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TITLE: Perspectives on Recovery and Interventions to Restore Function Across the First Year of Spinal Cord Injury

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14. ABSTRACT The present study will focus on needs of Veterans who have experienced spinal cord injury (SCI), as well as needs of those Veterans' caregivers, during the first year of injury as they attempt to reintegrate into the community. This study will compare the experiences of Veterans and their caregivers with those of civilians to identify treatment and policy needs that are shared and different, which may lead to more successful rehabilitation and community reintegration. <u>Aim #1</u> - To study how people with newly-acquired SCI define and experience recovery and how that experience shapes priorities and interest in treatment options and clinical trials that may restore function and improve reintegration. <u>Aim #2</u> - To study experiences of family and other support systems of people with SCI as they navigate resources for treatment options and clinical trials that may restore function and improve reintegration of their loved one. As of June 30, 2022, all civilians have completed the study and 7 Veterans have been enrolled. Currently, all interviews completed thus far are being coded/analyzed.						
15. SUBJECT TERMS Recovery; community reintegration; spinal cord injury; rehabilitation experience; access to treatments						
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The text of the report must include all sections addressed in the table of contents to include the following. DO include the bolded section headings, but DO NOT include the italicized descriptions of section contents in your submitted reports.

- 1) INTRODUCTION: Narrative that briefly (one paragraph) describes the subject, purpose and scope of the research.

The present study will focus on needs of Veterans who have experienced spinal cord injury (SCI), as well as needs of those Veterans’ caregivers, during the first year of injury as they attempt to reintegrate into the community. This study will compare the experiences of Veterans and their caregivers with those of civilians to identify treatment and policy needs that are shared and different, which may lead to more successful rehabilitation and community reintegration. It is critical to have a better understanding of the barriers that Veterans living with SCI experience as they seek to return home, return to work, and reintegrate into society, including factors that are unique to Veterans and their caregivers. Obtaining perspectives across the continuum of injury is crucial, particularly during the first year, as perspectives may vary depending upon psychosocial factors and experiences of recovery over time. **Specific Aims:** ***Aim #1** – To study how people with newly-acquired SCI define and experience recovery and how that experience shapes priorities and interest in treatment options and clinical trials that may restore function and improve reintegration.* ***Aim #2** – To study experiences of family and other support systems of people with SCI as they navigate resources for treatment options and clinical trials that may restore function and improve reintegration of their loved one.* **Study Design:** We will conduct a series of in-depth, semi-structured interviews in a cohort of individuals with newly-acquired SCI (15 Veterans, 15 civilians) as well as a family member or other person of support designated by the participant with SCI (15 matched with Veterans, 15 matched with civilians). Three interviews will be conducted with each participant over the first year after injury (one during inpatient rehabilitation, one approximately 6 months post-injury, and 1 at 12 months post-injury).

- 2) KEYWORDS: Provide a brief list of keywords (limit to 20 words).

Recovery; community reintegration; spinal cord injury; rehabilitation experience; access to treatments

- 3) ACCOMPLISHMENTS:

- a) What were the major goals of the project? List the major goals of the project as stated in the approved SOW. If the application listed milestones/target dates for important activities or phases of the project identify these dates and show actual completion dates or the percentage of completion.

Major Task 1 – Coordinate research team and finalize study processes/materials

Milestone: Finalized study material – due month 1 – 100% complete, Metro and VA

Milestone: Obtain local IRB approval – due month 3 – 100% complete, Metro and VA

MetroHealth IRB – approved 6/17/19 and 12/2/19; renewed 5/26/20, 4/16/21, 4/15/22

Cleveland VA IRB – approved 2/21/20, does not require renewal

Milestone: Obtain HRPO approval – due month 3 – 100% complete, Metro and VA

HRPO for MetroHealth – approved 12/27/19

HRPO for Cleveland VA – approved 4/1/20

Major Task 2 – Study recruitment and interviews

Milestone: 1st dyad consented, screened, and enrolled – due month 4 – 100% complete Metro and VA

Milestone: 50% of dyads consented, screened, and enrolled – due month 11 – 100% complete Metro; 100% complete VA

Milestone: 1st interview completed – due month 4 – 100% complete Metro; 100% complete VA

Milestone: 50% of interviews completed – due month 16 – 100% complete Metro; 62% complete VA

Major Task 3 – Data Analyses and Dissemination

Milestone: 50% of interviews coded – due month 17 – 100% complete Metro; 44% complete VA

Milestone: Preliminary interim data analyses and dissemination – due month 18 – in progress

Milestone: Report results from final data analyses – due month 36 (No Cost Extension to month 48)

- b) What was accomplished under these goals? For this reporting period describe: 1) major activities; 2) specific objectives; 3) significant results or key outcomes, including major findings, developments, or conclusions (both positive and negative); and/or 4) other achievements. Include a discussion of stated goals not met. Description shall include pertinent data and graphs in sufficient detail to explain any significant results achieved. A succinct description of the methodology used shall be provided. As the project progresses to completion, the emphasis in reporting in this section should shift from reporting activities to reporting accomplishments.

1) MAJOR ACTIVITIES

Target Enrollment:

	Year 1	Year 2	Year 3

Target Enrollment (per quarter)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
LSCVAMC (N=30)	0	6	6	6	2	0	6	4	0	0	0	0
MRIO (N=30)	0	6	6	6	2	0	6	4	0	0	0	0
Target Enrollment (cumulative N=60)	0	12	24	36	40	40	52	60	60	60	60	60

Actual Enrollment:

	Year 1				Year 2				Year 3				Year 4			
Actual Enrollment (per quarter)	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
LSCVAMC (N=12)	0	0	0	0	0	1	2	5	1	0	1	2				
MRIO (N=34)	0	0	8	9	8	1	2	6	-	-	-	-				
Actual Enrollment (cumulative N=60)	0	0	8	17	25	27	31	42	43	43	44	46				

MetroHealth site:

Number of subjects reviewed for eligibility: 94 (SCI)

Number of subjects screened/original planned target: 64 (SCI)/100 (SCI)

Number of subjects enrolled/original planned target: 34 (17 SCI, 17 Support)/30

Number of subjects completed/original planned target: 29/30 FINAL

Cleveland VA site:

Number of subjects reviewed for eligibility: 42 (SCI)

Number of subjects screened/original planned target: 28 (SCI)/100 (SCI)

Number of subjects enrolled/original planned target: 12 (7 SCI, 5 Support)/30

Number of subjects completed/original planned target: 7/30

2) SPECIFIC OBJECTIVES

Our primary objective has been to complete enrollment and interviews. After the informed consent process, participants undergo 3 study visits.

