Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

The effects of swing training on functional ability and quality of life in multiple sclerosis women

Protocol summary

Study aim

The general aim of this research is to investigate the effect of eight weeks of swing exercises on the functional ability and quality of life of women with multiple sclerosis, emphasizing the disability index, which are divided into three groups.

Design

The statistical sample of this research includes 57 female patients with multiple sclerosis who were examined based on the EDSS physical disability index according to the neurologist's diagnosis, then randomly selected from the statistical population of multiple sclerosis patients in the range of 2-6.5 And in the control groups with 2-6.5 and experimental groups with mild disability and moderate disability.

Settings and conduct

the participants took part in a meeting to familiarize themselves with the test and explanations related to the sport of swing, Then the experimental and control groups participated in the pre-test and completed the quality of life questionnaire. The tests were conducted under the same conditions in the sports club and at the same time of the day by the researcher of each participant, and the subjects were unaware of the design process and possible results.

Participants/Inclusion and exclusion criteria

- Age range of 30 to 46 years - Not having a nervous attack in the last year - Not taking drugs other than disease control drugs

Intervention groups

a familiarization session with swing was held for the experimental groups, and then the training period lasted for eight weeks, three days a week for one hour, and then the main exercise protocol focused on specific spine stabilization exercises, exercises to improve proprioception in the upper and lower limbs, exercises in unstable conditions to improve balance, and central stabilization exercises. , retraining of motor units was done.

Main outcome variables

Improve upper limb function Improve lower limb function Improve cognitive function Improving the quality of life

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220526054997N1**
Registration date: **2023-03-31, 1402/01/11**
Registration timing: **retrospective**

Last update: **2023-03-31, 1402/01/11**
Update count: **0**

Registration date

2023-03-31, 1402/01/11

Registrant information

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Sara Sepehrifar
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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-01-09, 1399/10/20

Expected recruitment end date

2021-01-29, 1399/11/10

Actual recruitment start date

2021-01-09, 1399/10/20

Actual recruitment end date

2021-01-19, 1399/10/30

Trial completion date

2021-01-19, 1399/10/30

Scientific title

The effects of swing training on functional ability and quality of life in multiple sclerosis women

Public title

The effects of eight weeks swing exercises on functional ability and quality of life in multiple sclerosis women with emphasis on Expanded disability Status Scale

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

at least a year should passed from patients diagnosis of MS no other acute or chronic infection in body like mental, cardiovascular, respiratory, skin disease, high or low blood pressure, high or low eye pressure ability to attend meetings regularly not having a regular sports history having disability in a specific range 4≥EDSS≥2 , 6.5≥EDSS≥4.5 absence of pregnancy at least patients must be 30 years old

Exclusion criteria:

Inability to walk or need assistance in walking MS relapse at least two months before the intervention

Age

From **30 years** old to **46 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **57**

Actual sample size reached: **47**

Randomization (investigator's opinion)

Randomized

Randomization description

A stratified randomization method was used, first, 80 eligible patients in the disability range of 2 to 6.5 were selected to participate in the protocol in cooperation with the MS Association. Then the people were numbered and in order to hide the random allocation, all the numbers were placed inside a sealed envelope. after mixing the numbers, the numbers were randomly selected and classified into three groups. The basis is that if the patient did not meet the conditions of the group with mild disability, he would be put back into the envelope.

Blinding (investigator's opinion)

Single blinded

Blinding description

One-way blind: The participants did not know about the grouping of the research, according to which category of disability was classified. In addition, they did not know about the possible effects of the protocol and exercise on the functional factors of the upper and lower limbs and mental performance, but the patients were told that the exercises are effective on your physical factors, but in order not to mislead that this The pre-test measures the performance of the upper limbs and exercises are provided to check these changes. No information was given so as not to affect the tests.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

National Ethics committee of Shahid Bahonar University of Medical Sciences

Street address

pazhohesh Blvd., shahid bahonar univercity

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Province

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7616884987

Approval date

2020-03-30, 1399/01/11

Ethics committee reference number

IR.UK.VETMED.REC.1399.002

Health conditions studied

1

Description of health condition studied

multiple sclerosis

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Functional Ability of Upper Limb

Timepoint

Pre Test- 4th week of intervention - 6th week of intervention and post test

Method of measurement

9hole peg test

2

Description

fuctional ability of lower extremity

Timepoint

pre-test, fourth week, sixth week and eighth week(post-

test)

Method of measurement

25foot walk test

3

Description

processing speed of memory

Timepoint

pre-test, fourth week, sixth week and eighth week(post-test)

Method of measurement

paced audiotory serial addition test

4

Description

The effect of swing exercises on the quality of life of women patients with multiple sclerosis

Timepoint

Pre-test and post-test

Method of measurement

short form 36 question

Secondary outcomes

empty

Intervention groups

1

Description

The first intervention group: They performed suspended and semi-suspended swing exercises for eight weeks. Training protocol: First, ten minutes of warm-up, which included stretching and kinetic movements with a medium and low level, were performed, and then the swing exercises began. The protocol consists of eight weeks of suspended and unstable exercises, which were performed using a swing tool, and the intensity of the exercise was changed by increasing the repetitions and changing the grips and leveling of the movements.

Category

Rehabilitation

2

Description

The second intervention group: They performed suspended and semi-suspended swing exercises for eight weeks. Training protocol: First, ten minutes of warm-up, which included stretching and kinetic movements with a medium and low level, were performed, and then the swing exercises began. The protocol consists of eight weeks of suspended and unstable exercises, which were performed using a swing tool, and the intensity of the exercise was changed by increasing the repetitions and changing the grips and leveling of the movements.

Category

Rehabilitation

3

Description

Control group: The patients in this group did their normal daily activities and the things that the relevant doctor had announced and no restrictions were imposed by the researcher.

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Multiple Sclerosis Association of Kerman

Full name of responsible person

Hosein Ali Ebrahimi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

Hojatollah Ranjbar

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Grant name

Grant code / Reference number

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

No

Title of funding source

Sara sepehri

Proportion provided by this source

100

Public or private sector
Private
Domestic or foreign origin
Domestic
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
Persons

Person responsible for general inquiries

Contact
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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
Not applicable
Data Dictionary
Not applicable
Title and more details about the data/document
All statistical information, statistical results,EDSS, quality of life results are accessible
When the data will become available and for how long
Access starts one month after the results are published
To whom data/document is available
Researchers and Health centers
Under which criteria data/document could be used
In order to use the results to raise and improve the conditions of multiple sclerosis patients
From where data/document is obtainable
sara sepehrifar sepehri.sara73@gmail.com
What processes are involved for a request to access data/document
after a week they will receive it
Comments