

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

19 Sep 2026

### A comparison between two methods of exercise therapy and manual therapy in treatment of the patients with postural hyperkyphosis

#### Protocol summary

##### Summary

The purpose of this clinical study is to examine the effect of manual treatments on kyphosis improvement as compared with exercise therapy. Forty-six girls of the Shiraz University of Medical Sciences participate in this study and are divided randomly into two groups, exercise therapy and manual therapy. For both groups, 15 sessions of treatment during five weeks were done. Kyphosis angle and the back muscle strength are measured before and after treatment, using the motion analysis system and dynamometer. Since manual therapies (including massage, mobilization, muscle energy, and myofascial release) cause correct spinal alignment, facilitate joints movement and stretch shortened muscles, these techniques are expected to be effective in treatment of hyperkyphosis.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT201112188452N1**

Registration date: **2012-01-05, 1390/10/15**

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

Last update:

Update count: **0**

##### Registration date

2012-01-05, 1390/10/15

##### Registrant information

##### Name

Maryam Mirshamsi

##### Name of organization / entity

Shiraz university of Medical Sciences

##### Country

Iran (Islamic Republic of)

##### Phone

+98 62 71552

##### Email address

mirshamsim@sums.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice Chancellery for Research of the Shiraz University of Medical Sciences

##### Expected recruitment start date

2011-04-21, 1390/02/01

##### Expected recruitment end date

2012-01-21, 1390/11/01

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

A comparison between two methods of exercise therapy and manual therapy in treatment of the patients with postural hyperkyphosis

##### Public title

A comparison between two methods in treatment of hyperkyphosis

##### Purpose

Treatment

##### Inclusion/Exclusion criteria

inclusion criteria were: age between 18 – 30; the thoracic kyphosis degree of more than 45. Exclusion criteria: outside the age range of 18-30; Scoliosis; Fracture history in the spinal column; Spinal tumors and related malignancies; Congenital spinal anomalies; Cancer; Rheumatoid arthritis.

##### Age

From **18 years** old to **30 years** old

##### Gender

Female

## Phase

N/A

## Groups that have been masked

No information

## Sample size

Target sample size: 46

## Randomization (investigator's opinion)

Randomized

## Randomization description

## Blinding (investigator's opinion)

Single blinded

## Blinding description

## Placebo

Not used

## Assignment

Parallel

## Other design features

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Shiraz University of Medical Sciences

##### Street address

Shiraz, First abiverdi Ave, Chamran Blv-

##### City

Shiraz

##### Postal code

##### Approval date

2011-06-27, 1390/04/06

##### Ethics committee reference number

CT-89-5524

## Health conditions studied

### 1

#### Description of health condition studied

Hyperkyphosis

#### ICD-10 code

M40

#### ICD-10 code description

Kyphosis and lordosis

## Primary outcomes

### 1

#### Description

Kyphosis angle

#### Timepoint

Before and after treatment

#### Method of measurement

Motion analysis system

### 2

#### Description

Back muscle strength

#### Timepoint

Before and after treatment

#### Method of measurement

Electronic dynamometer

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Participants in the manual group were prescribed 15 sessions of manual treatments including massage, mobilization, muscle energy-mobilization, and myofascial release during five weeks.

#### Category

Treatment - Other

### 2

#### Description

Participants in the exercises group were prescribed 15 sessions of stretching and strengthening exercises during five weeks

#### Category

Treatment - Other

## Recruitment centers

### 1

#### Recruitment center

##### Name of recruitment center

Shiraz University of Medical Sciences

##### Full name of responsible person

Maryam Mirshamsi

##### Street address

Shiraz

##### City

Shiraz

## Sponsors / Funding sources

### 1

#### Sponsor

##### Name of organization / entity

Vice Chancellery for Research of the Shiraz University of Medical Sciences

##### Full name of responsible person

Dr Gholamreza Hatam

##### Street address

Shiraz

##### City

Shiraz

**Grant name**  
**Grant code / Reference number**  
**Is the source of funding the same sponsor organization/entity?**  
Yes  
**Title of funding source**  
Vice Chancellery for Research of the 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

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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)**  
empty  
**Study Protocol**  
empty  
**Statistical Analysis Plan**  
empty  
**Informed Consent Form**  
empty  
**Clinical Study Report**  
empty  
**Analytic Code**  
empty  
**Data Dictionary**  
empty