

## INTRODUCTION & AIM

EmpowerSCI translated their in-person, multidisciplinary rehabilitation to a one-week telerehabilitation program during the COVID-19 pandemic.

Research Questions:

1. What demographics, clinical factors, and goal types influenced within-individual change in self-efficacy and goal performance?
2. What program content and activities contributed most to participant goal achievement?

Implications: Inform the structure and outcomes of future EmpowerSCI telerehabilitation programs.

## METHODS

• Survey via phone/video chat before the program (baseline) and at a one month (follow up).

- Empower Activity ranking
- 5-point Likert scale related to goal performance "How well do you perform this activity?"
- 10-point Likert scale related to self-efficacy "How confident are you in your ability to perform this activity?"
- Goal performance change from baseline to follow up
  - Negative performance group ("N")
  - Positive performance group ("P")
  - Stable performance group ("S")

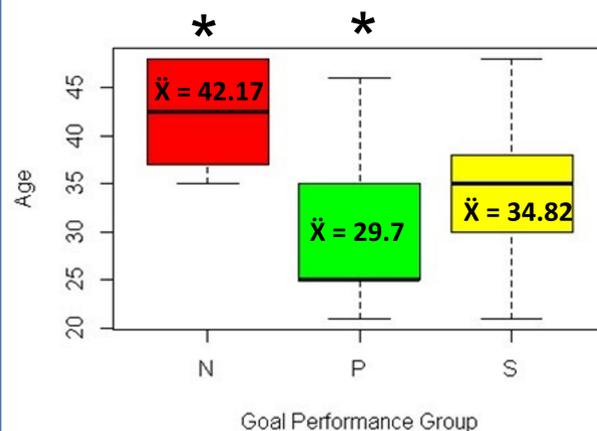
• Goals coded to domains of the WHO International Classification of Functioning, Disability, and Health (ICF)

• Analyses in R version 4.0.4 in Rstudio.

## RESULTS

### Factors that Affect Goal Performance Change:

Figure 1. Contribution of Age to Goal Performance



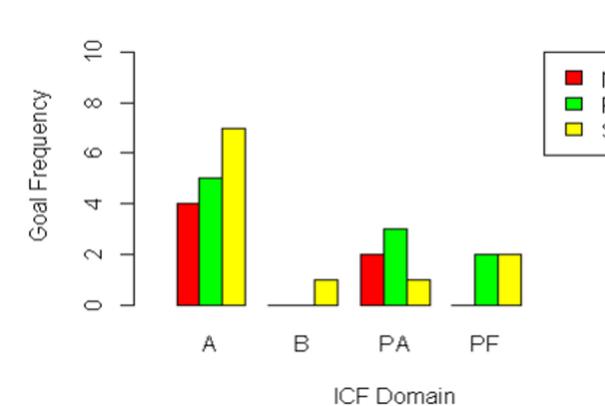
Note. Younger mean age among those who progressed toward their goal performance compared to those who had declines ( $p = 0.02$ ). \* =  $p < 0.05$ .

Figure 2. Contribution of Injury Type/ Severity to Goal Performance

Injury status	Goal Group			P-value (Fisher Test)
	Negative	Positive	Stable	
Tetraplegic	26.66%	26.66%	46.66%	0.54
Paraplegic	16.67%	50.00%	33.33%	
Complete injury	33.33%	26.67%	40%	0.23
Incomplete injury	8.33%	50%	41.67%	
Power Wheelchair	33.33%	16.67%	50%	0.17
Manual Wheelchair	13.33%	53.33%	33.33%	

Note. Participants with greater SCI severity or who used power wheelchairs more frequently had a decrease in goal performance from the start of the program to follow up. (Not statistically significant)

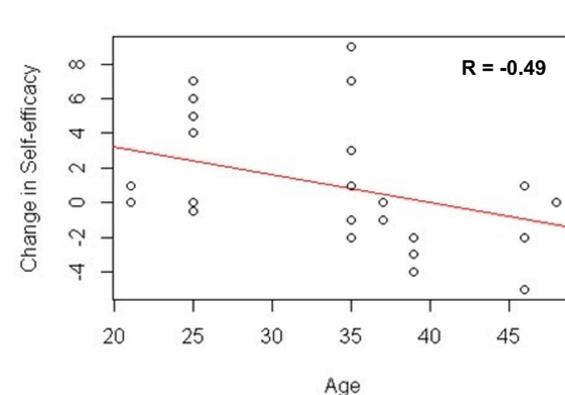
Figure 3. Frequency of Goal Attainment by ICF Domain



Note. ICF domain abbreviations: activity (A), body functions (B), participation (PA), personal factors (PF). Goals most commonly addressed activity limitations. There was no statistically significant difference by goal performance group in the domains of goals participants chose ( $p = 0.76$ ).

