

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

29 Jun 2026

### A comparison between the effects of dynamic thoracic stabilization exercise and lumbar on the activity of trunk muscles, pain and disability in women with chronic non-specific low back pain

#### Protocol summary

##### Study aim

The aim of this study was to compare the effect of dynamic thoracic stabilization exercise and lumbar on the activity of trunk muscles in women with chronic non-specific low back pain.

##### Design

Randomized controlled trial, not blinded, 30 women with nonspecific chronic low back pain were selected through non probability sampling method.

##### Settings and conduct

This not blinded, randomized controlled trial was performed at Zahedan University of Medical Sciences, in 2016.

##### Participants/Inclusion and exclusion criteria

Age between 18 to 58 years; patients with nonspecific chronic low back pain, no history of musculoskeletal disorders in hip and lower extremities; no history of radicular pain, spinal stenosis, any neurologic sign, systemic infection, cardiovascular and balance disorders, severe deformity of musculoskeletal injury to the leg or medication one week before the test session; not pregnant; no history of diabetes, respiratory disorders, spinal surgery, nerve root pain, severe spinal deformity or disease; no history of metabolic, systemic, inflammatory diseases, arthritis and malignancies.

##### Intervention groups

Dynamic thoracic stabilization exercise and lumbar stabilization exercise

##### Main outcome variables

Comparison of activity of trunk muscles, pain and functional disability in dynamic thoracic stabilization exercise group and lumbar stabilization exercise group

#### General information

##### Reason for update

##### Acronym

#### IRCT registration information

IRCT registration number: **IRCT20090210001675N14**

Registration date: **2018-11-30, 1397/09/09**

Registration timing: **retrospective**

Last update: **2018-11-30, 1397/09/09**

Update count: **0**

#### Registration date

2018-11-30, 1397/09/09

#### Registrant information

##### Name

Asghar Akbari

##### Name of organization / entity

Zahedan University of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 54 1322 8445

##### Email address

akbaria@zdmu.ac.ir

#### Recruitment status

**Recruitment complete**

#### Funding source

#### Expected recruitment start date

2017-08-23, 1396/06/01

#### Expected recruitment end date

2017-12-11, 1396/09/20

#### Actual recruitment start date

2017-09-23, 1396/07/01

#### Actual recruitment end date

2018-01-20, 1396/10/30

#### Trial completion date

empty

#### Scientific title

A comparison between the effects of dynamic thoracic

stabilization exercise and lumbar on the activity of trunk muscles, pain and disability in women with chronic non-specific low back pain

#### Public title

A comparison between the effects of dynamic thoracic stabilization exercise and lumbar in women with chronic non-specific low back pain

#### Purpose

Treatment

#### Inclusion/Exclusion criteria

##### Inclusion criteria:

Inclusion criteria: Nonspecific LBP for a period of at least 3 months; women aged over 18 and less than 55 years old; no history of musculoskeletal disorders in hip and lower extremities; no history of radicular pain, spinal stenosis, any neurologic sign, systemic infection, cardiovascular and balance disorders, severe deformity of musculoskeletal injury to the leg or medication one week before the test session; not pregnant; no history of diabetes, respiratory disorders, spinal surgery, nerve root pain, severe spinal deformity or disease; no history of metabolic, systemic, inflammatory diseases, arthritis and malignancies.

##### Exclusion criteria:

Patients who were absent more than three consecutive sessions of treatment; patients who doing exercises aggravated their pain; receiving or doing other therapies during the study.

#### Age

From **18 years** old to **55 years** old

#### Gender

Female

#### Phase

N/A

#### Groups that have been masked

*No information*

#### Sample size

Target sample size: **30**

Actual sample size reached: **30**

#### Randomization (investigator's opinion)

Randomized

#### Randomization description

Subjects were randomly assigned into two groups by random draw.

