

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

COMPARATIVE EFFECTS OF WOBBLE BOARD AND CROSSFIT TRAINING IN ATHLETES WITH CHRONIC ANKLE INSTABILITY

Protocol summary

Study aim

To compare effects of Wobble board and CrossFit training on dynamic balance and chronic ankle instability in athletes

Design

A Randomized clinical trial

Settings and conduct

Pakistan Sports Board (PSB).

Participants/Inclusion and exclusion criteria

participants: 34 INCLUSION CRITERIA □ age ranging from 18 to 40 years □ perform cardiovascular or resistance training for at least 1.5 hours per week □ a previous ankle sprain at least 6 months before the study □ recurrent feeling of "giving way." □ a score of 25 or less on the CAIT(cumberland ankle instability tool) to confirm current subjective ankle-joint instability EXCLUSION CRITERIA □ self-reported vestibular or balance-related dysfunction □ an acute ankle sprain in the previous 6 weeks, □ recent surgery(knee, hip, ankle) □ being a habitual CrossFit practitioner

Intervention groups

The participants will be divided into two groups ,Group A and Group B. Group A will receive wobble board training exercises (standing on board and moving forward, backward and side to side. And standing on one leg (effected side) and Group B will receive crossFit training program(such as a squat or burpees, where as others required specific equipment such as barbells, kettlebells, or medicine balls).The participants will perform exercise for 6 weeks

Main outcome variables

Cumberland ankle instability and star excursion balance tool will be used to assess chronic ankle instability and dynamic balance

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20231103059941N1**

Registration date: **2023-11-15, 1402/08/24**

Registration timing: **prospective**

Last update: **2023-11-15, 1402/08/24**

Update count: **0**

Registration date

2023-11-15, 1402/08/24

Registrant information

Name

Nida Shabbir

Name of organization / entity

Riphah International university, Pakistan

Country

Pakistan

Phone

+92 301 4857099

Email address

nidas2765@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-12-06, 1402/09/15

Expected recruitment end date

2024-01-25, 1402/11/05

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

COMPARATIVE EFFECTS OF WOBBLE BOARD AND CROSSFIT TRAINING IN ATHLETES WITH CHRONIC ANKLE INSTABILITY

Public title

Effects of Wobble board and CrossFit training in athletes with ankle instability

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Age ranging from 18 to 40 years. Perform cardiovascular or resistance training for at least 1.5 hours per week. A previous ankle sprain at least 6 months before the study. Recurrent feeling of "giving way." A score of 25 or less on the CAIT(cumberland ankle instability tool) to confirm current ankle-joint instability.

Exclusion criteria:

Self-reported vestibular or balance-related dysfunction. An acute ankle sprain in the previous 6 weeks. Recent surgery(knee, hip, ankle). Being a habitual CrossFit practitioner.

Age

From **18 years** old to **40 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **34**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple Randomization (Lottery Method)

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Research& Ethical Committee

Street address

25 Raza Saeed Rd, Bhabra Block M Gulberg III,
Lahore, Punjab 25-M Block, Lahore

City

Lahore

Postal code

54660

Approval date

2023-08-03, 1402/05/12

Ethics committee reference number

REC/RCR&AHS/23/0449

Health conditions studied**1****Description of health condition studied**

Chronic Ankle Instability

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Chronic ankle instability

Timepoint

0-6 weeks (before and after intervention)

Method of measurement

Cumberland Ankle Instability Tool (CAIT)

Secondary outcomes**1****Description**

Dynamic Balance

Timepoint

0-6 weeks (before and after intervention)

Method of measurement

Star Excursion Balance Test (SEBT)

Intervention groups**1****Description**

Intervention group 1(WOBBLE BOARD TRAINING): The wobble board is a circular platform (30 inches) with different-sized domes that screw into the bottom of the board to make balance exercises more or less challenging. Participants will be placed near a wall and allowed to touch it with their fingertips only for any means of stability. 1-legged stance will be performed on the board, standing on board and moving forward, backward, and side to side and standing on one leg (affected side), and then clockwise and counterclockwise rotations of the rim will be completed. The participants will perform exercises for 6 weeks and pre and post-measurements will be recorded.

Category

Treatment - Other

2**Description**

Intervention group 2 (CROSSFIT TRAINING): The session will be divided into 3 parts: a warm-up period, a principal training phase (which is known in CrossFit as the Workout of the Day), and a cool-down aimed at easing

recovery after the effort. The warm-up period will consist of cardiovascular activity, dynamic stretching, and progressive-load strength exercises. The main portion of the training session will consist of exercises to address strength, endurance, agility, and functional mobility. The difficulty level of each exercise will be controlled by a certified instructor who monitors the participant's form. Some exercises are based on body weight, such as a squat or burpees, whereas others require specific equipment such as barbells, kettlebells, or medicine balls. The final part of each session will consist of slow cardiovascular activity and foam rolling. The participants will perform exercises for 6 weeks and pre and post-measurements will be recorded for both study groups.

Category

Treatment - Other

Recruitment centers**1****Recruitment center****Name of recruitment center**

Pakistan Sports Board (PSB)

Full name of responsible person

Nida Shabbir

Street address

Pakistan Sports Board, Qazafi Stadium, Lahore

City

Lahore

Postal code

54810

Phone

+92 42 99232074

Email

infopsb@sports.gov.pk

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Riphah International University, Lahore

Full name of responsible person

Dr. Muhammad Hashim

Street address

Riphah International university, 25 Raza Saeed Rd,
Bhabra Block M Gulberg III, Lahore, Punjab 25-M
Block, Lahore, 54660

City

Lahore

Postal code

54660

Phone

+92 323 4071564

Email

Muhammad.hashim@ripha.edu.pk

Web page address

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

Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Riphah International University, Lahore

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, Lahore

Full name of responsible person

Nida Shabbir

Position

Student

Latest degree

Medical doctor

Other areas of specialty/work

Physiotherapy

Street address

Ripha International University, 25 Raza Saeed Rd,
Bhabra Block M Gulberg III, Lahore, Punjab 25-M
Block, Lahore

City

Lahore

Province

Punjab

Postal code

54660

Phone

+92 301 4857099

Email

nidas2765@gmail.com

Person responsible for scientific inquiries**Contact****Name of organization / entity**

Riphah International University, Lahore

Full name of responsible person

Nida Shabbir

Position

student

Latest degree

Medical doctor

Other areas of specialty/work

Physiotherapy

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54660
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Email
nidas2765@gmail.com

Person responsible for updating data

Contact

Name of organization / entity
Riphah International University, Lahore
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Province
Punjab
Postal code
54660
Phone
+92 301 4857099
Email
nidas2765@gmail.com

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