Visit 1: International SCI Core dataset, SCIM III, Mooring Self-Efficacy Scale, interview #1 [duration 1.5 hours]; this visit is conducted in the participant's room or other quiet space in the rehabilitation center or by telephone while the person with SCI is still in inpatient rehabilitation.

Visit 2: Interview #2 [duration 1 hour]; this visit is conducted in person or by telephone when the person with SCI is between 5-7 months post-injury (target is 6 months post-injury).

Visit 3: SCIM III, Mooring Self-Efficacy Scale, interview #3 [duration 1.5 hours]; this visit is conducted in person or by telephone when the person with SCI is between 11-13 months post-injury (target is 12 months post-injury).

All interviews are audio recorded and then transcribed (by Rev.com). Upon receipt of the transcript, the PI ensures it is completely deidentified and cross checks it with the audio recording for accuracy. The PI and 3 Co-I's individually code each transcript (with NVivo software) and then come together to discuss and agree upon the final codes, which are kept in a master coded file. The master coded file will be used for data analyses.

3) PRELIMINARY RESULTS

Demographics

Participant	Age	Gender	Race	Status	Injury level	SCIM		Mooring	
						initial	final	initial	final
MH-101	54	M	African American	Civilian	C4 AIS C	22	16	97	104
MH-201	54	F	White	Spouse					
MH-102	36	M	White	Civilian	C7 AIS A	53	54	102	87
MH-202-1*	36	F	White	Girlfriend					
MH-202-2*	35	F	White	Sister					
MH-103	65	F	White	Civilian	C4 AIS A	13	18	52	54
MH-203	66	M	White	Spouse					
MH-104	73	M	White	Civilian	T7 AIS A	43	39	73	63
MH-204	71	F	White	Spouse					
MH-105	28	M	African American	Civilian	C4 AIS B	18	18	88	63
MH-205	47	F	African American	Mother					

MH-106	69	F	White	Civilian	C6 AIS D	32	85	71	92
MH-206	69	F	White	Friend					
MH-107†	29	M	White	Civilian	T6 AIS C	59		94	
MH-207†	36	F	White	Girlfriend					
MH-108	56	M	White	Civilian	T11 AIS B	54	83	95	94
MH-208	24	F	White	Daughter					
MH-109	25	F	African American	Civilian	C4 AIS C	24	38	57	80
MH-209	47	F	African American	Mother					
MH-110§	21	F	African American	Civilian	C5 AIS D	24		81	
MH-210	60	F	African American	Grandmother					
MH-111	22	M	African American	Civilian	C8 AIS D	55	84	95	103
MH-211	38	F	African American	Mother					
MH-112	42	M	African American	Civilian	T12 AIS D	55	88	88	84
MH-212	63	F	African American	Mother					
MH-113	38	M	African American	Civilian	T10 AIS A	57	67	59	86
MH-213	28	F	African American	Girlfriend					
MH-114‡	18	M	African American	Civilian	T10 AIS A				
MH-115	52	M	Alaska Native	Civilian	L1 AIS C	72	82	99	100
MH-215	33	F	Alaska Native	Daughter					
MH-116	27	M	White	Civilian	L1 AIS B	64	72	87	104
MH-216	29	F	White	Girlfriend					
MH-117	18	M	White	Civilian	T9 AIS C	59	69	101	101
MH-217	57	F	White	Mother					
VA-101°	22	M	White	Veteran	C6 AIS D	46		91	
VA-102	69	M	White	Veteran	C5 AIS C	33	49	102	100
VA-202	74	F	African American	Wife					
VA-103	39	M	White	Veteran	T5 AIS A	33	43	99	90
VA-203	34	F	White	Wife					
VA-104j	71	M	African American	Veteran	C4 AIS D	20		63	
VA-204	69	F	African American	Wife					
VA-105	72	M	White	Veteran	C1 AIS D	78	78	91	74
VA-205	44	F	White	Daughter					
VA-106	37	M	White	Veteran	C7 AIS B	48		104	
VA-206¥		pending	pending	pending					
VA-107	52	M	White	Veteran	C5 AIS B	45		93	
VA-207	45	F	White	Wife					

*MH-202-1 completed the first interview, but withdrew before the second interview; MH-102 asked MH-202-2 to be a replacement

†MH-207 withdrew self prior to 2nd interview stating the relationship with MH-107 ended; MH-107 was lost to follow-up

§MH-110 was lost to follow-up

‡MH-114 completed 1st interview but support person never enrolled; PI therefore withdrew MH-114

°VA-101 was never able to get support person to enroll, tried through 2nd interview; PI therefore withdrew VA-101 after 2nd interview

jVA-104 passed away about a month prior to the 3rd interview; VA-204 agreed to do the 3rd interview

¥trying to get VA-206 enrolled still

Interviews completed

Participant	Interview 1 (inpatient)	Interview 2 (6 months post)	Interview 3 (12 months post)
MH-101, MH-201	✓	✓	✓
MH-102, MH-202	✓	✓	✓
MH-103, MH-203	✓	✓	✓
MH-104, MH-204	✓	✓	✓
MH-105, MH-205	✓	✓	✓
MH-106, MH-206	✓	✓	✓
MH-107, MH-207	✓	Lost; Withdrew	Lost; Withdrew
MH-108, MH-208	✓	✓	✓
MH-109, MH-209	✓	✓	✓
MH-110, MH-210	✓	✓	Lost; ✓
MH-111, MH-211	✓	✓	✓
MH-112, MH-212	✓	✓	✓

MH-113, MH-213	✓	✓	✓
MH-114, NO MH-214	✓, then withdrawn	Withdrawn	Withdrawn
MH-115, MH-215	✓	✓	✓
MH-116, MH-216	✓	✓	✓
MH-117, MH-217	✓	✓	✓
VA-101, NO VA-201	✓	✓	Withdrawn
VA-102, VA-202	✓	✓	✓
VA-103, VA-203	✓	✓	✓
VA-104, VA-204	✓	✓	Deceased; ✓
VA-105, VA-205	✓	✓	✓
VA-106, VA-206	✓; pending		
VA-107, VA-207	✓		

Civilian data analysis

All the interviews have been master coded. We have evaluated the definitions of recovery and successful community reintegration from the perspective of the person with SCI as well as their support person. We have identified the thematic categories below and how these definitions change across the first-year post-injury are in the tables below.

*The Veteran data analysis is still in its early stages and is not included in this report.

