

# 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

##### City

Qazvin

##### Province

Qazvin

##### 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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Qazvin

##### Province

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##### Postal code

95834-34148

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## Person responsible for scientific inquiries

### Contact

**Name of organization / entity**

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**Position**

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### Contact

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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**