

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Response of eight weeks of selected Pilates training on lipid profile, fasting blood sugar, blood pressure and fat percentage of women with non-alcoholic fatty liver disease in Ahvaz city

Protocol summary

Study aim

Response of eight weeks of selected Pilates training on lipid profile, fasting blood sugar, blood pressure and fat percentage of women with non-alcoholic fatty liver disease in Ahvaz city

Design

In this semi-experimental study, 20 women with non-alcoholic fatty liver disease (NAFLD) were selected in two groups with equal numbers by simple randomization method.

Settings and conduct

The present study was a semi-experimental and applied research. To conduct the study, 20 volunteer women with non-alcoholic fatty liver disease were selected at the Fibroscan Department of Aria Hospital. The subjects were divided into the Pilates training (N=10) and control (N=10) groups by simple randomization method. Blood pressure and fat percentage were measured before and after the end of eight weeks of intervention. 24 hours before the start of the protocol, the subjects attended the laboratory at 9:00 a.m. following 12 hours of fasting and their blood samples were taken by the laboratory technician for measuring FBS, TG, TC, HDL, LDL, VLDL levels. At the end of eight weeks and 48 hours after the end of the protocol, the blood test was taken again

Participants/Inclusion and exclusion criteria

Women with non-alcoholic fatty liver disease, age range from 30 to 55 years, not suffering from cardiovascular, joint and skeletal diseases, not performing regular sports activities during the last 6 months/ Taking supplements or lipid-lowering medication

Intervention groups

The first intervention group: Pilates group performed performed 60 minutes(10 min warm-up, 40 min Pilates training, and 10 min cool-down) of Pilates training three days a week for eight weeks in the gym. The second intervention group: The control group did not do any

sports activities.

Main outcome variables

Improving performance activity, getting familiar with Pilates training and its effects, improving research information for the future

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230216057435N2**

Registration date: **2023-12-23, 1402/10/02**

Registration timing: **retrospective**

Last update: **2023-12-23, 1402/10/02**

Update count: **0**

Registration date

2023-12-23, 1402/10/02

Registrant information

Name

Sedigheh Kaabomeir

Name of organization / entity

The University of Shahid Chamran of Ahvaz

Country

Iran (Islamic Republic of)

Phone

+98 916 090 4022

Email address

s.kaabomeir1996@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-05-20, 1402/02/30

Expected recruitment end date

2023-07-22, 1402/04/31
Actual recruitment start date
 2023-06-21, 1402/03/31
Actual recruitment end date
 2023-08-23, 1402/06/01
Trial completion date
 2023-10-23, 1402/08/01

Scientific title
 Response of eight weeks of selected Pilates training on lipid profile, fasting blood sugar, blood pressure and fat percentage of women with non-alcoholic fatty liver disease in Ahvaz city

Public title
 Selected Pilates training on lipid profile, fasting blood sugar, blood pressure and fat percentage of women with non-alcoholic fatty liver disease

Purpose
 Supportive

Inclusion/Exclusion criteria
Inclusion criteria:
 Women with non-alcoholic fatty liver disease Age range from 30 to 55 years Not suffering from cardiovascular, joint and skeletal diseases Not performing regular sports activities during the last 6 months
Exclusion criteria:
 Taking supplements or lipid-lowering medication

Age
 From **30 years** old to **55 years** old

Gender
 Female

Phase
 N/A

Groups that have been masked
No information

Sample size
 Target sample size: **20**
 Actual sample size reached: **20**

Randomization (investigator's opinion)
 Randomized

Randomization description
 In this study, the lottery method of simple random sampling was used. To this end, the samples were numbered from 1 to 20 without observing the order and a number was assigned to each one. Then, without respecting the order written on similar cards from 1 to 20, the cards were shuffled and placed in the lottery box. Each participant chose a random card so that eventually the cards with even numbers comprised the Pilates group and the cards with odd numbers comprised the control group.

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

Research Ethics Committees of Sport Sciences
 Research Institute (SSRI)

Street address

Floor 5, Block B3, Oil Co. 2000 Unit Houses, Resalat
 District, Ahvaz, Khuzestan, IRAN

City

Ahvaz

Province

Khuzestan

Postal code

6177882869

Approval date

2023-06-20, 1402/03/30

Ethics committee reference number

IR.SSRC.REC.1402.067

Health conditions studied

1

Description of health condition studied

Non-alcoholic fatty liver disease

ICD-10 code

K76.0

ICD-10 code description

Fatty (change of) liver, not elsewhere classified.
 (Nonalcoholic fatty liver disease [NAFLD])

Primary outcomes

1

Description

Lipid profile

Timepoint

24hours before and 48 hours after the end of the
 protocol

Method of measurement

Laboratory test kits

2

Description

Fasting blood sugar

Timepoint

24hours before and 48 hours after the end of the
 protocol

Method of measurement

Laboratory test kits

3

Description

Blood pressure

Timepoint

24hours before and 48 hours after the end of the protocol

Method of measurement

Automatic Blood Pressure

4

Description

Fat percentage

Timepoint

24hours before and 48 hours after the end of the protocol

Method of measurement

Harpender calipers

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: Pilates group performed performed 60 minutes(10 min warm-up, 40 min Pilates training, and 10 min cool-down) of Mat Pilates training three days a week for eight weeks in the gym. They did it without equipment using their body weight in the presence of a Pilates coach.

Category

Lifestyle

2

Description

Control group: did not do any sports activities.

Category

Lifestyle

Recruitment centers

1

Recruitment center**Name of recruitment center**

Aria Hospital in Ahvaz

Full name of responsible person

Abdolhamid Habibi

Street address

Golestan Blvd, Shahid chamran University of Ahvaz, Ahvaz, Iran

City

Ahvaz

Province

Khouzestan

Postal code

6135783151

Phone

+98 916 118 4888

Email

hamidhabibi330@gmail.com

Sponsors / Funding sources

1

Sponsor**Name of organization / entity**

Shahid Chamran University of Ahvaz

Full name of responsible person

Abdolhamid Habibi

Street address

Golestan Blvd, Shahid Chamran University of Ahvaz

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Postal code

6135783151

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Email

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Grant name**Grant code / Reference number****Is the source of funding the same sponsor organization/entity?**

Yes

Title of funding source

Shahid Chamran University of Ahvaz

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**

Academic

Person responsible for general inquiries

Contact**Name of organization / entity**

Shahid Chamran University of Ahvaz

Full name of responsible person

Sedigheh Kaabomeir

Position

Master of Sports Physiology

Latest degree

Master

Other areas of specialty/work

Sports Physiology

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Floor 5, Block B3, Oil Co. 2000 Unit Houses, Resalat District, Ahvaz, Khuzestan

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Person responsible for scientific inquiries

Contact

Name of organization / entity
Shahid Chamran University of Ahvaz
Full name of responsible person
Sedigheh Kaabomeir
Position
Master of Sports Physiology
Latest degree
Master
Other areas of specialty/work
Sports Physiology
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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no further information

Study Protocol

Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan

Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

Undecided - It is not yet known if there will be a plan to make this available

Data Dictionary

Undecided - It is not yet known if there will be a plan to make this available