Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effectiveness of mirror therapy on improving the hand function in hemiplegic children

Protocol summary

Summary

Statement of the purpose: The main purpose of this single-subject experiment will be to examine whether mirror therapy could improve the functional status of the spastic hand in hemiplegic cerebral palsy children. Inclusion criteria: Spastic hemiplegic cerebral palsy; age ranges between 5-15 year-old; cognitively normal; intact visual and hearing ability; no intervention with botulinum toxin during the last 6 months prior to the study; willingness of child and parents to participate in the study. Exclusion criteria: Unwillingness of child or their parents to continue cooperation with the researchers; any reason leading the participant to be unable to continue such as admitting to hospital or getting sick. Study population and sample size: The study population will be 4 hemiplegic cerebral palsy children. Intervention and primary outcomes: This study involves three observational phases known as baseline, treatment, and withdrawal phase, taking place during a two months period. The study contains a home-based mirror therapy protocol that will be the manipulated variable, by which the participants will be taught to do some exercises on a daily basis. The improvement of the hand functional status of the hemiplegic side will be the dependent variable examined by Jebson-Taylor hand function test.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2012080410491N1**
Registration date: **2016-08-30, 1395/06/09**
Registration timing: **registered_while_recruiting**

Last update:
Update count: **0**

Registration date

2016-08-30, 1395/06/09

Registrant information

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Name of organization / entity
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Recruitment status

Recruitment complete

Funding source

Shiraz University of Medical Sciences

Expected recruitment start date

2016-05-01, 1395/02/12

Expected recruitment end date

2017-01-01, 1395/10/12

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effectiveness of mirror therapy on improving the hand function in hemiplegic children

Public title

Effectiveness of mirror therapy on improving the hand function in hemiplegic children

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Spastic hemiplegic cerebral palsy; age ranges between 5-15 year-old; cognitively normal; intact visual and hearing ability; no intervention with botulinum toxin during the last 6 months prior to the study;

willingness of child and parents to participate in the study Exclusion criteria: unwillingness of child or their parents to continue cooperation with the researchers; any reason leading the participant to be unable to continue such as admitting to hospital or getting sick

Age
From **5 years** old to **15 years** old

Gender
Both

Phase
1

Groups that have been masked
No information

Sample size
Target sample size:

Randomization (investigator's opinion)
N/A

Randomization description

Blinding (investigator's opinion)
Not blinded

Blinding description

Placebo
Not used

Assignment
Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Shiraz University of Medical Sciences

Street address
Shiraz University of Medical Sciences, Zand Blvd

City
Shiraz

Postal code

Approval date
2015-07-12, 1394/04/21

Ethics committee reference number
IR.SUMS.REC.1394.73

Health conditions studied

1

Description of health condition studied
Spastic hemiplegia

ICD-10 code
G80.2

ICD-10 code description
Spastic hemiplegic cerebral palsy

Primary outcomes

1

Description
Functional status of affected hand

Timepoint
Two times in the baseline phase - Three times in the treatment phase - Two times after withdrawing the treatment phase

Method of measurement
Box and block test

Secondary outcomes

1

Description
Hand dexterity

Timepoint
Two times in the baseline phase - Three times in the treatment phase - Two times after withdrawing the treatment phase

Method of measurement
A fuctional test of beads threading

Intervention groups

1

Description
This will be the ABA single-subject design involving observation of a single participant during three phases known as A, B, and A: A) This is a baseline phase lasting for two weeks in which the established functional status of spastic hemiplegic hand will be assessed only by Jebson-Taylor hand function test. B) This is a treatment phase lasting for 6 weeks in which the therapy will be provided and meanwhile the assessment will be continued. A home-based mirror therapy will be taught to participants who should be totally committed to perform it on a daily basis. A) In this last phase lasting for 2 weeks, the treatment will be withdrawn, but the assessment will be continued.

Category
Rehabilitation

Recruitment centers

1

Recruitment center

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Full name of responsible person
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Sponsors / Funding sources

1

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Grant name
Grant code / Reference number
93-01-06-8984
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Shiraz University of Medical Sciences
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

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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