Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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

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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, Diabates and any Disease other than MS that Affects the Visual System Not Cooperating in Project
Age
From **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
City
Tehran
Province
Tehran
Postal code
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
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Sponsors / Funding sources

1

Sponsor
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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
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Position
Master candidate of occupational therapy
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Person responsible for updating data

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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