

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

Comparative effects of Fartlek training and Tabata training on speed, agility and endurance among rugby union players

Protocol summary

Study aim

To compare the effects of Fartlek training and Tabata training on speed, agility and endurance among Rugby union players.

Design

It will be Single blinded randomized clinical trial with parallel group design. 20 Participants will be allocated to two groups equally by random computer number generator.

Settings and conduct

The study will be conducted at Pakistan rugby union, Pakistan rugby academy. Outcome assessor will be kept blind.

Participants/Inclusion and exclusion criteria

Inclusion criteria: • Male rugby union players aged 18-35 years. • Currently active in a rugby union team or club, willing to participate in a structured training program. • No history of significant musculoskeletal injuries that would impede participation in training. • Able to understand and follow training protocols. • No current use of performance-enhancing substances
Exclusion criteria: • Inactive or not currently involved in rugby union activities. History of significant musculoskeletal injuries that would affect participation in training. • Unable to comply with the training schedule or protocols. Presence of any medical condition or injury that could be exacerbated by high intensity training. • Current use of performance-enhancing drugs or substances that could influence training outcomes

Intervention groups

Group A will be given fartlek training for 4 weeks and three times in a week. Group B will be given Tabata training for 4 weeks and three times in a week.

Main outcome variables

Speed: 40-yard sprint test
Agility: Illinois Agility Test
Endurance: Yo-Yo Intermittent Recovery Test

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220701055331N6**

Registration date: **2025-03-29, 1404/01/09**

Registration timing: **prospective**

Last update: **2025-03-29, 1404/01/09**

Update count: **0**

Registration date

2025-03-29, 1404/01/09

Registrant information

Name

Ifra Zulqarnain Awan

Name of organization / entity

Rashid Latif Medical College

Country

Pakistan

Phone

+92 333 4975431

Email address

ifra.awan@rlmc.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2025-03-31, 1404/01/11

Expected recruitment end date

2025-07-31, 1404/05/09

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative effects of Fartlek training and Tabata training on speed, agility and endurance among rugby union players

Public title

Comparative effects of Fartlek training and Tabata training on speed, agility and endurance among rugby union players

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Male rugby union players aged 18-35 years Currently active in a rugby union team or club, willing to participate in a structured training program. No history of significant musculoskeletal injuries that would impede participation in training. Able to understand and follow training protocols. No current use of performance-enhancing substances

Exclusion criteria:

Inactive or not currently involved in rugby union activities. History of significant musculoskeletal injuries that would affect participation in training. Unable to comply with the training schedule or protocols. Presence of any medical condition or injury that could be exacerbated by high intensity training. Current use of performance-enhancing drugs or substances that could influence training outcomes

Age

From **18 years** old to **35 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **40**

Randomization (investigator's opinion)

Randomized

Randomization description

Random computer number generator will be used for randomization. Assign unique identification numbers to participants, then use a reliable software tool to generate a list of random numbers. Match these numbers to participant IDs and allocate individuals to different study groups based on the sorted random numbers. Ensure that the randomization process is concealed and documented for transparency and integrity.

Blinding (investigator's opinion)

Single blinded

Blinding description

Single blinding in a study involves keeping the outcome assessor blind to the intervention received by the participants. This helps to minimize bias in assessing the study outcomes. To achieve single blinding, the outcome assessor is not informed about the treatment allocation of the participants and remains unaware of which group received the intervention being studied.

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

Institutional Review Board of Rashid Latif Medical College, Lahore.

Street address

35-KM Ferozepur Road Lahore

City

Lahore

Postal code

54000

Approval date

2024-09-26, 1403/07/05

Ethics committee reference number

IRB/2024/174

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

Rugby Union Players

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

Speed

Timepoint

Before intervention and 4 weeks after intervention

Method of measurement

40-yard sprint test

2**Description**

Agility

Timepoint

Before intervention and 4 weeks after intervention

Method of measurement

Illinois Agility Test

3**Description**

Endurance

Timepoint

Before intervention and 4 weeks after intervention

Method of measurement

Yo-Yo Intermittent Recovery Test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Group A: Fartlek Training: GROUP A will be given fartlek training for 4 weeks and three times in a week. 40M running with 75+ speed then jog for 40M. • 45M running with 75+ speed then jog for 35M. 55M running with 75+ speed then jog for 25M. • 65M running with 80+ speed/curve then jog for 30M. • 65M running with 85+ speed/curve then jog for 30M

Category

Rehabilitation

2

Description

Intervention group: Group B: Tabata Training: GROUP B will be given Tabata training for 4 weeks and three times in a week. 15/20 pushups then 10sec rest. • 15/20 jumping jacks then 10sec rest. • 20sec heel touches then 10sec rest. • 20sec uneven planks then 10sec rest. • 25 simple squats then 10sec rest. • 20/25 lunges then 10sec rest. • 12/25 standing abs/twist then 10sec rest

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Pakistan Rugby Union

Full name of responsible person

Dr. Ifra Zulqarnain Awan

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Swiss Avenue, 72-B-II, Gulberg III, Lahore, Pakistan

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Rashid latif medical college

Full name of responsible person

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35-km ferozepur road lahore

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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

Rashid latif medical college

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

Rashid latif medical college

Full name of responsible person

Ghulam Moin-Ud-Din

Position

Physiotherapist

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Rashid Latif Medical College

Full name of responsible person

Ifra Zulqarnain Awan

Position

Physiotherapist

Latest degree

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Other areas of specialty/work

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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

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable

Person responsible for updating data**Contact****Name of organization / entity**

Rashid Latif Medical College

Full name of responsible person

Ifra Zulqarnain Awan

Position

Physiotherapist

Latest degree

Master