

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Jun 2026

Comparative effects of balance training and resisted plyometric training on agility and jump height among cricket fast bowlers

Protocol summary

Registration timing: **registered_while_recruiting**

Study aim

The aim of the study is to compare the effects of balance training and resisted plyometric training on agility and jump height among cricket fast bowlers.

Last update: **2023-06-13, 1402/03/23**

Update count: **0**

Registration date

2023-06-13, 1402/03/23

Design

A concealed, randomized clinical trial with a parallel group design of 58 athletes will be recruited using a convenient sampling technique.

Registrant information

Name

Halima Shoukat

Name of organization / entity

Riphah international university, Lahore

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Pakistan

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Settings and conduct

Data will be collected from athletes, allocated into two groups randomly through 1. Pakistan Sports Board 2. Cricket Academies Lahore

Participants/Inclusion and exclusion criteria

INCLUSION CRITERIA • Only male fast bowlers will be admitted to the Study • Participants between the age of 19 to 26 • Regularly active Fast bowlers EXCLUSION CRITERIA • Athletes having experience of less than 1 year • Athletes involved in any other sports • Athletes with any recent surgery that hinder the training

Recruitment status

Recruitment complete

Funding source

Intervention groups

Fast bowlers will be selected as per inclusion criteria and before starting the 6-week training in both groups baseline values will be noted with the help of the Countermovement Jump test and Illinois agility test after taking necessary demographic data. Fast bowlers will be randomly divided into groups. Group A will participate in the 6-week balance training program. Group B will participate in 6-week plyometric training

Expected recruitment start date

2023-03-15, 1401/12/24

Expected recruitment end date

2023-09-30, 1402/07/08

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Main outcome variables

Jump Height (Countermovement Jump test) Agility (Illinois agility test) Speed (Speed Gun)

Scientific title

Comparative effects of balance training and resisted plyometric training on agility and jump height among cricket fast bowlers

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210811052138N7**

Registration date: **2023-06-13, 1402/03/23**

Public title

Comparative effects of balance training and resisted

plyometric training on agility and jump height among cricket fast bowlers

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Only male fast bowlers will be recruited to the Study Participants between the age of 19 to 26 Active Fast bowlers with more than one year of training

Exclusion criteria:

Athletes with systemic and neuromuscular issue Athletes involved in any other sports Athletes with any recent surgery, Injury or Trauma

Age

From **19 years** old to **26 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **58**

Randomization (investigator's opinion)

Randomized

Randomization description

The Random allocation in this study was done using a simple randomization method. To allocate the participants to the two groups, a random table method was used. This involves using a table of random numbers to assign participants to either group, ensuring that each participant had an equal chance of being allocated to either group. By identifying a range of numbers that corresponds to the total number of participants, then select a starting point in the table of random numbers and read the digits in pairs, matching each pair with the participants until all participants have been allocated to a group.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Nil

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Riphah College of Rehabilitation and Allied Health Sciences

Street address

Madar e Millat Road, Quaid e Azam Industrial Estate,

Lahore, Punjab

City

Lahore

Postal code

54770

Approval date

2022-11-07, 1401/08/16

Ethics committee reference number

REC/RCR & AHS/22

Health conditions studied

1

Description of health condition studied

Studying the effects of balance and resisted plyometric training on agility and jump height of healthy athletes

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Agility and Jump height

Timepoint

Agility and jump height will be measured at baseline and after 6 weeks of intervention.

Method of measurement

Agility will be measured through the Illinois agility test and jump height will be measured using the counter jump test.

Secondary outcomes

1

Description

Bowling Speed

Timepoint

Bowling speed will be measured before intervention and after 6 weeks of intervention

Method of measurement

Bowling speed will be measured through speed gun

Intervention groups

1

Description

Intervention group:

Category

Other

2

Description

Intervention Group 2: Group B will participate in 6-week plyometric training. Participants will perform resisted plyometric training. The training consisted of three

different exercises: vertical jumps, Bulgarian squat jumps, and broad jumps.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Pakistan Sports Board and Coaching Centre (PSB)

Full name of responsible person

Asma Ghafoor

Street address

Ferozpur Rd, Block E 2 Gulberg III, Lahore, Punjab

City

Lahore

Postal code

54810

Phone

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Email

info@psb.gov.pk

Web page address

<http://www.sports.gov.pk/Detail/ODNmZDIjYTMtNmlyOS00YzU3LWFhNmMtZjcxNGM5NjI4NzZm>

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Riphah International University

Full name of responsible person

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Web page address

<https://www.riphah.edu.pk/lahore>

Grant name

Educational

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

20

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 Lahore

Full name of responsible person

Asma Ghafoor

Position

Student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Person responsible for scientific inquiries

Contact

Name of organization / entity

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Full name of responsible person

Halima Shoukat

Position

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Latest degree

Ph.D.

Other areas of specialty/work

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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