

AWARD NUMBER: W81XWH-19-1-0735

TITLE: Loneliness and Its Relation to Health in People with Spinal Cord Injury

PRINCIPAL INVESTIGATOR: Susan Robinson-Whelen, Ph.D.

CONTRACTING ORGANIZATION: Baylor College of Medicine, Houston, TX

REPORT DATE: October 2023

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Development Command
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for Public Release;
Distribution Unlimited

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE October 2023		2. REPORT TYPE Annual		3. DATES COVERED 01Sep2022-31Aug2023	
4. TITLE AND SUBTITLE Loneliness and Its Relation to Health in People with Spinal Cord Injury				5a. CONTRACT NUMBER W81XWH-19-1-0735	
				5b. GRANT NUMBER W81XWH-19-1-0735	
				5c. PROGRAM ELEMENT NUMBER n/a	
6. AUTHOR(S) Susan Robinson-Whelen, Ph.D. Rosemary B. Hughes, Ph.D. Heather B. Taylor, Ph.D. E-Mail: susanrw@bcm.edu				5d. PROJECT NUMBER n/a	
				5e. TASK NUMBER n/a	
				5f. WORK UNIT NUMBER n/a	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Baylor College of Medicine ONE BAYLOR PLAZA HOUSTON TX 77030-3411				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Development Command Fort Detrick, Maryland 21702-5012				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT The objective of this study is to enhance the understanding of loneliness in people with SCI and examine its relation to psychological and physical health through a longitudinal survey study. We propose four specific aims designed to enhance the understanding of 1) the experience of loneliness in people with SCI, 2) the contextual factors (e.g., demographics, disability characteristics) related to loneliness, 3) the relation between loneliness and psychological and physical health in people with SCI, and 4) the extent to which loneliness predicts health independent of contextual variables, including social isolation. We will conduct a national longitudinal survey study of 350 people with SCI. Participants will complete the survey at baseline and again 12 months later. Findings will have the potential to both advance SCI research by informing intervention development and improve clinical care by alerting health care providers of the importance of addressing loneliness in their patients.					
15. SUBJECT TERMS Spinal cord injury, loneliness, social isolation, physical health, psychological health					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 10	19a. NAME OF RESPONSIBLE PERSON USAMRDC
a. REPORT U	b. ABSTRACT U	c. THIS PAGE U			19b. TELEPHONE NUMBER <i>(include area code)</i>

TABLE OF CONTENTS

	Page
1. Introduction	4
2. Keywords	4
3. Accomplishments	4
4. Impact	8
5. Changes/Problems	8
6. Products	9
7. Participants and Other Collaborating Organizations	9
8. Special Reporting Requirements	10
9. Appendix Contents	10
10. Appendices	10

1. Introduction

Research with the general population demonstrates the adverse effects of loneliness on health. Few studies, however, have addressed loneliness and its relation to health in people with SCI who often lack opportunities for social connection. The objective of this study is to enhance the understanding of loneliness in people with SCI and examine its relation to psychological and physical health through a longitudinal survey study. We propose four specific aims designed to enhance the understanding of 1) the experience of loneliness in people with SCI, 2) the contextual factors (e.g., demographics, disability characteristics) related to loneliness, 3) the relation between loneliness and psychological and physical health in people with SCI, and 4) the extent to which loneliness predicts health independent of contextual variables, including social isolation. With input from a community advisory board (CAB) of men and women with SCI, we are conducting a national longitudinal survey study of 350 people with SCI. Participants complete the survey at baseline and again 12 months later. Findings will have the potential to both advance SCI research by informing intervention development and improve clinical care by alerting health care providers of the importance of addressing loneliness in their patients.

2. Keywords

Spinal cord injury, loneliness, social isolation, physical health, psychological health

3. Accomplishments

What were the major goals of the project?

