

# 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

###### Country

Iran (Islamic Republic of)

###### Phone

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###### Email address

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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 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-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**

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**Position**

MSc. in Occupational Therapy, Faculty Member of  
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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*