Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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

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Hossein Rezaei

Name of organization / entity
The University of Shahid Beheshti

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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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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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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