Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effect of eight weeks of perceptual-motor exercises on the executive functions and learning motor skills of mentally retarded children.

Protocol summary

Study aim

The aim is to compare the effect of eight weeks of perceptual motor exercises on executive functions and learning motor skills of children with mental disabilities.

Design

A clinical trial with a control group, with a parallel group, simple randomized on 30 people with mental retardation, which will be used for randomization from the table of random numbers.

Settings and conduct

The letter of introduction will be sent to the management of exceptional education in the target province and city by the university. By studying the medical records of the subjects, and the necessary conditions and criteria for entering and not entering the research, simple randomization will be done first, and then people will be randomly divided into 2 groups. First, the dependent variables will be evaluated first. Then the interventions will be implemented for 8 weeks and finally re-evaluated in the post-test.

Participants/Inclusion and exclusion criteria

Obtaining consent from parents and individual satisfaction, IQ score 50 to 70, being right-handed, not having physical disability or disability, not having cardiovascular problems and not having autism problems and other problems that affect cognitive development, including entry conditions. Students and parents withdrawing from the research and not participating in the training sessions, pretest and post-test stages will be part of the criteria for withdrawing from the research.

Intervention groups

The intervention group underwent perceptual movement exercises for 8 days and the control group did not implement exercise programs

Main outcome variables

executive functions and learning motor skills.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20240805062657N1**
Registration date: **2024-08-13, 1403/05/23**
Registration timing: **prospective**

Last update: **2024-08-13, 1403/05/23**
Update count: **0**

Registration date

2024-08-13, 1403/05/23

Registrant information

Name

Farzad Mohammadi

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 61 5336 0112

Email address

farzad.mohammadi@iau.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-08-20, 1403/05/30

Expected recruitment end date

2024-10-21, 1403/07/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of eight weeks of perceptual-motor exercises on the executive functions and learning motor skills of mentally retarded children.

Public title

The effect of eight weeks of perceptual-motor exercises on the executive functions and learning motor skills of mentally retarded children.

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Obtaining consent from parents and individual satisfaction IQ score 50 to 70 being right-handed not having defects or physical disability not having cardiovascular problems not having autism problems and other problems that affect cognitive development not having other problems that affect cognitive development Age 7 to 10 years

Exclusion criteria:

The withdrawal of students and parents at every stage of the research not participating in practice sessions not participating in pretest stage not participating in post-test stage

Age

From **7 years** old to **10 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

In this research, the subjects were selected in an accessible and purposeful way and according to the desired criteria and by simple randomization, using a table of random numbers, and randomization on the web and using coded boxes with a random sequence in the experimental group. and control will be divided.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

The present research, after the implementation of 8 weeks of intervention (perceptual-motor exercises), in order to evaluate the durability of the interventions, after 2 months, the dependent variables will be evaluated again.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Ethics Committees of Islamic Azad University - Ahvaz Branch

Street address

Address: Khuzestan province, Ahvaz city, Golestan highway, Farhang Shahr, Islamic Azad University, Ahvaz branch, Faculty of Nursing and Midwifery

City

Ahvaz

Province

Khouzestan

Postal code

۶۱۳۴۹۳۷۳۳۳

Approval date

2022-04-13, 1401/01/24

Ethics committee reference number

IR.IAU.AHVAZ.REC.1401.054

Health conditions studied

1

Description of health condition studied

People with mental disabilities

ICD-10 code

F70

ICD-10 code description

Mild intellectual disabilities

Primary outcomes

1

Description

Learning movement skills

Timepoint

The measurement will be done in the pre-test stage and post-test stage.

Method of measurement

TGMD-3 test.

2

Description

Executive functions

Timepoint

The measurement will be done in the pre-test stage and post-test stage.

Method of measurement

Connors neuropsychological test

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: In the intervention group, children will participate in eight weeks of perceptual-motor exercises, which include stretching exercises, perceptual-motor exercises (including: identification of different directions, static balance and dynamic balance, coordinated movements and simultaneous movements of throwing the ball at the target, receiving and passing the ball, targeted movements, throwing darts will be safe...) and training will be back to the original state. The exercises will be performed by the trainer and the children will coordinate their movements with the trainer and the group.

Category
Rehabilitation

2

Description
Control group: The subjects of the control group did not participate in the intervention after participating in the pre-test and only performed the daily routine program that was in accordance with the regular programs of the center.

Category
Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center
Welfare center of Abdanan city, Ilam province

Full name of responsible person
Yones Anbari

Street address
Abdanan, Mustafa Khomeini Street, Imam Hossein Square

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Islamic Azad University

Full name of responsible person
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Department of Physical Education & Sport Science, Abadan Branch, Islamic Azad University, Abadan, 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
Islamic Azad University

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
Islamic Azad University

Full name of responsible person
Farzad Mohammadi

Position
Assistant Professor

Latest degree
Ph.D.

Other areas of specialty/work
Motor Development

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Abadan branch, Islamic Azad University, in front of Taleghani Hospital,Nurse Square, Fieh, Station 12, Abadan.

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Person responsible for scientific inquiries

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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
No - There is not 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
Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document
Only a part of the data, such as the information related to the main outcome or the like, can be shared after the completion of the project.

When the data will become available and for how long
The access period starts 9 months after the publication of the results and articles

To whom data/document is available
The data will be available to researchers.

Under which criteria data/document could be used
The detailed information of the study can be provided to competent researchers interested in the field of mental retardation.

From where data/document is obtainable
Correspond with farzad.mohammadi59@gmail.com .

What processes are involved for a request to access data/document
Competent and interested researchers can receive data documentation after publication of the work from the corresponding author by providing their academic information and identification.

Comments
This clinical trial with the title "Effect of eight weeks of perceptual motor training on executive functions and motor skill learning of mentally retarded children" has not been previously registered anywhere else and has not been submitted anywhere else at the same time. We are very happy to register our clinical trial with IRCT. thank you.