# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

10 Jun 2026

# EFFECTS OF ACTIVE RELEASE TECHNIQUE ON SCAPULAR DYSKINESIA, PAIN, RANGE OF MOTION AND FUNCTIONAL LIMITATIONS IN PATIENTS WITH REPETITIVE SHOULDER INJURIES

## Protocol summary

**Study aim**

The objectives of this study are to investigate the effects of the Active Release Technique on correcting scapular dyskinesia, reducing pain, improving shoulder and scapular range of motion, and decreasing functional limitations in patients with repetitive shoulder injuries.

**Design**

Parallel Group Randomized Controlled Trail

**Settings and conduct**

Settings: -Allied Hospital Faisalabad -Madina Teaching Hospital, Faisalabad -Mujahid Hospital, Faisalabad Conduct: Single-blinded study (only patient will be blinded of treatment groups)

**Participants/Inclusion and exclusion criteria**

Inclusion Criteria • Male and females aged 20 to 40 years • Patients who had scapular dyskinesia positive by Modified SAT and LSST • Patient who had pain score of 4 or more on NPRS scale • Patients who had pain, impaired ROM, and functional limitation secondary to repetitive shoulder injuries • Patients who were willing to participate and filled in the informed consent provided by the study protocol Exclusion Criteria • Individuals with significant comorbidities affecting treatment, such as severe cardiovascular disease or neuromuscular disorders, shoulder dislocation, active infection, arthritis, fracture, dislocation/subluxation were excluded • Patient who had neurological injuries such as Long Thoracic Nerve Injury • Patients who had acute shoulder surgeries and winged scapula were excluded due to variations in recovery

**Intervention groups**

Group A (Interventional Group) will receive active release technique on tight muscles of scapula and baseline treatment Group B (Control Group) will receive only baseline treatment (MWM Scapular Mobilization, Scapular Correction Exercises and Heating modality)

**Main outcome variables**

Scapular Dyskinesia Pain Range of Motion Functional Limitation

## General information

**Reason for update**

**Acronym**

**IRCT registration information**

IRCT registration number: **IRCT20240416061502N1**
Registration date: **2024-05-05, 1403/02/16**
Registration timing: **retrospective**

Last update: **2024-05-05, 1403/02/16**
Update count: **0**

**Registration date**

2024-05-05, 1403/02/16

**Registrant information**

**Name**
Lyba Musaddiq
**Name of organization / entity**
The University of Faisalabad
**Country**
Pakistan
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**Email address**
2022-ms-pt-028@tuf.edu.pk

**Recruitment status**

**Recruitment complete**

**Funding source**

**Expected recruitment start date**

2024-02-06, 1402/11/17

**Expected recruitment end date**

2024-04-26, 1403/02/07

**Actual recruitment start date**

2024-02-12, 1402/11/23

**Actual recruitment end date**
2024-04-30, 1403/02/11
**Trial completion date**
2024-04-30, 1403/02/11

**Scientific title**
EFFECTS OF ACTIVE RELEASE TECHNIQUE ON SCAPULAR DYSKINESIA, PAIN, RANGE OF MOTION AND FUNCTIONAL LIMITATIONS IN PATIENTS WITH REPETITIVE SHOULDER INJURIES

**Public title**
Active Release Technique on Scapular Dyskinesia in Patients with Repetitive Shoulder Injuries
**Purpose**
Treatment
**Inclusion/Exclusion criteria**
**Inclusion criteria:**
Male and female aged 20 to 40 years Patients who had scapular dyskinesia positive by Modified SAT and LSST Patients who had pain score of 4 or more on the NPRS scale Patients who had pain, impaired ROM, and functional limitation secondary to repetitive shoulder injuries Patients who were willing to participate and filled the informed consent provided by the study protocol
**Exclusion criteria:**
Individuals with significant comorbidities affecting treatment, such as severe cardiovascular disease or neuromuscular disorders, shoulder dislocation, active infection, arthritis, fracture, and dislocation/subluxation were excluded Patients who had neurological injury such as Long Thoracic Nerve Injury Patients who had acute shoulder surgeries and winged scapula were excluded due to variations in recovery.
**Age**
From **20 years** old to **40 years** old
**Gender**
Both