Recovery themes over time (Civilians, Persons With SCI):

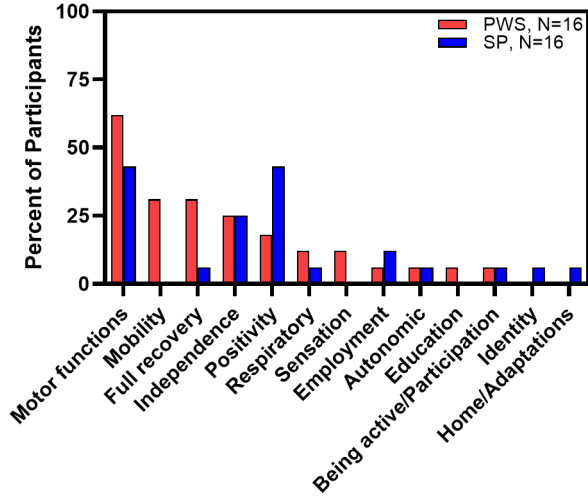
Participant	Inpatient rehabilitation	6 months post-injury	12 months post-injury
MH-101; C4 AIS C	Employment; Respiratory; Mobility	Motor functions	Time; Pragmatism; Mobility; Home/Adaptation/Activities
MH-102; C7 AIS A	Independence; Motor functions; Sensation	Independence; Sensation	Time; Positivity; Motor functions
MH-103; C4 AIS A	Motor Functions; Respiratory	Motor functions	Time; Independence; Motor functions; Pain
MH-104; T7 AIS A	Mobility; Independence; Motor functions; Sensation	Sensation; Autonomic	Positivity; Be active/Participation
MH-105; C4 AIS B	Mobility; Motor functions; Full recovery; Independence	Independence; Mobility; Employment	Progress; Motor functions
MH-106; C6 AIS D	Motor functions	Motor functions; Be active/Participation; Sensation	Full recovery
MH-107; T6 AIS C	Independence	LOST	LOST
MH-108; T11 AIS B	Motor functions; Autonomic	Full recovery; Motor functions;	Progress; Motor functions
MH-109; C4 AIS B	Full recovery; Mobility	Motor functions; Emotional; Independence	Independence; Progress
MH-110; C5 AIS D	Full recovery; Mobility; Be active/Participation	Emotional; Independence	LOST
MH-111; C8 AIS D	Full recovery; Education	Spasticity/Tone; Motor functions	Progress; Motor functions; Sensation
MH-112; T12 AIS D	Full recovery; Motor functions	Positivity; Motor functions	Progress; Pain reduction; Positivity; Time
MH-113; T10 AIS A	Positivity	Time; Emotional; Pain reduction	Positivity; Emotional
MH-115; L1 AIS C	Motor functions; Positivity	Motor functions; Be active/Participation	Time; Motor functions
MH-116; L1 AIS B	Positivity; Motor functions	Motor functions	Progress; Motor functions; Mobility
MH-117; T9 AIS C	Motor functions	Positivity; Time; Motor functions	Progress; Motor functions; Be active/Participation

Recovery themes over time (Civilians, Support Persons):

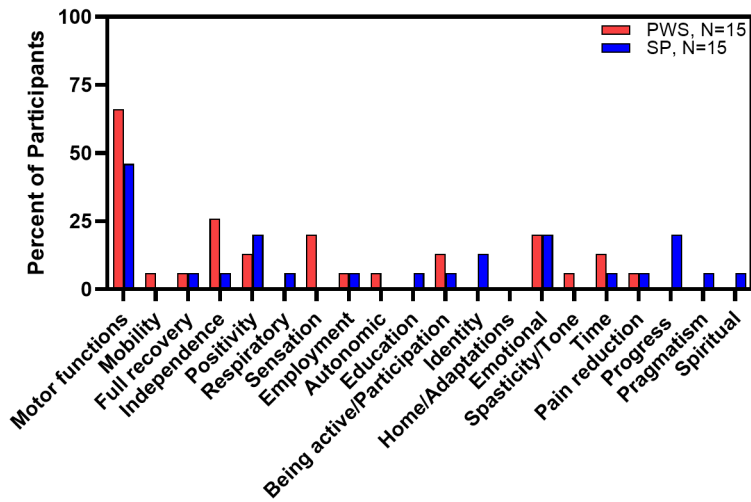
Participant	Inpatient rehabilitation	6 months post-injury	12 months post-injury
MH-201; C4 AIS C	Motor functions	Independence	Home/Adaptation/Activities
MH-202; C7 AIS A	Motor functions; Positivity	Independence; Emotional; Identity	Emotional; Home/Adaptation/Activities
MH-203; C4 AIS A	Missing	Be active/Participation; Independence; Respiratory	Independence; Motor functions; Pain; Be active/Participation; Spasticity/Tone
MH-204; T7 AIS A	Motor functions	Motor functions	Complacency; Pragmatism
MH-205; C4 AIS B	Respiratory; Independence; Employment	Time; Pragmatism; Motor functions	Emotional; Independence; Spiritual
MH-206; C6 AIS D	Independence	Motor functions; Emotional	Time; Motor functions
MH-207; T6 AIS C	Motor functions	WITHDREW	WITHDREW
MH-208; T11 AIS B	Positivity; Motor functions	Progress; Positivity	Autonomic; Progress
MH-209; C4 AIS B	Identity; Be active/Participation; Positivity	Progress; Independence	Progress; Emotional; Identity
MH-210; C5 AIS D	Independence; Employment; Motor functions;	Emotional; Spiritual; Motor functions; Full recovery	Progress; Independence; Emotional
MH-211; C8 AIS D	Positivity	Identity; Positivity	Progress; Motor functions
MH-212; T12 AIS D	Full recovery	Progress; Motor functions	Full recovery
MH-213; T10 AIS A	Positivity	Positivity; Pain reduction	Positivity
MH-215; L1 AIS C	Independence; Positivity	Independence; Motor functions	Be active/Participation; Motor functions
MH-216; L1 AIS B	Motor functions; Autonomic	Motor functions	Full recovery; Motor functions
MH-217; T9 AIS C	Positivity; Home/Adaptations/Activities	Independence; Employment; Education/Knowledge	Motor functions; Progress; Independence

The figure on the next page is a representation of the frequency of recovery themes in the two tables above for civilians with SCI as well as their support persons.

