Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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
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55150
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+92 42 35346789
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fari_fairy22@yahoo.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
The University of Lahore
Full name of responsible person
Fareeha Amjad
Street address
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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
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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
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