Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

COMPARATIVE EFFECT OF UPPER THORACIC SPINE MOBILIZATION WITH MOBILITY EXERCISES AND UPPER CERVICAL SPINE MOBILIZATION WITH STABILIZATION EXERCISES IN MECHANICAL NECK PAIN

Protocol summary

Study aim

To evaluate effects of upper thoracic spine mobilization with mobility exercises and upper cervical spine mobilization with stabilization exercises in reducing pain, improving cervical ROM and function in treating patients with mechanical neck pain.

Design

Single Blinded Randomized Clinical Design

Settings and conduct

Faisal Hospital Faisalabad Mujahid Hospital Faisalabad Bin Inam Physical Therapy & Chiropractic Rehab Clinic Faisalabad Pro Health Wellness Center Faisalabad

Participants/Inclusion and exclusion criteria

Inclusion Criteria: • Male and female both genders • Age ranging from 20-40 years • Primary complaint of neck pain from past 12 weeks • Pain rating of more than 2 on NPRS • Reduced cervical ROM in extension, rotation and side bending • Neck Disability Index score of 20% or more i.e. 10 points or more on 0 to 50 scale Exclusion Criteria: • Previous history of trauma or surgery to cervical or thoracic spine, whiplash injury • Presence of neurological deficits • Presence of bilateral upper extremity symptoms • Cervical myelopathy or nerve root pathology • Patients with positive Lhermitte's sign • Vascular diseases of head and neck • Presence of any red flags e.g. fracture, tumor • Any symptoms of CNS involvement • Patients with psychological disorders or those who can't comprehend given instructions.

Intervention groups

Treatment will be provided for 2 times a week for 4 weeks for both groups. Group A will perform upper thoracic mobilization and mobility exercise.

Main outcome variables

Numerical Pain Rating Scale Universal Goniometer Neck Disability Index

General information

Reason for update

Acronym

MNP

IRCT registration information

IRCT registration number: **IRCT20210630051741N1**
Registration date: **2021-08-01, 1400/05/10**
Registration timing: **registered_while_recruiting**

Last update: **2021-08-01, 1400/05/10**
Update count: **0**

Registration date

2021-08-01, 1400/05/10

Registrant information

Name

Dr. Ramesha Tahir Alvi

Name of organization / entity

The University of Faisalabad

Country

Pakistan

Phone

+92 41 8502460

Email address

ramisha.alvi@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-06-15, 1400/03/25

Expected recruitment end date

2021-10-15, 1400/07/23

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
COMPARATIVE EFFECT OF UPPER THORACIC SPINE MOBILIZATION WITH MOBILITY EXERCISES AND UPPER CERVICAL SPINE MOBILIZATION WITH STABILIZATION EXERCISES IN MECHANICAL NECK PAIN

Public title
COMPARATIVE EFFECT OF UPPER THORACIC SPINE MOBILIZATION WITH MOBILITY EXERCISES AND UPPER CERVICAL SPINE MOBILIZATION WITH STABILIZATION EXERCISES IN MECHANICAL NECK PAIN

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
• Male and female both genders • Age ranging from 20-40 years • Primary complaint of neck pain from past 12 weeks • Pain rating of more than 2 on NPRS • Reduced cervical ROM in extension, rotation and side bending • Neck Disability Index score of 20% or more i.e. 10 points or more on 0 to 50 scale • Commitment to comply with treatment plans

Exclusion criteria:
• Previous history of trauma or surgery to cervical or thoracic spine, whiplash injury • Presence of neurological deficits • Presence of bilateral upper extremity symptoms • Cervical myelopathy or nerve root pathology • Patients with positive Lhermitte's sign • Vascular diseases of head and neck • Presence of any red flags e.g. fracture, tumor, osteoporosis, rheumatoid arthritis, metabolic diseases, blood pressure at rest more than 140/90 mm Hg, chronic history of corticosteroid use • Any symptoms of central nervous system (CNS) involvement e.g. hyperreflexia, sensory deficits and muscle atrophy in hands, nystagmus, unsteadiness in gait, loss of visual acuity, abnormal facial sensation, dysgeusia, positive pathological reflexes • Patients with psychological disorders or those who can't comprehend given instructions.

Age
From **20 years** old to **40 years** old

Gender
Both

Phase
3

Groups that have been masked

- Participant

Sample size
Target sample size: **36**
More than 1 sample in each individual
Number of samples in each individual: **18**
Patients will be randomly assigned into two groups. Each group will comprise of 18 patients.

