

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Effectiveness of Upper Thoracic Sustained Stretch Mobilization and Posterior Shoulder Stretch Glide for Subacromial Impingement Syndrome

#### Protocol summary

##### Study aim

The aim of this study was to evaluate the comparative effectiveness of upper thoracic sustained stretch mobilization and posterior shoulder stretch glide for management of SIS symptoms severity such as shoulder pain, disability, range of motion and thoracic kyphosis angle.

##### Design

A double blinded randomized clinical trial

##### Settings and conduct

a study conducted at; Bakhtawar Amin Trust and Hospital Multan Faiz hospital Multan Outcome assessor and data analyzer will be unaware of intervention received by particular subject/ group

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: (1) Potentially willing patients diagnosed with subacromial impingement syndrome (SIS) (2) Both male and female, of age 25-45 years (3) Patients with thoracic kyphosis >40o (4) At least three positive physical tests from followings Neer impingement test, Hawkins kneddy test, Drop arm test, relocation test and apprehension test will be included. (5) Patients often had painful arc between 70° and 120° pain on forced movement above the head. Exclusion criteria: Patients with following conditions will be excluded (1) History of rotator cuff tear, shoulder and cervicothoracic surgery. (2) Patients of scapulothoracic dysfunction, sensory/ motor deficit and adhesive capsulitis. (3) Osteoporosis, fracture and dislocation.(4) Presence of thoracic scoliosis on Adam's forward bend test.

##### Intervention groups

Group A- Upper thoracic (T1-T4) centrally posterior-anterior sustained stretch mobilization Group B- Posterior shoulder sustained stretch glide

##### Main outcome variables

shoulder pain, physical disability, range of motion and thoracic kyphosis angle are outcome measures.

#### General information

##### Reason for update

##### Acronym

UTSSM

##### IRCT registration information

IRCT registration number: **IRCT20220712055441N1**

Registration date: **2022-07-15, 1401/04/24**

Registration timing: **retrospective**

Last update: **2022-07-15, 1401/04/24**

Update count: **0**

##### Registration date

2022-07-15, 1401/04/24

##### Registrant information

##### Name

Shahid Ishaq

##### Name of organization / entity

Muhammad Institute of Medical and Allied Sciences, Multan

##### Country

Pakistan

##### Phone

+92 305 2032722

##### Email address

shahidishaq@mimas.edu.pk

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2022-01-08, 1400/10/18

##### Expected recruitment end date

2022-01-28, 1400/11/08

##### Actual recruitment start date

2022-01-16, 1400/10/26

##### Actual recruitment end date

2022-02-05, 1400/11/16

##### Trial completion date

2022-08-06, 1401/05/15

### Scientific title

Effectiveness of Upper Thoracic Sustained Stretch Mobilization and Posterior Shoulder Stretch Glide for Subacromial Impingement Syndrome

### Public title

Upper Thoracic and Posterior Shoulder sustained Stretch Glide

### Purpose

Treatment

### Inclusion/Exclusion criteria

#### Inclusion criteria:

Both male and female, of age 25-45 years Patients with thoracic kyphosis >40° Patients with at least three positive physical tests from followings Neer impingement test, Hawkins kneddy test, Drop arm test, relocation test and apprehension test will be included. Patients often have painful arc between 70° and 120° pain on forced movement above the head

#### Exclusion criteria:

History of rotator cuff tear, shoulder and cervicothoracic surgery Patients of scapulothoracic dysfunction, sensory/motor deficit and adhesive capsulitis Osteoporosis Surgery Fractures Dislocations Presence of thoracic scoliosis on Adam's forward bend test

### Age

From **25 years** old to **45 years** old

### Gender

Both

### Phase

2-3

### Groups that have been masked

- Outcome assessor
- Data analyser

### Sample size

Target sample size: **46**

More than 1 sample in each individual

Number of samples in each individual: **23**

Twenty Three patients per group

Actual sample size reached: **40**

More than 1 sample in each individual

Actual sample size in each individual: **20**

Twenty patients per group

### Randomization (investigator's opinion)

Randomized

### Randomization description

The patients diagnosed with subacromial impingement syndrome (SIS) (n=46) referred by orthopedic surgeon will be screened for eligibility. The patients (n=40) meet the eligibility criteria will be randomly allocated in two equal groups (n=20) in each group through online computer generated random number table. Every participant will be assigned a random number after written informed consent.

### Blinding (investigator's opinion)

Double blinded

### Blinding description

In this double-blinded study, outcomes will be measured at baseline and after completing 4 weeks successful

followup by senior physical therapist with out knowing treatment regimen given to that particular patient. Data will be analyzed by statistician without knowing the intervention given to any particular group.

