Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparative Effects Of Eldoa And Post-Facilitation Stretching Technique On Low Back Pain And Functional Performance In Patients With Quadratus Lumborum Tightness

Protocol summary

Study aim

The aim of this study is to associate the effects of the ELDOA versus the (PFS) Post Facilitation Stretching technique to treat symptoms of Quadratus lumborum tightness affecting functional performance in (NSLBP) non-specific LBP patients.

Design

A Randomized Clinical Trials (Quantitative Study)

Settings and conduct

Participants of LBP were selected from the Outdoor Patient Department of Madina Teaching Hospital Faisalabad and Allied Hospital Faisalabad. It was of 4 months duration for the study to be completed after the approval of the synopsis.

Participants/Inclusion and exclusion criteria

Inclusion criteria • 18 to 35 years adult • Both males and females • Study participants who are willing to take part • Participants having 3 to 7 scores on NPRS • No recent surgery in the past six months Exclusion criteria • No leg symptoms in the last week • Any Neurological disorders • Patients who have undergone back, pelvis, hip, or knee surgery within the preceding six months, as well as those with any history of lower limb fractures • Pregnancy (All trimesters) • Any medical condition contraindicatory to physical activity

Intervention groups

Participants were screened through the selection criteria and were recruited into the study. The patients signed informed consent forms subsequent to subjects, which were randomly allocated into different groups. The participants were separated into two groups, both of which were part of the experimental condition, and depending upon the group allocation, the treatment plan's sequence and scheduled period were provided to the patients. Measurements were taken at baseline before treatment protocol and after the treatment performed at the end of 2nd week. There were three sessions per week for two weeks, i.e. six sessions.

Main outcome variables

• Pain, ROM, Tightness, Disability

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20240503061633N1**
Registration date: **2024-06-09, 1403/03/20**
Registration timing: **retrospective**

Last update: **2024-06-09, 1403/03/20**
Update count: **0**

Registration date

2024-06-09, 1403/03/20

Registrant information

Name

Ruhmah Amin

Name of organization / entity

University of Faisalabad (Madinah Teaching Hospital)

Country

Pakistan

Phone

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Email address

2022-ms-pt-035@tuf.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-02-06, 1402/11/17

Expected recruitment end date

2024-04-26, 1403/02/07

Actual recruitment start date

2024-02-12, 1402/11/23

Actual recruitment end date

2024-04-30, 1403/02/11

Trial completion date

2024-04-30, 1403/02/11

Scientific title

Comparative Effects Of Eldoa And Post-Facilitation Stretching Technique On Low Back Pain And Functional Performance In Patients With Quadratus Lumborum Tightness

Public title

ELDOA and PFS technique on low back pain patient with Quadratus lumborum tightness

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

18 to 35 years adult Both males and females Study participants who are willing to take part Participants having 3 to 7 scores on NPRS No recent surgery in the past six months

Exclusion criteria:

No leg symptoms in the last week Any Neurological disorders Patients who have undergone back, pelvis, hip, or knee surgery within the preceding six months, as well as those with any history of lower limb fractures Pregnancy (All trimesters) Any medical condition contraindicatory to physical activity

Age

From **18 years** old to **35 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **30**

Actual sample size reached: **27**

Randomization (investigator's opinion)

Randomized

Randomization description

Convenient Sampling randomization. Using the Random Number Table method, the 30 participants were allocated into groups, i.e., Groups A and B.

Blinding (investigator's opinion)

Single blinded

Blinding description

Participants were blinded until the cessation of treatment session.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethical Committee of The University of Faisalabad

Street address

West Canal Road, Faisalabad-37610

City

Faisalabad

Postal code

38000

Approval date

2024-02-17, 1402/11/28

Ethics committee reference number

TUF/DR/SA/MSPP/2024/394

Health conditions studied

1

Description of health condition studied

Quadratus Lumborum Tightness

ICD-10 code

M62.838

ICD-10 code description

Other muscle spasm

2

Description of health condition studied

Low back pain

ICD-10 code

M54.05

ICD-10 code description

Panniculitis affecting regions of neck and back, thoracolumbar region

Primary outcomes

1

Description

Quadratus Lumborum Tightness

Timepoint

Before intervention and at 2 weeks after intervention (6 sessions total)

Method of measurement

Side bend test by using measuring tape

2

Description

Pain

Timepoint

Before intervention and at 2 weeks after intervention (6 sessions total)

Method of measurement

NPRS scale

3

Description
Lumbar range of motion
Timepoint
Before intervention and at 2 weeks after intervention (6 sessions total)
Method of measurement
Schober's test

Secondary outcomes

1

Description
Functional Limitation
Timepoint
Before intervention and at 2 weeks after intervention (6 sessions total)
Method of measurement
LEFS

2

Description
Disability
Timepoint
Before intervention and at 2 weeks after intervention (6 sessions total)
Method of measurement
ODI

Intervention groups

1

Description
Intervention group 1; ELDOA group: Warm up before starting; The session will be for two weeks, alternate days a week, once daily. Hold the static position according to spinal level for 60 seconds or about one minute and breathe normally. Hold each rep for ten to thirty seconds, L4-L5 ELDOA posture was performed by asking the patient to slightly stretch their neck, to draw chin downward and backward, complete shoulder flexion and arms parallel to shoulder, upper limbs in external rotation, shoulder blades in upward rotation, wrists in complete extension, The pelvis is neutral and the spine is straight and supported by the wall, Lower limbs externally rotated, Knees pulled back in 90 degrees flexion, heels hip distance, by maintaining ankle dorsiflexion and eversion actively and Actively draw knees toward the floor. Repeat this procedure 3 to 4 times once a day.
Category
Rehabilitation

2

Description
Intervention group 2; Post Facilitation Stretching Technique: The session will be for two weeks, alternate days a week, once daily. Post Facilitation Stretching (PFS) technique was performed as the QL of the involved side will be in the mid-range, Patient will be asked to perform contractions of the affected muscle (Isometrically) against resistance for 10 seconds, Stretch will be applied in a new range and will be given 10 second hold and then relaxed for 10 seconds. The procedure will be repeated 3 – 5 times once a day.
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Madinah Teaching Hospital
Full name of responsible person
Dr. Ahmed Gul Kainth
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P160 Niazi Street Faisal Town, Canal Road Faisalabad
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2

Recruitment center
Name of recruitment center
Allied Hospital
Full name of responsible person
Dr. Sobia Nawaz
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
The University of Faisalabad
Full name of responsible person
Ruhmah Amin
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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
The University of Faisalabad

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
The University of Faisalabad
Full name of responsible person
Ruhmah Amin
Position
Physiotherapist
Latest degree
Master
Other areas of specialty/work
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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