

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

31 May 2026

### Comparison of Muscle Energy Technique and Fascial Distortion Model in patients with shoulder joint limited mobility

#### Protocol summary

##### Study aim

To compare Muscle Energy Technique and Fascial Distortion Model in patients with shoulder joint limited mobility.

##### Design

Pragmatic, Parallel group, Double blind, Randomized controlled trial (RCT),

##### Settings and conduct

Saba Physical Therapy, Rehabilitation and sports injury clinic Lahore. Participants and outcome assessor will be blinded by the researcher.

##### Participants/Inclusion and exclusion criteria

**INCLUSION CRITERIA** Pain and functional limitations of shoulder joint in 20-60 years old patients. Limited mobility/Hypo mobility of shoulder joint in Flexion, extension, abduction, Horizontal adduction, external and internal rotation. Unremarkable medical history and no clinical or radiological findings that could explain the decrease in shoulder motion Willing to involve in study  
**EXCLUSION CRITERIA** Upper or lower motor neuron disease Any pathological and traumatic conditions, Fractures and Dislocation Already received few sessions of Manual Therapy treatment Taking corticosteroids, analgesic or anti-inflammatory drugs.

##### Intervention groups

Group A: Subjects in Group A will received METs (Post isometric relaxation) towards the limited ROM of arm, find the first resistive barrier hold the position and apply the technique and find new barrier. Repeat this for 6-10 times and give three treatment sessions per week for two weeks. Group B: Subjects of group B will receive the techniques of Fascial distortion model according to the body language of the patient (Trigger bands, Continuum Distortion, cylinder Distortion, 13 Herniated Trigger Point, Folding Distortions and Tectonic Fixation) in comfortable position for patient. Give three treatment sessions per week for two weeks.

##### Main outcome variables

Range of Motion, Pain, Function

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20200512047408N1**

Registration date: **2020-05-31, 1399/03/11**

Registration timing: **prospective**

Last update: **2020-05-31, 1399/03/11**

Update count: **0**

##### Registration date

2020-05-31, 1399/03/11

##### Registrant information

##### Name

Usman Ghani

##### Name of organization / entity

Riphah International University, Islamabad, Pakistan

##### Country

Pakistan

##### Phone

+92 40 4301029

##### Email address

usmanghani270@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

Comparison of Muscle Energy Technique and Fascial Distortion Model in patients with shoulder joint limited mobility

## Public title

Comparison of Muscle Energy Technique and Fascial Distortion Model in patients with shoulder joint limited mobility

## Purpose

Treatment

## Inclusion/Exclusion criteria

### Inclusion criteria:

Pain and functional limitations of shoulder joint in 20-60 years old patients. Limited mobility/Hypo mobility of shoulder joint in Flexion, extension, abduction, Horizontal adduction, external and internal rotation. Unremarkable medical history and no clinical or radiological findings that could explain the decrease in shoulder motion. Willing to involve in study

### Exclusion criteria:

Upper or lower motor neuron disease. Any pathological and traumatic conditions, Fractures and Dislocation. Already received few sessions of Manual Therapy treatment. Taking corticosteroids, analgesic or anti-inflammatory drugs.

## Age

From **20 years** old to **60 years** old

## Gender

Both

## Phase

2

## Groups that have been masked

- Participant
- Outcome assessor
- Data analyser

## Sample size

Target sample size: **44**

## Randomization (investigator's opinion)

Randomized

## Randomization description

Total forty 44 patients will be recruited in the study. The subjects will be randomly assigned to two groups A & B with each containing 22 subjects according to their selection by lottery method. There will be 44 slips marking with A on 22 slips & B on other 22 slips in the box. Each participant will be requested to randomly pick up a slip from the box. Slips which are picked by the patients will not put back in the box.

## Blinding (investigator's opinion)

Double blinded

## Blinding description

Participants allocated in each group will be unaware about each other that which participant receives which treatment protocol. Outcome assessor and data analyser will be blind about participants and treatment protocols.

## Placebo

Not used

## Assignment

Parallel

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics committee of Riphah International University, Islamabad

##### Street address

63B, B block BOR society Johar Town

##### City

Lahore

##### Postal code

54782

#### Approval date

2020-01-01, 1398/10/11

#### Ethics committee reference number

REC/RCRS/20/1006

## Health conditions studied

### 1

#### Description of health condition studied

Shoulder joint limited mobility

#### ICD-10 code

M25.81

#### ICD-10 code description

Other specified joint disorders, shoulder

## Primary outcomes

### 1

#### Description

Range of Motion

#### Timepoint

Before intervention and 1, 2, 6 weeks after intervention

#### Method of measurement

Goniometer

### 2

#### Description

Pain

#### Timepoint

Before intervention and 1, 2, 6 weeks after intervention

#### Method of measurement

Visual Analogue Scale

### 3

#### Description

Function

#### Timepoint

Before intervention and 1, 2, 6 weeks after intervention

#### Method of measurement

Constant Murley Score

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group: Muscle Energy Technique(Post isometric relaxation)

#### Category

Rehabilitation

### 2

#### Description

Intervention group: Fascial distortion model

#### Category

Rehabilitation

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Saba's Physical Therapy, Rehabilitation and sports injury clinic.

##### Full name of responsible person

Dr Saba Rafiq

##### Street address

25/H Firdous Market, Gulberg III, Lahore, Pakistan

##### City

Lahore

##### Postal code

54660

##### Phone

+92 42 35883608

##### Email

saba\_gull837@yahoo.com

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Riphah international university, Islamabad, Pakistan

##### Full name of responsible person

Usman Ghani

##### Street address

63b, B block, BOR society, Johar town, Lahore

##### City

Lahore

##### Postal code

54782

##### Phone

+92 40 4301029

##### Email

usmanghani270@gmail.com

##### Grant name

#### Grant code / Reference number

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

No

#### Title of funding source

Self funding

#### Proportion provided by this source

100

#### 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

Other

## Person responsible for general inquiries

#### Contact

##### Name of organization / entity

Riphah international university, islamabad, Pakistan

##### Full name of responsible person

Usman Ghani

##### Position

Student

##### Latest degree

Master

##### Other areas of specialty/work

Physiotherapy

##### Street address

63b, B block, BOR Society, Johar town Lahore, Pakistan

##### City

Lahore

##### Province

Punjab

##### Postal code

54782

##### Phone

+92 40 4301029

##### Email

usmanghani270@gmail.com

## Person responsible for scientific inquiries

#### Contact

##### Name of organization / entity

Riphah international university, Islamabad, Pakistan

##### Full name of responsible person

Usman Ghani

##### Position

Student

##### Latest degree

Master

##### Other areas of specialty/work

Physiotherapy

##### Street address

63b, BOR society, Johar Town, Lahore, Pakistan

**City**

Lahore

**Province**

Punjab

**Postal code**

54782

**Phone**

+92 40 4301029

**Email**

usmanghani270@gmail.com

Lahore

**Province**

Punjab

**Postal code**

54782

**Phone**

+92 40 4301029

**Email**

usmanghani270@gmail.com

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

Riphah international university, Islamabad, Pakistan

**Full name of responsible person**

Usman Ghani

**Position**

Student

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

**Street address**

63b, B block, BOR society, Johar Town, Lahore

**City****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 information

**Study Protocol**

No - There is not a plan to make this available

**Statistical Analysis Plan**

No - There is not a plan to make this available

**Informed Consent Form**

No - There is not a plan to make this available

**Clinical Study Report**

No - There is not a plan to make this available

**Analytic Code**

No - There is not a plan to make this available

**Data Dictionary**

No - There is not a plan to make this available