Specific Aims 1-4	Timeline Yr/Qrtr	Progress
Major Task 1 – Study Initiation		
Secure approval from BCM's IRB	Y1Q1	Completed
Secure approval from UM's IRB	Y1Q1	Completed
Secure approval from TIRR-MH	Y1Q1	Completed
Secure USAMRMC Office of Research Protections (ORP) approval	Y1Q1-Y1Q2	Completed
Hire/train research assistant(s)	Y1Q1	Completed
Conduct regular meetings with research team	Y1Q1-Y3Q4	Completion ongoing
Convene/hold Community Advisory Board (CAB) meetings	Y1Q1-Y3Q4	Completion ongoing
Maintain IRB/HRPO approval for docs and protocols	Y1Q1- 3Q4	IRB approved through 2026
<i>Milestone: IRB approvals, USAMRMC ORP approval, TIRR- MH approval</i>	Y1Q2	Completed
Major Task 2 – Prepare for National Survey Study Data Collection		
Finalize list of measures	Y1Q1	Completed
Develop screening interview, consent script, consent form	Y1Q1-Y1Q2	Completed
Develop T1 and T2 surveys using Qualtrics	Y1Q1-Y1Q2	Completed
Establish procedures for study implementation	Y1Q1-Y1Q2	Completed
Develop/produce recruitment flyers, promotional items, news blurbs, posts, and recruitment letters	Y1Q2	Completed
Create/maintain databases for collecting participant data, tracking participant progress, and tracking recruitment activities	Y1Q2-Y3Q4	Completed

<i>Milestones Achieved: *Procedures finalized for Beta Test Screening interview; *Qualtrics survey developed for Beta Test *Databases created</i>	Y1Q2	Completed
Major Task 3 – Conduct Beta Test		
Conduct beta test with CAB	Y1Q2-Y1Q3	Completed
Revise procedures/docs based on beta	Y1Q2-Y1Q3	Completed
<i>Milestone(s) Achieved: All materials and procedures revised and ready for full survey study</i>	Y1Q3	Completed
Major Task 4 – Implement Full Study		To be completed Y1Q3 – Y3Q3
Distribute recruitment materials to organizations across the U.S.	Y1Q3-Y2Q3	Completed
Screen and enroll 350 participants in the national survey study	Y1Q3-Y2Q3	Completed with T1 sample size of 346
Collect T1 data	Y1Q3-Y2Q3	Completed
Collect T2 data	Y2Q3-Y3Q3	T2 data collection was completed during Y3Q4
<i>Milestone Achieved: Data collection complete on 7% of sample Data collection complete on 39% of sample Data collection complete on 58% of sample Data collection complete on 84% of sample Data collection complete on 100% of sample</i>	Y2Q3 Y2Q4 Y3Q1 Y3Q2 Y3Q3	T2 data collection began during Y3Q2 and was completed during Y3Q4.
Major Task 5 – Data Entry, Management, and Analysis		To be completed Y1Q3 – Y3Q3
Maintain data management systems and create/maintain comprehensive data codebook	Y1Q3-Y3Q4	Completed
Conduct weekly data checks, test quality and integrity of the dataset	Y1Q3-Y3Q4	Completed for T1 and T2
Complete data scoring and data consolidation of contextual variables	Y2Q3	Completed for T1 and T2
Analyze data and test hypotheses (cross-sectional analyses to begin Y2Q4; longitudinal analyses to begin Y3Q3)	Y2Q4-Y3Q4	Ongoing
Present results to the advisory board for input on interpretation and ideas for dissemination to consumers	Y2Q4-Y3Q4	Completed for T1 data; pending for T2 data results.
<i>Milestone Achieved: Data analysis and interpretation complete</i>	Y3Q4	Pending/Underway
Major Task 6 – Dissemination of Findings and Fact Sheets		
Complete deliverable reports to CDMRP	Y1Q1-3QY4	This is the fourth annual report.
Present findings at scientific meetings	Y2Q4-Y3Q4	Presentations of results are ongoing for T1 data and pending for T2 data
Prepare/submit manuscripts to peer-reviewed journals	Y2Q4-Y3Q4	Submissions are ongoing
Develop Fact Sheets/materials with CAB for health care/disability service providers	Y2Q4-Y3Q4	Planned after data analysis is complete
Prepare final report for CDMRP	Y3Q4	Due after NCE (now Feb 2024 or Y5Q2)
<i>Milestone Achieved: Dissemination of study findings complete</i>	Y3Q4	New milestone date Y4Q4

What was accomplished under these goals?