### Placebo

Not used

### Assignment

Parallel

### Other design features

thoracic kyphosis will be measured by using an inclinometer shoulder ROM will be measured by a universal goniometer, pain intensity will be measure by NPRS, shoulder disability will be measured by shoulder pain and disability index

## Secondary Ids

empty

## Ethics committees

1

### Ethics committee

#### Name of ethics committee

Research ethics committee of Muhammad Intitute of Medical and Allied Sciences

#### Street address

HBL street Near Sabza Zar Metro Station, Bosan Road Multan

#### City

Multan

#### Postal code

60700

### Approval date

2021-12-18, 1400/09/27

### Ethics committee reference number

MIMAS/75/IBR/Shahid

## Health conditions studied

1

### Description of health condition studied

subacromial impingement syndrome

### ICD-10 code

M75.4

### ICD-10 code description

Impingement syndrome of shoulder

## Primary outcomes

1

### Description

Shouder Physical Disability

### Timepoint

Evaluated before and after treatment

### Method of measurement

Shoulder pain and disability index (SPADI)

## 2

### **Description**

Shoulder pain intensity,

### **Timepoint**

evaluated before and after treatment

### **Method of measurement**

Numeric pain rating scale (NPRS),

## 3

### **Description**

shoulder range of motion

### **Timepoint**

evaluated before and after treatment

### **Method of measurement**

Universal goniometer

## **Secondary outcomes**

## 1

### **Description**

Thoracic Kyphosis Angle

### **Timepoint**

evaluated before and after treatment protocol

### **Method of measurement**

sagittal plane radiograph in weight bearing position and arm folded 45o

## **Intervention groups**

## 1

### **Description**

Group A will receive upper thoracic (T1-T4) centrally postero-anterior sustained stretch mobilization. The patient was in prone and a small pillow was placed under the chest. Therapist applied central posterior-anterior (CPA) mobilization force with straight arm by using body as mobilizing force. The mobilization was given beyond transition zone for grade 3 stretching of joint capsule and soft tissue. Each stretch was sustained for 30-40 second and repeated in cyclic manner for 3 time per session. This mobilization treatment was applied parallel to routine physical therapy. All patients will be treated parallelly 3 time a week for 4 weeks.

### **Category**

Treatment - Other

## 2

### **Description**

Group B will posterior shoulder sustained stretch glide. The patient will be in supine laying near the edge of treatment table. The therapist will distract the joint in open pack position and apply grade 3 stretch glide to posterior shoulder capsule. Each stretch will be sustained for 30-40 second. The treatment will be cyclically repeated for 3 time per session. All patients will be treated parallelly 3 time a week for 4 weeks.

### **Category**

Treatment - Other

## **Recruitment centers**

## 1

### **Recruitment center**

#### **Name of recruitment center**

department of physical therapy of Bakhtawar trust and teaching hospital

#### **Full name of responsible person**

Shahid Ishaq

#### **Street address**

Mattital Road, Northern Bypass, Multan,

#### **City**

Multan

#### **Postal code**

60000

#### **Phone**

+92 305 2032722

#### **Email**

shahidishaq53@gmail.com

#### **Web page address**

<https://www.trust.bamdc.edu.pk/>

## **Sponsors / Funding sources**

## 1

### **Sponsor**

#### **Name of organization / entity**

Muhammad Institute of Medical and Allied Sciences, Multan

#### **Full name of responsible person**

Shahid Ishaq

#### **Street address**

HLB. Street, Near Sabzazar Metro Station, Bosan Road, Multan

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#### **Web page address**

<http://mimas.edu.pk/>

### **Grant name**

### **Grant code / Reference number**

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

No

### **Title of funding source**

nil

### **Proportion provided by this source**

10

### **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**

Muhammad Institute of Medical and Allied Science

**Full name of responsible person**

Shahid Ishaq

**Position**

Senior Lecturer

**Latest degree**

Master

**Other areas of specialty/work**

Physiotherapy

**Street address**

HBL street, near sabza zar metro station, bosan road,  
Multan

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## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**

Muhammad Institute of Medical and Allied Sciences

**Full name of responsible person**

Shahid Ishaq

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## Person responsible for updating data

### Contact

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Muhammad Institute of Medical and Allied Sciences

**Full name of responsible person**

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## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**

Yes - There is a plan to make this available

**Study Protocol**

Yes - There is a plan to make this available

**Statistical Analysis Plan**

Yes - There is a plan to make this available

**Informed Consent Form**

Yes - There is a plan to make this available

**Clinical Study Report**

Yes - There is a plan to make this available

**Analytic Code**

Yes - There is a plan to make this available

**Data Dictionary**

Yes - There is a plan to make this available

**Title and more details about the data/document**

Title: Effectiveness of Upper thoracic sustained stretch mobilization and Posterior shoulder stretch glide for Subacromial Impingement Syndrome Purpose: to evaluate the comparative effectiveness of upper thoracic sustained stretch mobilization and posterior shoulder stretch glide for management of SIS symptoms severity such as shoulder pain, disability, range of motion and thoracic kyphosis angle.

**When the data will become available and for how long**

this is expected that this study or data will be available at the end of the year. no exact date can be expected

**To whom data/document is available**

Shahid Ishaq

**Under which criteria data/document could be used**

For research purposes

**From where data/document is obtainable**

<https://www.researchgate.net/>

<https://scholar.google.com/>

**What processes are involved for a request to access data/document**

open access

**Comments**

This randomized clinical trial will explore the new dimensions of SIS treatment.