

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of the effect of a course of NASM and neck stabilization exercises on head position, respiratory function, pain rate and neck disability index in women with forward head posture

Protocol summary

Study aim

Comparison of the effect of a course of National Academy of Sports Medicine (NASM) and neck stabilization exercises on head position, respiratory function, pain rate and neck disability index in women with forward head posture

Design

The clinical trial consisted of two experimental group and a control group, with parallel and random groups. The Random allocation software was used for randomization.

Settings and conduct

The present study is quasi-experimental research with a pretest-posttest design with two experimental groups and one control group. 30 women with forward head posture are randomly divided into three test and control groups. Head position, respiratory function, pain rate and neck disability index variables are measured before and after exercise.

Participants/Inclusion and exclusion criteria

Inclusion criteria: having Forward head posture, Female gender; Exclusion criteria: exercises outside the supervision of the researcher, Upper limb injury, History of surgery.

Intervention groups

The first intervention group consisted of women with head forwards who received the NASM exercises intervention. The second intervention group consisted of women with forward head who received the intervention of neck stabilization exercises. The control group consisted of women with forward head who did not receive any intervention.

Main outcome variables

Head position, respiratory function, pain rate and neck disability index

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230105057058N1**

Registration date: **2023-01-30, 1401/11/10**

Registration timing: **prospective**

Last update: **2023-01-30, 1401/11/10**

Update count: **0**

Registration date

2023-01-30, 1401/11/10

Registrant information

Name

Peyvand Keyvani

Name of organization / entity

Raja University

Country

Iran (Islamic Republic of)

Phone

+98 26 3332 1906

Email address

pk.keyvani23@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-02-20, 1401/12/01

Expected recruitment end date

2023-03-20, 1401/12/29

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of the effect of a course of NASM and neck stabilization exercises on head position, respiratory function, pain rate and neck disability index in women with forward head posture

Public title

The effect of exercises on women with forward head posture

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Female Gender Forward head posture

Exclusion criteria:

Exercises outside the supervision of the researcher
Upper limb injury History of surgery

Age

No age limit

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: 30

Randomization (investigator's opinion)

Randomized

Randomization description

The simple Randomization Method was used to assign individuals to 3 groups that in this method, Random Allocation Software was used to create a random sequence. 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 central randomization method was used.

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

2022-09-21, 1401/06/30

Ethics committee reference number

IR.SSRC.REC.1401.068

Health conditions studied

1

Description of health condition studied

Forward head posture

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Head position

Timepoint

At the beginning of the study (before the start of the intervention) and after 8 weeks of intervention

Method of measurement

photography

Secondary outcomes

1

Description

Respiratory function

Timepoint

At the beginning of the study (before the start of the intervention) and after 8 weeks of intervention

Method of measurement

Spirometry

2

Description

Pain rate

Timepoint

At the beginning of the study (before the start of the intervention) and after 8 weeks of intervention

Method of measurement

Neck pain questionnaire

3

Description

Neck disability index

Timepoint

At the beginning of the study (before the start of the intervention) and after 8 weeks of intervention

Method of measurement

Neck disability index questionnaire

Intervention groups

1

Description

Intervention group: National Academy of Sports Medicine (NASM) exercises, which include 4 stages of inhibition, lengthening, activation, and integrate, which are performed for 8 weeks and 3 sessions per week, each session lasting 2 hours.

Category

Treatment - Other

2

Description

Intervention group: Neck stabilization exercises in which the various structures that make up the spine are taught to be in a neutral position, and the flexibility, endurance and muscle strength of this area are restored. These exercises are performed for 8 weeks and 3 sessions per week, each session lasting 2 hours.

Category

Treatment - Other

3

Description

Control group: Without any training and just doing normal daily activities

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Raja University

Full name of responsible person

Peyvand Kiani

Street address

Novrizian, Motahhari blvd.

City

Qazvin

Province

Qazvin

Postal code

95834-34148

Phone

+98 28 3367 7101

Email

pk.keyvani23@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Raja University

Full name of responsible person

Hadi Miri

Street address

Novrizian, Motahhari Bolv

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Province

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Postal code

95834-34148

Phone

+98 28 3367 7101

Email

hd.miri@gmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Raja University

Proportion provided by this source

5

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

Raja University

Full name of responsible person

Hadi Miri

Position

Assistant professor

Latest degree

Ph.D.

Other areas of specialty/work

Corrective Exercise

Street address

Novrizian, Motahhari Bolv

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Phone

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Raja University

Full name of responsible person

Hadi Miri

Position

Assistant professor

Latest degree

Ph.D.

Other areas of specialty/work

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Person responsible for updating data

Contact

Name of organization / entity

Raja University

Full name of responsible person

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Position

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Other areas of specialty/work

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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

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: hd.miri@aut.ac.ir

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

by email: hd.miri@aut.ac.ir and the reason for using the documents.

Comments