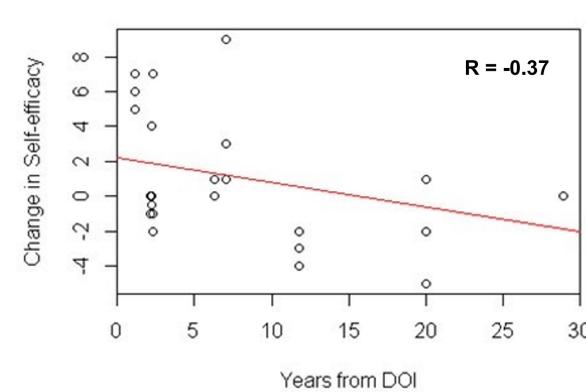
### Factors that Affect Goal Self-Efficacy Change:

Figure 4. Contribution of Age to Self-efficacy Change



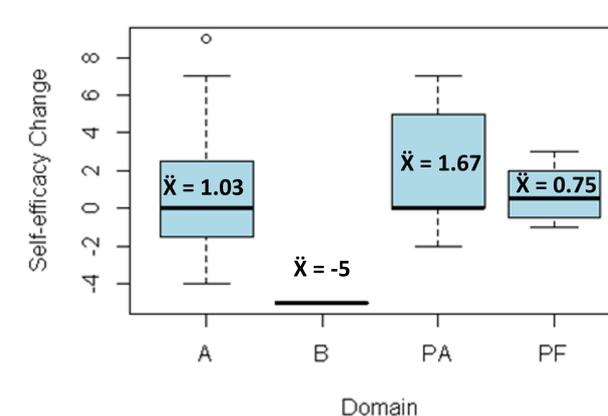
Note. Younger age was moderately related to greater improvements in self-efficacy ( $P = 0.0096$ )

Figure 5. Contribution of SCI Duration to Self-efficacy change



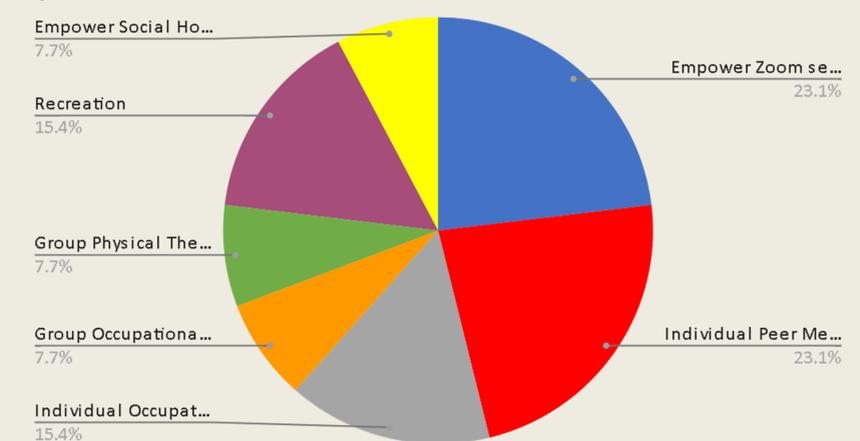
Note. A longer SCI duration related to lower gains, and even declines, in self-efficacy after the program. This correlation was borderline non-significant ( $P = 0.055$ ).

Figure 6. Mean Self-efficacy Change of ICF Domains



Note. There was no significant difference between the average change in self-efficacy by goal domain ( $p = 0.373$ ).

Figure 7 Self-reported Usefulness of Empower Activities



Note. Individual & group rehabilitation counseling and the empower video library are not listed on this chart as no participants rated them as the most useful activity for goal achievement. Empower zoom sessions and peer mentorship were most commonly reported as contributing the most to goal progress, followed by 1:1 Occupational Therapy and recreation

## CONCLUSIONS

- Certain demographic and clinical factors may have had influence on goal performance and self-efficacy change during the EmpowerSCI rehabilitation program such as:
  - Severity of injury
  - Age
  - Years from DOI
- Goal type based on ICF domain did not seem to have a significant influence on a participant's change in goal performance or self-efficacy.
- Empower activities may have not been equally useful towards goal achievement.
  - Future programs may want to prioritize certain programs over others.