Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 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)

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+98 21 8874 7884

Email address
seyedi@ssrc.ac.ir

Recruitment status
Recruitment complete

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، Tehran، Iran
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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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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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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