Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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

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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 Palsic 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, botolinum 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 address
Faculty 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 measurement
Subtest 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-Chancelors for research Affairs, Ahvaz Jundishapur University of Medical Sciences
Full name of responsible person
Dr. Mohammad Reza Abbaspoor
Street address

Vice-Chancelors 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-Chancelors 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 Ahvaz Jundishapur University of Medical Sciences

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