Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

EFFECTS OF VIRTUAL REALITY WITH MOTOR IMAGERY TECHNIQUES IN ADDITION TO ROUTINE PHYSICAL THERAPY IN PATIENTS WITH PARKINSON'S DISEASE: A RANDOMIZED CONTROLLED TRIAL

Protocol summary

Study aim

1. To compare the effects of virtual reality with motor imagery techniques in addition to routine physical therapy on balance in patients with Parkinson's disease 2. To compare the effects of virtual reality with motor imagery techniques in addition to routine physical therapy on motor function in patients with Parkinson's disease 3. To compare the effects of virtual reality with motor imagery techniques in addition to routine physical therapy on activities of daily living in patients with Parkinson's disease

Design

parallel group, single blind, randomized controlled trial

Settings and conduct

Department of Physical Therapy, Safi Hospital, Faisalabad, Pakistan.

Participants/Inclusion and exclusion criteria

Inclusion Criteria: Idiopathic Parkinson's disease Modified Hoehn and Yahr (H&Y) Stage-1 to Stage-3 Between the ages of 50 and 80 years of both gender Independent in transfers Score equal to or greater than 24 score on the Mini-Mental State Examination (MMSE)(62). Previous lack of participation in balance or motor training Exclusion Criteria: The following exclusion criteria will be applied: History of any neurological conditions such as stroke, multiple sclerosis, epilepsy other than Parkinson's disease History of orthopedic issues such as pain, fracture or lower limb pathology History of visual abnormalities History of any chronic or cardiovascular pathology that can interfere with the transfer procedure or can affect the training sessions The participants having severe dyskinesia's or "on-off" phases Previous history of surgery for PD. History of Virtual games used in past 3 months Virtual game phobia

Intervention groups

Intervention Group– will get Routine Physical Therapy + Virtual Reality + Motor Imagery 60 minutes of session, Alternative three days/ week for 12 weeks.

Main outcome variables

Motor Function, Balance and Activities of Daily Living

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200221046567N1**
Registration date: **2020-04-01, 1399/01/13**
Registration timing: **prospective**

Last update: **2020-04-01, 1399/01/13**
Update count: **0**

Registration date

2020-04-01, 1399/01/13

Registrant information

Name

Muhammad Kashif

Name of organization / entity

Riphah International University

Country

Pakistan

Phone

+92 41 8777210

Email address

kashif.shaffi@gmail.com

Recruitment status

Not yet recruiting

Funding source

Expected recruitment start date

2641-07-06, 2020/04/15

Expected recruitment end date

2642-01-05, 2020/10/15

Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
EFFECTS OF VIRTUAL REALITY WITH MOTOR IMAGERY TECHNIQUES IN ADDITION TO ROUTINE PHYSICAL THERAPY IN PATIENTS WITH PARKINSON'S DISEASE: A RANDOMIZED CONTROLLED TRIAL

Public title
EFFECTS OF VIRTUAL REALITY WITH MOTOR IMAGERY TECHNIQUES IN ADDITION TO ROUTINE PHYSICAL THERAPY IN PATIENTS WITH PARKINSON'S DISEASE: A RANDOMIZED CONTROLLED TRIAL
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
 Idiopathic Parkinson's disease Modified Hoehn and Yahr (H&Y) Stage-1 to Stage-3 Between the ages of 50 and 80 years of both gender Independent in transfers Score equal to or greater than 24 score on the Mini-Mental State Examination (MMSE) Previous lack of participation in balance or motor training
Exclusion criteria:
 History of any neurological conditions such as stroke, multiple sclerosis, epilepsy other than Parkinson's disease History of orthopedic issues such as pain, fracture or lower limb pathology History of visual abnormalities History of any chronic or cardiovascular pathology that can interfere with the transfer procedure or can affect the training sessions The participants having severe dyskinesia's or "on-off" phases Previous history of surgery for PD. History of Virtual games used in past 3 months Virtual game phobia
Age
From **50 years** old to **80 years** old
Gender
Both

Phase
1
Groups that have been masked

- Outcome assessor

Sample size
Target sample size: **34**
Randomization (investigator's opinion)
Randomized
Randomization description
Lottery method
Blinding (investigator's opinion)
Single blinded
Blinding description
The study would be single-blinded as assessors of the study would be kept blind of the treatment group to which the patient will be allocated.
Placebo
Not used
Assignment
Factorial
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Institutional Review Board of University Institute of Physical Therapy, The University of Lahore
Street address
1 KM Raiwind Road
City
Lahore
Postal code
54792
Approval date
2641-04-11, 2020/01/22
Ethics committee reference number
IRB-UOL-FAHS/694/2020

Health conditions studied

1

Description of health condition studied
PARKINSON'S DISEASE
ICD-10 code
G20
ICD-10 code description
Parkinson's disease, virtual reality, motor imagery, balance, motor function, activities of daily living

Primary outcomes

1

Description
Balance
Timepoint
before intervention and 6, 12 week and after one month of intervention
Method of measurement
Berg Balance Scale and Activities specific Balance Confidence Scale

2

Description
Motor Function
Timepoint
before intervention and 6, 12 week and after one month of intervention
Method of measurement
Unified Parkinson's Disease Rating Scale (UPDRS) (Part-III)

3

Description
Activities of Daily livings
Timepoint
before intervention and 6, 12 week and after one month of intervention
Method of measurement
Unified Parkinson's Disease Rating Scale (Part-II)

Secondary outcomes

empty

Intervention groups

1

Description
Category
empty

2

Description
Intervention group:
Category
Treatment - Other

3

Description
Control group:
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Safi Hospital
Full name of responsible person
Muhammad Kashif
Street address
Satiana Road
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Faisalabad
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3800
Phone
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Email
kashif.shaffi@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
University of Lahore
Full name of responsible person
Prof. Dr Ashfaq Ahmad
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1 KM Defence Road
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54792
Phone
+92 42 35322501
Email
ashfaq.ahmad@uipt.uol.edu.pk
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
University of Lahore
Proportion provided by this source
100
Public or private sector
Private
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
University of Lahore
Full name of responsible person
Muhammad Kashif
Position
PhD Scholar
Latest degree
Master
Other areas of specialty/work
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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
IPD collected for the primary outcome measure only
When the data will become available and for how long
After the publication of the study.
To whom data/document is available
academic institutions and researchers
Under which criteria data/document could be used
On informed request from the investigators
From where data/document is obtainable
via email or telephonic contact with investigators
What processes are involved for a request to access data/document
on email request, data will be provided within week.
Comments