

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Effects of traditional and sensory-motor training exercises on joint position sense, kinematics, inter segmental coordination, dynamic balance, pain and disability in people with chronic non-specific neck Pain

#### Protocol summary

##### Summary

Patients with neck pain are the second largest group after patients with Low back pain that attended to physical therapy. Clinical experience and research indicated that significant sensorimotor cervical proprioceptive disturbances might be an important factor in the maintenance, recurrence, or progression of various symptoms in some patients with neck pain. There is evidence that specific treatment programs that have trained cervical joint position sense, eye-neck coordination, and gaze stability result improvements not only in sensorimotor impairments but also in neck pain and disability. The aim of this study is comparing the effects of traditional exercises and sensory-motor training exercises on joint position sense, kinematics, inter segmental coordination, dynamic balance, pain and disability in people with chronic non-specific neck Pain. In this study forty patients with non-specific neck pain are randomly allocated to either a control group or specific exercise group. Patients in control group receive TENS, stretch and training deep flexors and extensors muscles and those in second group receive control group exercises plus sensory-motor exercises. The intervention period was 12 session. Also, in this study both the investigator and the participant are blind to the nature of the treatment. Assessments will performed pre and post treatment. Outcome measures are: joint position error, kinematic items, dynamic balance, pain (Visual Analogue Scales) and dis ability (Neck Disability Index).

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201604046798N1**

Registration date: **2016-06-02, 1395/03/13**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2016-06-02, 1395/03/13

##### Registrant information

###### Name

Maryam Saadat

###### Name of organization / entity

Jundishapur University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 61133322678

###### Email address

saadat.m@ajums.ac.ir

##### Recruitment status

###### Recruitment complete

##### Funding source

Ahvaz Jundishapur Univercity of Medical Science

##### Expected recruitment start date

2016-05-30, 1395/03/10

##### Expected recruitment end date

2016-12-20, 1395/09/30

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Effects of traditional and sensory-motor training exercises on joint position sense, kinematics, inter segmental coordination, dynamic balance, pain and disability in people with chronic non-specific neck Pain

##### Public title

Comparing the effects of traditional and sensory-motor training exercises on joint position sense, kinematics, intersegmental coordination, dynamic balance, pain and disability in people with chronic non-specific neck Pain

## Purpose

Treatment

## Inclusion/Exclusion criteria

Inclusion criteria: People between 18 and 45 years; reported neck pain for more than three months; The minimum severity of pain according to VAS, 4 to 10 cm; Proprioception error is greater than 3° in both directions of movement of the neck; cervical vertigo  
Exclusion criteria: Any specific reason for neck pain, such as disc protrusion; severe osteoarthritis; rheumatoid diseases and trauma; surgery in the neck. vestibular system disorders; neurological disorder, central nervous system involvement including stroke, multiple sclerosis, Parkinson's, etc; history of diabetes  
Other musculoskeletal disorder such as hip problems, knee and ankle joints or spine in the last three months

## Age

From **20 years** old to **50 years** old

## Gender

Both

## Phase

N/A

## Groups that have been masked

*No information*

## Sample size

Target sample size: **40**

## Randomization (investigator's opinion)

Randomized

## Randomization description

## Blinding (investigator's opinion)

Double 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 Jundishapur University of Medical Science

##### Street address

Ahva Jundishapur University of Medical Sciences ; Ahvaz

##### City

Ahvaz

##### Postal code

61357-15794

## Approval date

2016-02-09, 1394/11/20

## Ethics committee reference number

IR.AJUMS.REC.1394.520

## Health conditions studied

### 1

#### Description of health condition studied

Neck pain

#### ICD-10 code

M50-9

#### ICD-10 code description

Cervical disc disorder, unspecified

## Primary outcomes

### 1

#### Description

Joint position sense, Kinematic items, Stability index

#### Timepoint

Before and after 12 session treatment

#### Method of measurement

Motion analyzer

## Secondary outcomes

### 1

#### Description

Pain and Disability level

#### Timepoint

Before and after 12 sessions treatment

#### Method of measurement

Visual analog scale, Neck disability index

## Intervention groups

### 1

#### Description

CONTROL:TENS, postural education, stretch, deep flexor and extensor training

#### Category

Rehabilitation

### 2

#### Description

control group exercises plus joint position training, eye-head coordination exercise, balance training

#### Category

Rehabilitation

## Recruitment centers

### 1

#### Recruitment center

Name of recruitment center

Ahvaz Public Hospital and Private Clinics  
**Full name of responsible person**  
**Street address**  
**City**  
Ahvaz

saadat.m@ajums.ac.ir  
**Web page address**

## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**  
Ahvaz Jundishapour of Medical Science  
**Full name of responsible person**  
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## Sponsors / Funding sources

### 1

#### Sponsor

**Name of organization / entity**  
Vice Chancellor Of Research, Ahvaz Jundishapour University of Medical Science  
**Full name of responsible person**  
Mr.Fatalizadeh  
**Street address**  
Ahvaz Jundishapour University of Medical Science, Ahvaz, Iran  
**City**  
Ahvaz  
**Grant name**  
**Grant code / Reference number**  
**Is the source of funding the same sponsor organization/entity?**  
Yes

#### Title of funding source

Vice Chancellor Of Research, Ahvaz Jundishapour University of Medical Science

#### 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**  
Ahvaz Rehabilitation School  
**Full name of responsible person**  
Maryam Saadat  
**Position**  
Physical Therapy PhD Student  
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## Person responsible for updating data

### Contact

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## 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*