

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Comparison of Dry Needling and Kinesio Taping on Range of Motion, Pain Pressure Threshold, Neck Alignment, Disability and Static Balance on Forward Head Posture (FHP)

Protocol summary

Study aim

Comparison of Dry Needling and Kinesio Taping on Photogrammetric Data, Disability and Static Balance on Forward Head Posture (FHP)

Design

Randomize control trial, with parallel groups, single blind

Settings and conduct

The study is about people with a forward-looking condition. It is performed in the Faculty of Rehabilitation, Tehran University of Medical Sciences. First, individuals complete the consent form and their personal information questionnaire is completed. People are then randomly divided into two groups by tossing a coin. Evaluations are done once before the intervention in the first session, the second time after the intervention in the first session and the third time after the intervention in the third session

Participants/Inclusion and exclusion criteria

Inclusion criteria: cranio vertebral angle <50; woman with 20 to 40 years old. Exclusion criteria: participation in a study similar to the present study; history of neck fracture and vascular disease; contraindications of dry needles such as: systemic disease, fever, high anxiety; skin allergy to kinesiotape.

Intervention groups

1. Dry needling with stretching exercises; 2. Kinesiotape with stretching exercises

Main outcome variables

Pain (VAS), pain pressure threshold, cervical range of motion, cranio vertebral angle, cranio horizontal angle, forward shoulder translation, scapular index, neck disability index, static balance

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20211017052787N1**

Registration date: **2021-11-28, 1400/09/07**

Registration timing: **prospective**

Last update: **2021-11-28, 1400/09/07**

Update count: **0**

Registration date

2021-11-28, 1400/09/07

Registrant information

Name

Sara Golzareh

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 6573 4351

Email address

s.golzareh94@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-12-06, 1400/09/15

Expected recruitment end date

2022-04-22, 1401/02/02

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of Dry Needling and Kinesio Taping on Range of Motion, Pain Pressure Threshold, Neck

Alignment, Disability and Static Balance on Forward Head Posture (FHP)

Public title

Comparison of Dry Needling and Kinesio Taping on Forward Head Posture (FHP)

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Women between the ages of 20 and 40 Cranio Vertebral Angle < 50

Exclusion criteria:

Participation in a study similar to the present study
History of neck fracture and vascular disease
Contraindications of dry needles such as: systemic disease, fever, high anxiety Skin Allergy to kinesiotype
History of spinal and neuro skeletal disease or cervical and vertebral surgery Neck injury or trauma Bleeding disorders, treatment with anticoagulants, a history of seizures or epilepsy Fibromyalgia syndrome, diagnosis of mental disorders such as anxiety and depression, malignancy, pregnancy, infectious disease, inflammatory musculoskeletal disease.

Age

From **20 years** old to **40 years** old

Gender

Female

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **44**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization will be done in the form of a simple randomization method and the coin tossing method will be used. So that the face of the coin will be used for the kinesiotype group and the back of the coin will be used for the dry needle group. At the beginning of the study, by tossing a coin, it is decided that the person will enter the kinesiotype or dry needle group. In this way, if the coin comes on, the person will enter the kinesiotype group, and if the coin comes back, the person will enter the dry needle group.

Blinding (investigator's opinion)

Single blinded

Blinding description

The present study will be a single blind. In this way, the therapist, who is the evaluator and the data analyzer, will be aware of the study groups, but the participant will be unaware of the treatment groups. This means that the person in the kinesiotype group does not know about the treatment of the person in the dry needle group and does not know in which group he is. Because these two people will not meet each other.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Tehran University of Medical Sciences

Street address

Vice Chancellor for Research, 6th Floor, Central University Organization, Corner of Ghods St, Keshavarz Blvd.

