

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

11 Sep 2026

### Effects of Sustained Natural Apophyseal Glide with and without Myofascial Release Technique on Neck Pain and Posture in Patients with Temporomandibular Joint Disorder

#### Protocol summary

##### Study aim

To determine the effects of Sustained Natural Apophyseal Glide with Myofascial Release Technique on neck pain and posture in patients with Temporomandibular Joint Disorders. To determine the effects of Sustained Natural Apophyseal Glide without Myofascial Release Technique on neck pain and posture in patients with Temporomandibular Joint Disorders.

##### Design

Randomized Clinical Trial

##### Settings and conduct

The University of Faisalabad

##### Participants/Inclusion and exclusion criteria

Individuals with mild or average TMJ disorders. Subjects having poor posture were measured through Web Plot Digitizer. Female students with a mean age of 18 to 25 years were taken. Temporomandibular pain is associated with joint noises such as clicking and crepitation. Subjects diagnosed with any vascular disorder of the neck. Presence of any deformity like scoliosis, torticollis, and Sprengel's deformity. Whiplash injuries. Neurological inadequacy. Any prior surgeries of the cervical spine. Cervical radiculopathies.

##### Intervention groups

All the participants will be divided into two groups. A hot pack will be applied at the baseline. SNAG with MFR Technique was applied to the treatment group. The patient sit upright on the treatment table therapist placed the thumb on the spinous process of C3-C4. To provide mobilization force another thumb will reinforce it. Apply glide in the plane of the facet. While maintaining the glide ask the patient to side bend and rotate toward the painful side. SNAG will be applied to the 2nd group. Ask the patient to relax. The therapist placed the fingers deep into the sub-occipital muscles. Hold pressure for 90-120 sec where first position bind is felt. Repeat this procedure until new sense of bind is felt. When mobility

is restored release the pressure from fascia.

##### Main outcome variables

Neck Pain Forward Head Posture Temporomandibular Joint Pain

#### General information

##### Reason for update

##### Acronym

Effects of SNAG with and without MFR Technique on Neck Pain and Posture in Patients with Temporomandibular joint disorder

##### IRCT registration information

IRCT registration number: **IRCT20230707058706N1**

Registration date: **2023-10-08, 1402/07/16**

Registration timing: **retrospective**

Last update: **2023-10-08, 1402/07/16**

Update count: **0**

##### Registration date

2023-10-08, 1402/07/16

##### Registrant information

##### Name

Ume Habiba

##### Name of organization / entity

The University of Faisalabad

##### Country

Pakistan

##### Phone

+92 41 8750971

##### Email address

dpt-fa16-079@tuf.edu.pk

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2023-07-19, 1402/04/28  
**Expected recruitment end date**  
 2023-08-19, 1402/05/28  
**Actual recruitment start date**  
 empty  
**Actual recruitment end date**  
 empty  
**Trial completion date**  
 empty

**Scientific title**  
 Effects of Sustained Natural Apophyseal Glide with and without Myofascial Release Technique on Neck Pain and Posture in Patients with Temporomandibular Joint Disorder

**Public title**  
 Effects of Sustained Natural Apophyseal Glide with and without Myofascial Release Technique on Neck Pain and Posture in Patients with Temporomandibular Joint Disorder

**Purpose**  
 Treatment

**Inclusion/Exclusion criteria**  
**Inclusion criteria:**  
 □ Individuals with mild or average TMJ disorders. Subjects having poor posture were measured through Web Plot Digitizer. Female students with a mean age of 18 to 25 years were taken. Temporomandibular pain is associated with joint noises such as clicking and crepitation.  
**Exclusion criteria:**  
 □ Subjects diagnosed with any vascular disorder of the neck. Presence of any deformity like scoliosis, torticollis and Sprengel's deformity. □ Any prior surgeries of the cervical spine. Cervical radiculopathies. Whiplash injuries. Neurological inadequacy.

**Age**  
 From **18 years** old to **25 years** old

**Gender**  
 Female

**Phase**  
 N/A

**Groups that have been masked**

- Participant
- Investigator

**Sample size**  
 Target sample size: **36**

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

**Randomization description**  
 The act or process of ordering or selecting people, things, or places in a random way, as in a sample or experiment, especially in order to reduce bias and interference by irrelevant variables: Randomization was achieved by using a computer-generated number to assign each participant to a group.

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

**Blinding description**  
 Blinding, or "masking", is the process by which information that has the potential to influence study

results is withheld from one or more parties involved in a research study.

## Placebo

Not used

## Assignment

Parallel

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

The University of Faisalabad

##### Street address

Bhera District Sargodha

##### City

Bhera

##### Postal code

4683

#### Approval date

2023-03-17, 1401/12/26

#### Ethics committee reference number

TUF/Addl Ree/SB/361

## Health conditions studied

### 1

#### Description of health condition studied

A neck ache can be defined as pain in the neck region that can last for 1 day without being referred to the upper extremity. A neck ache is a common complaint but can also occur in association with pain in the head and shoulder region. It's a most common problem affecting the whole world. A neck muscle spasm occurs by straightening the cervical spine. Straightening of the cervical spine can be seen on X-ray

#### ICD-10 code

#### ICD-10 code description

## Primary outcomes

### 1

#### Description

Neck Pain

#### Timepoint

Northwick Park neck Questionnaire

#### Method of measurement

It consists of 9 items including quality of life (QOL), duration of pain, sleep, social activities, watching TV, and carrying. 100 is the greatest score. The higher the value higher damage will be present in patients.

## 2

### Description

Forward Head Posture

### Timepoint

Web Plot Digitizer

### Method of measurement

Instead of directly measuring angles, Web Plot Digitizer software is primarily intended for extracting data points from 2D plots and graphs. By taking the following actions, you can still use the software to indirectly determine the craniovertebral angle. Obtain a picture or diagram that illustrates the craniovertebral angle you wish to measure. This can be a picture, a diagram, or any other visual that shows the angle clearly. Use your web browser to launch the Web Plot Digitizer program. Make sure you are prepared to upload an appropriate image file of the craniovertebral angle. By selecting the "Upload Image" or comparable option, you can upload an image to the Web Plot Digitizer program. By choosing the points that make up the angle after setting the reference lines, you can manually digitize the craniovertebral angle.

## 3

### Description

Temporomandibular Joint Pain

### Timepoint

Numeric Pain Rating Scale

### Method of measurement

In a Numerical Rating Scale (NRS), patients are asked to circle the number between 0 and 10, 0 and 20, or 0 and 100 that fits best to their pain intensity. Zero usually represents 'no pain at all' whereas the upper limit represents 'the worst pain ever possible'.

## Secondary outcomes

empty

## Intervention groups

## 1

### Description

Intervention group:

### Category

Treatment - Other

## Recruitment centers

## 1

### Recruitment center

#### Name of recruitment center

The University of Faisalabad

#### Full name of responsible person

Dr. Nisar Fatima

#### Street address

Bhera District Sargodha

#### City

Bhera

#### Postal code

7864

#### Phone

+92 303 9800754

#### Email

nisar.fatima@tuf.edu.pk

## Sponsors / Funding sources

## 1

### Sponsor

#### Name of organization / entity

The University of Faisalabad

#### Full name of responsible person

Dr. Nisar Fatima

#### Street address

Bhera District Sargodha

#### City

Bhera

#### Postal code

7864

#### Phone

+92 303 9800754

#### Email

nisar.fatima@tuf.edu.pk

### Grant name

No

### Grant code / Reference number

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

No

### Title of funding source

No

### 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

Other

## Person responsible for general inquiries

### Contact

#### Name of organization / entity

The University of Faisalabad

#### Full name of responsible person

Rabia Khan

#### Position

consultant

#### Latest degree

Medical doctor

#### Other areas of specialty/work

Physiotherapy

#### Street address

Abdullah Colony Faisalabad

#### City

Faisalabad

**Province**  
Punjab  
**Postal code**  
2349  
**Phone**  
+92 302 9129919  
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rabisandu4549@gmail.com

## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**  
The University of Faisalabad  
**Full name of responsible person**  
Tahreem Munir  
**Position**  
Consultant  
**Latest degree**  
Medical doctor  
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Physiotherapy  
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## Person responsible for updating data

### Contact

**Name of organization / entity**  
The University of Faisalabad  
**Full name of responsible person**  
Ume-Habiba  
**Position**  
Student  
**Latest degree**  
Master  
**Other areas of specialty/work**  
Physiotherapy  
**Street address**

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Bhera  
**Province**  
Punjab  
**Postal code**  
7862  
**Phone**  
+92 303 9800754  
**Email**  
umesaba1212@gmail.com

## 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

Effects of Sustained Natural Apophyseal Glide with and without Myofascial Release Technique on Neck Pain and Posture in Patients with Temporomandibular Joint Disorder.

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

Data will be available after the completion of study and will remain available till 6 months

### To whom data/document is available

Data will be available for other people almost 6 months after the completion of study

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

The data/document could be used by communicating with the principle investigator Ume-Habiba gmail: umesaba1212@gmail.com

### From where data/document is obtainable

Ume-Habiba umesaba1212@gmail.com

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

The data/document could be used by communicating with the principle investigator Ume-Habiba gmail: umesaba1212@gmail.com

### Comments