the wider health effects of covid-19 pandemic response.  
 \*Harvard Health. (2019). The health benefits of strong relationships. Retrieved from [https://www.health.harvard.edu/newsletter\\_article/the-health-benefits-of-strong-relationships](https://www.health.harvard.edu/newsletter_article/the-health-benefits-of-strong-relationships). The *bmj*. 69:m1557 doi: 10.1136/bmj.m1557  
 \*Health in Aging (2020). 12 ways to ease isolation while you're practicing social distancing. Retrieved from <https://www.healthinaging.org/blog/12-ways-to-ease-isolation-while-youre-practicing-social-distancing/>  
 \*Killam, K. (2020). How to prevent loneliness in a time of social distancing. *Scientific American*, retrieved from <https://www.scientificamerican.com/article/how-to-prevent-loneliness-in-a-time-of-social-distancing/>  
 \*Korupolu R Stampas R Gibbons C Hernandez Jimenez I Skelton F Verdusco-Gutierrez M. (2020) COVID-19: Screening and triage challenges in people with disability due to Spinal Cord Injury. *Spinal Cord Series and Cases* (2020) 6:35 <https://doi.org/10.1038/s41394-020-0284-7>  
 \*Newman SD, Li C, Krause JS. Social isolation after spinal cord injury: Indicators from the longitudinal aging study. *Rehabil Psychol*. 2016; 61(4): 408-416.  
 \*Pittman M Reich B (2016). Social media and loneliness: Why an Instagram picture may be worth more than a thousand words. *Computers in Human Behavior* 62 (155-167)  
 \*Veazie S, Gilbert J, Winchell K, Paynter R, Guise J-M. Addressing Social Isolation To Improve the Health of Older Adults: A Rapid Review. *Rapid Evidence Product*. (Prepared by Scientific Resource Center under Contract No. 290-2017-00003-C.) AHRQ Publication No. 19-EHC009-EF. Rockville, MD: Agency for Healthcare Research and Quality; February 2019. Posted final reports are located on the Effective Health Care Program search page. DOI: <https://doi.org/10.23970/AHRQEP-C-RAPIDISOLATION>.