

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Longitudinal effects of Myofascial release with and without 8-Week Corrective exercise in correcting Upper Cross Syndrome.

#### Protocol summary

##### Study aim

To find the longitudinal effects of myofascial release with and without 8-Week Corrective exercise in correcting Upper Cross Syndrome.

##### Design

This study will be Randomized Controlled trial.

##### Settings and conduct

Shapes, Maxrehab, Lahore

##### Participants/Inclusion and exclusion criteria

**INCLUSION** Subjects between 18-28 years old male/female Rounded shoulder angle  $>52^\circ$  Forward head posture/ Cranio-vertebral angle  $\leq 50^\circ$  **EXCLUSION** Patients will be excluded if they will exhibit; History of a shoulder surgery within the previous year. Joint diseases in the spine and shoulder. Not participating in two consecutive training sessions. Any red flags (tumor, fracture, metabolic diseases, rheumatoid arthritis, osteoporosis, resting blood pressure greater than 140/90 mm hg, prolonged history of steroids use, etc.) Having lower crossed syndrome. Having various upper extremity and /or problems (fracture history, tumor) cognitive problems.

##### Intervention groups

**GROUP A (Myofascial Release)** For MFR therapy, the "cross-hand release" technique will be used. Collagen bands need about 90-120 sec to be released, at least 90 sec will be required for cross-hand release. Accordingly, MFR therapy will be applied twice each time for 90 seconds on the determined areas. With seven minutes of hot pack at upper back and anterior chest and patient education about faulty posture as baseline treatment. **GROUP - B (myofascial release with 8-Week corrective exercise)** Group B will perform corrective exercises plus MFR therapy for 8 weeks (3 sessions per week and each session for 60 min) under the direct supervision of the therapist. For CE+MFR group, training protocol included four parts of warming up, MFR therapy, main exercises, and cooling down and baseline treatment.

##### Main outcome variables

Functional performance: Neck disability index (NDI) Pain: Numeric pain rating scale (NPRS) Angle through Photogrammetry method

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20200512047409N1**

Registration date: **2020-06-12, 1399/03/23**

Registration timing: **registered\_while\_recruiting**

Last update: **2020-06-12, 1399/03/23**

Update count: **0**

##### Registration date

2020-06-12, 1399/03/23

##### Registrant information

##### Name

Komal Ahmed

##### Name of organization / entity

Riphah College of Rehabilitation & Allied health Sciences

##### Country

Pakistan

##### Phone

+92 42 35713306

##### Email address

ahmed.komal@gmail.com

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2020-06-01, 1399/03/12

##### Expected recruitment end date

2020-07-01, 1399/04/11

##### Actual recruitment start date

empty  
**Actual recruitment end date**  
empty  
**Trial completion date**  
empty

**Scientific title**  
Longitudinal effects of Myofascial release with and without 8-Week Corrective exercise in correcting Upper Cross Syndrome.

**Public title**  
Longitudinal effects of Myofascial release with and without 8-Week Corrective exercise in correcting Upper Cross Syndrome.

**Purpose**  
Treatment

**Inclusion/Exclusion criteria**

**Inclusion criteria:**  
Subjects between 18-28 years old male/female Rounded shoulder angle >52° Forward head posture/ Cranio-vertebral angle ≤ 50°

**Exclusion criteria:**  
History of a shoulder surgery within the previous year. Joint diseases in the spine and shoulder. Not participating in two consecutive training sessions. Any red flags (tumor, fracture, metabolic diseases, rheumatoid arthritis, osteoporosis, resting blood pressure greater than 140/90 mm hg, prolonged history of steroids use, etc.) Having lower crossed syndrome. Having various upper extremity and /or problems (fracture history, tumor) cognitive problems

**Age**  
From **18 years** old to **28 years** old

**Gender**  
Both

**Phase**  
2

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **24**

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

**Randomization description**  
Randomization by lottery method. Allocation concealment through sealed envelope.

**Blinding (investigator's opinion)**  
Not blinded

**Blinding description**  
**Placebo**

Not used  
**Assignment**  
Parallel

**Other design features**  
Non-probability convenient sampling technique will be used to recruit the individuals for the study and then randomization will be done by lottery method to divide the individuals into 2 treatment groups. sealed envelope will be used for allocation concealment.

