Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 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.
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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Full name of responsible person
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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
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
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Person responsible for scientific inquiries

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Person responsible for updating data

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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