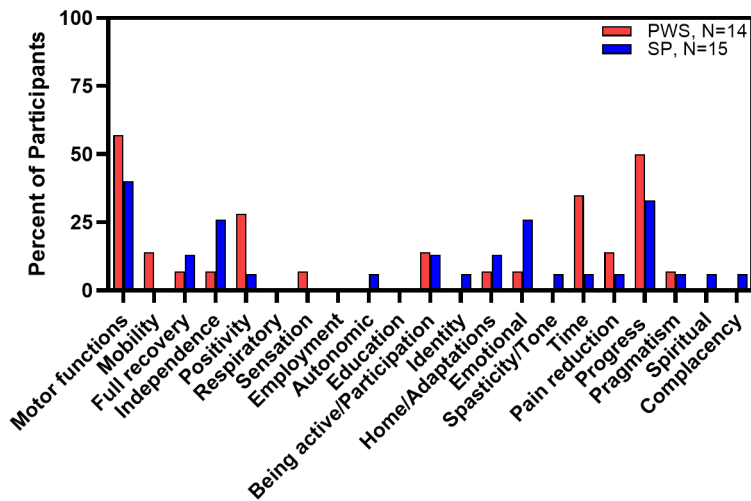
Recovery Definition Themes Identified during Inpatient Rehab



Recovery Definition Themes Identified at 6 Months Post-Injury



Recovery Definition Themes Identified at 12 Months Post-Injury



Community reintegration themes over time (Civilians, Persons With SCI):

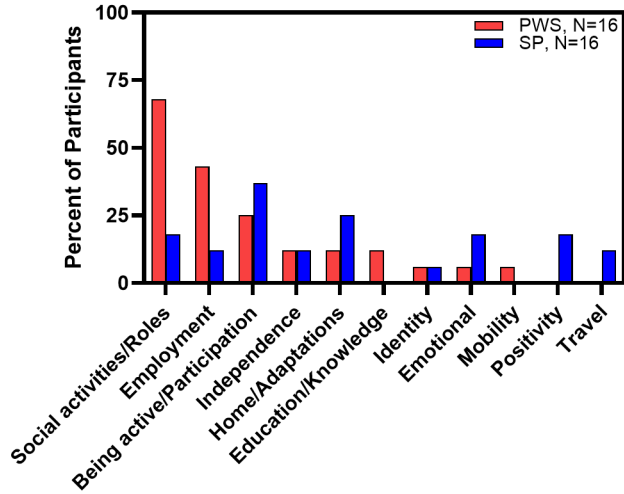
Participant	Inpatient rehabilitation	6 months post-injury	12 months post-injury
MH-101; C4 AIS C	Employment; Social activities/roles; Be active/Participation	Employment; Be active/Participation; Motor functions	Independence; Home/Adaptation; Employment
MH-102; C7 AIS A	Home/Adaptations; Independence	Home/Adaptation	Be active/Participation; Social activities/roles
MH-103; C4 AIS A	Social activities/roles	Motor functions	Full reintegration; Travel; Be active/Participation; Independence
MH-104; T7 AIS A	Be active/Participation; Social activities/roles	Motor functions	Be active/Participation; Social activities/roles
MH-105; C4 AIS B	Social activities/roles; Employment	Independence; Mobility; Employment	Independence
MH-106; C6 AIS D	Employment; Social activities/roles	Employment; Be active/Participation; Social activities/roles	Employment; Be active/Participation; Motor functions
MH-107; T6 AIS C	Home/Adaptations; Employment; Social activities/roles	LOST	LOST
MH-108; T11 AIS B	Employment	Employment; Motor functions	Emotional; Employment
MH-109; C4 AIS B	Social activities/roles	Be active/Participation; Employment; Social activities/roles; Independence	Emotional; Social activities/Roles
MH-110; C5 AIS D	Education/Knowledge; Social activities/roles	Social activities/roles; Be active/Participation; Travel	LOST
MH-111; C8 AIS D	Employment; Identity	Emotional; Employment; Education/Knowledge	Employment; Independence; Social activities/Roles
MH-112; T12 AIS D	Employment; Social activities/roles	Emotional; Social activities/roles	Positivity; Employment; Social activities/Roles
MH-113; T10 AIS A	Mobility; Emotional	Emotional; Positivity	Positivity
MH-115; L1 AIS C	Education; Social activities/roles; Be active/Participation	Employment	Positivity
MH-116; L1 AIS B	Independence	Education; Employment	Employment
MH-117; T9 AIS C	Be active/Participation; Social activities/roles	Motor functions; Be active/Participation	Time; Social activities/Roles

Community reintegration themes over time (Civilians, Support Persons):

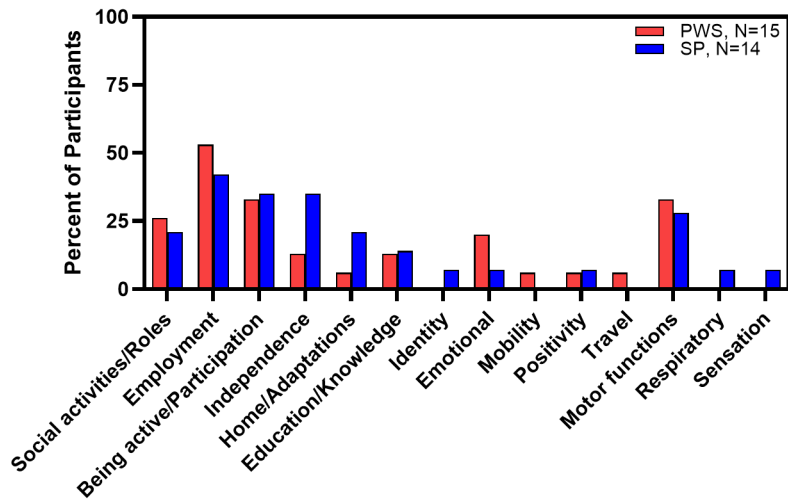
Participant	Inpatient rehabilitation	6 months post-injury	12 months post-injury
MH-201; C4 AIS C	Home/Adaptations	Home/Adaptation; Motor functions; Sensation	Emotional
MH-202; C7 AIS A	Positivity	Home/Adaptation; Identity	Be active/Participation
MH-203; C4 AIS A	Travel; Be active/Participation	Be active/Participation; Independence; Respiratory	Home/Adaptation; Emotional; Travel; Motor functions
MH-204; T7 AIS A	Home/Adaptations; Travel; Be active/Participation; Independence	Home/Adaptation; Education/Knowledge	Home/Adaptation
MH-205; C4 AIS B	Home/Adaptations	Independence	Employment; Home/Adaptation
MH-206; C6 AIS D	Employment; Social activities/roles	Employment; Motor functions; Be active/Participation; Social activities/roles	Social activities/roles
MH-207; T6 AIS C	Independence; Be active/Participation; Positivity	WITHDREW	WITHDREW
MH-208; T11 AIS B	Be active/Participation; Social activities/roles	Social activities/roles; Motor functions	Employment
MH-209; C4 AIS B	Identity; Social activities/roles	Be active/Participation; Emotional;	Be active/Participation
MH-210; C5 AIS D	Missing	Missing	Emotional; Identity
MH-211; C8 AIS D	Positivity	Independence; Employment	Employment; Social activities/Roles
MH-212; T12 AIS D	Emotional	Independence; Employment; Motor functions	Complacency
MH-213; T10 AIS A	Emotional	Positivity; Social activities/roles; Employment	Emotional
MH-215; L1 AIS C	Be active/Participation	Employment; Independence	Be active/Participation; Employment
MH-216; L1 AIS B	Emotional; Home/Adaptations	Be active/Participation; Employment	Be active/Participation
MH-117; T9 AIS C	Be active/Participation; Employment	Be active/Participation; Education	Education; Be active/Participation

