# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

22 Nov 2026

## Effect of Yoga Exercises on Spinal Flexibility, Pain and Functional Disability in Women with Chronic Lumbar Disk Herniation: A Randomized Controlled Trial study

## Protocol summary


**Summary**

The purpose of this study was to investigate the effect of Yoga exercises on spinal flexibility, pain and functional disability in women with chronic lumbar disk herniation. This randomized controlled trial was performed in Zahedan University of Medical Sciences, in 2010. Twenty-eight patients with chronic lumbar disk herniation were participated through simple non probability sampling. Patients were selected based on following inclusion criteria: Radicular low back pain for a period of at least 3 months, participants aged over 18 and less than 80 years old, appropriateness of exercise in accordance with clinical assessment, patients who have not been contraindicated from doing exercise based on Physical Activity Readiness Questionnaire, participants diagnosed with lumbar disc herniation by specialist and radiography. Patients were excluded if they had suspected or confirmed for serious spinal pathology, suspected or confirmed for pregnancy, spinal column surgery, insufficient treatment, using other therapeutic modalities during the study. Subjects were randomly assigned to either a Yoga exercises group (N=14) or a general exercises group (N=14). Before and after intervention, we assessed pain (ordinal) through Visual Analogue Scale, depression (Ordinal) with Beck Depression Inventory II, lumbar lordosis (degree) with flexible ruler, range of lumbar flexion (centimeter) using Modified Schober test, and disability (ordinal) with The Oswestry Disability Index. A 16 session's exercise program which lasted 8 weeks, twice per week, and 45 minutes per session was performed for both groups.


## General information

**Acronym**

**IRCT registration information**

IRCT registration number: **IRCT201109181675N7**

Registration date: **2011-11-22, 1390/09/01**

Registration timing: **retrospective**

Last update:

Update count: **0**

**Registration date**

2011-11-22, 1390/09/01

**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**

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**Recruitment status**

**Recruitment complete**


**Funding source**

Vice Chancellor for Research of Zahedan University of Medical Sciences


**Expected recruitment start date**

2010-05-22, 1389/03/01

**Expected recruitment end date**

2010-12-22, 1389/10/01

**Actual recruitment start date**

empty

**Actual recruitment end date**

empty

**Trial completion date**

empty

**Scientific title**

Effect of Yoga Exercises on Spinal Flexibility, Pain and

Functional Disability in Women with Chronic Lumbar Disk Herniation: A Randomized Controlled Trial study

**Public title**
Effect of Yoga Exercises on Spinal Flexibility, Pain and Functional Disability in Women with Chronic Lumbar Disk Herniation: A Randomized Controlled Trial

**Purpose**
Treatment

**Inclusion/Exclusion criteria**
Inclusion criteria: Radicular LBP for a period of at least 3 months; Participants aged over 18 and less than 80 years old; Appropriateness of exercise in accordance with clinical assessment; Patients who have not been contraindicated from doing exercise based on Physical Activity Readiness Questionnaire; and Patients diagnosed with lumbar disc herniation by specialist and radiography. Exclusion criteria: Patients suspected or confirmed for serious spinal pathology; Suspected or confirmed for pregnancy; Spinal column surgery; Insufficient treatment; Using other therapeutic modalities during the study.

**Age**
From **18 years** old to **60 years** old

**Gender**
Female

**Phase**
2

**Groups that have been masked**
*No information*

**Sample size**
Target sample size: **28**

**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

**1**

**Registry name**
No registration

**Secondary trial Id**
No trial id

**Registration date**
empty

## Ethics committees

**1**

**Ethics committee**

**Name of ethics committee**
Ethics Commitee of Zahedan University of Medical Sciences

**Street address**
Deputy for Research, Zahedan University of Medical Sciences, Jannat Blvd., Dr. Hesabi Sq., Zahedan.

**City**
Zahedan

**Postal code**
987-98155

**Approval date**
2011-10-30, 1390/08/08

**Ethics committee reference number**
90-1540

## Health conditions studied

**1**

**Description of health condition studied**
Chronic Lumbar Disk Herniation

**ICD-10 code**
M51.1+

**ICD-10 code description**
Lumbar and Other Intervertebral Disc Disorders with Radiculopathy

## Primary outcomes

**1**

**Description**
Back pain

**Timepoint**
Before intervention, 8 weeks after intervention

**Method of measurement**
Visual Analogue Scale

**2**

**Description**
Depression

**Timepoint**
Before intervention, 8 weeks after intervention

**Method of measurement**
Beck Depression Inventory II Questionnaire

**3**

**Description**
Angle of lumbar lordosis

**Timepoint**
Before intervention, 8 weeks after intervention

**Method of measurement**
Flexible ruler

**4**

**Description**
Range of lumbar flexion

**Timepoint**
Before intervention, 8 weeks after intervention

**Method of measurement**

Modified Schober test

**5**

**Description**
Disability
**Timepoint**
Before intervention, 8 weeks after intervention
**Method of measurement**
The Oswestry Disability Index

## Secondary outcomes

empty

## Intervention groups

**1**

**Description**
Yoga exercises including 14 specific Yoga exercises: A 16 session's exercise program which lasted 8 weeks, twice per week, and 45 minutes per session.
**Category**
Rehabilitation

**2**

**Description**
General Exercises: Including classic abdominal and back exercises: : A 16 session's exercise program which lasted 8 weeks, twice per week, and 45 minutes per session.
**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., Zahedan
**City**
Zahedan

## Sponsors / Funding sources

**1**

**Sponsor**
**Name of organization / entity**
Vice Chancellor for Research of Zahedan University of Medical Sciences
**Full name of responsible person**
Dr. Hamidreza Mahmoudzadeh Sagheb
**Street address**
Deputy of Research, Zahedan University of Medical Sciences, Jannat Blvd., Dr. Hesabi Sq., Zahedan.
**City**
Zahedan
**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 of Zahedan 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**
Zahedan University of Medical Sciences
**Full name of responsible person**
Dr. Asghar Akbari
**Position**
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## Person responsible for scientific inquiries

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## Person responsible for updating data

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**Full name of responsible person**

Dr. Asghar Akbari

**Position**

Head of Dept. of Physiotherapy, Ph.D in Physiotherapy

**Other areas of specialty/work**

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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*