

Clinical Trial Protocol

Iranian Registry of Clinical Trials

30 Jul 2026

The effect of a course of perceptual-motor exercises on ground reaction force components in mentally retarded children during walking

Protocol summary

Study aim

The effect of a course of perceptual-motor exercises on ground reaction force components in mentally retarded children during walking

Design

Clinical trial without control group, using G * POWER software The statistical sample of the present study includes 16 female students who will be available as a sample and will participate in this study voluntarily.

Settings and conduct

Measurements were performed at Mohaghegh Ardabili University Health Center. The subjects walked on the force plate with normal steps. The perceptual-motor training program was performed for 8 weeks and three sessions per week. Ground reaction force components were re-measured during walking.

Participants/Inclusion and exclusion criteria

Inclusion criteria were trainability, no brain injury, no history of orthopedic injury, fracture, lower limb dislocation, dizziness, Down syndrome, and no previous participation in perceptual-motor exercises. If for any reason the subject did not want to continue cooperating in the research, he would be excluded from the research.

Intervention groups

perceptual-motor exercises

Main outcome variables

Reduces injury to the lower limbs; Improving gait quality in mentally retarded children

General information

Reason for update

Acronym

MR

IRCT registration information

IRCT registration number: **IRCT20190302042881N2**

Registration date: **2020-10-12, 1399/07/21**

Registration timing: **registered_while_recruiting**

Last update: **2020-10-12, 1399/07/21**

Update count: **0**

Registration date

2020-10-12, 1399/07/21

Registrant information

Name

Mohsen Barghamadi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 45 3150 5652

Email address

barghamadi@uma.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-08-21, 1399/05/31

Expected recruitment end date

2020-10-21, 1399/07/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of a course of perceptual-motor exercises on ground reaction force components in mentally retarded children during walking

Public title

The effect of a course of perceptual-motor exercises on ground reaction force components in mentally retarded children during walking

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Age range 9-12 years educable No brain damage do not have any history of orthopedic injury and Fracture do not have Down syndrome do not have Dizziness do not have dislocation of the lower limb No previous participation in perceptual-motor exercises

Exclusion criteria:

Reluctance to continue collaborating in research

Age

From **9 years** old to **12 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **15**

Randomization (investigator's opinion)

N/A

Randomization description

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ardabil University of Medical Sciences

Street address

Ardabil University of Medical Sciences, Daneshgah st,
Ardabil, Iran

City

Ardabil

Province

Ardabil

Postal code

5619911367

Approval date

2019-07-20, 1398/04/29

Ethics committee reference number

IR.ARUMS.REC.1398.198

Health conditions studied

1

Description of health condition studied

mentally retarded children

ICD-10 code

F06

ICD-10 code description

Other mental disorders due to known physiological condition

Primary outcomes

1

Description

ground reaction force components

Timepoint

pretest before training and post test after eight weeks training

Method of measurement

ground reaction force variables were measured using a force plate device.

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: perceptual motor exercises included: Exercise program for 8 weeks and three sessions per week and each session for 50 minutes including warm-up for 10 minutes, specific perceptual-motor movement for 15 minutes, combined activities and perceptual-motor professions for 15 minutes. cool down was performed for 10 minutes.

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

University of Mohaghegh Ardabili Health Center

Full name of responsible person

Mohsen Barghamadi

Street address

University of Mohaghegh Ardabili, daneshgah St,
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Email

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Ardabil University of Medical Sciences

Full name of responsible person

Abolfazl Bezaatpour

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Web page address

https://uma.ac.ir/

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Ardabil 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**

Ardabil University of Medical Sciences

Full name of responsible person

Mohsen Barghamadi

Position

Associate Professor

Latest degree

Ph.D.

Other areas of specialty/work

Medical Engineering

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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

mean of ground reaction forces
When the data will become available and for how long
When publishing an article
To whom data/document is available
All people
Under which criteria data/document could be used
it is free.
From where data/document is obtainable
The journal in which the article will publish.
What processes are involved for a request to access data/document
Journal Process and Rules
Comments
Null