

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Effects of Plyometric versus Resistance training on speed, agility and power among Football players

Protocol summary

Study aim

to compare the effects of plyometric training and resistance training on the speed, agility, and power among football players.

Design

Randomized Controlled Trial, Parallel Group, Single Blind

Settings and conduct

The study will be conducted in Pakistan sports Board (PSB), Lahore Pakistan. Football players visiting PSB will be consented to participate in the study. The study will be single blind and the outcome assessor will be blinded by not knowing the details of the study groups. The Investigator will determine the information by the medical record number, assigned to each participant.

Participants/Inclusion and exclusion criteria

inclusion criteria: any player who plays regularly in football clubs 3-4 days a week. player with age of between 16 to 35 years of age. male football players. volunteer to participate exclusion criteria: players which have any injury during prior to study. players with any type of Pain or musculoskeletal injury at time of test. players with any contraindication to participating in sports. players participating on other training sessions

Intervention groups

Group A: Group A will be consist of players that will be trained by plyometric training. Group B: Group B will be consist of players that will be trained by Resistance training.

Main outcome variables

improvement in speed, agility, and power among football players

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220216054033N4**

Registration date: **2022-05-21, 1401/02/31**

Registration timing: **prospective**

Last update: **2022-05-21, 1401/02/31**

Update count: **0**

Registration date

2022-05-21, 1401/02/31

Registrant information

Name

Sufian Ahmed

Name of organization / entity

Riphah International University Islamabad Pakistan

Country

Pakistan

Phone

+92 334 4272734

Email address

sufianahmedghuman@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-06-01, 1401/03/11

Expected recruitment end date

2022-12-01, 1401/09/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of Plyometric versus Resistance training on speed, agility and power among Football players

Public title

Effects of Plyometric versus Resistance training on speed, agility and power among Football players

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria:

Any player who plays regularly in football clubs 3-4 days a week. Player with age of between 16 to 35 years of age. Male football players. Volunteer to participate.

Exclusion criteria:

Players which have any injury during prior to study. Players with any type of Pain or musculoskeletal injury at time of test. Players with any contraindication to participating in sports. Players participating on other training sessions

Age

From **16 years** old to **35 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **36**

Randomization (investigator's opinion)

Randomized

Randomization description

Zelen's 1993 method of open label technique will used. the participants would be addressed about the technique and they will chose the treatment. the participants would be enrolled in the study till both groups reach the saturation/ no. of sample size achieved. in this way the natural randomization will take place and the outcome investigator will be blind.

Blinding (investigator's opinion)

Single blinded

Blinding description

36 Participants will be involved in my study using Purposive Sampling Technique. 2 groups of 18 participants each will be made and will be randomized using systematic sampling. Outcome accessor will be blinded by not knowing the information about the groups of the study. The Investigator will determine the information by the medical record number, assigned to each participant.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethic's committee of Riphah International University

Street address

Quaid e Azam Industrial State

City

Lahore

Postal code

40050

Approval date

2022-01-19, 1400/10/29

Ethics committee reference number

029260

Health conditions studied

1

Description of health condition studied

speed, agility, and power among football players.

ICD-10 code

R26.89

ICD-10 code description

Other abnormalities of gait and mobility

Primary outcomes

1

Description

improvement in agility of football players

Timepoint

Before intervention and 6 weeks after intervention

Method of measurement

Agility T test

Secondary outcomes

1

Description

improvement in speed of football players

Timepoint

Before intervention and 6 weeks after intervention

Method of measurement

30 meter Dash test (for Speed)

Intervention groups

1

Description

Intervention group: will receive a plyometric training program for 3 sessions a week and train for 12 weeks. After the every 4 weeks the tests will again done and data will be collected. Plyometric training consist of jumping and squats, single leg hope both, double leg bounding, split jump, tuck jump, box jump, and depth jump.

Category

Rehabilitation

2

Description

Control group: will receive a plyometric training program for 3 sessions for a week and train for 12 weeks. After the every 4 weeks the tests will again done and data will be collected. Resistant training program consist of squats, leg press, heel raise, lunges and legs.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Pakistan Sports Board

Full name of responsible person

Dr. Muhammad Hashim

Street address

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Email

muhammad.hashim@riphah.edu.pk

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Riphah International University

Full name of responsible person

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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

Riphah International University

Proportion provided by this source

100

Public or private sector

Private

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

Riphah International University

Full name of responsible person

Muhammad Samama Amjad

Position

Lecturer

Latest degree

Bachelor

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Muhammad Hashim

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Latest degree

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Other areas of specialty/work

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Person responsible for updating data

Contact

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no further information.

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

No - There is not a plan to make this available

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available