

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Jun 2026

The effects of a single leg balance training program on static and dynamic balance of the trained and untrained lower extremity, in healthy female students

Protocol summary

Summary

The objective of this randomized trial is to investigate the effect a single leg balance training program on static and dynamic balance of the trained and untrained lower extremity, in healthy female students. In this study 30 subjects who meet the inclusion/exclusion criteria will be recruited and randomly assigned into intervention or control group. The healthy female subjects would be recruited and subjects with balance or vestibular disorder and regular participation in balance training program would be excluded. The subjects in the intervention group will receive balance exercises as standing on one leg on a half ball .Intervention lasts 3 times/week, for 4 weeks. The subjects in control group will receive no intervention. Static and dynamic balance indices of all participants with eyes opened and closed, will be measured before and after the intervention, and will be compared between 2 groups. Researchers will be blinded to the experimental groups and outcome measures of each group.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201408114203N8**

Registration date: **2014-08-28, 1393/06/06**

Registration timing: **prospective**

Last update:

Update count: **0**

Registration date

2014-08-28, 1393/06/06

Registrant information

Name

Atefeh Aminian Far

Name of organization / entity

Semnan University of Medical Sciences

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Deputy of Research, Semnan University of Medical Sciences

Expected recruitment start date

2014-09-01, 1393/06/10

Expected recruitment end date

2014-11-01, 1393/08/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effects of a single leg balance training program on static and dynamic balance of the trained and untrained lower extremity, in healthy female students

Public title

Balance exercises and Cross education

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: female subjects ; being healthy; aged between 18-25years. Exclusion criteria: performing balace exercise in last year; presence of any previous spinal, pelvic, leg or foot truma in last year; presence of

any previous orthopedic or neurologic dysfunction that limit daily activity; vestibular disorder ; postural dysfunction; lower limb and spinal deformities; visual disorders; taking medicine with effects on balance.

Age

From **18 years** old to **25 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

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

Deputy of Research, Semnan University of Medical Sciences

Street address

Bassij Blvd, Semnan University of Medical Sciences, Deputy of Research, Semnan, Iran.

City

Semnan

Postal code

3519899951

Approval date

2014-07-08, 1393/04/17

Ethics committee reference number

93/470221

Health conditions studied

1

Description of health condition studied

Sequelae of injuries of lower limb

ICD-10 code

T93.9

ICD-10 code description

Sequelae of unspecified injury of lower limb

Primary outcomes

1

Description

Overall displacement of center of pressure

Timepoint

Before Intervention, 4 weeks following the intervention.

Method of measurement

Balance biodex system

2

Description

Anterior-posterior displacement of center of pressure

Timepoint

Before Intervention, 4 weeks following the intervention.

Method of measurement

Balance biodex system

3

Description

Lateral displacement of center of pressure

Timepoint

Before Intervention, 4 weeks following the intervention.

Method of measurement

Balance biodex system

Secondary outcomes

empty

Intervention groups

1

Description

Intervention : Balance exercise as standing on one leg on a half ball, 3 times per week, for 4 weeks. each session consists of 6 sets of 20 seconds with 20 seconds rest between sets.

Category

Rehabilitation

2

Description

Control: no intervention

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Clinics under supervision of Semnan University of Medical Sciences

Full name of responsible person

Dr. Atefeh Aminian Far

Street address

Kilometer 5 Damghan road, Semnan University of
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City

Semnan

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Web page address**Person responsible for scientific inquiries****Contact****Name of organization / entity**

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Full name of responsible person

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Web page address**Sponsors / Funding sources****1****Sponsor****Name of organization / entity**

Deputy of Research, Semnan University of Medical
Sciences

Full name of responsible person

Dr, Ali Rashidipour

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Bassij Blvd, Semnan University of Medical Sciences,
Deputy of Research, Semnan, Iran.

City

Semnan

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

Yes

Title of funding source

Deputy of Research, Semnan University of Medical
Sciences

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**

Semnan University of Medical Sciences

Full name of responsible person

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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