Clinical Trial Protocol
Iranian Registry of Clinical Trials

17 Sep 2026

The effect of fourteen session of Hippotherapy on Balance. Reaction Time and Gait Cycle in Autism Spectrum Disorder

Protocol summary

Summary

The purpose of this research is to evaluate the effect of Hippotherapy intervention on Static Balance, Dynamic Balance, Reaction Time and Gait Cycle on Autism Spectrum Disorder. In a unicentral clinical trial, 24 male patients with Autism Spectrum Disorder referring to the Mehregan private Occupational therapy clinic,Tehran, Iran, would be involved. The key inclusion criteria are: to be 7-18 years old and having no physical disability and the key exclusion criteria are: using other activities and physical treatment methods, Cardiovascular and Respiratory diseases and Absence during the Hippotherapy session. All pre-test variables including: measuring the Static Balance with Stork test, Balance Board for Dynamic Balance evaluation, Nelson's Ruler facilitated test for measuring Reaction Time and Gait Cycle evaluation and walking on a 10-meter line to observe the sole trace and recording the time by chronometer, would be done. Afterward, they were randomly categorized into 2 groups of examination and control (n=12). The experimental group were participated in one 60-90 minute sessions of Hippotherapy for 14 successive weeks, which were intensified over time. whereas, The control group has done no specific practice during the research. Gathered data for pre and post treatment measures will be compared to draw a conclusion.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2016071728966N1**
Registration date: **2016-10-09, 1395/07/18**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2016-10-09, 1395/07/18

Registrant information

Name

Sara Mirzabeigi Fini

Name of organization / entity

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Investigator

Expected recruitment start date

2015-04-21, 1394/02/01

Expected recruitment end date

2015-05-22, 1394/03/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of fourteen session of Hippotherapy on Balance. Reaction Time and Gait Cycle in Autism Spectrum Disorder

Public title

Hippotherapy is an innovative approach for enhancing the physical factor of people who suffer from Autism Spectrum Disorder

Purpose

Treatment

Inclusion/Exclusion criteria
Inclusion criteria:(recognition of Autism Spectrum Disorder by Physiologist and Occupational therapy and having the medical report, having no record of Epilepsy, Orthopedic, Cardiovascular, and Respiratory diseases, using no other treatment or Physical therapy or Hippotherapy; having confirmation of Psychotherapist and the family). Exclusion criteria:(Absence during the Hippotherapy session, using other treatment methods such as: Physical or Sport activities.
Age
From **7 years** old to **18 years** old
Gender
Male

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **24**
Randomization (investigator's opinion)
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
Ethics committee in research of Islamic Azad University Tehran Medical Branch
Street address
Tehran Medical Branch , Islamic Azad UniversityT, khaghani st, shariati Ave , Tehran, Iran
City
Tehran
Postal code
1916893813
Approval date
2016-08-16, 1395/05/26
Ethics committee reference number
IR.IAU.TMU.REC.1395.124

Health conditions studied

1

Description of health condition studied
Autism Spectrum Disorder
ICD-10 code
F84.1
ICD-10 code description
A type of pervasive developmental disorder that differs from childhood autism either in age of onset or in failing to fulfil all three sets of diagnostic criteria. This subcategory should be used when there is abnormal and impaired development that is pre

Primary outcomes

1

Description
Static Balance
Timepoint
Befor staring the Hippotherapy programm and then after 14 weeks
Method of measurement
The stork test

2

Description
Dynamic Balance
Timepoint
Befor staring the Hippotherapy programm and then after 14 weeks
Method of measurement
Balance Board

3

Description
Reaction Time
Timepoint
Befor staring the Hippotherapy programm and then after 14 weeks
Method of measurement
Nelson's Ruler facilitated test

4

Description
Gait Cycle(Duration of Gait Cycle, The Number of Step, Speed of Step, Length of Step)
Timepoint
Befor staring the Hippotherapy programm and then after 14 weeks
Method of measurement
Observing the sole trace and recorded by Digital camera and chronometer

Secondary outcomes

empty

Intervention groups

1

Description
The Experimental groups were considered as one 60-90 minute sessions for 14 successive weeks of Hippotherapy program. in fact The word Hippotherapy is the usage of horses in the therapy process. The amazing communication ability of horses with human kind and the movement of horse's basin in walking which is in fact a stimulation of basin movement in human are truly effective in the recovery process of different Mental and Physical illnesses

Category
Treatment - Other

2

Description
The Control groups has not been part of any treatment or physical activities during 14 weeks of Hippotherapy session.

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Mehregan Rehabilitation Clinic

Full name of responsible person
Naser Najarion

Street address
Unit 1, No. 65, Corner of Ghandahari street, West Nosrat st, Khosh street, Tohid Square

City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Investigator

Full name of responsible person
Sara Mirzabeigi Fini

Street address
unit 3, No. 47, Bostan 6 alley, intersection of Sarv, Saadat Abad

City
Tehran

Grant name
شخصی

Grant code / Reference number
Personal

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

Title of funding source
Investigator

Proportion provided by this source
100

Public or private sector
empty

Domestic or foreign origin
empty

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
empty

Person responsible for general inquiries

Contact

Name of organization / entity
Islamic Azad University Islamshahr Branch

Full name of responsible person
Sara Mirzabeigi Fini

Position
Masters physical education and sport science/ member of education and research committee of equestri

Other areas of specialty/work

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Person responsible for scientific inquiries

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Name of organization / entity
Faculty member and Director of Masters Physical Education and Sport Science

Full name of responsible person
Yasser kazem zadeh

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Doctor of Sport Physiology

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

empty

Study Protocol

empty

Statistical Analysis Plan

empty

Informed Consent Form

empty

Clinical Study Report

empty

Analytic Code

empty

Data Dictionary

empty