

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 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

##### Country

Pakistan

##### Phone

+92 55 4284121

##### Email address

halima.shoukat@yahoo.com

#### 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**

+92 42 99230383

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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**

Halima Shoukat

**Street address**

28-M. Qaid-e-Azam Industrial Estate, Kot Lakhphat, Lahore

**City**

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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

**Street address**

CB-697 New Kolsar Colony Near CMH Okara Cantt

**City**

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asmaghafoor39@gmail.com

**Person responsible for scientific inquiries**

**Contact**

**Name of organization / entity**

Riphah International University

**Full name of responsible person**

Halima Shoukat

**Position**

Assistant Professor

**Latest degree**

Ph.D.

**Other areas of specialty/work**

Physiotherapy

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## Person responsible for updating data

### Contact

**Name of organization / entity**

Riphah International University

**Full name of responsible person**

Asma Ghafoor

**Position**

Student

**Latest degree**

Master

**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