#### 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 Zahedan University of Medical Sciences

###### Street address

Deputy of Research, Zahedan University of Medical Sciences, Jannat Blvd., Dr. Hesabi Sq. Zahedan

###### City

zahedan

###### Province

Sistan-va-Balouchestan

###### Postal code

9816843463

##### Approval date

2017-03-13, 1395/12/23

##### Ethics committee reference number

IR. ZAUMS. REC.1395.287

### Health conditions studied

#### 1

##### Description of health condition studied

Chronic non-specific low back pain

##### ICD-10 code

M54.9

##### ICD-10 code description

Dorsalgia, unspecified

### Primary outcomes

#### 1

##### Description

Trunk muscles activity

##### Timepoint

Before intervention and 6 weeks after intervention

##### Method of measurement

Electromyography

#### 2

##### Description

Pain

##### Timepoint

Before intervention and 6 weeks after intervention

##### Method of measurement

Visual Analogue Scale

#### 3

##### Description

Functional disability

##### Timepoint

Before intervention and 6 weeks after intervention

##### Method of measurement

Oswestry scale

## Secondary outcomes

1

### Description

no secondary outcome

### Timepoint

no secondary outcome

### Method of measurement

no secondary outcome

## Intervention groups

1

### Description

Intervention group: dynamic thoracic stabilization exercise, eighteen training sessions during 6 consecutive weeks, three times per week, 30 or 40 minutes per session including: Twenty minutes for receiving hot pack and TENS and 20 minutes for training the exercises

### Category

Rehabilitation

2

### Description

Control group: lumbar stabilization exercise, eighteen training sessions during 6 consecutive weeks, three times per week, 30 or 40 minutes per session including: Twenty minutes for receiving hot pack and TENS and 20 minutes for training the exercises

### Category

Rehabilitation

## Recruitment centers

1

### Recruitment center

#### Name of recruitment center

Razmejo-Moghadam Physiotherapy Clinic

#### Full name of responsible person

Dr. Asghar Akbari

#### Street address

Dept. of Physiotherapy, School of Rehabilitation Sciences, Razmejo-Moghadam Laboratory, Ayatoallah Kafami St.

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#### Web page address

## Sponsors / Funding sources

1

### Sponsor

#### Name of organization / entity

Zahedan University of Medical Sciences

#### Full name of responsible person

Dr. noormohammad Bakhshani

#### Street address

Deputy of Research, Zahedan University of Medical Sciences, Jannat Blvd., Dr. Hesabi Sq.

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#### Phone

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#### Email

a.akbari@zaums.ac.ir

### Grant name

### Grant code / Reference number

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

Yes

### Title of funding source

Zahedan University of Medical Sciences

### 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

Zahedan University of Medical Sciences

#### Full name of responsible person

Asghar Akbari

#### Position

Associate professor

#### Latest degree

Ph.D.

#### Other areas of specialty/work

Physiotherapy

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## Person responsible for scientific inquiries

### Contact

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Zahedan University of Medical Sciences  
**Full name of responsible person**  
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Associate Professor  
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**Other areas of specialty/work**  
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## Person responsible for updating data

### Contact

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**Full name of responsible person**  
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**Position**  
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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

Not applicable

### Analytic Code

Not applicable

### Data Dictionary

Not applicable

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

The whole data after making people unidentifiable can be shared.

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

2 months after publication of the results.

### To whom data/document is available

Researchers working in academic and scientific institutions.

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

All whole data is available for researchers after making the participants unidentifiable, and any other analysis on the data and any use for research and therapeutic purposes is permitted in this study.

### From where data/document is obtainable

Dr. Asghar Akbari Address: Dept. of Physiotherapy, School of Rehabilitation Sciences, Razmejo-Moghadam Laboratory, Ayatoallah Kafami St City: zahedan Country: Iran Postal code:64855-98136 Tel:+98 54 3342 4675 Fax:+98 54 3342 4675 Email: akbari\_as@yahoo.co

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

After receiving the message from the person requesting the application, and investigating the terms of the request at the earliest opportunity is the information required to be sent to the individual.

### Comments

I do not have