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of Riphah College of Rehabilitation & Allied health Sciences

##### Street address

Madar-e-Millat Road, Quaid-e-Azam Industrial Estate  
Quaid e Azam Industrial Estate, Lahore, Punjab

##### City

Lahore

##### Postal code

54770

#### Approval date

2020-01-01, 1398/10/11

#### Ethics committee reference number

REC/R CRS/20/1007

## Health conditions studied

### 1

#### Description of health condition studied

Upper-crossed syndrome (UCS) is also referred to as proximal or shoulder girdle crossed syndrome. In UCS, the pectoralis major and minor, upper trapezius, levator scapulae, and sternocleidomastoid all tighten and shorten. Simultaneously, the lower and middle trapezius, serratus anterior, and rhomboids all weaken. This results in pain and decrease ROM, altered posture of shoulders and head.

#### ICD-10 code

M54.2

#### ICD-10 code description

Cervicalgia

## Primary outcomes

### 1

#### Description

Cranio-vertebral angle rounded shoulder posture angle

#### Timepoint

Primary outcome measured at 8th week and followup after 4 weeks,

#### Method of measurement

ImageJ software (National Institutes of Health, Bethesda, MA, USA), NPRS, NDI

## Secondary outcomes

empty

## Intervention groups

## 1

### Description

Intervention group myofascial release

### Category

Rehabilitation

## 2

### Description

Intervention group: myofascial release with 8-Week corrective exercise

### Category

Rehabilitation

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Shapes Active Lifestyle

##### Full name of responsible person

Dr Meesaq Rizvi

##### Street address

50 E-1 Christian Colony Road, Block E1 Gulberg III,  
Lahore, Punjab

##### City

Lahore

##### Postal code

54660

##### Phone

+92 42 35713306

##### Email

sportsmedicinepakistan@gmail.com

### 2

#### Recruitment center

##### Name of recruitment center

Max Rehab

##### Full name of responsible person

Dr Hira Iqbal

##### Street address

393, Block D3 Block D 3 D-3 WAPDA Town, Lahore,  
Punjab

##### City

Lahore

##### Postal code

54770

##### Phone

+92 42 35713306

##### Email

sportsmedicinepakistan@gmail.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Riphah College of Rehabilitation & Allied health  
Sciences

#### Full name of responsible person

Komal Ahmed

#### Street address

4-A-3 Gulberg 3 Lahore

#### City

Lahore

#### Postal code

54660

#### Phone

+92 42 35713306

#### Email

ahmed.komal@gmail.com

#### Grant name

#### Grant code / Reference number

#### Is the source of funding the same sponsor organization/entity?

Yes

#### Title of funding source

Riphah College of Rehabilitation & Allied health Sciences

#### 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

Persons

## Person responsible for general inquiries

#### Contact

##### Name of organization / entity

Riphah College of Rehabilitation & Allied health  
Sciences

##### Full name of responsible person

Komal Ahmed

##### Position

Student

##### Latest degree

Bachelor

##### Other areas of specialty/work

Physiotherapy

##### Street address

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##### Province

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## Person responsible for scientific inquiries

#### Contact

**Name of organization / entity**  
Riphah College of Rehabilitation & Allied health Sciences

**Full name of responsible person**  
Komal Ahmed

**Position**  
Student

**Latest degree**  
Bachelor

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## Person responsible for updating data

### Contact

**Name of organization / entity**  
Riphah College of Rehabilitation & Allied health Sciences

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Komal Ahmed

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## Sharing plan

### Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

### Justification/reason for indecision/not sharing IPD

there is no further decision and information decided yet

### 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