Major Task 1 (Study Initiation) –

- Throughout the NCE period, we have maintained IRB approval from Baylor College of Medicine (Protocol #H-45581) and the University of Montana (UM IRB #166-19). We sought an additional 6 month NCE, which was approved. The new project end date is now February 29, 2024.
- We have continued to discuss project progress and project activities during regular investigator meetings. In addition, PI Susan Robinson-Whelen has continued to meet on a regular basis with lead RA Rodriguez.
- We did not meet with the community advisory board (CAB) because we were still waiting for data analyses to be completed. We have notified our CAB that we will hold our final CAB meetings during the remaining 6 month NCE.

Major Task 2 (Prepare for National Survey Study) –

All major tasks regarding preparation for the national survey study were completed in Year 1 of the project.

Major Task 3 (Conduct Beta Test) –

We completed the beta testing with our CAB and revised procedures and documents accordingly in Year 1. We received approval of those modifications by HRPO in December 2020.

Major Task 4 (Full Study Implementation) –

Data collection for the project was completed in the first quarter of the NCE period (August 2022).

Major Task 5 (Data Management and Analysis) –

- During the NCE, Dr. Robinson-Whelen cleaned the T2 data, examined the dataset for outliers, scored T2 variables, merged the T1 and T2 dataset, and provided the dataset and data dictionary to the statisticians.
- With the datasets merged, we were able to examine our sample that had data for both T1 and T2 and calculate our rate of attrition, which was notably less than estimated in the original grant proposal. We were also able to examine characteristics of our final longitudinal sample. We were satisfied that we did not find significant differences between those retained and those who were lost at T2 in demographic or disability characteristics. We also did not find significant differences in our key loneliness and social isolation variables (i.e., UCLA-20 Loneliness, CHART Social Integration)
- Dr. Robinson Whelen and study investigators examined sex differences in both T1 and T2 psychological health variables (depression, anxiety, stress, and PTSD symptomatology) and found significant sex differences on all psychological health variables at Time 1 (during the height of the pandemic before and during the early months of the vaccine roll out), but differences were notably not found at T2 a full year later. Given findings that women reported a greater negative impact of the pandemic, we suggest that the pandemic may have had a greater impact on psychological health of women with SCI than men. These findings will be presented in October 2023 at the American Congress of Rehabilitation Medicine (ACRM).
- During the past year, we have met regularly with our new team of statisticians to analyze the data and address our study hypotheses. Study analyses are progressing well but have taken more time than anticipated as we build this collaboration with a new team of statisticians
- In analyses recently completed, loneliness was found to be significantly related to both psychosocial and most physical health variables cross-sectionally (Hypothesis 2a) and longitudinally (Hypothesis 2b). Associations were stronger with psychological than physical health variables. Loneliness was considerably more highly related to health outcomes than was social isolation. Analyses support Hypothesis 3 that loneliness is significantly related to psychological and physical health above and beyond demographics, disability characteristics, and notably social isolation. We are still examining the exploratory analyses with our statisticians, but loneliness does not seem to significantly predict change over time on most outcome variables, possibly because of the relative stability of outcomes over this short one year window of time between T1 and T2. We are continuing to explore longitudinal associations with our statisticians.

Major Task 6 (Dissemination) -

- Quarterly reports outlining the continued progress of the SCI Study have been regularly submitted throughout the NCE period. This report constitutes the fourth annual report submitted.
- In the first quarter of the NCE period, we presented two abstracts at ACRM's annual conference in Chicago based on T1 study data.

