

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The Effect of Core Stability Exercises on Lumbopelvic Motor Control, Dynamic Balance, Pain and Disability in Women with Non-specific Chronic Low Back Pain and Follow up one Month After Stopping Training

Protocol summary

Study aim

The Effect of Core Stability Exercises on Lumbopelvic Motor Control and Dynamic Balance in Women with Non-specific Chronic Low Back Pain and Follow up one Month After Stopping Training

Design

24 Women with Non-specific Chronic Low Back Pain Randomly Divided into Experimental and Control Groups. The simple Randomization Method was used to Assign Individuals to two Groups that in this Method, Flip the coin was used to Create a Random Sequence.

Settings and conduct

The present study is a quasi-experimental research with a pre-test-post-test design and Follow up with an experimental group and a control group. 24 Women with Non-specific Chronic Low Back Pain Randomly Divided into Experimental and Control Groups. Lumbopelvic Motor Control, Dynamic Balance, Pain and Disability are measured before and after Core stability exercises in Shafa Clinic.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Non-specific Chronic Low Back Pain, Age range 30 to 50 years, Ostwestry Disability Index equal to or greater than 15, Female gender Exclusion criteria: Vestibular Disorders, Perform Lumbopelvic Surgery

Intervention groups

The Intervention Group Includes Women with Non-specific Chronic Low Back Pain who Receive Core Stability Training. The Control Group Includes Women with Non-specific Chronic Low Back Pain who did not Receive any Intervention.

Main outcome variables

Lumbopelvic Motor Control, Dynamic Balance, Pain and Disability

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200107046035N5**

Registration date: **2020-12-02, 1399/09/12**

Registration timing: **registered_while_recruiting**

Last update: **2020-12-02, 1399/09/12**

Update count: **0**

Registration date

2020-12-02, 1399/09/12

Registrant information

Name

Hossein Shahrokhi

Name of organization / entity

Hakim Sabzevari University

Country

Iran (Islamic Republic of)

Phone

+98 51 4401 2756

Email address

h.shahrokhi@hsu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-11-21, 1399/09/01

Expected recruitment end date

2021-01-20, 1399/11/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The Effect of Core Stability Exercises on Lumbopelvic Motor Control, Dynamic Balance, Pain and Disability in Women with Non-specific Chronic Low Back Pain and Follow up one Month After Stopping Training

Public title

The Effect of Exercises in Women with Low Back Pain

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Non-specific Chronic Low Back Pain Age range 30 to 50 years Ostwestry Disability Index equal to or greater than 15 Female gender

Exclusion criteria:

Vestibular Disorders Perform Lumbopelvic Surgery

Age

From **30 years** old to **50 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **24**

Randomization (investigator's opinion)

Randomized

Randomization description

The simple Randomization Method was used to Assign Individuals to two Groups that in this Method It was done by Flip the coin method. This method is usually used to create a random sequence in two-group experiments in such a way that one of the study groups considers the A and the other group the B and based on the sample size, coins were tossed and Individuals are assigned to two random groups. Then, in Order not to Determine Which Group the Individuals will be Assigned to before Dividing them into two Groups, or in other words, Allocation Concealment, the Sequentially numbered, sealed opaque envelopes was used. This method is one of the common methods in concealing random allocation, which is abbreviated to SNOSE method. In this method, after a random sequence, a number of envelopes are prepared and each of the random sequences created is recorded on a card and the cards are placed in the envelopes respectively. In order to maintain a random sequence, the envelopes are numbered in the same way on the outer surface. Finally, the lids of the letter envelopes are glued and placed inside a box, respectively. At the beginning of the registration of participants, according to the order of entry of eligible participants into the study, one of the envelopes of the letter is opened and the assigned group of the participant is revealed.

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

Sport Sciences Research Institute

Street address

No. 3, 5th Alley, Miremad Street, Motahhari Street, Tehran, Iran.

