

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Investigating the effect of perturbation training on balance, function and risk of falling of blind people

#### Protocol summary

Static Balance Dynamic Balance movement Function Risk of falling

#### Study aim

This study aimed to investigate the effect of 4-week perturbation-based balance training on risk of falling, movement function and balance in blind people.

#### Design

This study was a quasi-experimental research with a pretest - post test design with a practice intervention group and a control group. The statistical sample consisted of 24 blind male students of the University of Tehran with a valid age range of 18-30 years, who were selected by targeted sampling.

#### Settings and conduct

The present study was carried out in the Corrective exercise Laboratory of the University of Tehran. The method of work started with evaluating the balance, motor function and risk of falling of these people and then after the pretest stage, people entered the research and training protocol and were divided into two control and experimental groups. The experimental group also performed perturbation exercises according to the protocol for 4 weeks. After 4 weeks, the research variables were re-evaluated.

#### Participants/Inclusion and exclusion criteria

Inclusion criteria: male gender, absolute blindness of acquired or congenital type, ability to walk independently, lack of pain and injury in the lower back, no cardiovascular problems, diabetes, no neuropathy and no history of disease. Exclusion criteria: any pain during exercise, no history of participation in a particular sport, no other sensory impairment other than blindness, and students' physical and motor problems.

#### Intervention groups

An experimental group (12 people): Using a perturbation training protocol, experimental group subjects performed 4 weeks (3 sessions per week) under the supervision of sports researchers and instructors. A control group (12 people): During this time, the control group was allowed to perform their daily activities.

#### Main outcome variables

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20200510047381N1**

Registration date: **2020-06-03, 1399/03/14**

Registration timing: **retrospective**

Last update: **2020-06-03, 1399/03/14**

Update count: **0**

##### Registration date

2020-06-03, 1399/03/14

##### Registrant information

##### Name

Mohammad hani Mansori

##### Name of organization / entity

The University of Tehran

##### Country

Iran (Islamic Republic of)

##### Phone

+98 25 3662 2375

##### Email address

haninio74@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2019-08-06, 1398/05/15

##### Expected recruitment end date

2019-10-07, 1398/07/15

##### Actual recruitment start date

2019-08-06, 1398/05/15

##### Actual recruitment end date

2019-10-07, 1398/07/15

**Trial completion date**

2020-02-04, 1398/11/15

**Scientific title**

Investigating the effect of perturbation training on balance, function and risk of falling of blind people

**Public title**

the effect of perturbation training on balance of blind people

**Purpose**

Health service research

**Inclusion/Exclusion criteria**

**Inclusion criteria:**

Male sex, absolute acquired or congenital blindness The ability to walk independently, no pain or injury in the lower back and lower limbs No cardiovascular problems, diabetes, no neuropathy and No history of illness or medication that affects the nervous system

**Exclusion criteria:**

Any pain during exercise Lack of a clear track record in sports Having other sensory disorders in addition to blindness Students' physical and mobility problems

**Age**

From **18 years** old to **30 years** old

**Gender**

Male

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **24**

Actual sample size reached: **24**

**Randomization (investigator's opinion)**

Randomized

**Randomization description**

Stratified randomization was used to randomly assign subjects to control and experimental groups. Thus, individuals are classified into limited strata based on two influential factors, namely the type of visual impairment (congenital and acquired) and the severity of the disability (absolute and weak), which formed a total of 4 classes. Finally, simple randomization process was performed in each strata. so that each individual from within The sealed envelope was assigned a number, and the subjects were assigned to the experimental group and the control group, if paired.

**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**

Ethics Committee for Tehran University

**Street address**

No.50, between 15th and 16th St., North Kargar., Faculty of Physical Education and Sport Sciences , University of Tehran

**City**

Tehran

**Province**

Tehran

**Postal code**

1439813117

**Approval date**

2019-07-15, 1398/04/24

**Ethics committee reference number**

IR.UT.SPORT.REC.1398.035

## Health conditions studied

1

**Description of health condition studied**

Absolute blindness (acquired and congenital)

**ICD-10 code**

H53-H54

**ICD-10 code description**

Visual disturbances, Blindness and low vision

## Primary outcomes

1

**Description**

Static Balance

**Timepoint**

7 days before the exercise protocol and 4 weeks after exercise

**Method of measurement**

Modified stork stand balance test for static balance

2

**Description**

Dynamic Balance

**Timepoint**

7 days before the exercise protocol and 4 weeks after exercise

**Method of measurement**

berg balance scale for dynamic balance

## Secondary outcomes

empty

## Intervention groups

## 1

### Description

Intervention group: The group that receives the perturbation exercise.

### Category

Rehabilitation

## 2

### Description

Control group: A group that did its daily activities.

### Category

Rehabilitation

## Recruitment centers

## 1

### Recruitment center

#### Name of recruitment center

Laboratory of corrective exercises of the Faculty of Physical Education, University of Tehran

#### Full name of responsible person

Mohammad hani Mansori

#### Street address

Amirabad Street between 15th and 17th Alley

#### City

Tehran

#### Province

Tehran

#### Postal code

3718947474

#### Phone

+98 21 8835 1730

#### Email

haninio74@gmail.com

## Sponsors / Funding sources

## 1

### Sponsor

#### Name of organization / entity

The University of Tehran

#### Full name of responsible person

Mohammad hani Mansori

#### Street address

Imam Square, Sistani Complex, Block 2, No. 37

#### City

Qom

#### Province

Ghous

#### Postal code

3718947474

#### Phone

+98 25 3662 2375

#### Email

HANINIO74@GMAIL.COM

#### Grant name

#### Grant code / Reference number

#### Is the source of funding the same sponsor

#### organization/entity?

No

#### Title of funding source

The University of Tehran

#### 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

#### Name of organization / entity

The University of Tehran

#### Full name of responsible person

Mohammad hani Mansori

#### Position

Masters student

#### Latest degree

Master

#### Other areas of specialty/work

Physical Education and Sports Science

#### Street address

Imam Square, Sistani Complex, Block 2, No. 37

#### City

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## Person responsible for scientific inquiries

### Contact

#### Name of organization / entity

The University of Tehran

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## Person responsible for updating data

### Contact

**Name of organization / entity**  
The University of Tehran  
**Full name of responsible person**  
Mohammad hani Mansori  
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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

Not applicable

### Informed Consent Form

Yes - There is a plan to make this available

### Clinical Study Report

Not applicable

### Analytic Code

Not applicable

### Data Dictionary

Not applicable

### Title and more details about the data/document

Data on participants' descriptive information as well as pre-test and post-test research variables can be shared.

### When the data will become available and for how long

Start the access period 6 months after printing the results

### To whom data/document is available

Researchers working in academic and scientific institutions and the disabled

### Under which criteria data/document could be used

If a researcher intends to compare with her(his) research work

### From where data/document is obtainable

researcher-haninio74@gmail.com

### What processes are involved for a request to access data/document

Apply via email

### Comments