Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

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

Protocol summary

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

Static Balance Dynamic Balance movement Function Risk of falling

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
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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
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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
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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