

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

EFFECTS OF WHOLE-BODY VIBRATION THERAPY ALONG WITH PLYOMETRICS ON AGILITY, LOWER EXTREMITY FUNCTION AND GAIT IN FOOTBALLERS

Protocol summary

Study aim

To compare the effects of whole-body vibration along with plyometric on agility, lower extremity function and gait in footballers

Design

single-blinded Randomized control trial with 2 groups. A total of 30 participants will be recruited from a single center. The sample size was calculated using Gpower version 3.1.9.7. sealed envelope method will be used to randomize the participants in two equal groups (as per the description of Randomization).

Settings and conduct

would be conducted in Young star football club Phalia. It would be a single-blinded study with assessor is blind, the care provider will not be blinded

Participants/Inclusion and exclusion criteria

male Footballers with regular training from last 2 years with Age 18- 27 years would be included participant with Lower limb injury past six months, History of no chronic illness, Recent fracture, Cardiopulmonary issues would be excluded

Intervention groups

Group A Whole body vibration therapy and plyometric
group B plyometric training only

Main outcome variables

Lower Extremity Function Agility Gait Kinematics:
(walking speed, step length)

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230706058691N1**

Registration date: **2023-11-20, 1402/08/29**

Registration timing: **registered_while_recruiting**

Last update: **2023-11-20, 1402/08/29**

Update count: **0**

Registration date

2023-11-20, 1402/08/29

Registrant information

Name

Zainab Hassan

Name of organization / entity

University of Management and Technology Lahore
Pakistan

Country

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-07-21, 1402/04/30

Expected recruitment end date

2023-12-23, 1402/10/02

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

EFFECTS OF WHOLE-BODY VIBRATION THERAPY ALONG WITH PLYOMETRICS ON AGILITY, LOWER EXTREMITY FUNCTION AND GAIT IN FOOTBALLERS

Public title

effects of WBV and plyometric in football players

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

• Age 18- 27 years • Footballers with regular training from last 2 years • Only males

Exclusion criteria:

• Lower limb injury past six months • History of no chronic illness • Recent fracture • Cardiopulmonary issues • Muscle or tendon injuries • No motor dysfunction • No Vestibular dysfunction

Age

From **18 years** old to **27 years** old

Gender

Male

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

Before the process of randomization, we will screen all the participants and assign them a unique number from 1 to 30. Then the process of randomization will be carried out using Random Allocation software version 1.0 (developed by the Department of Anaesthesia, Isfahan University of Medical Sciences, Isfahan, Iran). It is a randomization software for parallel group trials. It requires the total sample size and the total number of groups. We will add a total sample size of 30 participants and 2 groups into the software with only one block. The software generates an output file that can be opened with internet explorer. The output file contains a list of number along with assigned groups. In our case, the groups will be A and B with 15 participants in each group. Then this sequence will be used for participant allocation in the study groups

Blinding (investigator's opinion)

Single blinded

Blinding description

The care provider will not be blinded to the groups of the study (i.e. Treatment and Control Group). While the outcome assessors will be blinded to the treatment protocols and study hypothesis

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

riphah international university lahore

Street address

28-M quaid e azam industrial estate kot lakhat lahore

City

lahore

Postal code

54770

Approval date

2023-07-12, 1402/04/21

Ethics committee reference number

REC/RCR&AHS/23/0463

Health conditions studied

1

Description of health condition studied

normal foot ballers

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

1. Lower Extremity Function: Lower Extremity Function scale

Timepoint

before and after the intervention

Method of measurement

LEFS QUESTIONERE

2

Description

Gait Kinematics: (walking speed, step length) through kinovea software

Timepoint

Before and after the intervention

Method of measurement

step length and stride length in cm and walking speed in m/sec

3

Description

Agility

Timepoint

before and after the intervention

Method of measurement

Agility T-test

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: whole body vibration and plyometric ...3sessions per week for 4 weeks, 30 min a day with 25 Hz with a patient standing on the vibration platform barefooted with feet parallel and in semi squat position. The feet will be placed at an equal distance from the center line of the device when standing.plyometric training include Sessions take about 35 minutes and start with regular 10 minutes (min) warm-up, 5 min of a jog, 5 min of stretching, and 20 min of side jumping (SJ), countermovement jump (CMJ) and double-bound leg jumping (DBJ) training and five minutes of cooling down. SJ was an exercise in which subjects had to jump side to side between a cone with feet together while CMJ needed subjects to fully bend their knees with arm swing backwards followed by one jump as high as possible with arm swing forward and upward. DBJ required the subjects to jump forward horizontally twice with both feet close together. Each exercise was performed with ten repetitions for each set. It was decided that every type of jumps were performed for four sets with ten repetitions in each set as shown in Table 2. Rest was given 3 minutes between each set and 5 minutes between each exercise.(1)Pre and post intervention values will be taken on 1st day and after 4 weeks.

Category

Rehabilitation

2

Description

Intervention group group B PLYOMETRIC TRAINING ONLY Sessions take about 35 minutes and start with regular 10 minutes (min) warm-up, 5 min of a jog, 5 min of stretching, and 20 min of side jumping (SJ), countermovement jump (CMJ) and double-bound leg jumping (DBJ) training and five minutes of cooling down. SJ was an exercise in which subjects had to jump side to side between a cone with feet together while CMJ needed subjects to fully bend their knees with arm swing backwards followed by one jump as high as possible with arm swing forward and upward. DBJ required the subjects to jump forward horizontally twice with both feet close together. Each exercise was performed with ten repetitions for each set. It was decided that every type of jumps were performed for four sets with ten repetitions in each set as shown in Table 2. Rest was given 3 minutes between each set and 5 minutes between each exercise.(1)Pre and post intervention values will be taken on 1st day and after 4 weeks.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Young star football club Phalia

Full name of responsible person

Muniba Naveed

Street address

mandibahudin phallian

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

riphah international niversity lahore

Full name of responsible person

munia naveed

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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

riphah international niversity lahore

Proportion provided by this source

1

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

university of management and technology lahore

Full name of responsible person

zainab hassan

Position

punjab

Latest degree

Master

Other areas of specialty/work

Rehabilitation management

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

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Zainab Hassan

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Assistant Professor

Latest degree

Ph.D.

Other areas of specialty/work

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

Riphah international university

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MUNIBA NAVEED

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Bachelor

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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