

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

08 Jul 2026

### The Effect of Whole Body Vibration on Balance and fear of falling in the elderly

#### Protocol summary

##### Study aim

The Effect of Whole Body Vibration on Balance and fear of falling in the elderly

##### Design

A concealed, randomized, blinded, sham controlled clinical trial with a parallel group design of 40 patients, will enrolled between March 2020 and September 2020.

##### Settings and conduct

This study will be carried out at the Neuromuscular Rehabilitation Center of Semnan University of Medical Sciences. After allocation, two groups were randomly assigned into intervention and control groups, a blinded assessor, will evaluate the balance in elderly. Then, an experienced therapist, intervened the participants via the whole body vibration for the intervention group for 12 sessions. After the intervention, the static and dynamic balance of the participants will be evaluated by the blinded evaluator of the target group.

##### Participants/Inclusion and exclusion criteria

1- Men and women over 60 years old  
2- Able to walk without the help of others and not to use crutches and other aids

##### Intervention groups

In this study, the elderly aged 60 years and older will assigned into two intervention and control groups.

##### Main outcome variables

Static and dynamic balance indices including overall, anterior-posterior and medial-lateral.

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20200203046353N1**

Registration date: **2020-02-16, 1398/11/27**

Registration timing: **prospective**

Last update: **2020-02-16, 1398/11/27**

Update count: **0**

##### Registration date

2020-02-16, 1398/11/27

##### Registrant information

###### Name

Aliakbar Pahlevanian

###### Name of organization / entity

###### Country

Iran (Islamic Republic of)

###### Phone

+98 23 3365 4180

###### Email address

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##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2020-03-05, 1398/12/15

##### Expected recruitment end date

2020-09-15, 1399/06/25

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

The Effect of Whole Body Vibration on Balance and fear of falling in the elderly

##### Public title

The Effect of Whole Body Vibration on Balance

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

###### Inclusion criteria:

Men and women over 60 years old Able to walk without

the help of others and not to use crutches and other aids

**Exclusion criteria:**

**Age**

From **60 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

- Investigator
- Data analyser

**Sample size**

Target sample size: **40**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Subjects were randomly assigned into intervention and control groups according to the inclusion criteria. Subjects will be randomly assigned to either intervention or control groups following the simple randomization method.

**Blinding (investigator's opinion)**

Double blinded

**Blinding description**

1. The person who evaluates the results of the study will also blind the allocation of the groups. 2. An individual analyzing the results will also blind the allocation of groups.

**Placebo**

Not used

**Assignment**

Parallel

**Other design features**

**Secondary Ids**

empty

**Ethics committees**

**1**

**Ethics committee**

**Name of ethics committee**

Ethics Committee of Semnan University of Medical Sciences

**Street address**

Basij Blvd,

**City**

Semnan

**Province**

Semnan

**Postal code**

۹۹۹۵۱- ۳۵۱۹۸

**Approval date**

2019-12-17, 1398/09/26

**Ethics committee reference number**

IR.SEMUMS.REC.1398.210

**Health conditions studied**

**1**

**Description of health condition studied**

Elderly

**ICD-10 code**

Z76.8

**ICD-10 code description**

Persons encountering health services in other specified circumstances

**Primary outcomes**

**1**

**Description**

overall, anterior- posterior and medial-lateral of balance

**Timepoint**

Measurement of the balance before and immediately after 12 sessions of whole body vibration

**Method of measurement**

BIODEX instrument

**Secondary outcomes**

**1**

**Description**

Fear Of Falling

**Timepoint**

Before and after intervention

**Method of measurement**

Fall Efficacy Scale(FES)

**Intervention groups**

**1**

**Description**

Intervention group:Whole body vibration for 12 sessions, 3 sessions per week at 35 Hz, 10 repetitions with 60 seconds, 60 seconds rest between each repetition.

**Category**

Rehabilitation

**Recruitment centers**

**1**

**Recruitment center**

**Name of recruitment center**

Ibn-e-Sina Rehabilitation Clinic

**Full name of responsible person**

aliakbar pahlevanian

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Next to Sepah Bank., 17 shahrivar Blvd., Semnan town

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## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**  
Semnan University of Medical Sciences  
**Full name of responsible person**  
Dr Parviz Kokhaei, Research & Technology Deputy of University  
**Street address**  
Basij Blvd., Semnan., Semnan Province  
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**Province**  
Semnan  
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alipahlevanian@yahoo.com  
**Grant name**  
**Grant code / Reference number**  
**Is the source of funding the same sponsor organization/entity?**  
Yes  
**Title of funding source**  
Semnan 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**  
Other

## Person responsible for general inquiries

#### Contact

**Name of organization / entity**  
Semnan University of Medical Sciences  
**Full name of responsible person**  
aliakbar pahlevanian  
**Position**  
Lecturer  
**Latest degree**  
Master  
**Other areas of specialty/work**  
Occupational Therapy

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## 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)**

Undecided - It is not yet known if there will be a plan to make this available

**Study Protocol**

Undecided - It is not yet known if there will be a plan to make this available

**Statistical Analysis Plan**

Undecided - It is not yet known if there will be a plan to make this available

**Informed Consent Form**

Undecided - It is not yet known if there will be a plan to make this available

**Clinical Study Report**

Undecided - It is not yet known if there will be a plan to make this available

**Analytic Code**

Undecided - It is not yet known if there will be a plan to make this available

**Data Dictionary**

Undecided - It is not yet known if there will be a plan to make this available