

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 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

Name

Seyed Alireza Derakhshanrad

Name of organization / entity

Shiraz University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 71 3627 1551

Email address

derakhshan@sums.ac.ir

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 functional 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****Name of recruitment center**

Shiraz School of Rehabilitation Sciences

Full name of responsible person

Seyed Alireza Derakhshanrad

Street address

Shiraz School of Rehabilitation Sciences, Abiverdi 1, Chamran Blvd

City

Shiraz

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

Full name of responsible person

Sobhan Sobhani

Street address

Shiraz School of Rehabilitation Sciences, Abiverdi 1,
Chamran Blvd

City

Shiraz

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

Person responsible for general inquiries

Contact**Name of organization / entity**

Shiraz University of Medical Sciences

Full name of responsible person

Seyed Alireza Derakhshanrad

Position

PhD/Assistant Professor

Other areas of specialty/work**Street address**

Shiraz School of Rehabilitation Sciences, Abiverdi 1,
Chamran Blvd

City

Shiraz

Postal code**Phone**

+98 71 3727 1551

Fax**Email**

derakhshan@sums.ac.ir

Web page address

Person responsible for scientific inquiries

Contact**Name of organization / entity**

Shiraz University of Medical Sciences

Full name of responsible person

Seyed Alireza Derakhshanrad

Position

PhD

Other areas of specialty/work**Street address**

School of Rehabilitation-Shiraz University of Medical
Sciences

City

Shiraz

Postal code**Phone**

+98 71 3627 1551

Fax**Email**

derakhshan@sums.ac.ir

Web page address

Person responsible for updating data

Contact**Name of organization / entity**

Shiraz University of Medical Sciences

Full name of responsible person

Seyed Alireza Derakhshanrad

Position

PhD

Other areas of specialty/work**Street address**

Shiraz School of Rehabilitation Sciences, Abiverdi 1,
Chamran Blvd

City

Shiraz

Postal code

7194733669

Phone

+98 71 3627 1551

Fax

+98 71 3627 2495

Email

derakhshan@sums.ac.ir

Web page address

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