

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Jun 2026

Predictive Control of Movement in High Functioning Autism Spectrum Disorder Children: Combine Approach for Motor Skills Learning

Protocol summary

Study aim

Evaluation of predictive control of movement in children aged 8 to 13 years old with high functioning autism spectrum disorder and the effectiveness of motor imagery training on motor skills learning

Design

Clinical trial with a control group based on community with a parallel group

Settings and conduct

After the selection and entry of the participants in the private center for rehabilitation of autism, pre-intervention tests are carried out using penalty of basketball and movement assessment battery for children and training present at the center particularly. After 5 sessions of training then tests such as pre-test conditions at the Same center are done.

Participants/Inclusion and exclusion criteria

Inclusion criteria: A) All are right hands B) don't have skeletal- muscular injuries C) range of age between 8 to 13 years D) sex: male E) Do not have a history of engagement in protocols of motor imagery training F) Have a specific schedule for sleeping and eating G) Based on DSM-V criteria, autism spectrum disorder has been identified for these children. Exclusion criteria: A) another disorder, such as epilepsy, cerebral palsy or Down syndrome, and all kinds of mental retardation have been diagnosed For them B) Have a history of basketball practice C) Have a history of admission to mental hospitals D) Have a history of using psychoactive drugs

Intervention groups

Control group: The children of this experimental group are engaged in their common occupational therapeutic and psychological interventions. Intervention group: Children will take part in motor imagery training that will be delivered in 5 sessions per hour In addition common occupational therapeutic and psychological interventions.

Main outcome variables

dynamic and static balance, aiming and catching, hand

dexterity

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20181211041929N1**

Registration date: **2019-01-30, 1397/11/10**

Registration timing: **registered_while_recruiting**

Last update: **2019-01-30, 1397/11/10**

Update count: **0**

Registration date

2019-01-30, 1397/11/10

Registrant information

Name

Saeid Ahar

Name of organization / entity

Kharazmi university of Tehran

Country

Iran (Islamic Republic of)

Phone

+98 21 8835 4734

Email address

std_saeid.ahar@khu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-01-30, 1397/11/10

Expected recruitment end date

2019-02-24, 1397/12/05

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Predictive Control of Movement in High Functioning Autism Spectrum Disorder Children: Combine Approach for Motor Skills Learning

Public title

Motor Skills Learning in High Functioning Autism Spectrum Disorder Children

Purpose

Supportive

Inclusion/Exclusion criteria**Inclusion criteria:**

All are right hands don't have skeletal- muscular injuries range of age between 8 to 13 years sex: male Do not have a history of engagement in protocols of motor imagery training Have a specific schedule for sleeping and eating Based on DSM-V criteria, autism spectrum disorder has been identified for these children.

Exclusion criteria:

another disorder, such as epilepsy, cerebral palsy or Down syndrome, and all kinds of mental retardation have been diagnosed For them Have a history of basketball practice Have a history of admission to mental hospitals Have a history of using psychoactive drugs

Age

From **8 years** old to **13 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

A) Randomization method: Simple randomization (random number table) B) Building Random sequence method: Determining beforehand reading the table (up, down, right, left) then we start reading numbers from 0 to 50 intervention groups and 51 to 99 control groups. C) Randomization unit: Individual D) Randomization Tool: Random number table, sealed envelopes (for making random sequences) E) Concealment: Snose method A number of aluminum-covered envelopes (in order to keep the contents of the envelopes unclear) are prepared and each random sequence created on the card is recorded and the cards are inserted into the envelopes respectively. In order to maintain a random sequence, the numbering of the envelopes on the outer surface is done in the same order. Finally, the flap is closed in pockets and placed in the box, respectively. At the time of registration of the participants, according to the order in which the participants are entered, one of the envelopes is opened and the allocated group of that participant is made known.

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**

Ethics Committee on Biomedical Research in Tarbiat Modares University

Street address

Jalal AleAhmad Blvd, Nasr bridge, Tehran

City

Tehran

Province

Tehran

Postal code

14115-111

Approval date

2018-12-09, 1397/09/18

Ethics committee reference number

IR.MODARES.REC.1397.140

Health conditions studied**1****Description of health condition studied**

Autism spectrum disorder

ICD-10 code

F84.0

ICD-10 code description

Autistic disorder

Primary outcomes**1****Description**

Static and dynamic balance

Timepoint

Before the intervention and the end of the intervention

Method of measurement

Movement assessment battery for children

2**Description**

Hand dexterity

Timepoint

Before the intervention and the end of the intervention

Method of measurement

Movement assessment battery for children

3

Description

Aiming and catching

Timepoint

Before the intervention and the end of the intervention

Method of measurement

Movement assessment battery for children

4

Description

Penalty of basketball

Timepoint

Before the intervention and the end of the intervention

Method of measurement

The result of the throwing basketball ball to the ring is calculated as 7 points

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Children will take part in motor imagery training that will be delivered in 5 sessions per hour In addition common occupational therapeutic and psychological interventions based on ABA method.

Category

Rehabilitation

2

Description

Control group: The children of this experimental group are engaged in their common occupational therapeutic and psychological interventions based on ABA method.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Ashtari Rehabilitation Clinic

Full name of responsible person

Mahnaz Ashtari

Street address

No. 6, side of Yazdi Dairy shopping, Ashrafi Esfahani mosque Ave, Marzardan Blvd, Tehran.

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m.ashtari@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Kharazmi University

Full name of responsible person

Jafar Jahanpanah

Street address

Kharazmi University, No.43. South Mofatteh Ave, Tehran, iran

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jahanpanah@khu.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Kharazmi 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

The university of Kharazmi

Full name of responsible person

Saeid Ahar

Position

Student

Latest degree

Master

Other areas of specialty/work

Sport Sciences

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Person responsible for scientific inquiries

Contact

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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

No - There is not 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

No - There is not a plan to make this available

Data Dictionary

Not applicable

Title and more details about the data/document

The data that the output of the movement assessment battery for children is without identifying the subjects of the subject.

When the data will become available and for how long

6 months after printing results

To whom data/document is available

All interested persons

Under which criteria data/document could be used

There is no specific item.

From where data/document is obtainable

Send an email to saeid.ahar@gmail.com

What processes are involved for a request to access data/document

After posting, it will take two weeks for the documentation to reach.

Comments