Robinson-Whelen, S., Hughes, R. B., Taylor, H. B., Holmes, S. A., Rodriguez, J., Staggars, K. A., & Minard, C. G. (2022). *Examining Loneliness and Its Correlates in a Sample of People with Spinal Cord Injury*. Accepted for presentation at the American Congress of Rehabilitation Medicine Annual Meeting, Chicago, IL (November, 2022).

Robinson-Whelen, S., Hughes, R. B., Taylor, H. B., Holmes, S. A., & Rodriguez, J. (2022). *Examining Lifetime Abuse Experiences of People with Spinal Cord Injury*. Accepted for presentation at the American Congress of Rehabilitation Medicine Annual Meeting, Chicago, IL (November, 2022).

- During the first quarter, we also presented findings on the impact of the COVID-19 pandemic to the TIRR Memorial Hermann Management Council. After presenting the COVID-19 findings, we discussed how those findings can inform practice for those providing care to patients in the TIRR Memorial Hermann network of hospitals and clinics.

Robinson-Whelen, S. (2022, September). *Impacts of the COVID-19 Pandemic on People with Spinal Cord Injury*. Presentation at monthly meeting of the TIRR Management Council, Houston, TX.

- In the second quarter of the NCE period, our paper on the impacts of the COVID-19 pandemic was published in the APA journal, *Rehabilitation Psychology*.

Robinson-Whelen, S., Hughes, R. B., Taylor, H. B., Holmes, S. A., Rodriguez, J. & Manohar, S. (2023). Impacts of the COVID-19 pandemic on people with spinal cord injury. *Rehabilitation Psychology*, 68 (1), 1-11. doi: 10.1037/rep

- During the third quarter of the NCE, Dr. Robinson-Whelen presented findings from the study at Baylor College of Medicine's Department of Physical Medicine and Rehabilitation's Grand Rounds. These presentations are accredited by the Accreditation Council for Continuing Medical Education (ACCME). This presentation reviewed results of a few studies including findings about elevated loneliness scores among people with SCI from the current study.

Robinson-Whelen, S. (2023, April). *Addressing the Psychosocial Health Needs of People with Spinal Cord Injury*. Presentation at Baylor College of Medicine H. Ben Taub Department of Physical Medicine and Rehabilitation's Ground Rounds, Houston, TX.

- Additionally, in the third quarter of the NCE, findings from the study were accepted for presentation at ACRM. This presentation, which will be presented at November in Atlanta, will be a part of a symposium focused on women with SCI and/or TBI.

Robinson-Whelen, S., Taylor, H. B., Hughes, R. B., Rodriguez, J., and Holmes, S. A., (2023). *Psychological health of people with spinal cord injury during COVID-19: Are there differential impacts on women?* Accepted for presentation at the American Congress of Rehabilitation Medicine Annual Meeting, Atlanta, GA (October, 2023).

- Finally, in the fourth quarter of the NCE, study findings were submitted for presentation at the American Spinal Injury Association Annual Meeting in May 2024. We are waiting to hear if this abstract has been accepted for presentation.

Robinson-Whelen, S., Taylor, H. B., Hughes, R. B., Staggars, K. A., Rodriguez, J., Holmes, S. A., & Minard, C. G. (2023). *Loneliness and Its Relation to Psychological and Physical Health among People with Spinal Cord Injury*. Abstract submitted for presentation at the American Spinal Injury Association Annual Conference, San Juan, Puerto Rico (May, 2024).

What opportunities for training and professional development has the project provided?