The figure on the next page is a representation of the frequency of successful community reintegration themes in the two tables above for civilians with SCI as well as their support persons.

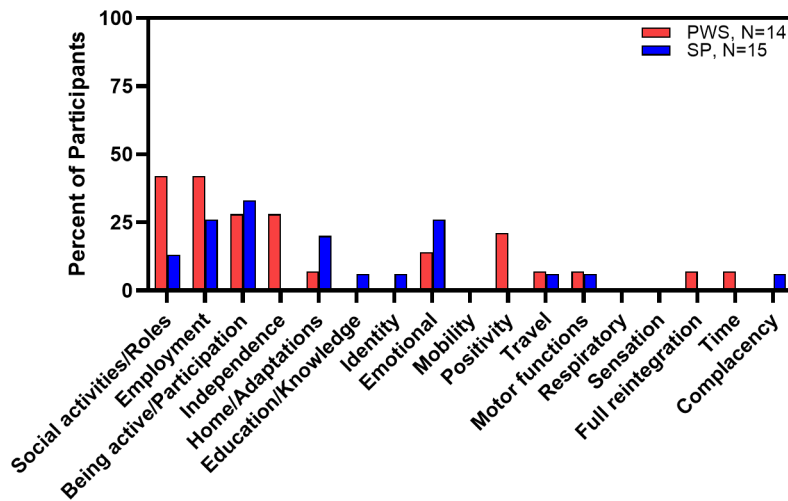
Reintegration Definition Themes Identified during Inpatient Rehab



Reintegration Definition Themes Identified at 6 Months Post-Injury



Reintegration Definition Themes Identified at 12 Months Post-Injury



We have also begun analyzing people's experiences seeking interventions for furthering their recovery. We have identified the thematic sources and options, below, and how these sources and options change across the first-year post-injury are in the graphs.

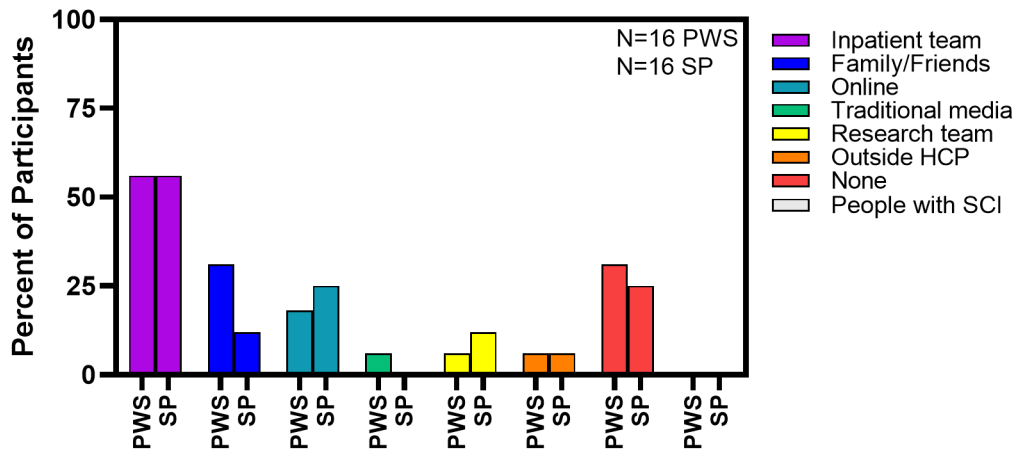
Sources:

Family and friends
Inpatient team
Online
Outside healthcare providers
People with SCI
Research team
Traditional media
None specified

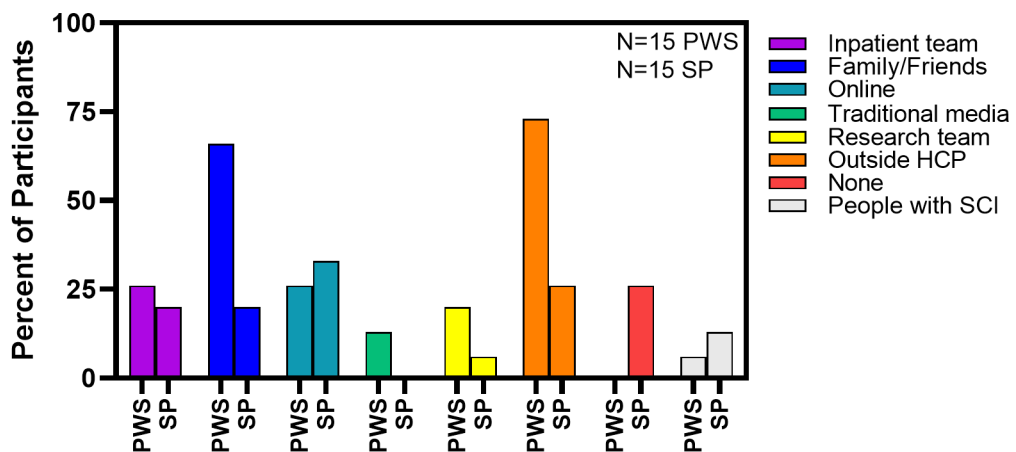
Options:

Community gym
Complimentary health
Experimental interventions
Home exercises
Medical interventions
Outpatient therapy
Psychological health
Skilled Nursing Facility
Technology
None specified