Randomization (investigator's opinion)
Randomized

Randomization description
Non-probability purposive sampling technique will be utilized for collecting sample and sample will be allocated to treatment group A and B by using online randomization generator. 2 sets of 18 unique numbers per set Range: From 1 to 36— Sorted from Least to Greatest Group A: Thoracic Mobilization and Mobility Exercise
[1,2,6,7,10,11,15,17,18,19,20,22,23,24,29,32,33,35]
Group B: Cervical Mobilization and Stabilization Exercise
[3,4,5,8,9,12,13,14,16,21,25,26,27,28,30,31,32,34, 36]

Blinding (investigator's opinion)
Single blinded

Blinding description
Patients will be kept blind through allocation concealment to treatment group. Patients will be unaware of their respective group treatment plans.

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
Sargodha Rd, University Town, Faisalabad, Punjab 38000

City
Faisalabad

Postal code
38000

Approval date
2021-05-17, 1400/02/27

Ethics committee reference number
TUF/DR/MSPP/295

Health conditions studied

1

Description of health condition studied
Mechanical neck pain can be defined as pain in neck or shoulder area aggravated by prolonged posture and movement of neck and palpation of neck musculature.

ICD-10 code
M54. 2

ICD-10 code description
Code M54. 2 is the diagnosis code used for Cervicalgia (Neck Pain). A disorder characterized by marked discomfort sensation in the neck area.Discomfort or more intense forms of pain that are localized to the cervical region. This term generally refers to

Primary outcomes

1

Description
The numerical pain rating scale was utilized to measure intensity of pain. Pain Intensity was rated on 0-10 scale at a horizontal bar. NPRS consists of 11 points, which range from 0= no pain, 1-4= mild pain, 4-7= moderate pain 7-10= severe pain
Timepoint
5 timepoints including Baseline, 1st week post treatment, 2nd week post treatment, 3rd week post treatment, 4th week post treatment
Method of measurement
Numerical Pain Rating Scale will be utilized to assess pain.

2

Description
Universal Goniometer will be used to measure Cervical ROM.
Timepoint
5 timepoints including Baseline, 1st week post treatment, 2nd week post treatment, 3rd week post treatment, 4th week post treatment
Method of measurement
Universal Goniometer will be used to measure Cervical ROM.

Secondary outcomes

1

Description
It is a questionnaire which measures the functional ability of the patient. Each item is scored on a 0 to 5 rating scale, in which zero means no pain and 5 means worst imaginable pain. All the points are summed to give a total score, which can be interpreted as 0 points= no activity limitations,0-4 points = no disability, 5-14 points = mild disability, 15-24 points = moderate disability, 25-34 points = severe disability, 35-50 points = complete disability 50 points =complete activity limitation
Timepoint
2 timepoints including Baseline and 4th week post treatment
Method of measurement
Neck Disability Index will be used to measure neck disability.

Intervention groups

1

Description
Intervention group:
Category
Rehabilitation

2

Description
Intervention group:
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Faisal Hospital Faisalabad
Full name of responsible person
Dr. Qurat-ul-Ain
Street address
673-A Lower Canal Rd E, Block A People's Colony No 1, Faisalabad, Punjab
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Faisalabad
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38000
Phone
+92 41 8536999
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fihsfsd@outlook.com
Web page address

2

Recruitment center
Name of recruitment center
Mujahid Hospital Faisalabad
Full name of responsible person
Dr. Muqaddas
Street address
Green Belt Rd, Saddar Block Z Madina Town, Faisalabad, Punjab 38000
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Phone
+92 41 8541364
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mujahidhospital@gmail.com

3

Recruitment center
Name of recruitment center
Bin Inam Physical Therapy & Chiropractic Rehab Clinic Faisalabad
Full name of responsible person
Dr Awais Bin Inam
Street address
342b Satayana Rd, near ideal sweets, D Ground Block B People's Colony No 1, Faisalabad, Punjab
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Faisalabad
Postal code
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Phone
+92 41 8719828
Email
bininamgroup@gmail.com
Web page address

4

Recruitment center
Name of recruitment center
Pro Health Wellness Center Faisalabad
Full name of responsible person
Dr. Samraiz Mughal
Street address
Circle Club, Kashmir Rd, Malikpur, Faisalabad, Punjab
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+92 41 8757701
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drsamraiz@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
The University of Faisalabad
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Sargodha Rd, University Town, Faisalabad, Punjab 38000
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Web page address
https://www.tuf.edu.pk/
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
Self financed
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
Dr. Ramesha Tahir; PT
Position
Priniciple Investigator/Student
Latest degree
Medical doctor
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)
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
Not applicable
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