Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 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)

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+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 modes 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

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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.

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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

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

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Person responsible for updating data

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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