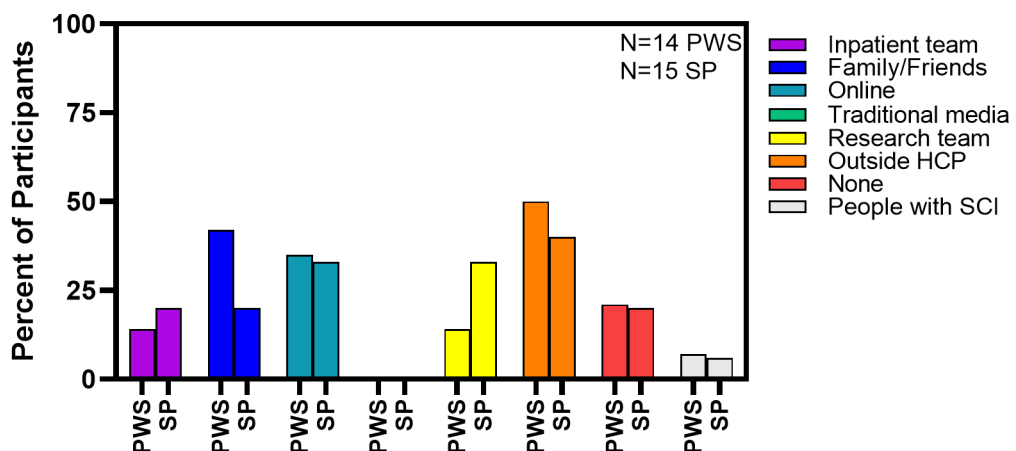
Recovery Sources Identified during Inpatient Rehab



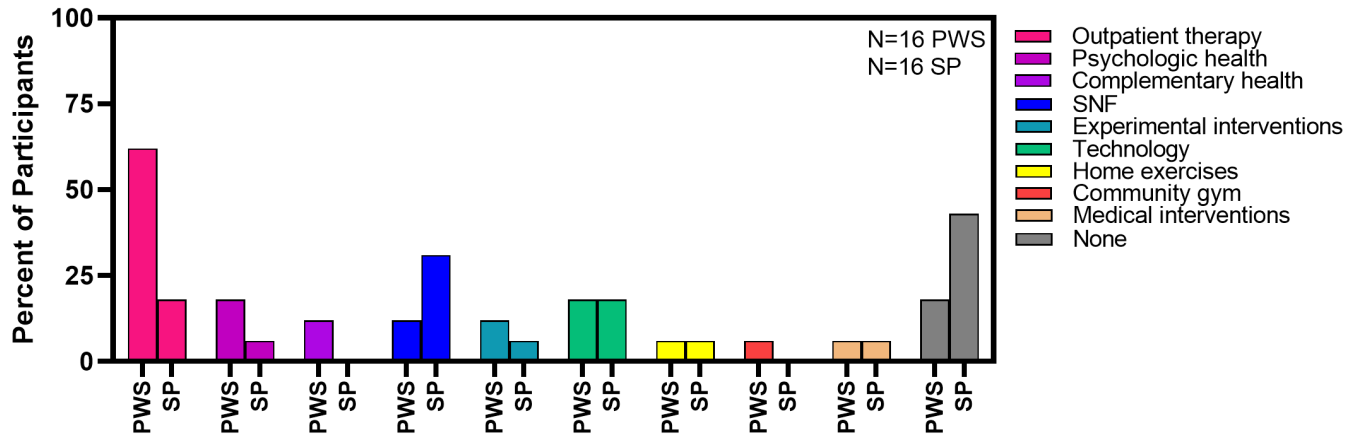
Recovery Sources Identified by 6 Months Post-Injury



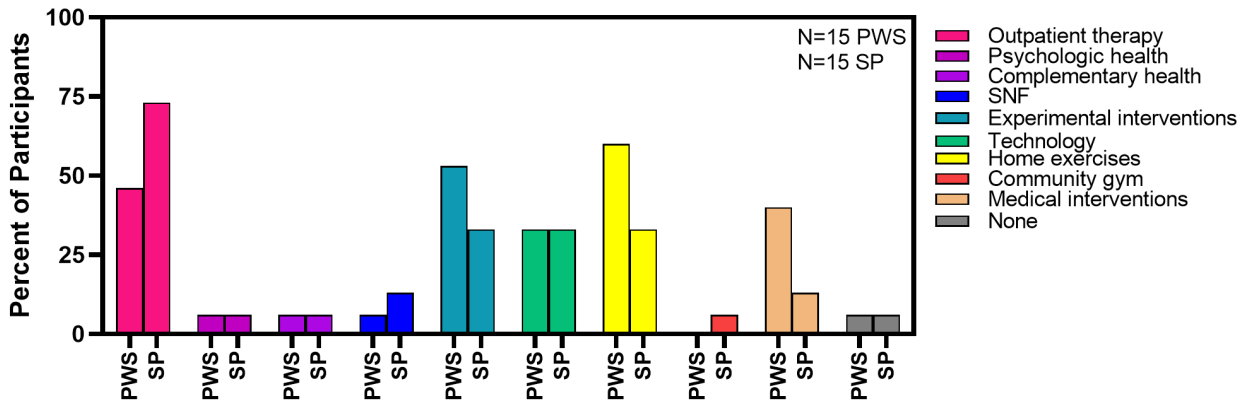
Recovery Sources Identified by 12 Months Post-Injury



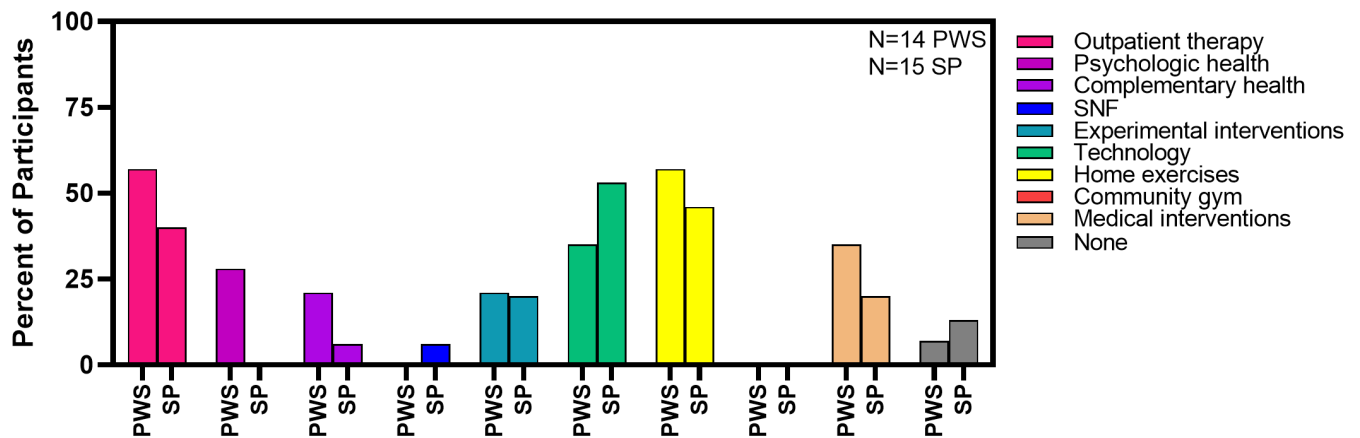
Recovery Options Identified during Inpatient Rehab



