Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 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

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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
Street address
Motehari street
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Province
Tehran
Postal code
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
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Sponsors / Funding sources

1

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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

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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