

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jul 2026

Comparative effects of positional release therapy and muscle energy technique on pain and functional disability in patients with chronic non-specific neck pain: a randomized controlled trial

Protocol summary

Study aim

Comparative effects of positional release therapy and muscle energy technique on pain and functional disability in patient with chronic non-specific neck pain.

Design

Randomized controlled trial with parallel group design of 58 patients, enrolled for three months and followed the treatment plan. Randomization was concealed.

Settings and conduct

Physical Therapy Department of Begum Akhtar Rukhsana Memorial Welfare Trust Lahore. Single blinded study. Participants was blinded as they dont konw which treatment was given to them.

Participants/Inclusion and exclusion criteria

Inclusion Criteria: Age 25-40 years, Both genders, Patients with pain level greater than or equals to 5/10 on visual analog scale, Neck pain lasting for more than 3 months. Exclusion criteria: Previous history of spinal surgery, History of trauma to the neck , Spinal deformity, Specific neck pain as a result of malignancy, Narcotic drugs

Intervention groups

Group A: Participants in group A received Routine Physical therapy with Muscle Energy Technique. A submaximal (10-20%) contraction of the hypertonic muscle is performed away from the barrier for between 5 and 10 seconds and the therapist applies resistance in the opposite direction. Group-B: Participants in group B received Routine Physical Therapy with Positional Release Therapy. The physiotherapist locates the marked trigger point and while maintaining contact, a light pressure with the clinician's fingertip is applied creating slight dimpling of the skin and blanching of the clinician's fingernail bed.

Main outcome variables

Pain was measured by Visual Analogue Scale(VAS)
Functional Disability measured by Neck Disability

Index(NDI).

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20220126053834N1**

Registration date: **2022-05-27, 1401/03/06**

Registration timing: **registered_while_recruiting**

Last update: **2022-05-27, 1401/03/06**

Update count: **0**

Registration date

2022-05-27, 1401/03/06

Registrant information

Name

Fiza Rehman

Name of organization / entity

University of lahore

Country

Pakistan

Phone

+92 332 3051333

Email address

pptm02193004@student.uol.edu.pk

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-05-20, 1401/02/30

Expected recruitment end date

2022-08-11, 1401/05/20

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
Comparative effects of positional release therapy and muscle energy technique on pain and functional disability in patients with chronic non-specific neck pain: a randomized controlled trial

Public title
Effects Of Positional Release Therapy And Muscle Energy Technique on Pain and Functional Disability In Patients With Chronic Non-Specific Neck Pain

Purpose
Treatment

Inclusion/Exclusion criteria
Inclusion criteria:
Age 25-40 years Both genders Neck pain lasting for more than 3 months. Patients with pain level greater than or equals to 5/10 on visual analog scale
Exclusion criteria:
Previous history of spinal surgery History of trauma to the neck Spinal deformity Specific neck pain as a result of malignancy Narcotic drugs

Age
From **25 years** old to **40 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Outcome assessor

Sample size
Target sample size: **58**

Randomization (investigator's opinion)
Randomized

Randomization description
Diagnosed patients of chronic non-specific neck pain will be randomly assigned. Participants will be randomly divided using concealed allocation through opening sealed envelopes. Each envelope contains the program of treatment, either muscle energy technique or positional release therapy

Blinding (investigator's opinion)
Single blinded

Blinding description
The outcome assessor is blinded as he does not know about the treatment and which group is receiving what kind of treatment.

Placebo
Not used

Assignment
Parallel

Other design features
The participants consisted of 58 men and women aged 25-40 years with chronic non-specific neck pain. The duration of exercise was 3 months and treatment were performed under supervision.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of University Of Lahore.

Street address

159 A opf phase 1 Lahore

City

Lahore

Postal code

5300

Approval date

2021-12-06, 1400/09/15

Ethics committee reference number

1RB-UOL-FAHS/1002/2021

Health conditions studied

1

Description of health condition studied

Chronic non specific neck pain

ICD-10 code

M54.2

ICD-10 code description

Cervicalgia

Primary outcomes

1

Description

disability and pain.

Timepoint

Before intervention then at 4th and 8th weeks

Method of measurement

Disability measured by Neck Disability Index (NDI) and Pain measured by Visual Analogue Scale (VAS).

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group1: Participants in group A received Routine Physical therapy with Muscle Energy Technique. The hypertonic muscle is taken to a length just short of pain, or to the point where resistance to movement is first noted. A submaximal (10-20%) contraction of the hypertonic muscle is performed away from the barrier for between 5 and 10 seconds and the therapist applies resistance in the opposite direction. The hypertonic

muscle is taken to a length just short of pain, or to the point where resistance to movement is first noted.

Category

Rehabilitation

2**Description**

Intervention group 2: Participants in group B received Routine Physical Therapy with Positional Release Therapy. The physiotherapist locates the marked trigger point and while maintaining contact, a light pressure with the clinician's fingertip is applied creating slight dimpling of the skin and blanching of the clinician's fingernail bed. The participant is asked to remain completely relaxed during the 90 second treatment. After passing the recommended 90 seconds the neck is returned to the starting position. This procedure is repeated immediately 2 more times in tender points immediately adjacent to the first one. Following treatment, the same dependent variable measurements will be taken.

Category

Rehabilitation

Recruitment centers**1****Recruitment center****Name of recruitment center**

Physical Therapy Department of Begum Akhtar
Rukhsana Memorial Welfare Trust Lahore

Full name of responsible person

Dr Ammar

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Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

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Full name of responsible person

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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

University of Lahore

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**

University Of Lahore

Full name of responsible person

Dr Filza Shaukat

Position

Assistant professor

Latest degree

Master

Other areas of specialty/work

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Position

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Bachelor

Other areas of specialty/work

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Person responsible for updating data

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Full name of responsible person

Fiza Rehman

Position

Student

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

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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