Recovery Options Identified by 6 Months Post-Injury

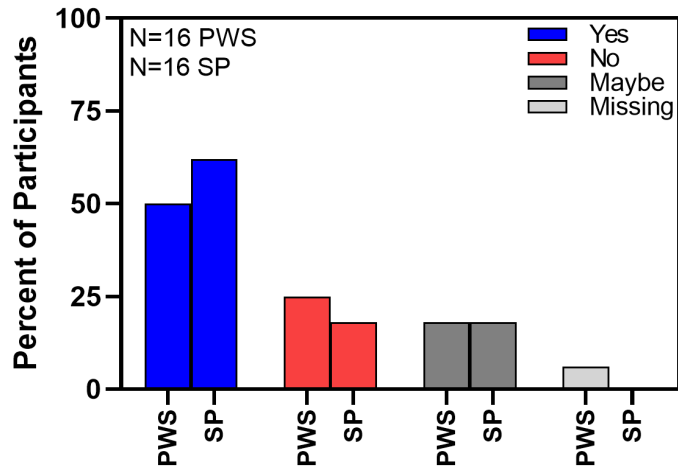


Recovery Options Identified by 12 Months Post-Injury

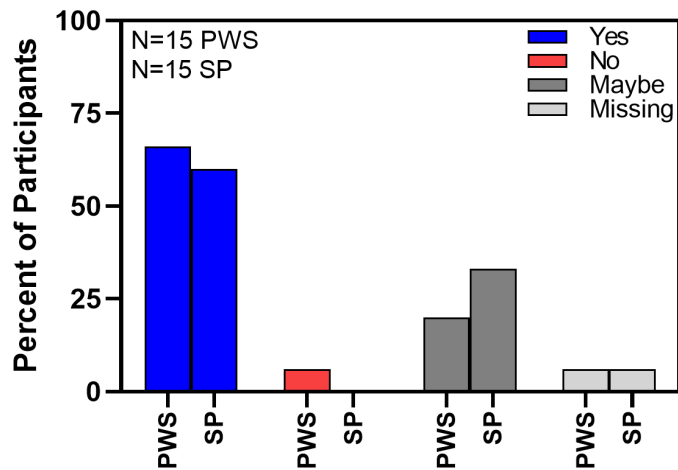


There is moderate interest in clinical trials across the first year.

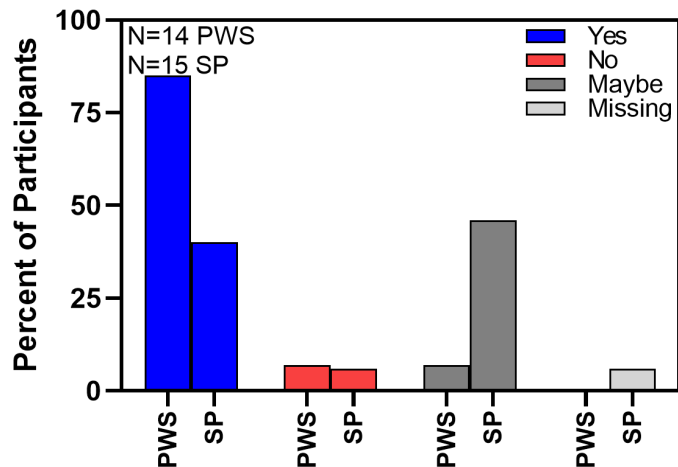
Interest in CT during Inpatient Rehab



Interest in CT at 6 Months Post-Injury



Interest in CT at 12 Months Post-Injury



Sample quotes related to interest in clinical trials:

Yes

SP-MH-208 *“Um, I mean, honestly it depends on how long the clinical trial has been going on, what sort of success rate that they have had with what they've done. And I mean the negative side effects, is it going to put him back or is it going to move him forward? I think. So.... Yes. I mean, if it is going to be better for him in the long run and there's good, like substantiated facts behind what the study is about or the trial is about, then we'll make that decision on if he wants to go through with it.”*

PWS-MH-102 *“I'm all for them. I, uh, I, I'm very inquisitive, uh, so I like to be informed. Um, so I like to be as knowledgeable as I possibly can and research can help with that and, uh, if there's any physical research that I can go through, um, I have a positive outlook on that. I'm, I want to give myself any chance that I can to, you know, walk again or just, you know, have more feeling or whatever it is, you know. So I'm, I'm fully positive about the research.”*

No

PWS-MH-112 *“Uh, to me I wouldn't want to do it because I, I would rather let somebody else do it before me. Clinical trial means that it is an experiment and they don't know what it is and if it's going to work or not... Yeah, I feel uncomfortable because I want to know what would, uh, what would happen. What the symptoms of, of, uh, what would happen after I try. It makes me uncomfortable.”*

PWS-MH-105 *“Uh. A little bit but I haven't thought about it yet. I'm gonna start thinking about it now. I was more worried about my grieving and getting myself together. And my breathing first, now I'm gonna focus on my body.”*

SP-MH-212 *“No, I don't want nobody experimenting on me, no.”*

Maybe

PWS-MH-110 *“Uh, I'd say it would be if everything wasn't... Or if over time I see things weren't working or, you know, I try the therapy or... Excuse me, the therapy, the surgery and didn't notice any improvement there or not much. Just to see what that could offer... Yeah, just still focused on everything, you know, coming back naturally, just, uh, wait and see before I decide.”*

SP-MH-213 *“They're just, I mean, it's always good to know, um, what, you know, what they're researching... Um, and how it may benefit, um, but there's always this question mark of, you know, being, you know, if it's gonna be helpful or not because it is those beginning stages-... Of trying to figure out if something works rather than something not working... So, you know, I'm always a little leery.”*

4) OTHER ACHIEVEMENTS

Nothing to Report.

