Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 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

Street address
PGSHF 79 B lahore

City
Lahore

Postal code
5300

Phone
+92 318 4365119

Email
fizzarehman000@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
University of Lahore

Full name of responsible person
Dr Filza Shaukat

Street address
179 Johar town Lahore

City
Lahore

Postal code
5300

Phone
+92 347 6753446

Email
filzashaukat21@gmail.com

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
Physiotherapy

Street address
179Johar town Lahore.

City
Lahore

Province
Punjab

Postal code
5300

Phone
+92 347 6753446

Email
filzashaukat21@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
University of lahore

Full name of responsible person
Fiza Rehman

Position
Student

Latest degree
Bachelor

Other areas of specialty/work
Physiotherapy

Street address

Punjab government servant housing foundation phase 1 House no 79b lahore Pakistan

City
Lahore

Province
Punjab

Postal code
5300

Phone
+92 332 3051333

Fax

Email
Pptm02193004@student.uol.edu.pk

Person responsible for updating data

Contact

Name of organization / entity
University of lahore

Full name of responsible person
Fiza Rehman

Position
Student

Latest degree
Bachelor

Other areas of specialty/work
Physiotherapy

Street address
Punjab government servant housing foundation phase 1 House no 79b lahore Pakistan

City
Lahore

Province
Punjab

Postal code
5300

Phone
+92 332 3051333

Fax

Email
Pptm02193004@student.uol.edu.pk

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