City

Tehran

Province

Tehran

Postal code

1417653761

Approval date

2021-11-07, 1400/08/16

Ethics committee reference number

IR.TUMS.MEDICINE.REC.1400.884

Health conditions studied

1

Description of health condition studied

Forward head posture

ICD-10 code

R29.3

ICD-10 code description

Abnormal posture

Primary outcomes

1

Description

Cranio Vertebral Angle

Timepoint

Before Intervention- After the first and third sessions

Method of measurement

Photogrammetry_digital camera

2

Description

Cranio Horizontal Angle

Timepoint

Before Intervention- After the first session and third sessions

Method of measurement

Photogrammetry_digital camera

3

Description

Pain

Timepoint

Before Intervention- After the first session and third sessions

Method of measurement

Visual analogue scale

4

Description

Pain pressure threshold

Timepoint

Before Intervention- After the first session and third sessions

Method of measurement

Algometer

5

Description

Cervical range of motion

Timepoint

Before Intervention- After the first session and third sessions

Method of measurement

Goniometer

6

Description

Neck Disability Index

Timepoint

Before Intervention and after third sessions

Method of measurement

Persian version of neck disability index questionnaire

7

Description

Scapular Index

Timepoint

Before Intervention- After the first session and third sessions

Method of measurement

Ruler

8

Description

Forward Shoulder Translation

Timepoint

Before Intervention- After the first session and third sessions

Method of measurement

Ruler

9

Description

Static Balance

Timepoint

Before Intervention- After the first session and third sessions

Method of measurement

Chronometer

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: dry needling with stretching exercises. In this way, the reduction dry needle technique will be applied at the motorpoint point of the upper trapezius muscle on both sides. The needle rotates counterclockwise for 15 seconds (one rotation per second) and then stays in place for 20 minutes. Also, pectoralis muscle stretching exercises, neck extensions and sternocleidomastoid are taught to be performed with specific repetitions (2 sets, each set 10 repetitions, each repetition pauses for 30 seconds). Interventions will take place in three sessions on every other day.

Category

Rehabilitation

2

Description

Intervention group: kinesio tape with stretching exercise. An inhibitory technique with 15 to 25% tension kinesiotype will be performed for the upper trapezius muscle on both sides. The I-band is cut from the tip and the initial part is glued to the clavicle about two inches below the junction of the upper trapezius, then the shoulder goes to the adduction and the neck to the contra lateral flexion, and the tip is parallel to the muscle fibers with 15 to 25% tension. finally the end of the non-tension type is glued to the occiput. Exercises are like a dry needle group. Interventions will be performed in three sessions on every other day.

Category

Rehabilitation

Recruitment centers

1

Recruitment center**Name of recruitment center**

school of Rehabilitation, Tehran University of Medical Sciences

Full name of responsible person

Sara Golzareh

Street address

Number 336, Next to Safialishah Street, Piche Shemiran, Enghelab Avenue

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1148965111
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s.golzareh94@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
Dr.Akbar Fotuhi
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Deputy for Research,6th Floor, Tehran University of
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Grant name

Grant code / Reference number

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

No

Title of funding source

Deputy for Research

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
Tehran University of Medical Sciences
Full name of responsible person
Sara Golzareh
Position
Student
Latest degree
Bachelor
Other areas of specialty/work

Physiotherapy
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School of Rehabilitation, No:336, Next to Safialishah
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Person responsible for scientific inquiries

Contact

Name of organization / entity
Tehran University of Medical Sciences
Full name of responsible person
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Position
full Professor, PT, Ph.D
Latest degree
Ph.D.
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Physiotherapy
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Person responsible for updating data

Contact

Name of organization / entity
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Full name of responsible person
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Student
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Other areas of specialty/work
Physiotherapy
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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

Because sharing IPD is useless according to the our study, We should consider all the sample size.

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Not applicable

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

Not applicable

Data Dictionary

Yes - There is a plan to make this available

Title and more details about the data/document

The results of the primary outcome measure will be shared.

When the data will become available and for how long

These data will become available 2 months after publication.

To whom data/document is available

The results will be available for people working in academic instutions.

Under which criteria data/document could be used

people can use the data only for the rehabilitative purposes.

From where data/document is obtainable

Miss Sara Golzareh will be in charge of communication via E-mail: s.golzareh94@gmail.com

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

After receiving the request and the main purposes for needing the data, we will response to the request maximally to one month.

Comments