

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of active release technique and muscle energy technique on low back pain, range of motion, and balance in patients with psoas syndrome among office workers

Protocol summary

Study aim

The study aims to Compare the effects of the Active Release Technique and Muscle Energy Technique On Low Back Pain, Range of Motion, and Balance caused by psoas syndrome among office workers.

Design

A single-blinded randomized controlled trial, conducted on 80 patients, equally divided into two groups, single centered study

Settings and conduct

Family clinic in Lahore. single-blinded study (patient will be blinded to the recruited group)

Participants/Inclusion and exclusion criteria

Inclusion criteria: both gender; age 25-53 years, Low Back Pain for more than 3 months. Exclusion criteria: history of trauma; systemic diseases; fractures; congenital diseases; dislocation.

Intervention groups

Patients with low back pain caused by psoas muscle will be selected from both genders. VAS will be used to measure low back pain. Goniometer will be used to measure the range of motion, and a berg balance scale will be used to measure balance. Group A: will receive routine physical therapy for low back pain i.e; hot packs, tens therapeutic ultrasonic, with spine isometrics, rolling technique, along with active release technique. Each session would be of 40-45 minutes 5 times a week for 3 weeks to 6 weeks. Group B: will receive routine physical therapy for low back pain i.e; hot packs, tens therapeutic ultrasonic, with spine isometrics, rolling technique, along with muscle energy technique. Each session would be of 40-45 minutes 5 times a week for 3 weeks to 6 weeks.

Main outcome variables

1. Pain intensity 2. Range of motion 3. Berg balance scale

General information

Reason for update

to update actual recruitment dates

Acronym

RCT

IRCT registration information

IRCT registration number: **IRCT20190717044238N2**

Registration date: **2023-01-15, 1401/10/25**

Registration timing: **registered_while_recruiting**

Last update: **2023-03-19, 1401/12/28**

Update count: **1**

Registration date

2023-01-15, 1401/10/25

Registrant information

Name

Fareeha Amjad

Name of organization / entity

The University of Lahore

Country

Pakistan

Phone

+92 42 99200600

Email address

fari_fairy22@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-01-05, 1401/10/15

Expected recruitment end date

2023-01-30, 1401/11/10

Actual recruitment start date

2023-01-05, 1401/10/15

Actual recruitment end date

2023-02-10, 1401/11/21

Trial completion date

2023-02-10, 1401/11/21

Scientific title

Comparison of active release technique and muscle energy technique on low back pain, range of motion, and balance in patients with psoas syndrome among office workers

Public title

physiotherapy of low back pain due to psoas syndrome in office workers

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Both gender Age 25-53 years old Low Back Pain for more than 3 months

Exclusion criteria:

History of Trauma Systemic diseases Fractures
Congenital diseases Dislocation

Age

From **25 years** old to **53 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Investigator

Sample size

Target sample size: **80**

Actual sample size reached: **80**

Randomization (investigator's opinion)

Randomized

Randomization description

Patients will be randomly assigned into two groups using a computer-generated random number table. All those random numbers will be enclosed in sealed envelopes. A third person (who will further not be part of the research) will open envelopes and the patients will be allocated to the mentioned group accordingly.

Blinding (investigator's opinion)

Single blinded

Blinding description

An independent assessor, who will be a senior and experienced physiotherapist and will not be part of the study, will assess patients.

Placebo

Not used

Assignment

Parallel

Other design features

no

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Institutional Review Board

Street address

The University of Lahore,Pakistan

City

Lahore

Postal code

54000

Approval date

2022-06-13, 1401/03/23

Ethics committee reference number

REC-UOL-146-06/2022

Health conditions studied

1

Description of health condition studied

low back pain

ICD-10 code

M54.5

ICD-10 code description

Low back pain

Primary outcomes

1

Description

pain intensity

Timepoint

will be measure on baseline, week 3 and week 6.

Method of measurement

visual analogue scale

2

Description

range of motion

Timepoint

will be measure on baseline, week 3 and week 6.

Method of measurement

goniometer will be used.

Secondary outcomes

1

Description

balance

Timepoint

will be measure on baseline, week 3 and week 6.

Method of measurement

a berg balance scale will be used.

Intervention groups

1

Description

Intervention group: 1 will receive routine physical therapy for low back pain i.e; hot packs, tens therapeutic ultrasonic, with spine isometrics, rolling technique, along with active release technique. Each session would be of 40-45 minutes 5 times a week for 3 weeks to 6 weeks.

Category

Treatment - Other

2

Description

Intervention group: 2 will receive routine physical therapy for low back pain i.e; hot packs, tens therapeutic ultrasonic, with spine isometrics, rolling technique, along with muscle energy technique. Each session would be of 40-45 minutes 5 times a week for 3 weeks to 6 weeks.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

family clinic in lahore

Full name of responsible person

fareeha amjad

Street address

main bypass, faisal town, lahore

City

lahore

Postal code

55150

Phone

+92 42 35346789

Email

fari_fairy22@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of Lahore

Full name of responsible person

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Email

fari_fairy22@yahoo.com

Web page address

https://www.uol.edu.pk

Grant name

Grant code / Reference number

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

Yes

Title of funding source

The University of 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

The University of Lahore

Full name of responsible person

Fareeha Amjad

Position

Assistant Professor

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Person responsible for scientific inquiries

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Full name of responsible person

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Position

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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