

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparative Effects Of Active Release Technique And Positional Release Therapy In Female Students With Tightened Calf Muscles.

Protocol summary

Study aim

To evaluate the effects of the Active Release Technique and Positional Release Technique in female students with tightened calf muscles.

Design

Randomized controlled trial design .

Settings and conduct

The University of Faisalabad Government College
University Faisalabad.

Participants/Inclusion and exclusion criteria

Inclusion criteria • Age 20-30 years • Reduced ROM (ankle dorsiflexion) • Height of heel: 2" and above • Through flat palpation, one hypersensitive sore nodule within a perceptible tense band in the leg muscle
Exclusion criteria • Lower limb musculoskeletal injury or surgery • Acute Cardio-Respiratory or Neurological disease • Medical or surgical complications • Fibromyalgia syndrome • Congenital deformity of the foot and ankle • Lower limb fracture • Diabetic neuropathy • Peripheral vascular disease

Intervention groups

Subjects were divided into two groups by convenient sampling technique using the lottery method. Pre-treatment readings were taken from each subject for pain using NPRS, ROM (dorsiflexion and plantarflexion), and respectively. Treatment was given for a total of four weeks. 3 times each week for both groups. Ultrasound was used as the baseline treatment for both groups. Both groups received conventional Physiotherapy treatment which included stretching of both gastrocnemius and soleus muscles. Treatment Group A performed Active Release Therapy and Group B performed Positional Release Therapy

Main outcome variables

Primary Outcome Measure: • Numerical pain rating scale
Secondary Outcome Measure • Cadence • Dorsiflexion • Plantarflexion

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230418057955N1**

Registration date: **2023-08-06, 1402/05/15**

Registration timing: **retrospective**

Last update: **2023-08-06, 1402/05/15**

Update count: **0**

Registration date

2023-08-06, 1402/05/15

Registrant information

Name

Sibgah Maqsood

Name of organization / entity

The University of Faisalabad

Country

Pakistan

Phone

+92 41 8750971

Email address

2021-ms-pt-055@tuf.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-03-28, 1402/01/08

Expected recruitment end date

2023-06-15, 1402/03/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative Effects Of Active Release Technique And Positional Release Therapy In Female Students With Tightened Calf Muscles.

Public title

Active Release Technique And Positional Release Therapy For Tightened Calf Muscles.

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Subjects wearing high heels and willing to participate
Age 20-30 years Reduced ROM (ankle dorsiflexion) NPRS showing more than 3 Heels wearing duration: minimum 1 year Wearing heels at least 5 times every week for 5 hours per day Height of heel: 2" and above Through flat palpation, one hypersensitive sore nodule within a perceptible tense band in the leg muscle

Exclusion criteria:

Lower limb musculoskeletal injury or surgery Acute Cardio-Respiratory or Neurological disease Medical or surgical complications Fibromyalgia syndrome Congenital deformity of the foot and ankle Lower limb fracture Diabetic neuropathy Peripheral vascular disease

Age

From **20 years** old to **30 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **26**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple random method was used. Individual randomization was assigned. Table of random number of participants were generated. Sealed envelopes were used in randomization. The random sequence is typically built using algorithms that generate random numbers.

Blinding (investigator's opinion)

Single blinded

Blinding description

Participants are unaware of their assigned groups (treatment/control) due to identical presentation of interventions. In investigator-initiated trials, the PI is not involved in treatment allocation discussions with participants. Care providers are blinded to participants' treatments, ensuring unbiased care delivery. Those collecting data are uninformed about treatment allocation, maintaining objective data gathering. Data Safety and Monitoring Board's access to treatment information is limited, focusing on safety. Writers use anonymized data, avoiding bias in result interpretation.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

institutional review committee board of ethics The university of Faisalabad

Street address

Sheikhupura Road Faisalabad

City

Faisalabad

Postal code

38000

Approval date

2023-02-03, 1401/11/14

Ethics committee reference number

TUF/Addl Reg/SB/352

Health conditions studied

1

Description of health condition studied

Tightness Of Calf Muscles

ICD-10 code

M62.838

ICD-10 code description

Other muscle spasm

Primary outcomes

1

Description

Pain

Timepoint

before intervention, 2nd week and 4th week after intervention

Method of measurement

Numerical Pain Rating Scale

Secondary outcomes

1

Description

Ankle Range of Motion

Timepoint

before intervention, 2nd week and 4th week after intervention

Method of measurement

goniometer

2

Description

Cadence

Timepoint

before intervention, 2nd week and 4th week after intervention

Method of measurement

stop watch

Intervention groups

1

Description

Intervention Group 1: The group comprised of participants who received the experimental intervention under investigation. The intervention is designed to briefly describe the nature and purpose of the intervention. Participants in this group will be exposed to details of the intervention, such as treatment, therapy, medication, or any specific procedures. The objective of this intervention is explained the intended outcomes or goals.

Category

Treatment - Other

2

Description

Intervention group 2: The group comprised of participants who received the experimental intervention under investigation. The intervention is designed to briefly describe the nature and purpose of the intervention. Participants in this group will be exposed to details of the intervention, such as treatment, therapy, medication, or any specific procedures. The objective of this intervention is explained the intended outcomes or goals.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

The University Of Faisalabad

Full name of responsible person

Dr. Mariam Mehmood

Street address

Sargodha Road Faisalabad

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Phone

+92 301 4223896

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mariam.mehmood@tuf.edu.pk

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of Faisalabad

Full name of responsible person

Sibgah Maqsood

Street address

Gulshan-e-Hayat Town, ABC road Faisalabad

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38000

Phone

+92 321 7838237

Email

Sibgahmaqsood547@gmail.com

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

The University of Faisalabad

Proportion provided by this source

100

Public or private sector

Private

Domestic or foreign origin

Foreign

Category of foreign source of funding

Sponsor: country of origin

Country of origin

PK

Type of organization providing the funding

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

The University of Faisalabad

Full name of responsible person

Dr. Mariam Mehmood

Position

Clinical Coordinator

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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

The University Of Faisalabad

Full name of responsible person

Sibgah Maqsood

Position

Student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is a plan to make this available

Informed Consent Form

Yes - There is a plan to make this available

Clinical Study Report

Not applicable

Analytic Code

Not applicable

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document

IPD collected for the primary and secondary outcome both measure

When the data will become available and for how long

starting in January 2025

To whom data/document is available

Academicians

Under which criteria data/document could be used

For Research purpose only

From where data/document is obtainable

sibgahmaqsood547@gmail.com

What processes are involved for a request to access data/document

if any researcher share their ethical approval letter and summary of the ongoing research.

Comments