Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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 structuredtraining program. No history of significant musculoskeletal injuries that would impede participation intraining. 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 significantmusculoskeletal injuries that would affect participation in training. Unable to comply with the training schedule or protocols. Presence of any medicalcondition or injury that could be exacerbated by high intensity training. Current use of performance-enhancing drugs or substances that could influence trainingoutcomes

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 jpg 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

Street address
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 updating data

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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