

Clinical Trial Protocol

Iranian Registry of Clinical Trials

30 Jun 2026

The effect of six weeks Pilates training on range of motion of lower extremity and muscle strength of quadriceps and hamstring in the women with nonspecific chronic LBP

Protocol summary

Study aim

The effect of six weeks of Pilates training on non-specific chronic low back pain

Design

Thirty patients with non-specific chronic low back pain(30 to 35 year) were randomly selected and randomly divided into experimental and control groups(n:15) the experimental group received pilates exercises for 6 weeks and the control group received physiotherapy modalities. The pain questionnaire, hand dynamometer, digital goniometer were used to assessthe variables. independent and dependent t were used to analyze the data.

Settings and conduct

The clinical study of sport clubs and blind blindness on the control group of 15 people who received physical therapy modalities from clinics in Tehran.

Participants/Inclusion and exclusion criteria

Not having any fractures in the lower extremities and spine, not having a history of knee surgery, having no history of inflammatory diseases, lacking physical activity limiting diseases, lacking systemic or pulmonary systemic lung disease, or having a history of back pain for more than 3 months

Intervention groups

The experimental group performed 15 Pilates exercises for 6 weeks. The 15-person experimental group received physiotherapy modalities for 6 weeks

Main outcome variables

Independent variable: Pilates exercises for 6 weeks
Dependent variable: pain, lower extremity limb movement, muscle strength, 4 female and female hamstrings

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20181011041309N1**

Registration date: **2019-12-22, 1398/10/01**

Registration timing: **prospective**

Last update: **2019-12-22, 1398/10/01**

Update count: **0**

Registration date

2019-12-22, 1398/10/01

Registrant information

Name

Mahsa Jalilian

Name of organization / entity

University raja gazvin

Country

Iran (Islamic Republic of)

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Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-12-23, 1398/10/02

Expected recruitment end date

2020-08-02, 1399/05/12

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of six weeks Pilates training on range of motion of lower extremity and muscle strength of quadriceps and hamstring in the women with nonspecific chronic LBP

Public title

The effect of six weeks Pilates training on range of motion of lower extremity and muscle strength of quadriceps and hamstring in the women with nonspecific chronic LBP

Purpose

Other

Inclusion/Exclusion criteria**Inclusion criteria:**

Not having any abdominal fractures in the lower extremities and the spine Not having a history of knee surgery Has no history of inflammatory diseases Not having illnesses limiting physical activity Not having systemic diseases of the kidneys, lungs, gastrointestinal tract or blood History of back pain for more than 3 months

Exclusion criteria:

having any abdominal fractures in the lower extremities and the spine having a history of knee surgery history of inflammatory diseases having illnesses limiting physical activity having systemic diseases of the kidneys, lungs, gastrointestinal tract or blood not History of back pain for more than 3 months

Age

From **30 years** old to **35 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Not randomized

Randomization description**Blinding (investigator's opinion)**

Single blinded

Blinding description

The control group was kept blind and received physiotherapy modalities from physiotherapy clinics.

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

National Committee on Ethics in Biomedical Research

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Motehari street

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1587958711

Approval date

2019-10-12, 1398/07/20

Ethics committee reference number

IR.SSRC.REC.1398.078

Health conditions studied**1****Description of health condition studied**

Non-specific chronic low back pain

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Non-specific chronic low back pain

Timepoint

Six weeks

Method of measurement

Physician Examination Sheet

Secondary outcomes**1****Description**

The Pain

Timepoint

Six weeks

Method of measurement

Pain Questionnaire

2**Description**

Motion Range

Timepoint

Six weeks

Method of measurement

Gonia Meter

3**Description**

Muscle Strength

Timepoint

Six weeks

Method of measurement

Dynamometer

Intervention groups

1

Description

Intervention group: Experimental group receiving Pilates exercises

Category

Diagnosis

2

Description

Control group: Practices receive physiotherapy modalities

Category

Diagnosis

Recruitment centers

1

Recruitment center

Name of recruitment center

Ladies Campus Garden

Full name of responsible person

Mahsa Jaliliyan

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Across The Street From Azadegan Water Park

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Raja University Of Qazvin

Full name of responsible person

Dr. Bahaghighat

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Grant name

10000000

Grant code / Reference number

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

No

Title of funding source

Personal

Proportion provided by this source

100

Public or private sector

Public

Domestic or foreign origin

Domestic

Category of foreign source of funding

empty

Country of origin

Type of organization providing the funding

Other

Person responsible for general inquiries

Contact

Name of organization / entity

University Of Raja - Qazvin

Full name of responsible person

Mahsa Jaliliyan

Position

University Student

Latest degree

Master

Other areas of specialty/work

University Student

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Person responsible for updating data**Contact****Name of organization / entity**

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Full name of responsible person

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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

Anyone's personal information is kept with us only when
the results are published in general to both groups

When the data will become available and for how long

1399

To whom data/document is available

mahsa jaliliyan amir hosein barati

Under which criteria data/document could be used

Just evaluate the variables and draw conclusions

From where data/document is obtainable

mahsa jailiyan 09229332856

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

Variables are evaluated first, then 6 weeks Pilates
exercises are performed, and after six weeks the
variables are re-evaluated and the results are
communicated.

Comments