

Clinical Trial Protocol

Iranian Registry of Clinical Trials

05 Aug 2026

The effect of sensorimotor training with visual feedback on proprioception and alignment of joint in woman with dynamic knee valgus

Protocol summary

Study aim

The purpose of this study is the effect of sensorimotor training with visual feedback on proprioception and alignment of joint in woman with dynamic knee valgus

Design

Single-blind randomized clinical trial with control group (n=40)

Settings and conduct

The present quasi-experimental study is performed in the rehabilitation laboratory of arak university. The experimental group performs sensorimotor training for 8 week, 3sessions per week and each session lasts 45-60 minutes. Static and dynamic balance, proprioception, range of motion of hip and knee, knee joint alignment respectively, with the y test and walking the single leg squat test (sls) ,goniometer and also the single-leg landing test.

Participants/Inclusion and exclusion criteria

Inclusion criteria : female gender, age range 18-30 years, no history of knee surgery, no injury to the lower limb in the last year, and subjects suffering from dynamic knee valgus. Exclusion criteria: neurological and orthopedic problems, special diseases

Intervention groups

Intervention group: the participants in this group perform sensorimotor training for 8 weeks, 3 sessions per week and each session lasts 45-60 minutes. Control group: they will have the usual routine of their lives.

Main outcome variables

Static and dynamic balance, proprioception, alignment of knee joint, hip and knee range of motion.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200204046368N12**

Registration date: **2023-06-07, 1402/03/17**

Registration timing: **registered_while_recruiting**

Last update: **2023-06-07, 1402/03/17**

Update count: **0**

Registration date

2023-06-07, 1402/03/17

Registrant information

Name

Zahra Raeisi

Name of organization / entity

Arak University

Country

Iran (Islamic Republic of)

Phone

+98 86 3417 3492

Email address

z_raisi13@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-06-05, 1402/03/15

Expected recruitment end date

2023-09-06, 1402/06/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of sensorimotor training with visual feedback on proprioception and alignment of joint in woman with

dynamic knee valgus

Public title
Sensorimotor training with visual feedback on proprioception and alignment of joint in woman with dynamic knee valgus

Purpose
Supportive

Inclusion/Exclusion criteria
Inclusion criteria:
Female gender Age 18 to 30 years No history of knee surgery No injury to the lower limb in the last year Subjects suffering from dynamic knee valgus
Exclusion criteria:
Neurological and orthopedic problems Suffering from any disease affecting the study variables

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

Gender
Female

Phase
N/A

Groups that have been masked

- Data analyser

Sample size
Target sample size: **40**

Randomization (investigator's opinion)
Randomized

Randomization description
The randomization method is parallel. The randomization unit is individual. The Randlist software is used to assign subjects to study groups randomly. At, the number of participants and groups is given to the software. Then, with this software, each participant is assigned a code. A group is then randomly assigned to each code by the software.

Blinding (investigator's opinion)
Single blinded

Blinding description
The data analyzer will not be aware of the group's classification. The information of the groups will be provided to the data analyzer in the form of numbers 1, 2, and for each participant with a code.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Ethics Committee of Arak University

Street address

Arak University, Karbala Boulevard, Basij Square

City

Arak

Province

Markazi

Postal code

3848177584

Approval date

2023-04-19, 1402/01/30

Ethics committee reference number

IR.ARAKU.REC.1402.008

Health conditions studied

1

Description of health condition studied

dynamic knee valgus

ICD-10 code

M21.06

ICD-10 code description

Valgus deformity, not elsewhere classified, knee

Primary outcomes

1

Description

Alignment of joint

Timepoint

Before and after 8 week intervention

Method of measurement

Single leg landing test

2

Description

Proprioception

Timepoint

Before and after 8 week intervention

Method of measurement

Single leg squat (sls) and photogrammetry

3

Description

Hip and knee range of motion

Timepoint

Before and after 8 week intervention

Method of measurement

Goniometer

Secondary outcomes

1

Description

Static and dynamic balance

Timepoint

Before and after 8 week intervention

Method of measurement

Pedoscans

Intervention groups

1

Description

Intervention group: Intervention group: The intervention group performs sensorimotor training with visual feedback for 8 weeks, 3 sessions per week, and 45-60 minutes per session. A mirror will be used to provide visual feedback.

Category

Rehabilitation

2

Description

Control group: the control group performs their normal activities for 8 weeks.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Arak university

Full name of responsible person

Zahra Raeisi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Arak university

Full name of responsible person

Hamed Safikhani

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Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Arak university

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

Arak University

Full name of responsible person

Zahra Raeisi

Position

Assistant professor

Latest degree

Ph.D.

Other areas of specialty/work

Sport Medicine

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City**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

Not applicable

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

Not applicable

Data Dictionary

Not applicable