Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 accessor 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
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Pakistan
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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

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Sponsors / Funding sources

1

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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
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Position
Lecturer

Latest degree
Bachelor

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Physiotherapy

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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