

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

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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

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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

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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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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