# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

22 Nov 2026

## Effect of myofascial release and muscle energy technique on quadratus lumborum in patients with non specific low back pain

## Protocol summary

**Study aim**
To check the effect of Myofascial release and muscle energy technique on quadratus lumborum in patients with non-specific low back pain patients

**Design**
A randomized clinical trial was conducted with three parallel groups, a single blinded study of third phase in 20 patients in each group that are 60 in total .

**Settings and conduct**
Allied hospital faisalabad and Madinah teaching hospital .

**Participants/Inclusion and exclusion criteria**
Informed consent of the patient Diagnosed patient with non specific low back pain Age 18 to 40 years Gender both male and female Patient with pain at the attachment of quadratus lumborum Patients with restricted lateral flexion less than 25 degrees Pain on NPRS in range between 3-7 Patients with history of any spinal surgery in past six months Pathology of spine like tumor,tuberculosis,osteoporosis etc Patients with altered sensation (motor or sensory) Patient with spinal cord injury in past six months Any pathological condition related to hip joint e.g arthritis ,total knee replacement,total hip replacement or pregnancy etc.

**Intervention groups**
GRP A:First, a hot pack is administered as a baseline treatment. 3reps of the treatment will take a total of 15 min. MET of QL given for 10-30 sec GRP B: The caudal hand was put on the participant's thigh, while the cranial arm's elbow was positioned above QL. Elbow was positioned obliquely close to the center of the column, applying minimal pressure. The individual's leg was gently pulled sideways by another hand. There are seven minutes . GRP C:total treatement time is 22 mins .Both techniques METand MFR is given in this group.

**Main outcome variables**
NPRS , ODI and Inclinometer

## General information

**Reason for update**

**Acronym**

**IRCT registration information**
IRCT registration number: **IRCT20240330061389N1**
Registration date: **2024-08-05, 1403/05/15**
Registration timing: **registered_while_recruiting**

Last update: **2024-08-05, 1403/05/15**
Update count: **0**

**Registration date**
2024-08-05, 1403/05/15

**Registrant information**

**Name**
Amna Anwar

**Name of organization / entity**
The University of Faislabad

**Country**
Pakistan

**Phone**
+92 41 2647086

**Email address**
amnaanwar262@gmail.com

**Recruitment status**
**Recruitment complete**

**Funding source**

**Expected recruitment start date**
2024-04-15, 1403/01/27

**Expected recruitment end date**
2024-08-20, 1403/05/30

**Actual recruitment start date**
empty

**Actual recruitment end date**
empty

**Trial completion date**
empty

**Scientific title**
Effect of myofascial release and muscle energy technique on quadratus lumborum in patients with non specific low back pain

**Public title**
Effect of MFR and met on quadratus lumborum in non specific low back pain

**Purpose**
Treatment

**Inclusion/Exclusion criteria**

**Inclusion criteria:**
Informed consent of the patient Diagnosed patient with non specific low back pain Age 18 to 40 years Gender both male and female Patient with pain at the attachment of quadratus lumborum Patients with restricted lateral flexion less than 25 degrees Pain on NPRS in range between 3-7

**Exclusion criteria:**
Patients with history of any spinal surgery in past six months Pathology of spine like tumor, tuberculosis, osteoporosis etc Patients with altered sensation (motor or sensory) Patient with spinal cord injury in past six months Any pathological condition related to hip joint e.g arthritis ,total knee replacement ,total hip replacement or pregnancy etc.

**Age**
From **18 years** old to **40 years** old

**Gender**
Both

**Phase**
3

**Groups that have been masked**

- Participant

**Sample size**
Target sample size: **60**

**Randomization (investigator's opinion)**
Randomized

**Randomization description**
Randomization was done by lottery method and study was single blinded they did not know in which study group they are allocated.

**Blinding (investigator's opinion)**
Single blinded

**Blinding description**
Participants were blinded in the study

**Placebo**
Not used

**Assignment**
Parallel

**Other design features**

## Secondary Ids

empty

## Ethics committees

**1**

**Ethics committee**

**Name of ethics committee**
Research and ethic / technical committee for The University of Faisalabad

**Street address**
University avenue faisal town canal road

**City**
Faisalabad

**Postal code**
38000

**Approval date**
2024-02-17, 1402/11/28

**Ethics committee reference number**
TUF/DR/SA/MSPT/2024/420

## Health conditions studied

**1**

**Description of health condition studied**
Non specific low back pain

**ICD-10 code**
M54.5

**ICD-10 code description**
Low back pain

## Primary outcomes

**1**

**Description**
Non specific low back pain

**Timepoint**
Before intervension or after six weeks of intervension

**Method of measurement**
Inclinometer

## Secondary outcomes

**1**

**Description**
Functional disability

**Timepoint**
Before intervention and at the end of six weeks of intervension

**Method of measurement**
Oswestry Disability Index

## Intervention groups

**1**

**Description**
Intervention group1 : muscle energy technique
Intervention group 2 : myofascial release technique
Intervention group 3 : Both these techniques were used

**Category**
Treatment - Devices

**2**

**Description**
Intervention group1 : muscle energy technique
Intervention group 2 : myofascial release technique
Intervention group 3 : Both these techniques were used
**Category**
Treatment - Devices

## Recruitment centers

**1**

**Recruitment center**
**Name of recruitment center**
Madinah Teaching Hospital
**Full name of responsible person**
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**2**

**Recruitment center**
**Name of recruitment center**
Allied Hospital Faisalabad
**Full name of responsible person**
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DR. Tusi road Faisalabad
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## Sponsors / Funding sources

**1**

**Sponsor**
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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**
Amna Anwar
**Position**
Student
**Latest degree**
Bachelor
**Other areas of specialty/work**
Physiotherapy
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## Person responsible for scientific inquiries

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**Latest degree**
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## Person responsible for updating data

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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**
Yes - There is a plan to make this available
**Analytic Code**
No - There is not a plan to make this available
**Data Dictionary**
Yes - There is a plan to make this available
**Title and more details about the data/document**
Effect of myofascial release and muscle energy technique on quadratus lumborum in patients with non specific low back pain
**When the data will become available and for how long**
Starting six months after publication and it will remain available for everyone
**To whom data/document is available**
This will be available for everyone
**Under which criteria data/document could be used**
amnaanwar262@gmail.com00923356515086
**From where data/document is obtainable**
amnaanwar262@gmail.com00923356515086
**What processes are involved for a request to access data/document**
Any applicant just need to contact for data, contact through email at amnaanwar262@gmail.com
**Comments**