

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Aug 2026

Effects of Visual Perception Interventions in Comparison with Conventional Occupational Therapy Interventions on Occupational Performance and Satisfaction in Performing Daily Activities in People with Multiple Sclerosis

Protocol summary

Study aim

Effects of Activity Based Visual perception Interventions in comparison with Conventional Occupational Therapy Interventions on Occupational Performance and Satisfaction in Performing Daily Activities in People with Multiple Sclerosis

Design

Clinical randomized, with two parallel groups

Settings and conduct

After approving the research plan and obtaining the code of ethics, we go to Tehran Occupational Therapy Clinics .Written consent is given to patients to complete.inclusion criteria measurement(MMSE, visual acuity, DTVP-A) will be done for patients who accept to be in this project. assessments before and after intervention involve canadian occupational performance, depth perception, visual evoked potential(VEP).intervention group receive visual perception intervention and control group receive occupational therapy for 2 sessions per week, 30 minutes per sessions for four weeks.patients will be followed up one month after intervention.

Participants/Inclusion and exclusion criteria

inclusion criteria:age between 18 to 50;at least 3 months after relapse of disease;developmental test of visual perception-adolescent and adult score below 90;mini mental status evaluation above 21;normal sightedness or corrected by assistive devices Non-inclusion criteria:systemic disease diabetes or any disease other than ms; that affects visual system;not cooperating in project

Intervention groups

intervention group:visual perception: receive activity based visual perception intervention with 3 dimensional pen in each session patinet should complete 4 stages. control group:conventional occupational therapy: receive

interventions include rehabilitation of praxi and motor skills, sensory perceptual skills, emotional regulation, social skills, activities daily of living and assistive device recommendation

Main outcome variables

Work performance score in daily activities; depth perception; Path of vision

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20120910010806N9**

Registration date: **2019-10-31, 1398/08/09**

Registration timing: **retrospective**

Last update: **2019-10-31, 1398/08/09**

Update count: **0**

Registration date

2019-10-31, 1398/08/09

Registrant information

Name

Malahat Akbarfahimi

Name of organization / entity

Iran University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-01-21, 1397/11/01

Expected recruitment end date

2019-08-28, 1398/06/06

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of Visual Perception Interventions in Comparison with Conventional Occupational Therapy Interventions on Occupational Performance and Satisfaction in Performing Daily Activities in People with Multiple Sclerosis

Public title

Effects of Activity Based Interventions on Performance in People with Multiple Sclerosis

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Age Between 18 and 50 years Multiple Sclerosis Diagnosed by Neurologist DTVP-A Score Below 90 MMSE Score Above 21 Normal Sightedness or Corrected with Assistive Devices The Hand has the Ability to Grip and Use Three-dimensional Printing pen At least 3 months have passed from relapse of the disease

Exclusion criteria:

Having Systemic Diseases, Diabetes and any Disease other than MS that Affects the Visual System Not Cooperating in Project

AgeFrom **18 years** old to **50 years** old**Gender**

Both

Phase

N/A

Groups that have been masked*No information***Sample size**Target sample size: **10****Randomization (investigator's opinion)**

Randomized

Randomization description

The sampling method will be simple random sampling and by lottery method. the name of each patient is written on a piece of paper and placed inside the box. then pieces of paper extracted individually to complete the sample size for the intervention and control group

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

Iran University of Medical Sciences and health services

Street address

Iran University of Medical Sciences., Shahid Hemmat highway., Tehran., Iran

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1449614353

Approval date

2018-12-09, 1397/09/18

Ethics committee reference number

IR.IUMS.REC.1397.651

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

multiple sclerosis

ICD-10 code

G35

ICD-10 code description

Multiple sclerosis

Primary outcomes**1****Description**

Occupational performance score in performing daily activities

Timepoint

Pre and post treatment

Method of measurement

Canadian occupational performance measure (COPM)

2**Description**

Satisfaction score in performing daily activities

Timepoint

Pre and post treatment

Method of measurement

Canadian occupational performance measure

Secondary outcomes

1

Description

depth perception

Timepoint

pre and post treatment

Method of measurement

depth perception peg board

2

Description

visual pathway

Timepoint

pre and post treatment

Method of measurement

visual evoked potential

Intervention groups

1

Description

The intervention group receives visual perception interventions with a three-dimensional printing pen for 2 sessions per week, 30 minutes per sessions for four weeks. In the first session in addition to the explanation, therapist produces a three dimensional design in order to teach the method. In each session, the therapist presents a plan for producing a three-dimensional image for patient. In each session, four steps should be performed by the patient. In the first stage, Drawing lines on the plane. In this step, patients drew objects such as triangles or pentagons using stencils from the website (<http://the3doodler.com/projects/>). in the second stage, Drawing lines in the 3D space. In this step, patients recognized a 3D structure on paper and then drew lines in 3D space to recreate the same 3D structures dimensional space, in the third stage, Making structures by attaching 2D outputs. In this step, patients drew lines in separate planes using stencils and attached the planes to produce a complete 3D structure in the forth stage, Making structures by connecting 2D outputs with additional 3D drawing. In this step, patients drew lines using stencils and connected the plane lines to each other to produce a complete 3D structure with appropriate spatial configuration

Category

Rehabilitation

2

Description

Control group: Receives conventional occupational therapy interventions for 8 sessions 2 times a week and 30 minutes per session. Interventions include:stretching and spasm control exercises using with theraband and wedge, gross motor skills and balance using with steps, balance beam , parallel bars and tilt board and fine motor skills using with putty, peg board , eye hand coordination and eye foot coordination exercises with ball and peg board,exercises in PNF technic and activities daily of living.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Rofeideh rehabilitation hospital

Full name of responsible person

Dr Mojtaba Azimian

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Nemati st., Shahid baradaran soleimani Ave.,
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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

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Full name of responsible person

Dr Malahat Akbarfahimi

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Grant name

Research deputy of Iran University of Medical Sciences

Grant code / Reference number

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

Yes

Title of funding source

Iran University of Medical Sciences

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin**Type of organization providing the funding**

Academic

Person responsible for general inquiries**Contact****Name of organization / entity**

Iran University of Medical Sciences

Full name of responsible person

Yasaman Rezaei

Position

Master candidate of occupational therapy

Latest degree

Bachelor

Other areas of specialty/work

Occupational Therapy

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Ph.D. in neuroscience- Faculty of Iran University of Medical Sciences

Latest degree

Ph.D.

Other areas of specialty/work

Neuroscience

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Person responsible for updating data**Contact****Name of organization / entity**

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Full name of responsible person

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Position

Master candidate of Occupational Therapy

Latest degree

Bachelor

Other areas of specialty/work

Occupational Therapy

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

Article Published

When the data will become available and for how long

6 months after publication

To whom data/document is available

The researchers and Occupational Therapists

Under which criteria data/document could be used

Other research, critics, check and clinical usage

From where data/document is obtainable

First person in article

What processes are involved for a request to access data/document

Send request by email

Comments