

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effects of spinal mobilization with muscle energy techniques versus strain counter-strain in chronic low back pain due to spondylosis.

Protocol summary

Study aim

To compare effects of spinal mobilizations with muscle energy techniques versus strain counter-strain in chronic low back pain due to spondylosis

Design

Single blind, parallel assigned, multi-centered, randomized clinical trial will be conducted on 36 participants (2 groups with 18 participants each) with history of low back pain due to spondylosis as assessed by radiological examination and limited ranges of motion and randomization is being accomplished using simple random sampling by means of lottery method.

Settings and conduct

Allied Hospital Faisalabad. Participants are kept anonymous for conducting single blind trial.

Participants/Inclusion and exclusion criteria

Both male and female of 40-60 years having chronic low back pain with or without radiation from at least last 3 months or onwards, Limited range of motion of lumbar region, Extension more limited and pain during extension and relieved by flexion, no neurological deficits, X-Ray showing signs of degeneration, 4-7 (moderate) pain score on VAS, moderate disability (21%-40%) on Oswestry Disability Index were included. Participants having prolapse with neurologic signs and symptoms necessitating surgery, Pregnant females, Spondylolisthesis and osteoporosis patients, mechanical strain, Fractures of lumbar region, Previous back surgery, Known rheumatic, neurologic, or mental diseases, red flags to manual therapy, other comorbidities were excluded.

Intervention groups

Group A: Baseline treatment of hot pack then spinal mobilizations with muscle energy technique will be applied. Group B: Hot pack at baseline then spinal mobilizations with strain counter-strain will be applied.

Main outcome variables

Lumber pain Lumber ranges of motion Lumber disability

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20210814052182N1**

Registration date: **2021-08-23, 1400/06/01**

Registration timing: **registered_while_recruiting**

Last update: **2021-08-23, 1400/06/01**

Update count: **0**

Registration date

2021-08-23, 1400/06/01

Registrant information

Name

Saira Tariq

Name of organization / entity

The University of Faisalabad, Faisalabad.

Country

Pakistan

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+92 41 2662381

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sairatariq19@hotmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-05-25, 1400/03/04

Expected recruitment end date

2021-08-25, 1400/06/03

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of spinal mobilization with muscle energy techniques versus strain counter-strain in chronic low back pain due to spondylosis.

Public title

Effects of mobilization technique with manual therapy in spondylosis related back pain.

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria:

Individuals having chronic low back pain with or without radiation from at least last 3 months or onwards were recruited in this study Participants of age group 40 to 60 years were selected Both genders male and female were included Physical examination to be done: □ Limited range of motion of lumbar spinal region like extension (<4cm), flexion (<7cm) or side flexion (<25cm) on modified Schober's test. □ Extension should be more limited than other movements. □ Pain during extension like standing and relieved by flexion like sitting. There should be no neurological deficits Diagnosis confirmed by X-Ray showing signs of degeneration Individuals having 4-7 (moderate) pain score on Visual Analogue Scale were recruited Individuals having moderate disability (21%-40%) on Oswestry Disability Index were selected

Exclusion criteria:

Participants having prolapse with neurologic signs and symptoms necessitating surgery were excluded Pregnancy females were not included in study Spondylolisthesis patients were excluded Individuals having mechanical strain were excluded Fractures of lumbar region were not taken Osteoporosis patients were excluded Previous back surgery patients were not taken in study Known rheumatic, neurologic, or mental diseases were not recruited Other red flags (contra-indications) to manual therapy were also excluded Low back pain due to any other comorbidities

Age

From **44 years** old to **55 years** old

Gender

Both

Phase

3

Groups that have been masked

- Participant

Sample size

Target sample size: **36**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization of participants was accomplished by using simple random sampling by means of lottery method

Blinding (investigator's opinion)

Single blinded

Blinding description

The participants will not be aware of the study groups and this will be carried out by keeping them anonymous for the study period

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics and Technical committee of The University of Faisalabad

Street address

University town, Sargodha road, Faisalabad

City

Faisalabad

Postal code

38000

Approval date

2021-05-25, 1400/03/04

Ethics committee reference number

TUF/DR/SA/MSPP/2021/237-246

Health conditions studied

1

Description of health condition studied

Spondylosis related chronic low back pain

ICD-10 code

ICD-10 code description

Chronic low back pain

Primary outcomes

1

Description

Pain in low back

Timepoint

Before intervention, at 2 weeks and 4 weeks after intervention

Method of measurement

Visual Analogue Scale

2

Description

Lumber range of motion

Timepoint

Before intervention, at 2 weeks and 4 weeks after intervention

Method of measurement

Schober's test

Secondary outcomes

1

Description

Disability

Timepoint

Before intervention and after intervention

Method of measurement

Oswestry Disability Index

Intervention groups

1

Description

Intervention group: Group A (spinal mobilization with muscle energy technique)

Category

Treatment - Other

2

Description

Intervention group: Group B (spinal mobilization with strain counter-strain)

Category

Treatment - Other

Recruitment centers

1

Recruitment center

2

Recruitment center

Name of recruitment center

Allied hospital

Full name of responsible person

Sobia Nawaz

Street address

Dr. Tusi road, Faisalabad, Punjab

City

Faisalabad

Postal code

38000

Phone

+92 41 9210082

Email

sobiariaz746@gmail.com

Web page address

<https://www.pmc.edu.pk>

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Yasmin physiotherapy center

Full name of responsible person

Osama Ramzan

Street address

Sargodha road near Muslim town 3 opposite KIA motors

City

Faisalabad

Postal code

38000

Phone

+92 41 8785675

Email

osamaramzan@gmail.com

Web page address

<http://omiphysio.com>

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Yasmin physiotherapy center

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

Other

Person responsible for general inquiries

Contact

Name of organization / entity

The University of Faisalabad

Full name of responsible person

Saira Tariq

Position

Student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

As we have signed and assured the participants that their data will not be shared anywhere else other than the current study

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

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

The primary and secondary outcome measure data will be shared and no further details regarding patients personal information will be provided

When the data will become available and for how long

Starting in January 2022

To whom data/document is available

For everyone regarding field

Under which criteria data/document could be used

Whoever will request for data

From where data/document is obtainable

Through email address

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

An email stating the use of data will be appreciated

Comments