

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

The effect of implicit learning versus explicit learning on the bimanual coordination of With High Functioning Autistic

Protocol summary

Study aim

The study of explicit and implicit learning ability in people with autism to understand Which learning method is more useful to these people.

Design

In this study, 24 high-Functional autistic children (12 to 8 years old) are divided into three groups of explicit and implicit learning and control.

Settings and conduct

In this study, explicit and implicit groups, in addition to the implementation of the Autism Center rehabilitation program, practice bimanual coordination skill, while the control group only performs a rehabilitation program.

Participants/Inclusion and exclusion criteria

High-Functional autistic people with an age range of 8-10. Entry requirements for the study. People who are outside the age range or out of the range of autism do not have inside to the study.

Intervention groups

The explicit learning group runs the bimanual coordination skill from the difficult to the easy level. The implicit learning group runs the bimanual coordination skill from the the easy to difficult level. The control group is evaluated only in pre-test and post-test.

Main outcome variables

It will reveal the appropriate training method for these people. It reduces the cost of funding and time by providing a more appropriate learning method. Improves autism indices.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20171231038156N1**

Registration date: **2018-12-03, 1397/09/12**

Registration timing: **retrospective**

Last update: **2018-12-03, 1397/09/12**

Update count: **0**

Registration date

2018-12-03, 1397/09/12

Registrant information

Name

benyamin ghelichpoor

Name of organization / entity

The Shahid beheshti university of Tehran

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-05-12, 1397/02/22

Expected recruitment end date

2018-06-12, 1397/03/22

Actual recruitment start date

2018-05-12, 1397/02/22

Actual recruitment end date

2018-06-12, 1397/03/22

Trial completion date

2018-06-12, 1397/03/22

Scientific title

The effect of implicit learning versus explicit learning on the bimanual coordination of With High Functioning Autistic

Public title

Effective learning in autism.

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:
High Functioning Autistic

Exclusion criteria:
Age more than 12 years old or less than 8 years old low Functioning Autistic

Age
From **8 years** old to **12 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **24**
Actual sample size reached: **24**

Randomization (investigator's opinion)
Not randomized

Randomization description

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

biological sciences research center shahid beheshti university of Tehran

Street address

vanak sq shahid beheshti university

City

tehran

Province

Tehran

Postal code

4971679843

Approval date

2018-04-28, 1397/02/08

Ethics committee reference number

IR.SBU.ICBS97/1009

Health conditions studied

1

Description of health condition studied

autism

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

The learning was a bimanual coordination.

Timepoint

Before starting the intervention and after 7 and 9 days after the intervention began

Method of measurement

biannual coordination test device building Padidar Omide Farda

Secondary outcomes

empty

Intervention groups

1

Description

The tool used to interact with the bimanual coordination instrument is the creation of the Padidar Omide Farda Institute. People with autism are classified into three interventional groups. The first intervention group (explicit learning group) performs the skill from easy to difficult (by changing the range of error). The second intervention group (implicit learning group) runs the skill from easy to difficult. The third intervention group (control) does no practice. At first, a pre-test was performed from all subjects, then the first and second intervention groups for 6 days, each day, trained for two-handed coordination skills for 30 minutes each day. At the end of the sixth session, the post-test was performed from all groups.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

ofeq autism center

Full name of responsible person

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Sponsors / Funding sources

1

Sponsor

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Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

No

Title of funding source

by my own

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**

Persons

Person responsible for general inquiries

Contact**Name of organization / entity**

Shahid Beheshti university

Full name of responsible person

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Position

Phd student

Latest degree

Master

Other areas of specialty/work

Others

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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

the information study in mean.	in groups.
Study Protocol	When the data will become available and for how long
Yes - There is a plan to make this available	3 months after printing results.
Statistical Analysis Plan	To whom data/document is available
Yes - There is a plan to make this available	Medical, academic and scientific institutions
Informed Consent Form	Under which criteria data/document could be used
Yes - There is a plan to make this available	Improve our knowledge
Clinical Study Report	From where data/document is obtainable
Not applicable	The postal address mentioned in the article was published.
Analytic Code	What processes are involved for a request to access data/document
Not applicable	Once notified the request and Ensure that there is no abuse.
Data Dictionary	Comments
Not applicable	
Title and more details about the data/document	
In the publishing process, no personal information is released from the subjects. All information is expressed	