

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effects of Sensory Motor Plays in Virtual Environment on Eye Hand Coordination in Children with Cerebral Palsy

Protocol summary

Summary

The aim of the present study is to determine the effects of virtual reality in eye-hand coordination of children with hemiplegic cerebral palsy. In a cross sectional, randomized, double blind study, 15 children with hemiplegic cerebral palsy are allocated into the following 3 groups. The patients in the first group receive visual motor practices in virtual environment and the in the second group, visual motor practices in virtual environment with immobilization of less affected upper limb. The patients in the control group don't receive any treatment. Eye hand coordination is measured by subtest visual motor coordination of Bruininks-Oseretsky test of Motor Proficiency, Pediatrics Motor Activity Log and Reiven Colored Progressive Matrix and compared between groups.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201101244945N2**

Registration date: **2011-04-03, 1390/01/14**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2011-04-03, 1390/01/14

Registrant information

Name

Hamid Reza Rostami

Name of organization / entity

Ahvaz Jundishapur University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Ahvaz Jundishapur University of Medical Sciences

Expected recruitment start date

2010-09-29, 1389/07/07

Expected recruitment end date

2011-03-16, 1389/12/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of Sensory Motor Plays in Virtual Environment on Eye Hand Coordination in Children with Cerebral Palsy

Public title

Effects of Sensory Motor Plays in Virtual Environment on Eye Hand Coordination in Children with Cerebral Palsy

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Children with Cerebral Palsy hemiplegia, age between 3 and 10 year, range of motion: 20 degrees in wrist joint and 10 degrees in MP and IP Joints from full flexion, good cognitive and awareness state Exclusion Criteria: seizure in past 6 months, visual problems intervening in the activities, upper limb orthopedic surgery in past 6 months, botulinum toxin therapy in past 6 months, severe balance problems, muscle tone higher than 3 in Modified Ashworth Scale

Age

From **3 years** old to **10 years** old

Gender

Both

Phase

N/A

Groups that have been masked*No information***Sample size**Target sample size: **15****Randomization (investigator's opinion)**

Randomized

Randomization description**Blinding (investigator's opinion)**

Double blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ahvaz Jundishapur University of Medical Sciences

Street addressFaculty of Rehabilitation Sciences, Ahvaz Jundishapur
University of Medical Sciences**City**

Ahvaz

Postal code**Approval date**

2011-01-03, 1389/10/13

Ethics committee reference number

ETH-041

Health conditions studied**1****Description of health condition studied**

Hemiplegic Cerebral palsy

ICD-10 code

G80, G83

ICD-10 code description**Primary outcomes****1****Description**

Eye Hand Coordination

Timepoint

1 and 3 Months after Baseline Measurement

Method of measurementSubtest Visual Motor Coordination of Bruininks-Oseretsky
Test of Motor Proficiency, Pediatrics Motor Activity Log,
Reiven Colored Progressive Matrix**Secondary outcomes**

empty

Intervention groups**1****Description**Visual Motor Practice in Virtual Environment with
Restraint of Less affected Upper Extremity. 10 Treatment
sessions, every other day, each session lasts for 1.5
hours, in 3 weeks. Practices in virtual environment are
provided by upper limb exerciser of E-Link System.**Category**

Rehabilitation

2**Description**

Control group: without any treatment

Category

Rehabilitation

3**Description**Visual Motor Practices in Virtual Environment. 10
Treatment sessions, every other day each session lasts
for 1.5 hours, in 3 weeks. Practices in virtual
environment are provided by upper limb exerciser of E-
Link System.**Category**

Rehabilitation

Recruitment centers**1****Recruitment center****Name of recruitment center**

Hospitals and Rehabilitation Clinics of Ahvaz City

Full name of responsible person**Street address****City**

Ahvaz

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**Vice-Chancellors for research Affairs, Ahvaz
Jundishapur University of Medical Sciences**Full name of responsible person**

Dr. Mohammad Reza Abbaspoor

Street address

Vice-Chancellors for research Affairs, Ahvaz
Jundishapur University of Medical Sciences

City

Ahvaz

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Vice-Chancellors for research Affairs, Ahvaz Jundishapur
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

Ahvaz Jundishapur University of Medical Sciences

Full name of responsible person

Hamid Reza Rostami

Position

MSc. in Occupational Therapy, Faculty Member of
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Other areas of specialty/work

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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