- We worked with a Baylor College of Medicine student on our paper on the impacts of COVID-19 on people with SCI. That paper, which was published during the past NCE year, offer her good research experience and provided professional development and CV enhancement.
- Our presentation at Baylor College of Medicine's Department of Physical Medicine and Rehabilitation's Grand Rounds was part of the department's training program for residents, fellows, and faculty. These presentations are accredited by the Accreditation Council for Continuing Medical Education (ACCME).
- In addition, our lead RA on this project plans to pursue a graduate degree in psychology. Many of her activities on this project have served as training and professional development. She has gained skills in survey development as well as project and data management. She has had involvement with data analysis and dissemination activities with experience developing abstracts, creating powerpoint presentations for conferences, and contributing to the writing and reviewing of study manuscripts.

How were the results disseminated to communities of interest?

During the past year, study results have been disseminated to academic audiences attending the ACRM annual conference, the BCM community of medical students and faculty, and members of TIRR Memorial Hermann's Management Council which includes managers of clinical services. Findings from the project were also disseminated to a wider academic audience through the APA journal *Rehabilitation Psychology*. In the upcoming quarter, we will be presenting results at the 2023 ACRM conference. We drafted a lay summary of our study on the impacts of the COVID pandemic. We plan to similarly create lay summaries of each of our papers for consumer uptake.

What do you plan to do during the next reporting period to accomplish the goals and objectives?

- During the next 6-month NCE, we will continue to analyze data with our statisticians. In addition to continued longitudinal analyses, we plan to repeat analyses predicting loneliness using our T1 data. We do not anticipate our results to change much; however, we noted that some demographic variables we had planned to consider were omitted from those analyses, so our statisticians are repeating those analyses before we begin drafting that manuscript for publication. Given the strong, sudden interest in loneliness, we plan to work with our statisticians to more closely examine our measures of loneliness. We have a unique dataset that includes both the full 20-item version of the UCLA Loneliness Scale and the brief 3-item scale. We also have data on the full scale at two times of testing – 12 months apart. This offers the opportunity to contribute to the literature by comparing results using these two versions of the measure and by exploring the stability of the construct over time. While we anticipate completing these analyses during the 6-month NCE, this may not happen during the upcoming reporting period given our current pace.
- During the next reporting period, we plan to meet with our CAB to obtain input on our findings and our interpretation of those findings. We also plan in subsequent meeting to seek their advice and guidance on dissemination of those findings.
- In October, we will present study findings at the annual ACRM conference.
- During the next reporting periods, we plan to begin preparing a manuscript on the predictors of loneliness among people with SCI.

4. Impact

What was the impact on the development of the principal discipline(s) of the project?

Nothing to report until data analysis and dissemination are complete

What was the impact on the other disciplines?

Nothing to report until data analysis and dissemination are complete

What was the impact on technology transfer?

Nothing to report until data analysis and dissemination are complete

What was the impact on society beyond science and technology?

Nothing to report until data analysis and dissemination are complete

5. Changes/Problems

Changes in approach and reasons for change

There have not been any additional changes since the submission of the last annual report.

Actual or anticipated problems or delays and actions or plans to resolve them

As noted in our NCE request, our original statistician, which whom we have worked for 20+ years, passed away, we found a strong team of statistician and we are progressing well in our analysis of the data; however, the transition has taken more time than originally expected. We appreciate the additional 6-month NCE to wrap up our analyses and engage our advisors in the interpretation and dissemination of study findings. We do not expect any difficulties completing these remaining activities during the additional NCE.

Changes that had a significant impact on expenditures

There have been no changes that posed a significant impact on expenditures in Year 2.

Significant changes in use of care of human subjects, vertebrate animals, biohazards, and/or select agents - Nothing to report.

Significant changes in use or care of human subjects - Nothing to report.

Significant changes in use or care of vertebrate animals - Nothing to report.

Significant changes in use of biohazards and/or select agents - Nothing to report.

6. Products

Publications, conference papers, and presentations

Journal publications

Robinson-Whelen, S., Hughes, R. B., Taylor, H. B., Holmes, S. A., Rodriguez, J. & Manohar, S. (2023). Impacts of the COVID-19 pandemic on people with spinal cord injury. *Rehabilitation Psychology*, 68 (1), 1-11. doi: 10.1037/rep

Books or other non-periodical, one-time publications - Nothing to report.

