

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Comparison of the Effects of Azerbaijani Dance-Based Exercises and Hopping Exercises on Balance, Motor Skills, and Quality of Life in Children with Mild Intellectual Disabilities

Protocol summary

Study aim

Comparison of the Effects of Azerbaijani Dance-Based Exercises and Hopping Exercises on Balance, Motor Skills, and Quality of Life in Children with Mild Intellectual Disabilities

Design

Randomized clinical trial (RCT) with pretest-posttest and control group.

Settings and conduct

The study will be conducted at the Sports Sciences Research Institute and will be carried out without blinding.

Participants/Inclusion and exclusion criteria

Inclusion criteria included a diagnosis of mild intellectual disability (IQ = 50–70) based on the DSM-5 criteria (determined by a trained psychologist), an age range of 7 to 10 years, the presence of mild balance impairment based on obtaining a score below the normal range on the Berg Balance Scale, which was administered by a trained assessor, the ability to understand and perform the Y Balance Test and the Stork Stand Test for initial assessments, no history of severe musculoskeletal injury within the past six months, and the ability to understand and follow simple exercise instructions. Exclusion criteria included lack of willingness of the child or parents to continue participation, absence from more than three training sessions, progressive neuromuscular diseases, occurrence of acute motor or balance impairment during the intervention period, and the use of medications that affect neuromuscular function and balance.

Intervention groups

This study includes three groups: two intervention groups and one control group. The first intervention group will receive rhythmic exercises based on Azerbaijani dance for 6 weeks, and the second intervention group will receive hopping exercises for 6 weeks. The third group will serve as the control group

and will not receive any exercise intervention during the study period; they will only continue their usual daily activities.

Main outcome variables

Static and Dynamic Balance, Motor skills

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20221231056996N3**

Registration date: **2026-07-02, 1405/04/11**

Registration timing: **prospective**

Last update: **2026-07-02, 1405/04/11**

Update count: **0**

Registration date

2026-07-02, 1405/04/11

Registrant information

Name

Mohammadreza Seyedi

Name of organization / entity

Sport Sciences Research Institute

Country

Iran (Islamic Republic of)

Phone

+98 21 8874 7884

Email address

seyedi@ssrc.ac.ir

Recruitment status

recruiting

Funding source

Expected recruitment start date

2026-08-01, 1405/05/10

Expected recruitment end date

2026-10-02, 1405/07/10

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Comparison of the Effects of Azerbaijani Dance-Based Exercises and Hopping Exercises on Balance, Motor Skills, and Quality of Life in Children with Mild Intellectual Disabilities

Public title
Comparison of the Effects of Azerbaijani Dance Exercises and Hopping on Balance and Motor Skills in Children with Intellectual Disabilities

Purpose
Supportive

Inclusion/Exclusion criteria
Inclusion criteria:
 Diagnosis of mild intellectual disability (IQ = 50–70) based on the DSM-5 criteria (performed by a trained psychologist using available clinical records). Age range of 7 to 10 years Presence of mild balance impairment based on obtaining a score below the normal range on the Berg Balance Scale (BBS). Ability to understand and perform the Y Balance Test and the Stork Stand Test for initial assessments. No history of severe musculoskeletal injury within the past six months. Ability to understand and follow simple exercise instructions.
Exclusion criteria:
 Lack of willingness of the child or parents to continue participation. Absence from more than three training sessions. Progressive neuromuscular diseases Occurrence of acute motor or balance impairment during the intervention period. Use of medications that affect neuromuscular function and balance.

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

Gender
Male

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **51**

Randomization (investigator's opinion)
Randomized

Randomization description
In this three-group study, after confirming the eligibility criteria, participants will be randomly assigned to three groups (two experimental groups and one control group) using simple randomization with an online random number generation software (such as Random Allocation Software or Sealed Envelope). To ensure allocation concealment, the randomization results will be placed in opaque, sealed envelopes, and until the intervention begins, neither the researcher nor the participants will be aware of the group assignments.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Ethics Committee of the Sport Sciences Research Institute

Street address

Motahhari st. MirEmad 5th

City

Tehran

Province

Tehran

Postal code

1587958711

Approval date

2026-05-20, 1405/02/30

Ethics committee reference number

IR.SSRC.REC.1405.019

Health conditions studied

1

Description of health condition studied

Intellectual Disabilities

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Static Balance

Timepoint

pre and post test evaluation

Method of measurement

Stork Balance Test

2

Description

Dynamic Balance

Timepoint

pre and post test evaluation

Method of measurement

Y Balance Test

3

Description

Motor Skills

Timepoint

pre and post test evaluation

Method of measurement

Lincoln-Oseretsky test

Secondary outcomes

empty

Intervention groups

1

Description

Azerbaijani dance-based exercise intervention group:
The intervention for this group includes performing traditional Azerbaijani movement patterns such as Milli Yeriş, Qaçma, Sürüşdürmə and Sandarama accompanied by local music. Each session consists of 10 minutes of warm-up, 25 minutes of main rhythmic exercises, and 10 minutes of cool-down and breathing exercises. The intensity of the exercises will be progressively increased by enhancing coordination demands, altering the base of support, and using unstable surfaces such as balance discs and BOSU. These exercises will be performed for 6 weeks, with a frequency of 3 sessions per week.

Category

Rehabilitation

2

Description

Hopping exercise intervention group: The hopping protocol includes six movement patterns (lateral, forward-backward, four-corner, forward, figure-eight pathway, and combined patterns), which will be performed in 30-minute sessions. The intensity of the exercises will be progressively increased according to the children's abilities and adaptation. These exercises will be conducted for 6 weeks, with a frequency of 3 sessions per week.

Category

Rehabilitation

3

Description

Control group: Participants in this group will not receive any exercise program and will continue their usual daily activities throughout the study period.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Sports Science Research Institute

Full name of responsible person

Mohammadreza Seyedi

Street address

No. 3, 5th Alley, Mir Emad Street, Motahari Avenue,
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Mohammadreza Seyedi

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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

Private

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

Sport Sciences Research Institute

Full name of responsible person

Mohammadreza Seyedi

Position

Assistant professor in Sport Sciences Research
Institute of IRAN

Latest degree

Ph.D.

Other areas of specialty/work

Sport medicine

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Full name of responsible person

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Position

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

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

Data information will be published only in the form of
articles and statistical results.

Study Protocol

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

Statistical Analysis Plan

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

Informed Consent Form

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

Clinical Study Report

Undecided - It is not yet known if there will be 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