

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effect of Eight Weeks of the FIFA 11 plus Comprehensive Warm-up Program on the Physical Performance of Female Referees of Tehran Province

Protocol summary

Study aim

The effect of 8 weeks of FIFA 11 plus program on isokinetic strength of hamstring and quadriceps muscles, knee joint proprioception and static and dynamic balance of female referees in Tehran province

Design

The clinical trial has an intervention group and a control group, with factorial groups, without blinding, simple randomization, zero phase on 40 female referees, which will be used for randomization using the rand function of Excel software.

Settings and conduct

These exercises will be done in the sports hall of Shahid Beheshti University. In this research, an isokinetic dynamometer will be used to measure the strength of the flexor muscles, extensors of the knee joint and to evaluate the sense of proprioception, and to evaluate the static and dynamic balance, the Biodex balance meter system will be used.

Participants/Inclusion and exclusion criteria

Female referees of Tehran province, have 1st, 2nd, 3rd degree marks of refereeing, have official notification of refereeing from the football federation, have 3 training sessions per week, have no injuries.

Intervention groups

The intervention of the current research is FIFA 11plus exercises, which will be performed for 8 weeks, 3 sessions per week. During this time, the control group will do their normal exercises

Main outcome variables

Improving the strength of flexor and extensor muscles of the knee joint, improving the sense of proprioception of the knee joint and improving dynamic and static balance

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20240306061185N4**

Registration date: **2024-09-26, 1403/07/05**

Registration timing: **retrospective**

Last update: **2024-09-26, 1403/07/05**

Update count: **0**

Registration date

2024-09-26, 1403/07/05

Registrant information

Name

Hossein Rezaei

Name of organization / entity

The University of Shahid Beheshti

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-09-22, 1403/07/01

Expected recruitment end date

2024-09-24, 1403/07/03

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Eight Weeks of the FIFA 11 plus Comprehensive Warm-up Program on the Physical Performance of Female Referees of Tehran Province

Public title

The effect of the 11plus warm-up program on the performance of female referees

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Female football referees in Tehran Having a third-class, second-class, first-class or national referee certificate from the Iranian Football Federation Having an official notification from the referees committee of the Football Federation to judge the current matches in the leagues of Tehran province In addition to refereeing matches, referees should have three sessions a week of physical training and special futsal training. Absence of any sports or physical injuries and severe musculoskeletal disorders at the time of entering the study

Exclusion criteria:

The occurrence of any physical injury during the process of conducting research Pain and inability to perform exercise protocol or during evaluation Failure to complete the pre-test and post-test process by the subjects Absence of three sessions in a row and more than 4 sessions during the implementation of the research

Age

No age limit

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 40

Randomization (investigator's opinion)

Randomized

Randomization description

Individual simple randomization! Coincidence tools: rand function of Excel

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 of Sport Sciences Research Institute

Street address

Mir Emad Ave., Tehran

City

Tehran

Province

Tehran

Postal code

141173116

Approval date

2024-06-20, 1403/03/31

Ethics committee reference number

IR.SSRC.1402.069

Health conditions studied

1

Description of health condition studied

Quadriceps muscle imbalance, proprioception and dynamic balance

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Evaluation of the strength of flexor and extensor muscles of the knee joint

Timepoint

Before the intervention and eight weeks later

Method of measurement

Isokinetic dynamometer

2

Description

Assessment of proprioception

Timepoint

Before the intervention and eight weeks later

Method of measurement

Isokinetic dynamometer

3

Description

Dynamic balance assessment

Timepoint

Before the intervention and eight weeks later

Method of measurement

Biodex balance meter device

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: FIFA 11plus exercises in this group will be 8 weeks of training for 3 sessions a week and each session will last 20 minutes according to the instructions of the F-MARC organization (with three sections and 18 exercises) by female referees and assistant referees who meet the entry criteria. . To evaluate the muscle strength of the flexor (quadriceps) and extensor (hamstring) muscles of the knee joint using an isokinetic dynamometer at different angles (60, 180 and 270), evaluating the proprioception of the knee joint using an isokinetic dynamometer at different angles (15, 45 and 60) actively and Passive and dynamic balance assessment in one leg standing position and stability level 5 to 8 will be used by the Biodex balance meter system. At the end, after a maximum of one week from the completion of the training protocol, the post-test was performed.

Category

Prevention

2

Description

Control group: There will be no intervention in this group, and people will do their usual exercises and only participate in the pre-test and post-test. In the pre-test and post-test to evaluate the muscle strength of the flexor (quadriceps) and extensor (hamstring) muscles of the knee joint using an isokinetic dynamometer at different angles (60, 180 and 270), evaluating the proprioception of the knee joint using an isokinetic dynamometer at different angles (15, 45 and 60) Actively and passively, dynamic balance evaluation in single leg standing position and stability level 5 to 8 will be used by Biodex balance meter system.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

Sport Science Laboratory of Shahid Beheshti University

Full name of responsible person

Sirus Sheikhi

Street address

Shahid Beheshti University, shahriari square, Volanjek Town, Tehran

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University

Full name of responsible person

Mostafa Zarei

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Shahid Beheshti University, shahriari square, Volanjek Town, Tehran

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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

Shahid Beheshti 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

The University of Shahid Beheshti

Full name of responsible person

Hossein Rezaie

Position

Masters student

Latest degree

Bachelor

Other areas of specialty/work

Sports Injury and corrective exercises

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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