Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of Task-Oriented Circuit Training and Vestibular Rehabilitation Therapy on Balance, Gait and fear of falling in Elderly population.

Protocol summary

Study aim
To compare the effects of Vestibular Rehabilitation Therapy and Task-Oriented Circuit Training on Gait, Balance and fear of falling in Elderly Population.

Design
Randomized Clinical Trial

Settings and conduct
Allied Hospital Faisalabad- Old Age Shelter Home Faisalabad

Participants/Inclusion and exclusion criteria
Inclusion criteria: age of participants 60 y/o or more; have fallen at least once in the last 12 months; taking more than 15 s in the timed up-and-go (TUG) test; both genders; identified as medium fall risk on BBS (21-40)/56. Exclusion criteria: balance disorders(neurologic, vestibular, etc.); organic conditions.

Intervention groups
Task-Oriented Circuit Training: The protocol will included: Sit to stand, Stand up and walk (6 m),Walking over inclined surface (3 m), Step, Taking an object from the ground while walking (6 m), Slalom (6 m),Climb and descend stairs, Touch different point marked a semicircle on a mirror with the feet, Reaching to object while standing, Standing on a movable platform Vestibular Rehabilitation Therapy: Head movement: backward and forward bending, turning from right to left, Balancing on a mat and swiveling eyes, Standing on a sports mat, walking on the spot, and rotating the head on both sides, Alternately shift weight toward one limb while maintaining partial weight bearing on the other, keeping the sight on a fixed target object. Repeated for the opposite side, Standing on foam with closed eyes and rotating the head on both sides, Forward and backward walking with a side-to-side head turn, Sitting on a ball with feet on foam, eyes closed, and bouncing slightly while turning the head from side to side, Marching in place. The sessions will be 20 to 30 minutes; 3 days per week for 6 weeks.

Main outcome variables
Timed Up-and-Go (TUG) Test; Dynamic Gait Index; Falls Efficacy Scale-International(FES-I)

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20230608058418N1**
Registration date: **2023-07-18, 1402/04/27**
Registration timing: **registered_while_recruiting**

Last update: **2023-07-18, 1402/04/27**
Update count: **0**

Registration date
2023-07-18, 1402/04/27

Registrant information

Name
Vishal Sana
Name of organization / entity
Riphah international university
Country
Pakistan
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+92 41 8777210
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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-06-27, 1402/04/06

Expected recruitment end date
2023-10-27, 1402/08/05

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

Scientific title
Comparison of Task-Oriented Circuit Training and Vestibular Rehabilitation Therapy on Balance, Gait and fear of falling in Elderly population.

Public title
Comparison of Task-Oriented Circuit Training and Vestibular Rehabilitation Therapy on Balance, Gait and fear of falling in Elderly population.
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age of participants 60 or more Have fallen at least once in the last 12 months Taking more than 15 s, or needing support, in the timed up-and-go (TUG) test Both genders Identified as medium fall risk on BBS (21-40)/56
Exclusion criteria:
Cognitive decline that prevents the patient from understanding the assessment, vestibular rehabilitation exercises, and granting informed consent Balance disorders caused by conditions other than age (neurologic, vestibular, etc.) Organic conditions that prevent standing on two feet, which is necessary for a complete postural assessment and performance of vestibular rehabilitation exercises.
Age
From **60 years** old
Gender
Both

Phase
N/A
Groups that have been masked

- Participant

Sample size
Target sample size: **36**
Randomization (investigator's opinion)
Randomized
Randomization description
The randomization will be done by Random Allocation Software version 2. Participants will be divided into two groups.
Blinding (investigator's opinion)
Single blinded
Blinding description
The Blinding will done by blinding the outcome accessor because Outcome accessor and Researcher will two different persons.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Research and Ethical Comittee
Street address
Adjacent Fish Farm, Satayana Rd, Faisalabad, Punjab
City
Faisalabad
Postal code
38000
Approval date
2023-06-28, 1402/04/07
Ethics committee reference number
REC-FSD-00319

Health conditions studied

1

Description of health condition studied
Gait
ICD-10 code
R26
ICD-10 code description
Gait

Primary outcomes

1

Description
Balance
Timepoint
Before Intervention and 6 weeks after intervention.
Method of measurement
Timed Up-and-Go (TUG) Test

2

Description
Gait
Timepoint
Before Intervention and 6 weeks after intervention.
Method of measurement
Dynamic Gait Index

3

Description
Fear of falling
Timepoint
Before Intervention and 6 weeks after intervention.
Method of measurement
Falls Efficacy Scale-International (FES-I)

Secondary outcomes

empty

Intervention groups

1

Description
Task-Oriented Circuit Training is a useful approach to improve balance and gait function for those having a fear of falling and abnormal gait pattern. The TOCT is based on workstations including different motor tasks related to daily living activities such as maintaining balance, walking, and reaching. TOCT may allow a more intensive (more repetitions) and specific (task-oriented) exercise in a developed rehabilitative setting. It has positive effects on gait and fall-related injuries which is more common in elderly population

Category
Treatment - Other

2

Description
Vestibular Rehabilitation Therapy is exercise-based program that has been around for more than 70 years. Patients with gait issues can benefit from a form of treatment that is vestibular rehabilitation. Vestibular rehabilitation improves static and dynamic balance stability. It improves gait parameters in elderly patients, allowing patients to walk more securely and direct more easily during walking

Category
Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Allied Hospital Faisalabad
Full name of responsible person
Dr. Sobia Nawaz
Street address
Dr. Tusi Rd, Faisalabad, Punjab
City
Faisalabad
Postal code
38000
Phone
+92 334 8196967
Email
info@pmc.edu.pk

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Riphah International University Faisalabad
Full name of responsible person
Dr Sahreen
Street address
Adjacent Fish Farm, Satayana Rd, Faisalabad, Punjab
City
Faisalabad
Postal code
38000
Phone
+92 41 8777210
Email
contact@riphahfsd.edu.pk

Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Riphah International University Faisalabad
Proportion provided by this source
10
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
Riphah International University Faisalabad
Full name of responsible person
Dr Vishal Sana
Position
Lecturer
Latest degree
Master
Other areas of specialty/work
Physiotherapy
Street address
House#P44, Usman colony near Allied moor, Faisalabad
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Faisalabad
Province
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Postal code
38000
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vishsana24@gmail.com

Person responsible for scientific

inquiries

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD
Sharing IPD may raise privacy and confidentiality concerns, especially when the data contains sensitive or personally identifiable information. There may be legal or ethical obligations to protect the privacy of the participants, and sharing their data could violate those obligations.

Study Protocol
No - There is not a plan to make this available

Statistical Analysis Plan
No - There is not a plan to make this available

Informed Consent Form
No - There is not a plan to make this available

Clinical Study Report
No - There is not a plan to make this available

Analytic Code
Yes - There is a plan to make this available

Data Dictionary
No - There is not a plan to make this available

Title and more details about the data/document
The data set of IPD will be shared for primary outcomes only.

When the data will become available and for how long
Starting in October 2023

To whom data/document is available
Data set will be available for academic persons.

Under which criteria data/document could be used
The documents will be used for further research purposes.

From where data/document is obtainable
The data will be provided from email Id vishsana24@gmail.com

What processes are involved for a request to access data/document
The applicant should send a email for requesting the documents and request will be followed within 72 hours.

Comments