

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of the effects of whole body vibration alone and in combination with unstable shoes on the balance of healthy older adults

Protocol summary

Summary

The aim of this study is to compare the effects of whole body vibration while wearing unstable shoes and standard shoes on balance of elderly over 65. Older people are included if they gain a score of 25-35 (out of 40) in Fullerton Advance Balance scale and can walk independently for a distance of 20 meters. Elderly people with severe diabetes, kidney stones or bladder disorder ; noticeable and unmodified audio or visual content and elderly who have received balance training in the last 3 months will not be studied. A convenience sample of 60 people over 65 years will be recruited from Jahandidegan Older Community Center in Shiraz, Iran. The participants will be randomly divided into two groups of 30 people. The first group whole body vibration and simple shoes and the second group will receive whole body vibration and unstable shoes. The total study lasts 4 weeks. With a frequency of three times a week and each session is 5 sets. Intervention and rest time per set, respectively first and second in two weeks, 30 seconds -1 minute, and minutes will be 1 min -1. Four weeks after the end of treatment, we will follow up and re-examine the outcome measures. Selected frequency and amplitude for system is 30 Hz and 4 mm . Outcome measures are : balance ability measured by Fullerton Advance Balance Scale, Gait Speed and fear of falling measured by Fall Efficacy Scale.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015111825105N1**
Registration date: **2016-03-04, 1394/12/14**
Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2016-03-04, 1394/12/14

Registrant information

Name

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Name of organization / entity

Shiraz University of Medical Sciences

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Recruitment status

Recruitment complete

Funding source

Shiraz University of Medical Sciences

Expected recruitment start date

2016-05-01, 1395/02/12

Expected recruitment end date

2016-10-01, 1395/07/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effects of whole body vibration alone and in combination with unstable shoes on the balance of healthy older adults

Public title

Comparison of the effects of whole body vibration alone and in combination with unstable shoes on the balance of healthy older adults

Purpose

Treatment

Inclusion/Exclusion criteria

inclusion criteria: people older than 65 : receiving the point between 25-35 from FAB scale : ability of walking 20 meters independently : receiving the point over 6 (from 15) in geriatric depression scale : receiving the point lesser than 23(from 30) in mini mental state test : able to maintain semi squat position for at least one minute
exclusion criteria : elderly has been suffering from severe DM , kidney and bladder stone : significant and not treated visual and vestibular impairments : sever musculoskeletal , cardiovascular and neurological disorders : elderly were receiving balance training in past three months : fracture : osteoprosis : severe osteoarthritis : taking sedative drugs

Age

From **65 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Shiraz University of Medical Sciences

Street address

Central Building of Shiraz University of Medical Sciences, Zand avenue -shiraz

City

Shiraz

Postal code

1978-71345

Approval date

2016-01-24, 1394/11/04

Ethics committee reference number

IR.SUMS.REC.1394.192

Health conditions studied

1

Description of health condition studied

balance impairment

ICD-10 code

Not Specif

ICD-10 code description

Not Specified

Primary outcomes

1

Description

Fullerton Advance Balance scale(FAB)

Timepoint

Pre and post intervention

Method of measurement

Rating on balance scale

Secondary outcomes

1

Description

Gait Speed

Timepoint

Pre and post intervention

Method of measurement

10 meter walking test

2

Description

Added at 2016-11-19: Fear of Falling

Timepoint

Added at 2016-11-19: pre-post intervention

Method of measurement

Added at 2016-11-19: Fall Efficacy Scale

Intervention groups

1

Description

The intervention group will receive simultaneously the Whole Body Vibration and unstable shoes; Duration of intervention will be for 4 weeks with a frequency of three times per week. Each session contains 5 bouts of treatment (whole body vibration while wearing unstable shoes), with hold and rest periods. The hold-rest ratio will be 30-60 seconds, and 60-60 seconds in the first two weeks and second two weeks respectively. The frequency and amplitude of the applied whole body vibration will be 30 Hz and 3 mm .

Category

Treatment - Devices

2

Description

The control group will receive simultaneously the Whole

Body Vibration and standard shoes, similar in color and brand to unstable shoes; Duration of intervention will be for 4 weeks with a frequency of three times per week. Each session contains 5 bouts of treatment (whole body vibration while wearing unstable shoes), with hold and rest periods. The hold-rest ratio will be 30-60 seconds, and 60-60 seconds in the first two weeks and second two weeks respectively. The frequency and amplitude of the applied whole body vibration will be 30 Hz and 3 mm.

Category

Treatment - Devices

Recruitment centers**1****Recruitment center****Name of recruitment center**

Jahandidegan older community center

Full name of responsible person

Sobhan Sobhani

Street address

School of Rehabilitation Sciences , Abiverdi1 avenue , Chamran Blvd

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Shiraz

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Shiraz University of Medical Science

Full name of responsible person

Dr. Seyed Basir Hashemi

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Vice-Chancellor for Research, Shiraz University of Medical Sciences, Zand Blvd., Shiraz, Iran Postal Code

City

Shiraz

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Shiraz University of Medical Science

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**

Shiraz University of Medical Sciences, School of Rehabilitation Sciences

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Web page address**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