Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Comparison of the Effectiveness of Scapular Stabilization Exercises with Abdominal Control Feedback with Neck stabilization Exercises on Pain, Posture, Muscles Electromyography Activity in Patients with Non-specific Chronic Neck Pain and Forward Head Deformity

Protocol summary

Study aim

The General Aim of the Research is to Compare Scapular Stabilization Exercises with Neck Stabilization Exercises on Pain, Posture, Electromyographic Activity of Muscles in Subjects with Forward Head Deformity and Non-Specific Chronic Pain

Design

The Clinical Trial will have a Control Group, with Parallel Groups, Double-Blind, Randomized on 42 Female Patients with Chronic Neck Pain and Forward Head Deformity.

Settings and conduct

Using the Notice, Female Students are Requested to Refer to the Sports Science Laboratory of Shahid Beheshti University if they wish to Participate in the Research. The Samples will be Included in the Study According to the Entry Criteria. Assessments will be made and reviewed again after Four Weeks.

Participants/Inclusion and exclusion criteria

The Statistical Population of the Current Research will be Young Female Students of Shahid Beheshti University with Forward Head Deformity (Craniovertebral Angle less than 50 Degrees) and Chronic Neck Pain. Entry Requirements: Age Range between 20 and 30 years, No Sports History in the last 6 months, no history of surgery, trauma or accident and fracture in the Upper Limb Area, Having Neck Pain, Score Equal to or more than 3 According to WAS, Forward Head Posture. Conditions of Non-Entry: Surgery on the Spine, Suffering from Neurological and Orthopedic Diseases

Intervention groups

After Evaluating the Entry Criteria and Entering the Study, Subjects will be divided into two Intervention Groups (Neck Stabilization Exercises and Scapular Stabilization Group with Abdominal Control Feedback) and a Control Group.

Main outcome variables

According to the Intensity of the Exercises and the Exercise Protocol used in the Recent studies, there will be No Special Consequences for Subjects.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20221022056265N1**
Registration date: **2023-05-20, 1402/02/30**
Registration timing: **registered_while_recruiting**

Last update: **2023-05-20, 1402/02/30**
Update count: **0**

Registration date

2023-05-20, 1402/02/30

Registrant information

Name
mohadese mahboubi nia
Name of organization / entity
Shahid beheshti university
Country
Iran (Islamic Republic of)
Phone
+98 34 4220 1027
Email address
m.mahboubinia@mail.sbu.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-05-10, 1402/02/20

Expected recruitment end date
2023-07-11, 1402/04/20
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of the Effectiveness of Scapular Stabilization Exercises with Abdominal Control Feedback with Neck stabilization Exercises on Pain, Posture, Muscles Electromyography Activity in Patients with Non-specific Chronic Neck Pain and Forward Head Deformity

Public title
Comparison of the Effectiveness of Scapular Stabilization Exercises with Neck Stabilization Exercises on some Factors in Patients with Chronic Neck Pain and Forward Head Posture
Purpose
Treatment
Inclusion/Exclusion criteria
Inclusion criteria:
Age Range 20 to 30 Years Having Pain in the Neck for more than Three Months Having Head Forward Deformity Normal Body Mass Index Absence of Pregnancy Not taking Certain Drugs Having a Score Equal to or Greater than 3 Based on the Pain Scale No History of Surgery, Trauma or Accident and Fracture in the Upper Limb Area Lack of Sports Experience in the Last 6 Months or in the Process of Studying
Exclusion criteria:
Subject's Unwillingness to continue the Research Failure to participate in the Post-Test Doing any Parallel Treatment or Similar Activity During the Research Absence of more than 2 Consecutive Sessions or 3 non-Consecutive Sessions During the Training Period And any Factor that disrupts the Research Process after the Pre-Test, so that the Subject is not able to continue Cooperating in the Research
Age
From **20 years** old to **30 years** old
Gender
Female

Phase
N/A
Groups that have been masked

- Data analyser

Sample size
Target sample size: **42**
Randomization (investigator's opinion)
Randomized
Randomization description
The Grouping of Patients will be Done using the Random Block Method. The Patients don't know which Group they will be in, Then the Subjects will be divided into Three Groups of 14 people: The First Group will receive Scapular Stabilization Exercises with Abdominal Feedback, the Second Group will receive Neck Stabilization Exercises, and the Third Group will be the Control Group. They will not receive any Sports Intervention. Because the Execution of the Exercises will be under the Supervision of the Examiner, the Examiner will not be Blind, but the Data Analyst and Statistician will not have any Information about the Grouping of the Subjects
Blinding (investigator's opinion)
Double blinded
Blinding description
In this Study, because the Exercises will be under the Supervision of the Examiner, the Examiner won't be Blind, but the Data Analyst and Statistician won't have any Information about the Grouping of the Subjects
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Shahid Beheshti University Research
Street address
No. 1, Shahid Heydari Alley, Ibn Sina Street, Sirjan, Kerman, Iran
City
Sirjan
Province
Kerman
Postal code
7818674788
Approval date
2022-10-09, 1401/07/17
Ethics committee reference number
IR.SBU.REC.1401.085

