Clinical Trial Protocol
Iranian Registry of Clinical Trials

02 Nov 2026

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

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 Leaning

Public title
Motor Skills Leaning 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.
City
Tehran
Province
Tehran
Postal code
1145676914
Phone
+98 21 6634 3060
Email
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
City
Tehran
Province
Tehran
Postal code
15719-14911
Phone
+98 21 8884 8944
Email
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
Street address
Kharazmi University, No.43. South Mofatteh Ave, Tehran, Iran
City

Tehran

Province
Tehran

Postal code
1571914911

Phone
+98 21 8832 9220

Email
saeid.ahar@gmail.com

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity
The University of Kharazmi

Full name of responsible person
Farhad Ghadiri

Position
Assistant Professor

Latest degree
Ph.D.

Other areas of specialty/work
Sport Sciences

Street address
Address: No. 43, Shahid Mofatteh Ave., Kharazmi University, Faculty of Physical Education & Sport Sciences, Tehran.

City
Tehran

Province
Tehran

Postal code
1571914911

Phone
+98 21 2225 8081

Email
ghadiri671@gmail.com

Person responsible for updating data

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

Street address
Kharazmi University, No.43. South Mofatteh Ave, Tehran, Iran

City
Tehran

Province
Tehran

Postal code
1571914911

Phone
+98 21 8832 9220

Email
saeid.ahar@gmail.com

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