

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Effectiveness of online wheelchair mobility and transfer training methods on performance level and satisfaction in people with spinal cord injuries

#### Protocol summary

##### Study aim

Determining and comparing the level of occupational performance and level of satisfaction in occupational performance of spinal cord injury patients before, after and one month after the intervention in the intervention and control groups

##### Design

A clinical trial single-blind, randomized

##### Settings and conduct

Online via Skyroom through the country's spinal cord injury associations

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: Ability to verbally communicate and speak in Persian, read and write Age between 18-60 years Have used one of the types of wheelchairs (electric or simple) for activity daily living at home or outdoors in the last 3 months No more than 3-5 years have passed since his injury or has never used rehabilitation training services. Patients with paraplegic spinal cord injury Functional ability to perform 8-10 push up exercises based on the video presented on the bed in a sitting position Ability to access and use the intelligent system and the Internet Ability and adequate time to participate in the intervention program independently Get a score higher than 22 on the MMSE cognitive test Exclusion criteria Reluctance to cooperate at any stage of the research Absence of more than one session in the training program.

##### Intervention groups

Participants were randomly divided into two groups of intervention and control. People in the intervention group had 4 2 hours sessions over 5 weeks through the Skyroom program: Transfer techniques, upper limb strengthening exercises, principles of adjustment and operation of all types of wheelchairs are taught. Participants in the intervention group will be trained and intervened in 4 small groups of 5-6 people.

##### Main outcome variables

Improve occupational performance, improve patient

satisfaction with occupational performance

#### General information

##### Reason for update

##### Acronym

SCI

##### IRCT registration information

IRCT registration number: **IRCT20211220053459N1**

Registration date: **2022-02-01, 1400/11/12**

Registration timing: **prospective**

Last update: **2022-02-01, 1400/11/12**

Update count: **0**

##### Registration date

2022-02-01, 1400/11/12

##### Registrant information

##### Name

Fatemeh Motaharinezhad

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 23 3365 4180

##### Email address

fatemeh.motahari64@yahoo.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2022-02-14, 1400/11/25

##### Expected recruitment end date

2022-04-19, 1401/01/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

**Trial completion date**

empty

**Scientific title**

Effectiveness of online wheelchair mobility and transfer training methods on performance level and satisfaction in people with spinal cord injuries

**Public title**

Effectiveness of online wheelchair mobility and transfer methods on performance level and satisfaction in spinal cord injuries

**Purpose**

Education/Guidance

**Inclusion/Exclusion criteria****Inclusion criteria:**

Ability to verbally communicate and speak in Persian, read and write Age between 16-60 old Use one of the types of wheelchairs (electric or simple) for daily activities at home or outdoors in the last 3 months No more than 3-5 years have passed since their injury or have never used rehabilitation training services Patients with spinal cord injury of paraplegic type Functional ability to perform 8-10 push-up exercises in accordance with the video presented on the bed in a sitting position Ability to access and use the intelligent system and the Internet Ability and sufficient time to participate in the intervention program independently Get a score above 22 on the MMSE cognitive test

**Exclusion criteria:**

Having serious psychological disturbances Absent in more of a sessions

**Age**

From **18 years** old to **60 years** old

**Gender**

Both

**Phase**

3

**Groups that have been masked**

- Outcome assessor

**Sample size**

Target sample size: **50**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

50 participants will be divided into two groups of intervention and control by Stratified Balanced Block Randomization with equal block method. Out of a maximum of 20 nodes for the six blocks, three will be in the intervention group or A and three in the control group will be created using the RANDBETWEEN (1,20) command in Excel software. Participants will be divided equally into two groups according to the random sequence created.

**Blinding (investigator's opinion)**

Single blinded

**Blinding description**

Outcome evaluator: The person or people who evaluate the outcome or non-outcome of the outcome in the participants or collect data on the outcome variables.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Ethics committee of Semnan University of Medical Sciences

**Street address**

Headquarter of Semnan University of Medical Sciences and Health Services, Bassij Blvd, Semnan, Iran.