Health conditions studied

1

Description of health condition studied
Chronic Non-Specific Neck Pain - Forward Head Deformity
ICD-10 code
G89.29
ICD-10 code description
Other chronic pain

Primary outcomes

1

Description

Pain Score based on Visual Analog Scale (VAS)

Timepoint

At the Beginning of the Study (before the Start of the Intervention) and after Four Weeks, both in the Training Groups and in the Control Group

Method of measurement

Pain Measurement will be Done using a Visual analog Scale (WAS Ruler)

2

Description

Craniovertebral Angle (CV)

Timepoint

At the Beginning of the Study (before the Start of the Intervention) and after Four Weeks, both in the Training Groups and in the Control Group

Method of measurement

The Measurement of the Craniovertebral Angle will be done using the Photogrammetric Method

3

Description

Investigating the Electromyographic Activity of Muscles (Including the Timing and Maximum Activation) in the Muscles: Upper Trapezius, Middle Trapezius, Lower Trapezius, Serratus Anterior and Sternocleidomastoid

Timepoint

At the Beginning of the Study (before the Start of the Intervention) and after Four Weeks, both in the Training Groups and in the Control Group

Method of measurement

Measurement of Electromyographic Activity of Muscles will be done using a Surface Electromyography Device

Secondary outcomes

empty

Intervention groups

1

Description

The First Intervention Group: Scapular Stabilization Exercises with Abdominal Control Feedback, this Group will perform the Specified Exercises Three Sessions a Week for Four Weeks in a Period of 40 to 50 Minutes

Category

Other

2

Description

The Second Intervention Group: Neck Stabilization Exercises, this Group Performs the Specified Exercises Three Times a Week for Four Weeks and for a Duration of 40 to 50 Minutes

Category

Treatment - Other

3

Description

Control Group: Without any Exercise Intervention

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Laboratory of Corrective Exercises, Faculty of Physical Education and Sports Sciences, Shahid Behesh

Full name of responsible person

Cirus Sheikhi

Street address

Shahid Shahriari Square, Evin, Tehran

City

Tehran

Province

Tehran

Postal code

1983969411

Phone

+98 21 29901

Email

m.mahboubinia@mail.sbu.ac.ir

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Beheshti University

Full name of responsible person

Sajad Mehrabi

Street address

Shahid Beheshti University, Shahid Shahriari Square, Evin, Tehran

City

Tehran

Province

Tehran

Postal code

1983969411

Phone

+98 21 29901

Email

pr-office@sbu.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shahid Beheshti University

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 Beheshti University

Full name of responsible person

Mohadese Mahboubi Nia

Position

MSc Student

Latest degree

Bachelor

Other areas of specialty/work

Sports Pathology and Corrective Exercises

Street address

Next to Espinas Hotel, Keshavarz Boulevard, Valiasr Square,Tehran,

City

Tehran

Province

Tehran

Postal code

1416634651

Phone

+98 21 8896 5310

Email

pr-office@sbu.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity

Shahid Beheshti University

Full name of responsible person

Mohadese Mahboubi Nia

Position

MSc Student

Latest degree

Bachelor

Other areas of specialty/work

Sports Pathologist and Corrective Exercises

Street address

Next to Espinas Hotel, Keshavarz Boulevard, Valiasr Square, Tehran

City

Tehran

Province

Tehran

Postal code

1416634651

Phone

+98 21 29901

Email

pr-office@sbu.ac.ir

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Shahid Beheshti University

Full name of responsible person

Mohadese Mahboubi Nia

Position

MSc Student

Latest degree

Bachelor

Other areas of specialty/work

Sports Pathology and Corrective Exercises

Street address

Next to Espinas Hotel, Keshavarz Boulevard, Square, Tehran, IRAN

City

Tehran

Province

Tehran

Postal code

1416634651

Phone

+98 21 29901

Email

mahboubi.mohadese@gmail.com

Sharing plan

Deidentified Individual Participant Data Set (IPD)

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

Study Protocol

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

Statistical Analysis Plan

Not applicable

Informed Consent Form

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

Clinical Study Report

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable