

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

15 Jun 2026

### The comparison of the effect of dry needling and friction massage on trigger points of sub-occipital, temporalis, sternocleidomastoid and upper trapezius muscles in improving of symptoms of patients with tension type headache

#### Protocol summary

##### Summary

Aim: To compare the effect of dry needling and friction massage on trigger points of sub-occipital, temporalis, sternocleidomastoid and upper trapezius muscles in improving of symptoms of patients with tension type headac in improving of symptoms of patients with tension type headac Design: randomized clinical trial. Setting and Conduct: The patients receive dry needling or friction massage in order to treatment of trigger points in cervical region. Participants including major eligibility criteria: 40 patients with tension type headache who have any trigger points in sub-occipital, temporalis, sternocleidomastoid and upper trapezius muscles enter to the study and receive treatment in two 20 patients groups. Interventions: one group receives dry needling and the other group receives friction massage in the site of trigger points Time of intervention: patients in each group receive 3 sessions of treatment during 1 week Main Outcome measures: frequency and intensity of headache, range of motion in cervical region, pain threshold in trigger points site

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2016110726674N4**  
Registration date: **2016-11-29, 1395/09/09**  
Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2016-11-29, 1395/09/09

#### Registrant information

##### Name

Marzieh Mohamadi

##### Name of organization / entity

Shiraz University of Medical Sciences, School of Rehabilitation Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 71 3627 1551

##### Email address

mohamadm@sums.ac.ir

#### Recruitment status

##### Recruitment complete

#### Funding source

Shiraz University of Medical Sciences

#### Expected recruitment start date

2016-07-22, 1395/05/01

#### Expected recruitment end date

2016-09-22, 1395/07/01

#### Actual recruitment start date

empty

#### Actual recruitment end date

empty

#### Trial completion date

empty

#### Scientific title

The comparison of the effect of dry needling and friction massage on trigger points of sub-occipital, temporalis, sternocleidomastoid and upper trapezius muscles in improving of symptoms of patients with tension type headache

#### Public title

The comparison of dry needling and friction massage in treatment of tension type headache

**Purpose**

Treatment

**Inclusion/Exclusion criteria**

Inclusion criteria: tension type headache for at least 6 months; existence of any trigger points in sub-occipital, temporalis, sternocleidomastoid and upper trapezius muscles Exclusion criteria: cervical disk herniation; neurological disorders; rheumatoid disorders; useage of anti-depressant and anti-anxiety drugs; pregnant and feeding females

**Age**

No age limit

**Gender**

Both

**Phase**

3

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **40**

**Randomization (investigator's opinion)**

Randomized

**Randomization description****Blinding (investigator's opinion)**

Not blinded

**Blinding description****Placebo**

Not used

**Assignment**

Parallel

**Other design features****Secondary Ids**

empty

**Ethics committees****1****Ethics committee****Name of ethics committee**

Ethics Committee of Shiraz University of Medical Sciences

**Street address**

Zand Street

**City**

Shiraz

**Postal code****Approval date**

2016-07-17, 1395/04/27

**Ethics committee reference number**

IR.SUMS.REC.1395.67

**Health conditions studied****1****Description of health condition studied**

tension type headache

**ICD-10 code**

G44.2

**ICD-10 code description**

Tension-type headache

**Primary outcomes****1****Description**

headache frequency

**Timepoint**

1 week

**Method of measurement**

patient's report

**2****Description**

headache intensity

**Timepoint**

1 week

**Method of measurement**

patient's report

**3****Description**

cervical range of motion

**Timepoint**

1 week

**Method of measurement**

goniometer

**4****Description**

pain threshold

**Timepoint**

1 week

**Method of measurement**

algometer

**Secondary outcomes**

empty

**Intervention groups****1****Description**

dry needling

**Category**

Treatment - Other

**2****Description**

friction massage

**Category**

Treatment - Other

## Recruitment centers

1

### Recruitment center

**Name of recruitment center**  
School of Rehabilitation Sciences  
**Full name of responsible person**  
Marzieh Mohamadi  
**Street address**  
Abiverdi 1 Street  
**City**  
Shiraz

## Sponsors / Funding sources

1

### Sponsor

**Name of organization / entity**  
Vice Chancellor for Research, Shiraz University of  
Medical Sciences  
**Full name of responsible person**  
Seyyed Basir Hashemi  
**Street address**  
Zand Street  
**City**  
Shiraz  
**Grant name**  
**Grant code / Reference number**  
**Is the source of funding the same sponsor  
organization/entity?**  
Yes  
**Title of funding source**  
Vice Chancellor for Research, Shiraz University of Medical  
Sciences  
**Proportion provided by this source**  
100  
**Public or private sector**  
*empty*  
**Domestic or foreign origin**  
*empty*  
**Category of foreign source of funding**  
*empty*  
**Country of origin**  
**Type of organization providing the funding**  
*empty*

## Person responsible for general inquiries

### Contact

**Name of organization / entity**  
School of Rehabilitation Sciences, Shiraz University of  
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## Person responsible for scientific inquiries

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## Person responsible for updating data

### Contact

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**Postal code**  
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**Email**  
**Web page address**

## Sharing plan

**Deidentified Individual Participant Data Set (IPD)**  
*empty*  
**Study Protocol**  
*empty*  
**Statistical Analysis Plan**  
*empty*  
**Informed Consent Form**  
*empty*  
**Clinical Study Report**  
*empty*

**Analytic Code**  
*empty*

**Data Dictionary**  
*empty*