**City**

Semnan

**Province**

Semnan

**Postal code**

3514799442

**Approval date**

2022-01-28, 1400/11/08

**Ethics committee reference number**

IR.SEMUMS.REC.1400.270

**Health conditions studied****1****Description of health condition studied**

spinal cord injury

**ICD-10 code**

G82.2

**ICD-10 code description**

Paraplegia

**Primary outcomes****1****Description**

level of occupational performance and satisfaction of occupational performance

**Timepoint**

Before the intervention, after the intervention and one month after the intervention

**Method of measurement**

Canadian Occupational Performance Measurement

**Secondary outcomes**

empty

## Intervention groups

### 1

#### Description

Intervention group: After filling out the written consent form and performing the evaluations, the interventions are performed in 4 sessions of 2 hours during 5 weeks as a group and online. Treatment and training include training in various techniques of transfer and transfer from wheelchair to bed, chair, toilet or bathroom chair, car, floor and vice versa, training in upper extremity strengthening exercises to perform transfers and principles of adjusting wheelchairs, braking lock And there will be a change in the position of the wheelchair and etc.

#### Category

Rehabilitation

### 2

#### Description

Control group: the control group will receive routine related to transfer and mobility principals and essential counseling, in a format of pamphlet or a booklet

#### Category

Rehabilitation

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Spinal Cord Injury Associations

##### Full name of responsible person

Fatemeh Motaharinezhad

##### Street address

Famili Rehabilitation Clinic, Ayatollah Madani Blvd,  
Famili St., Semnan, Iran

##### City

Semnan

##### Province

Semnan

##### Postal code

3514645719

##### Phone

+98 23 3332 2035

##### Email

fatemeh.motahari64@yahoo.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Semnan University of Medical Sciences

##### Full name of responsible person

Dr Majid Mirmohammadkhani

##### Street address

Headquarter of Semnan University of Medical

Sciences and Health Services, Bassij Blvd, Semnan,  
Iran.

##### City

Semnan

##### Province

Semnan

##### Postal code

3514799442

##### Phone

+98 23 3344 1022

##### Email

info@semums.ac.ir

#### Grant name

#### Grant code / Reference number

#### Is the source of funding the same sponsor organization/entity?

Yes

#### Title of funding source

Semnan University of Medical Sciences

#### Proportion provided by this source

100

#### Public or private sector

Public

#### Domestic or foreign origin

Domestic

#### Category of foreign source of funding

*empty*

#### Country of origin

#### Type of organization providing the funding

Academic

## Person responsible for general inquiries

#### Contact

##### Name of organization / entity

Semnan University of Medical Sciences

##### Full name of responsible person

Fatemeh Motaharinezhad

##### Position

Faculty member

##### Latest degree

Ph.D.

##### Other areas of specialty/work

Occupational Therapy

##### Street address

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##### Province

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##### Postal code

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##### Phone

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##### Email

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## Person responsible for scientific inquiries

#### Contact

**Name of organization / entity**

Semnan University of Medical Sciences

**Full name of responsible person**

Fatemeh Motaharinezhad

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**Other areas of specialty/work**

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**Sharing plan****Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

**Study Protocol**

Yes - There is a plan to make this available

**Statistical Analysis Plan**

Yes - There is a plan to make this available

**Informed Consent Form**

Yes - There is a plan to make this available

**Clinical Study Report**

Yes - There is a plan to make this available

**Analytic Code**

Yes - There is a plan to make this available

**Data Dictionary**

Yes - There is a plan to make this available

**Title and more details about the data/document**

-

**When the data will become available and for how long**

-

**To whom data/document is available**

-

**Under which criteria data/document could be used**

-

**From where data/document is obtainable**

-

**What processes are involved for a request to access data/document**

-

**Comments****Person responsible for updating data****Contact****Name of organization / entity**

Semnan University of Medical Sciences

**Full name of responsible person**

Fatemeh Motaharinezhad

**Position**

Faculty Member

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Occupational Therapy

**Street address**Famili Rehabilitation Clinic, Ayatollah Madani Blvd,  
Famili St., Semnan, Iran**City**