Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 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
Sabzevar
Province
Razavi Khorasan
Postal code
9617976487
Phone
+98 51 4401 2756
Fax
Email
h.shahrokhi@hsu.ac.ir

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
Ph.D.
Other areas of specialty/work
Sport Injuries & Corrective Exercise
Street address
Tohid Shahr, Sabzevar, Iran
City
Sabzevar
Province
Razavi Khorasan
Postal code
9617976487
Phone
+98 51 4401 2756
Fax
Email
h.shahrokhi@hsu.ac.ir

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
Sport Injuries & Corrective Exercise
Street address
Tohid Shahr, Sabzevar, Iran
City
Sabzevar
Province
Razavi Khorasan
Postal code
9617976487
Phone
+98 51 4401 2756
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