Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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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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
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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)
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