

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### COMPARISON OF ACTIVE RELEASE TECHNIQUE AND POST ISOMETRIC RELAXATION TECHNIQUE IN NON-SPECIFIC NECK PAIN

#### Protocol summary

##### Study aim

The aim of this study is to compare the effects of the active release technique and post isometric relaxation technique on non-specific neck pain

##### Design

parallel-group, double-blind, RCT

##### Settings and conduct

participants, health care providers, data collectors, outcome assessors, and with lesser importance data safety and monitoring board and manuscript writers. outcome assessor is not taken blind, Data safety will be ensured.

##### Participants/Inclusion and exclusion criteria

participants will be included: • Age range of 18 to 40 years • Both males and females • Trigger points • Presence of taut bands in skeletal muscles • Limitation of neck movement due to pain • A minimum of two hours a day of computer usage or persistent (bending posture) work routine • Minimum of four weeks of neck pain due to TrPs in the muscles. EXCLUSION CRITERIA • History of a whiplash injury, • Cervical spine surgery, • Cervical radiculopathy, as diagnosed by their primary care physicians • Cervical spine fracture • Malignancy • Infection • Inflammatory disorder

##### Intervention groups

Group A: Active release technique Group B: Post isometric relaxation technique

##### Main outcome variables

Pain and function

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20210305050581N1**

Registration date: **2021-04-15, 1400/01/26**

Registration timing: **prospective**

Last update: **2021-04-15, 1400/01/26**

Update count: **0**

##### Registration date

2021-04-15, 1400/01/26

##### Registrant information

###### Name

Taqdees Manzoor

###### Name of organization / entity

Riphah International University

###### Country

Pakistan

###### Phone

+92 542 538127

###### Email address

taqdeeskanwal13@gmail.com

##### Recruitment status

**Not yet recruiting**

##### Funding source

##### Expected recruitment start date

2642-03-25, 2021/01/05

##### Expected recruitment end date

2642-08-29, 2021/06/07

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

COMPARISON OF ACTIVE RELEASE TECHNIQUE AND POST ISOMETRIC RELAXATION TECHNIQUE IN NON-SPECIFIC NECK PAIN

##### Public title

COMPARISON OF ACTIVE RELEASE TECHNIQUE AND POST ISOMETRIC RELAXATION TECHNIQUE IN NON-SPECIFIC NECK PAIN

##### Purpose

Treatment

**Inclusion/Exclusion criteria**

**Inclusion criteria:**

- Age range of 18 to 40 years
- Both males and females
- Trigger points
- Presence of taut bands in skeletal muscles
- Limitation of neck movement due to pain
- A minimum of two hours a day of computer usage or persistent (bending posture) work routine
- Minimum of four weeks of neck pain due to TrPs in the muscles.

**Exclusion criteria:**

- History of a whiplash injury, Cervical spine surgery
- Cervical radiculopathy, as diagnosed by their primary care physicians
- Cervical spine fracture
- Malignancy
- Infection
- Inflammatory disorder

**Age**  
From **18 years** old to **40 years** old

**Gender**  
Both

**Phase**  
N/A

**Groups that have been masked**

- Participant
- Care provider
- Data analyser

**Sample size**  
Target sample size: **54**

**Randomization (investigator's opinion)**  
Randomized

**Randomization description**  
subjects will be randomly distributed (consecutive sampling) to two groups with the use of lottery method of randomization, group 1 patients will get ART, and group 2 will get post isometric relaxation technique, double-blind,

**Blinding (investigator's opinion)**  
Double blinded

**Blinding description**  
outcome assessor is not blind, the participant was blind, the therapist was blind, statistician was blind

**Placebo**  
Not used

**Assignment**  
Parallel

**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

**Name of ethics committee**

Riphah ethical committee

**Street address**

H # 86/29 St # 30 Sunny View Park

**City**

Lahore

**Postal code**

54810

**Approval date**

2020-03-27, 1399/01/08

**Ethics committee reference number**

REC/RCRS/20/1066

## 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**

Pain

**Timepoint**

Before treatment and after 2 weeks after treatment

**Method of measurement**

Numeric pain rating scale(NPRS),

### 2

**Description**

Disability

**Timepoint**

Before treatment and after 2 weeks after treatment

**Method of measurement**

Neck disability index (NDI)

## Secondary outcomes

empty

## Intervention groups

### 1

**Description**

Intervention group1: active release technique, Both groups of patients received cervical isometrics, massage, and a hot pack for 10 minutes. Following that, both groups receive their respective treatments, i.e. Group A is given active release technique, in which the therapist examines and traps the MTrp of the affected muscle by applying pressure with his or her thumb or finger. After that, the patient was asked to actively shift from a reduced to an extended position. The therapist applied constant pressure and tension to the MTrps during this time.. While applying pressure to the ART patient, he or she was sitting or lying on the treatment table

**Category**

Treatment - Other

## 2

### Description

Intervention group2: post isometric relaxation technique, Group B was given a post-isometric relaxation technique. To perform this technique,The hypertonic muscle is taken to the point where resistance to movement becomes apparent, or to a duration just short of discomfort. A submaximal (10-20%) contraction of the hypertonic muscle is performed away from the limit for 5 to 10 seconds, while the therapist applies resistance in the opposite direction. During this effort, the patient should inhale. Following the isometric contraction, the patient is instructed to relax while exhaling. Following that, a gentle stretch is used to take up the slack until the new barrier is reached. The procedure is repeated beginning with this new barrier. Patients were evaluated prior to the first session and two weeks later using outcome measuring tools such as the NDI and the numeric pain rating scale to assess function and pain. Patients received two treatment sessions per week and were reassessed after the second week of treatment. Subjects did 7-10 repetitions of exercises three times a day, depending on pain intensity. The preliminary evaluation and treatment lasted one hour, and the subsequent treatments lasted 30-45 minutes. The subjects were given a maximum of four treatments over the course of two weeks.

### Category

Treatment - Other

## Recruitment centers

### 1

#### Recruitment center

**Name of recruitment center**

green health clinic lahore

**Full name of responsible person**

Dr. Taqdees Manzoor

**Street address**

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## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**

Riphah international university

**Full name of responsible person**

Dr. Taqdees Manzoor

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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**

Riphah international university

**Proportion provided by this source**

20

**Public or private sector**

Private

**Domestic or foreign origin**

Foreign

**Category of foreign source of funding**

Sponsor: country of origin

**Country of origin**

PK

**Type of organization providing the funding**

Academic

## Person responsible for general inquiries

#### Contact

**Name of organization / entity**

Riphah international university

**Full name of responsible person**

Dr. Taqdees Manzoor

**Position**

student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

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## Person responsible for scientific inquiries

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**Person responsible for updating data****Contact****Name of organization / entity**

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**Full name of responsible person**

Dr. Taqdees Manzoor

**Position**

student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Physiotherapy

**Street address**

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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**

Undecided - It is not yet known if there will be 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