Clinical Trial Protocol
Iranian Registry of Clinical Trials

10 Jun 2026

Comparing the effects of proprioceptive neuromuscular facilitation (hold relax) and muscle energy technique (post isometric relaxation) in non-specific neck pain.

Protocol summary

Study aim
To check and compare the effects of PNF (Hold Relax) and METs (Post isometric relaxation) on cervical pain, cervical range of motion and neck disability in non-specific neck pain

Design
It will be a single blinded Randomized Clinical trial. Study population is patients suffering with non specific neck from 3 to 12 months. A total of 32 participants will be recruited according to the criteria. Lottery method will be used for the recruitment of patients in two equal groups.

Settings and conduct
Study setting : 1. Madina Teaching Hospital Faisalabad 2. DHQ Hospital Faisalabad 3. Allied Hospital Faisalabad; City : Faisalabad, Pakistan; Study Population: Patients suffering with non-specific neck pain from 3 months to 12 years and NDI score greater than 10%; Blinding: it will be a single blinded study and Lottery method will be used for the recruitment of patients in two equal groups.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Patients that fulfill diagnostic criteria of non-specific neck pain; Mild to moderate intensity pain on VAS; Neck symptoms from 3 months to 1 year; Age between 20 to 35 years; Gender male and females; Neck disability index score more than 10%. Exclusion Criteria: Patients with history of neck pain due to Metabolic disorders (i.e. osteoporosis, Paget's disease, osteomalacia); Patients with history of neck pain due to neurological disorders; Patients with history of malignancy or infections; Patients with any history of any neck trauma or fractures; Patients with congenital neck deformities (i.e. torticollis); Patients with known psychological disorder; Patients not willing to take part in research

Intervention groups
Intervention group A = Baseline treatment and Hold relax technique of PNF; Intervention group B = Baseline and Post-isometric relaxation of METs

Main outcome variables
Neck pain; Cervical range of motion; Neck disability index

General information

Reason for update
To update any missing information

Acronym

IRCT registration information
IRCT registration number: **IRCT20220930056062N1**
Registration date: **2022-10-15, 1401/07/23**
Registration timing: **prospective**

Last update: **2023-06-12, 1402/03/22**
Update count: **1**

Registration date
2022-10-15, 1401/07/23

Registrant information

Name
Kaiynat Shafique

Name of organization / entity
The University of Faisalabad

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Pakistan

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2022-10-16, 1401/07/24

Expected recruitment end date

2022-12-15, 1401/09/24

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparing the effects of proprioceptive neuromuscular facilitation (hold relax) and muscle energy technique (post isometric relaxation) in non-specific neck pain.

Public title

Effects of Hold relax and Post isometric relaxation techniques in non-specific neck pain.

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria:

Patients that fulfill diagnostic criteria of non-specific neck pain Mild to moderate intensity pain on VAS Neck symptoms from 3 months to 1 year Age between 20 to 35 years Both gender (male and female) Neck disability index score more than 10%

Exclusion criteria:

Patients with history of neck pain due to Metabolic disorders (i.e. osteoporosis, Paget's disease, osteomalacia) Patients with history of neck pain due to neurological disorders Patients with history of malignancy or infections Patients with any history of any neck trauma or fractures Patients with congenital neck deformities (i.e. torticollis) Patients with known psychological disorder Patients not willing to take part in research

Age

From **20 years** old to **35 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **32**

Randomization (investigator's opinion)

Randomized

Randomization description

Participants will be screened according to the criteria and 32 participants who met the inclusion criteria of the study will be selected. Participants will be divided randomly into 2 treatment groups, 16 each, by using the lottery method. Each participants will be asked to choose between two pieces of paper, with group A and group B written on them. Participants will be allocated into treatment groups according to the piece of paper they will choose. After completing 16 participants in one group, all other participants will be assigned to the other treatment group, so that both treatment groups have equal participants.

Blinding (investigator's opinion)

Single blinded

Blinding description

Each participants will be asked to choose between two pieces of paper, with group A and group B written on them. Participants will be allocated into treatment groups according to the piece of paper they choose. The patients will not know, in which group he/she is enrolled to avoid bias.

Placebo

Not used

Assignment

Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of The University of Faisalabad

Street address

west canal, Faisalabad

City

Faisalabad

Postal code

38000

Approval date

2023-03-03, 1401/12/12

Ethics committee reference number

TUF/IRB/164/2023

Health conditions studied

1

Description of health condition studied

Non specific neck pain

ICD-10 code

M54.2

ICD-10 code description

Cervicalgia

Primary outcomes

1

Description

Neck pain

Timepoint

Neck pain will be measured three times. Before the start of 1st session, after 2 weeks (6 sessions) and third time after 4 weeks (12 sessions).

Method of measurement

Visual analogue scale

2

Description
Cervical Range of motion
Timepoint
Cervical range of motion will be measured three times. Before the start of 1st session, after 2 weeks (6 sessions) and third time after 4 weeks (12 sessions).
Method of measurement
Universal goniometer

3

Description
Neck disability
Timepoint
Neck disability will be measured three times. Before the start of 1st session, after 2 weeks (6 sessions) and third time after 4 weeks (12 sessions).
Method of measurement
Neck disability index

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group A will receive 3 sessions of Hold relax per week for 4 weeks. This manual Technique will applied on 3 muscle sternocleidomastoid, Levator scapulae and upper trapezius muscle. In one session 3 repetitions will be performed.
Category
Treatment - Other

2

Description
Intervention group B will receive 3 sessions of Post isometric relaxation technique per week for 4 weeks. This manual Technique will applied on 3 muscle sternocleidomastoid, Levator scapulae and upper trapezius muscle. In one session 3 repetitions will be performed.
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Madina Teaching hospital
Full name of responsible person
Dr. Kaiynat Shafique
Street address
Sargodha road Faisalabad
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Sponsors / Funding sources

1

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Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
All financial expenses are bear by myself
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. Kaiynat Shafique
Position
Physiotherapist
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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
Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form
No - There is not a plan to make this available

Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available

Analytic Code
Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available