City

Tehran

Province

Tehran

Postal code

1587958711

Approval date

2020-09-16, 1399/06/26

Ethics committee reference number

IR.SSRC.REC.1399.076

Health conditions studied

1

Description of health condition studied

Non-specific Chronic Low Back Pain

ICD-10 code

M54.5

ICD-10 code description

Low Back Pain

Primary outcomes

1

Description

Lumbopelvic Motor Control

Timepoint

At the beginning of the study (before the start of the intervention) and after 6 weeks of intervention and One Month After Stopping Training

Method of measurement

five tests (the bent knee fall out test, the knee lift abdominal test, the sitting knee extension test, the waiter bow and the transversus abdominis test)

2

Description

Dynamic Balance

Timepoint

At the beginning of the study (before the start of the intervention) and after 6 weeks of intervention and One

Month After Stopping Training
Method of measurement
Biodex Balance System

3

Description

Pain

Timepoint

At the beginning of the study (before the start of the intervention) and after 6 weeks of intervention and One Month After Stopping Training

Method of measurement

Visual Analogue Scale

4

Description

Disability

Timepoint

At the beginning of the study (before the start of the intervention) and after 6 weeks of intervention and One Month After Stopping Training

Method of measurement

Ostwestry Disability Index

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Core Stability Training that Strengthens the Stabilizer muscles of body center for 6 weeks, 3 Sessions per Week, 2 Hour per Session. Core stability exercises are specific exercises that stabilize the spine, which retrains the deep sense of the pelvic lumbar region in different positions (arch, back, squat) and also adds dynamic components to it (movement of limbs, use of Swiss ball) in the next steps. Is. The Core stability exercises suggested by Jeffrey include five levels. Exercises start from level one, which includes static contractions in a fixed position, level two exercises, including holding static contractions and slow movements in a stable environment, level three, including holding static contractions in an unstable environment, and dynamic movements in a fixed environment. Level four includes dynamic movements in an unstable environment, and finally level five exercises include dynamic and resistance movements in an unstable environment. In these exercises, Swiss balls are used.

Category

Treatment - Other

2

Description

Control group: Without any Training and Treatment that just Doing Normal Daily Activities

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Shafa Clinic

Full name of responsible person

Zahra Nabizadeh

Street address

Mahmoudabad, Masjedjame Ave

City

Mahmoudabad

Province

Mazandaran

Postal code

3411355721

Phone

+98 11 4474 5487

Email

saqar.sogand@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shafagh University

Full name of responsible person

Mohammad Fallahmohamadi

Street address

20th Mordab Ave

City

Nashtarood

Province

Mazandaran

Postal code

4683165363

Phone

+98 11 5426 6957

Email

info@shafagh.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shafagh University

Proportion provided by this source

20

Public or private sector

Private

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

Hakim Sabzevari University

Full name of responsible person

Hossein Shahrokhi

Position

Assistant Professor

Latest degree

Ph.D.

Other areas of specialty/work

Sport Injuries & Corrective Exercise

Street address

Tohid Shahr, Sabzevar, Iran

City

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9617976487

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Hakim Sabzevari University

Full name of responsible person

Hossein Shahrokhi

Position

Assistant Professor

Latest degree

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Other areas of specialty/work

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Fax**Email**

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Person responsible for updating data

Contact

Name of organization / entity

Hakim Sabzevari University

Full name of responsible person

Hossein Shahrokhi

Position

Assistant Professor

Latest degree

Ph.D.

Other areas of specialty/work

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Fax**Email**

h.shahrokhi@hsu.ac.ir

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

Yes - There is a plan to make this available

Analytic Code

Yes - There is a plan to make this available

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

All potential data can be shared after people have not been identified

When the data will become available and for how long

Start the access period one year after printing the results

To whom data/document is available

Data will be available to academic and scientific researchers

Under which criteria data/document could be used

Any kind of functional analysis on the submitted data is allowed

From where data/document is obtainable

by Email: h.shahrokhi@hsu.ac.ir

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

by Email: h.shahrokhi@hsu.ac.ir and the reason for using the documents

Comments