Other publications, conference papers, and presentations

Robinson-Whelen, S., Hughes, R. B., Taylor, H. B., Holmes, S. A., Rodriguez, J., Stagers, K. A., & Minard, C. G. (2022). *Examining Loneliness and Its Correlates in a Sample of People with Spinal Cord Injury*. Presented at the American Congress of Rehabilitation Medicine Annual Meeting, Chicago, IL (November, 2022).

Robinson-Whelen, S., Hughes, R. B., Taylor, H. B., Holmes, S. A., & Rodriguez, J. (2022). *Examining Lifetime Abuse Experiences of People with Spinal Cord Injury*. Presented at the American Congress of Rehabilitation Medicine Annual Meeting, Chicago, IL (November, 2022).

Robinson-Whelen, S. (2023, April). Addressing the Psychosocial Health Needs of Women with Spinal Cord Injury. Presentation at Baylor College of Medicine H. Ben Taub Department of Physical Medicine and Rehabilitation's Ground Rounds, Houston, TX.

Robinson-Whelen, S., Taylor, H. B., Hughes, R. B., Rodriguez, J., and Holmes, S. A., (2023). Psychological health of people with spinal cord injury during COVID-19: Are there differential impacts on women? Accepted for presentation at the American Congress of Rehabilitation Medicine Annual Meeting, Atlanta, GA (October, 2023).

Website(s) or other Internet site(s) - Nothing to report

Technologies or techniques - Nothing to report

Inventions, patent applications, and/or license - Nothing to report

Other Products - Nothing to report

7. Participants and Other Collaborating Organizations

What individuals have worked on the project?

Name:	Susan Robinson-Whelen, PhD – Changed from 25% to 10% during NCE
Name:	Heather Taylor, PhD – Changed from 10% to 1% during NCE
Name:	Rosemary Hughes, PhD – Changed from 10% to 0% fte during NCE
Name:	Jessica Rodriguez, BS – Changed from 50% to 20% during NCE Role: Project Coordinator

Has there been a change in the active other support of the PD/PI or senior/key personnel since the last reporting period? Yes

New Support Received During the Last Reporting Period:

Mindfulness Meditation Training and Home Practice in Persons with SCI: A pilot study

1R34AT011530-01A1, NIH's National Center on Complementary and Integrative Health (NCCIH)

This project had a start date of 04/01/2022. Drs. **Robinson-Whelen** (12% fte) and **Taylor** (5% fte) are involved as co-Investigators. This change in support did not impact the effort on the current project.

Texas Model Spinal Cord Injury System

90SIMS0019, National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR)

This project had a start date of 09/01/22. Dr **Taylor** is PI of the TMSIS and is involved at 30% fte. Dr.

Robinson-Whelen is PI of the site-specific project at 30% fte. Dr. **Hughes** is involved at 25% fte as a co-investigator. This change in active other support did not impact the effort on the current project

Understanding Interpersonal Violence Against People with SCI and Its Psychosocial Impacts

HT94252310396, DoD Spinal Cord Injury Research Program (SCIRP)

With a start date of 09/01/23, this project was not active during the current reporting period. The ftes on this project will be: PI **Robinson-Whelen**, 25%; Co-I **Hughes**, 20% fte; and Co-I **Taylor**, 2% fte.

What other organizations were involved as partners?