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

Nothing to Report.

- d) How were the results disseminated to communities of interest?

Nothing to Report.

- e) What do you plan to do during the next reporting period to accomplish the goals? Describe briefly what you plan to do during the next reporting period to accomplish the goals and objectives.

Over the next year (a no cost extension), we expect to complete conducting the remaining interviews of participants enrolled at the Cleveland VA. We will continue coding and analysis throughout the year, and we are currently planning and working on our first two publications. Submission of distinct abstracts to additional meetings will be considered throughout the year as dictated by the data analyses.

4) IMPACT:

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

Nothing to Report.

- b) What was the impact on other disciplines?

Nothing to Report.

- c) What was the impact on technology transfer?

Nothing to Report.

- d) What was the impact on society beyond science and technology?

Nothing to Report.

5) CHANGES/PROBLEMS:

- a) Changes in approach and reasons for change

Nothing to Report.

- b) Actual or anticipated problems or delays and actions or plans to resolve them

Due to the COVID-19 pandemic, delays experienced by the Cleveland VA IRB and refusal to allow verbal consent by support person, and the prolonged period of low census at the VA SCI unit there have been compounding problems with enrolling Veterans into this study. We've enrolled 5 full dyads and 2 partial dyads. Our plan is to see if we can enroll anymore dyads during Q1 and to finish all interviews so that we can complete the analyses of Veteran data (similar to what was presented above for civilians) and to compare barriers and facilitators across the whole group of Veterans, civilians, and support persons.

- c) Changes that had a significant impact on expenditures
Nothing to Report.
- d) Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents
Nothing to Report.

6) PRODUCTS:

- a) Publications, conference papers, and presentations

i) Journal publications.
Nothing to Report.

ii) Books or other non-periodical, one-time publications.
Nothing to Report.

iii) Other publications, conference papers, and presentations.

Conference presentations

Hinze, SW, Bryden A, Gran B, Anderson K. (2022). Who Cares? Spinal Cord Injuries and the Invisible Experiences of Support Persons. *Abstract for Southern Sociological Society Annual Meeting: Birmingham, AL April 2022.*

Anderson KD, Bryden AM, Gran B, Hinze S. (2022). Definitions of Recovery and Reintegration Across the First Year Post-SCI: Persons with SCI and Support Persons. *Abstract for American Spinal Injury Association Annual Meeting, May 2022.*

Bryden AM, Gran B, Hinze S, Anderson KD. (2022). Barriers Seeking Recovery Interventions Throughout the First Year after SCI: Persons with SCI and their Support Persons. *Abstract for American Spinal Injury Association Annual Meeting, May 2022.*

Accepted – Hinze, SW, Bryden A, Gran B, Anderson K. (2022). Coming Back from Injury: Barriers and Facilitators to Recovery from Spinal Cord Injury. *Abstract for American Sociological Association Annual Meeting: Los Angeles, CA August 2022.*

- b) Website(s) or other Internet site(s).
Nothing to Report.

c) Technologies or techniques.
Nothing to Report.

d) Inventions, patent applications, and/or licenses.
Nothing to Report.

e) Other Products.
Nothing to Report.

7) PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

- a) What individuals have worked on the project?

Name:	Kim Anderson
Project Role:	PI
Researcher Identifier (e.g. ORCID ID):	orcid.org/0000-0001-9252-161X
Nearest person month worked:	3
Contribution to Project:	Overall study oversight and execution of all activities

Name:	Anne Bryden
Project Role:	Co-Investigator

Researcher Identifier (e.g. ORCID ID): orcid.org/0000-0003-4381-1156
 Nearest person month worked: 3
 Contribution to Project: Assist with study oversight, interviews, and analyses

Name: Brian Gran
 Project Role: Co-Investigator
 Researcher Identifier (e.g. ORCID ID): orcid.org/0000-0003-0923-4412
 Nearest person month worked: 2
 Contribution to Project: Assist with study oversight, interviews, and analyses

Name: Susan Hinze
 Project Role: Co-Investigator
 Researcher Identifier (e.g. ORCID ID):
 Nearest person month worked: 2
 Contribution to Project: Assist with interviews and analyses

Name: Kimberly Mackay
 Project Role: Study Coordinator
 Researcher Identifier (e.g. ORCID ID):
 Nearest person month worked: 1
 Contribution to Project: Recruitment, screening, data collection, data entry, scheduling

Name: Mary Ann Richmond
 Project Role: Collaborator
 Researcher Identifier (e.g. ORCID ID):
 Nearest person month worked: 1
 Contribution to Project: PI of Cleveland VA IRB protocol, review emerging themes

Name: Angela Kuemmel
 Project Role: Collaborator
 Researcher Identifier (e.g. ORCID ID):
 Nearest person month worked: 1
 Contribution to Project: Screening at Cleveland VA, review emerging themes

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

Anderson:

New – NIDILRR 2021-2026 Northeast Ohio Regional SCI Model System, 20%

Ended – DOD SCIRP – *Restoration of Reaching and Grasping Function in Individuals with Spinal Cord Injury Using MyndMove Neuromodulation Therapy*, 20%

Ended – DOD SCIRP – *Restoring Multidimensional Coordinated Reaching and Dexterous Grasping to Persons with Chronic Tetraplegia Through Functional Electrical Stimulation*, 4%

Ended – Ohio Third Frontier, 1%

Pending to end September 2022 – NIDILRR 2016-2022 Northeast Ohio Regional SCI Model System, 15%

Pending to start September 2022 – DOD SCIRP - *Genital Nerve Stimulation to Modulate Anorectal Reflex Activity in Neurogenic Bowel Dysfunction in Individuals Living With Spinal Cord Injury*, 25%

c) What other organizations were involved as partners?

Organization Name: United Spinal Association Northeast Ohio Chapter

Location of Organization: Cleveland, Ohio

Partner's contribution to the project (identify one or more): Collaboration

8) SPECIAL REPORTING REQUIREMENTS

QUAD CHARTS: If applicable, the Quad Chart (available on <https://www.usamraa.army.mil>) should be updated and submitted with attachments.

9) APPENDICES: Attach all appendices that contain information that supplements, clarifies or supports the text. Examples include original copies of journal articles, reprints of manuscripts and abstracts, a curriculum vitae, patent applications, study questionnaires, and surveys, etc. Reminder: Pages shall be consecutively numbered throughout the report. DO NOT RENUMBER PAGES IN THE APPENDICES.