**Phase**
N/A
**Groups that have been masked**

- Participant

**Sample size**
Target sample size: **24**
Actual sample size reached: **24**
**Randomization (investigator's opinion)**
Randomized
**Randomization description**
Convenient Sampling Randomization/ an Individual unit was assigned to one of the groups/ The tools used were the Chit and Draw method, thoroughly mixed and randomly drawn, the resulting sequence was random. Allocation concealment of participants.
**Blinding (investigator's opinion)**
Single blinded
**Blinding description**
Participants were blinded in my study until the cessation of treatment sessions
**Placebo**
Not used
**Assignment**
Parallel
**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

**Ethics committee**
**Name of ethics committee**
Ethical Committee of The University of Faisalabad
**Street address**
West Canal Road, Faisalabad-37610
**City**
Faisalabad
**Postal code**
38000
**Approval date**
2024-02-17, 1402/11/28
**Ethics committee reference number**
TUF/DR/SA/MSPP/2024/394

## Health conditions studied

### 1

**Description of health condition studied**
Scapular Dyskinesia
**ICD-10 code**
M75.82
**ICD-10 code description**
Other shoulder lesions, left shoulder

### 2

**Description of health condition studied**
Repetitive Shoulder Injuries
**ICD-10 code**
M75.9
**ICD-10 code description**
Shoulder lesion, unspecified

## Primary outcomes

### 1

**Description**
Scapular Dyskinesia
**Timepoint**
before intervention and at 2 weeks after intervention (6 sessions total)
**Method of measurement**
Ruler

### 2

**Description**
Pain
**Timepoint**

before intervention and at 2 weeks after intervention (6 sessions total)

**Method of measurement**

NPRS Scale

**3**

**Description**

Shoulder and Scapular Range of Motion

**Timepoint**

before intervention and at 2 weeks after intervention (6 sessions total)

**Method of measurement**

Goniometer and Digital Inclinometer

## Secondary outcomes

**1**

**Description**

Functional Limitation

**Timepoint**

before intervention and at 2 weeks after intervention (6 sessions total)

**Method of measurement**

SPADI Questionnaire

## Intervention groups

**1**

**Description**

Intervention group: Active Release Technique and Baseline Treatment (MWM Mobilization, Scapular Correction Exercises, Heating Modality)

**Category**

Rehabilitation

**2**

**Description**

Control group: Baseline Treatment (MWM Mobilization, Scapular Correction Exercises, Heating Modality)

**Category**

Rehabilitation

## Recruitment centers

**1**

**Recruitment center**

**Name of recruitment center**

Madinah Teaching Hospital

**Full name of responsible person**

Dr. Kishwar Batool

**Street address**

25-W-8 Madina Town Faisalabad

**City**

Faisalabad

**Postal code**

38000

**Phone**

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**2**

**Recruitment center**

**Name of recruitment center**

Allied Hospital

**Full name of responsible person**

Dr. Mariam Mehmood

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**3**

**Recruitment center**

**Name of recruitment center**

Mujahid Hospital, Faisalabad

**Full name of responsible person**

Dr. Aemen Abid

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## Sponsors / Funding sources

**1**

**Sponsor**

**Name of organization / entity**

The University of Faisalabad

**Full name of responsible person**

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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**
Madinah Teaching Hospital
**Proportion provided by this source**
100
**Public or private sector**
Public
**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**
The University of Faisalabad, Pakistan
**Full name of responsible person**
Lyba Musaddiq
**Position**
Physiotherapist
**Latest degree**
Master
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## Person responsible for scientific inquiries

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## Person responsible for updating data

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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**
Not applicable
**Analytic Code**
Not applicable
**Data Dictionary**
Not applicable