Organization Name: TIRR Memorial Hermann (Houston, TX)

Partner's contribution to the project:

In-kind support: Makes computers, software, equipment available to TIRR-MH Co-I/RA

Facilities: TIRR-MH Co-I/RA use TIRR-MH facilities/office space for project activities

Collaboration: TIRR-MH Co-I/RA collaborate with PI and UM Co-I on project activities

Organization Name: University of Montana, Rural Institute for Inclusive Communities (Missoula, MT)

Partner's contribution to the project:

In-kind support: Makes computers, software, equipment available to UM Co-I


Facilities: UM Co-I uses UM facilities/office space for project activities

Collaboration: UM Co-I collaborates with PI and other project personnel on project activities

8. Special Reporting Requirements

Collaborative Awards – Not applicable

Quad Chart -

Loneliness and Its Relation to Health in People with Spinal Cord Injury				
PI: Susan Robinson-Whelen, Ph.D.		Org: Baylor College of Medicine		Award Amount: \$607,008.00
<p>Study/Product Aim(s)</p> <p>We aim to enhance understanding of:</p> <ul style="list-style-type: none"> the experience of loneliness in people with SCI, including veterans; the contextual factors (demographics, disability characteristics) related to loneliness; the relation between loneliness and psychological and physical health in people with SCI; and the extent to which loneliness predicts psychological and physical health independent of the influence of contextual variables, including social isolation <p>Approach</p> <p>With input from a community advisory board of people with SCI, we plan to conduct a longitudinal national survey study of 350 civilians and veterans with SCI. Surveys will include contextual variables as well as measures of loneliness, social isolation, and physical and psychological health administered at baseline and 12 months later, allowing us to examine cross-sectional as well as longitudinal associations</p>		<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;"> <p>You can feel just as lonely in a crowd ~Anonymous</p> </div> <div style="text-align: center;">  <p>SCI Study Small Circumstances, Big Story</p> </div> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;"> <p>One of the major issues [for people with SCI] is loneliness, which of course is very present in the early days of injury but continues throughout our lives. ~Veteran with SCI serving on the project's Community Advisory Board</p> </div> </div> <p>Accomplishments:</p> <ul style="list-style-type: none"> Longitudinal data was collected on 320 study participants – an 8% rate of attrition. Data on the impacts of the pandemic on psychosocial health have been presented at local and national conferences. Findings have been published in <i>Rehabilitation Psychology</i>. Study findings regarding characteristics predicting loneliness and correlates of lifetime abuse have been presented at national conferences. Analyses examining the relation between loneliness and physical and psychological health have been conducted and submitted for presentation at an upcoming national conference. 		
Timeline and Cost				
Activities	FY1	FY2	FY3	NCE 1/2
Obtain approvals/maintain regulatory compliance; Prepare documents/materials for survey study				
Beta test materials, procedures, databases; Revise based on beta test input				
Recruit, screen, enroll, and collect data at baseline and at 12 months				
Analyze data, disseminate study results to academic and consumer audiences				
Estimated Budget (\$607K)	\$212K	\$199K	\$196K	Est. Total \$607K
Updated: 15 SEPTEMBER 2023 (NCE Annual Report)				
<p>Goals/Milestones by Funding Year (FY)</p> <p>FY1 Goals – Study Start-up and Survey Preparation</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Secure approvals; hire/assign staff; convene advisory board <input checked="" type="checkbox"/> Prepare all materials and databases for study implementation <input checked="" type="checkbox"/> Conduct beta test and revise based on input <input checked="" type="checkbox"/> Connect with community organizations and begin recruitment <p>FY2 Goal – Survey Implementation</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Complete recruitment, enrollment, and survey completion of baseline survey <input checked="" type="checkbox"/> Retain participants through attrition reduction survey <input checked="" type="checkbox"/> Score and analyze baseline data <p>FY3 Goals – Survey Completion, Data Analysis, and Dissemination</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Begin and complete 12 month surveys <input type="checkbox"/> Analyze and interpret longitudinal data with input from advisory board <input type="checkbox"/> Disseminate findings through local and national conferences, academic journals, consumer-oriented materials; Prepare final report <p>Comments/Challenges/Issues – A 6-month no cost extension (NCE) was requested and approved to complete grant activities.</p>				

9. Appendices - None