

Clinical Trial Protocol

Iranian Registry of Clinical Trials

30 Aug 2026

The effect of a shoulder injury prevention programme on proprioception and dynamic stability of young volleyball players

Protocol summary

Study aim

The effect of a shoulder injury prevention programme on proprioception and dynamic stability of young volleyball players

Design

A clinical trial with a control group, with parallel groups, one-way blind, using simple randomization with coin toss method, on 32 participants

Settings and conduct

Quasi-experimental with a pre-test-post-test design. Proprioception tests including JPS and TTDPm of the dominant shoulder internal and external rotators will be measured in the laboratory of Shahid Beheshti University using the Isokinetic system pro 4. To determine the shoulder dynamic balance and stability, the upper quarter Y Balance Test will also be used. Single-blinding will be achieved in such a way that no information will be provided to the participants on which group they will be placed in.

Participants/Inclusion and exclusion criteria

Volleyball players Inclusion criteria : Having no severe injuries over the past six months Having at least three years of playing experience in volleyball An average of three training sessions per week Exclusion criteria: Non-participation in more than two training sessions doing any systematic injury prevention program Musculoskeletal Surgery at 6 months prior to study

Intervention groups

Thirty-two healthy young elite male volleyball players from two clubs in the Iran premier league were randomized into two groups: the training group (N=16) who performed the "FIFA 11+ shoulder" programme as warm-up three times per week. The control group (N=16) followed their routine programme meanwhile.

Main outcome variables

Joint Position Sense (JPS), Threshold to detect passive motion (TTDPm), Shoulder Dynamic Stability

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20201030049193N1**

Registration date: **2020-12-04, 1399/09/14**

Registration timing: **registered_while_recruiting**

Last update: **2020-12-04, 1399/09/14**

Update count: **0**

Registration date

2020-12-04, 1399/09/14

Registrant information

Name

Mahdi Hosseinzadeh

Name of organization / entity

Sport Sciences Research Institute of Iran

Country

Iran (Islamic Republic of)

Phone

+98 21 7714 6478

Email address

metti@ssrc.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-11-27, 1399/09/07

Expected recruitment end date

2021-02-02, 1399/11/14

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of a shoulder injury prevention programme on proprioception and dynamic stability of young volleyball players

Public title

"Shoulder Injury Prevention in Volleyball"

Purpose

Prevention

Inclusion/Exclusion criteria

Inclusion criteria:

Having no severe injuries over the past six months
Having at least three years of playing experience in volleyball
An average of three training sessions per week

Exclusion criteria:

Non-participation in more than two training sessions
Doing any systematic injury prevention program
Musculoskeletal Surgery at 6 month prior to study

Age

From **14 years** old to **20 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **32**

Randomization (investigator's opinion)

Randomized

Randomization description

From the 13 teams participating in the Iranian Youth Premier League, two teams will be selected by the available method and the block randomization method will be used to create a random sequence. In this method, blocks of all possible combinations (6 possible modes AABB, ABAB, ABBA, BBAA, BABA, BAAB) are created, then these blocks are numbered and randomly selected and placed one after the other, and thus, participants will be assigned to two groups A (intervention) and B (control).

Blinding (investigator's opinion)

Single blinded

Blinding description

To create single-blind for participants, both intervention and control groups will be given warm-up exercises. The warm-up exercises of the intervention group will be the main exercises of "FIFA 11+ S", but the exercises of the control group will be the same as their normal warm-up exercises in the form of the main exercises of "FIFA 11+ S".

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Sport Sciences Research Institute

Street address

No. 3, Fifth Alley, Mir Emad St., Ostad Motahhari St

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Province

Tehran

Postal code

1587958711

Approval date

2019-03-11, 1397/12/20

Ethics committee reference number

IR.SSRC.REC.1398.024

Health conditions studied

1

Description of health condition studied

Proprioception (JPS and TTDP) and Shoulder Dynamic Stability

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Joint Position Sense (JPS)

Timepoint

Before the start of the study and then after the end of eight weeks with or without applying the treatment (FIFA 11+S)

Method of measurement

American Biodex Isokinetic Device

2

Description

Threshold to detect passive motion (TTDPM)

Timepoint

Before the start of the study and then after the end of eight weeks with or without applying the treatment (FIFA 11+S)

Method of measurement

American Biodex Isokinetic Device

3

Description

Shoulder Dynamic Stability

Timepoint

Before the start of the study and then after the end of eight weeks with or without applying the treatment (FIFA 11+S)

Method of measurement

Y Balance Test

Secondary outcomes

empty

Intervention groups1**Description**

Intervention group: Consisting of 16 people and implementing a shoulder injury prevention warm-up program for eight weeks. This program consists of three parts: general warm-up (part I); strength and balance training for the shoulders, elbows, wrists, and fingers (part II); core stability and muscle control exercises (part III).

Category

Prevention

2**Description**

Control group: Consists of 16 people and they keep their routine warm-up program for eight weeks

Category

Prevention

Recruitment centers1**Recruitment center****Name of recruitment center**

Shahid Beheshti University

Full name of responsible person

alireza Sheikh

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Sponsors / Funding sources1**Sponsor****Name of organization / entity**

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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**

Sport Sciences Research Institute of Iran

Full name of responsible person

Mahdi Hosseinzadeh

Position

Assistant professor

Latest degree

Ph.D.

Other areas of specialty/work

Sport Sciences

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Person responsible for scientific inquiries

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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

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

We share data files including personal information and data related to pre-test and post-test in a coded and unanimous folder by the person in charge, Dr. Mehdi Hosseinzadeh, on the website of Shahid Beheshti University.

When the data will become available and for how long

Start the access period as soon as the results are published

To whom data/document is available

It will be available to all research groups as well as all other people who are interested

Under which criteria data/document could be used

The data can be used for future studies as well as in all research groups, and any kind of research analysis and use is allowed on the data, and under the conditions that the person use it should refer to us (the paper published), this data will be provided to them.

From where data/document is obtainable

Refer to the person responsible for answering Dr. Mehdi Hosseinzadeh: Address: No. 3, 5th Alley, Miremad Street, Motahhari Street, Tehran, Iran, Iran Sports Science Research Institute Postal Code: 1587958711 Email: metti@ssrc.ac.ir Phone: 009877146478 Fax: 00988739092

What processes are involved for a request to access data/document

The applicant will send her/his application to the e-mail address of Dr. Mehdi Hosseinzadeh (metti@ssrc.ac.ir) and Dr. Hosseinzadeh will provide the information to her/his after the necessary checks.

Comments