

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Effects of Kendall exercise versus Gong's mobilization on pain, range of motion, function and strength in text neck syndrome.

Protocol summary

Study aim

To determine the effects of Kendall exercises & Gong's mobilization on pain, Range of motion, Function & strength in Text neck syndrome

Design

A randomized controlled trail, not blind trial, 2 group.

Settings and conduct

Fatima Hospital, University road Sargodha, Pakistan

Participants/Inclusion and exclusion criteria

inclusion criteria: Young adults (male & female, 18-35 years age), Using smart phone > 2 hours a day, CVA < 50° & RSA > 52°, NPRS > 5 & NDI > 10, Having neck pain which is increased by sustained posture and feeling of stiffness on turning the head and neck after long usages. exclusion criteria: Inflammatory disorder, Neck trauma, Malignancy, pregnancy, disc prolapse, stenosis, herniation, spondylolisthesis, and osteoporosis, Current use of any medication or physical therapy treatment.

Intervention groups

Patients will be randomly divided into two groups with 12 subjects in each group. After taking baseline assessment both groups A and B will be treated with Hot pack for 7-10 minutes and then Kendall exercises will be performed, Strengthening the deep cervical flexors, Stretching the cervical extensors, strengthening shoulder retraction, stretching the pectoralis muscle. 5 sets consisting of 12 repetitions of postures, each taking 30 seconds, 3 sessions/week on alternate days will be given. In addition to this, Gong's Mobilization group will receive concurrent application of apophyseal joint gliding and end range passive physiological movements while the patients' cervical postures will passively neutral in order to induce normal cervical extension. 10-15 repetition, 3 sessions/week on alternate days will be given for 6 weeks. Treatment time of each session will be approximately 20-30 minutes.

Main outcome variables

Pain(NPRS), Functional performance(NDI), Cervical AROM's(Universal Goniometer), Strength

(Sphygmomanometer)

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20201019049069N1**

Registration date: **2021-01-13, 1399/10/24**

Registration timing: **retrospective**

Last update: **2021-01-13, 1399/10/24**

Update count: **0**

Registration date

2021-01-13, 1399/10/24

Registrant information

Name

Hamna Afzal

Name of organization / entity

Riphah International University

Country

Pakistan

Phone

+92 48 3768660

Email address

hamnaafzal101@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2020-10-20, 1399/07/29

Expected recruitment end date

2020-11-30, 1399/09/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effects of Kendall exercise versus Gong's mobilization on pain, range of motion, function and strength in text neck syndrome.

Public title

Effects of Kendall exercise versus Gong's mobilization on pain, range of motion, function and strength in text neck syndrome.

Purpose

Treatment

Inclusion/Exclusion criteria**Inclusion criteria:**

Young adults (male & female, 18-35 years age), more than one year using a smartphone, Using smart phone for more than 2 hours a day Craniovertebral angle(CVA)less than 50° and rounded shoulder angle (RSA) greater than 52° Score of more than 5 on NPRS and more than 10 on NDI Having neck pain which is increased by sustained posture and feeling of stiffness on turning the head and neck after long usages.

Exclusion criteria:

Spinal infection or inflammatory disorder Neck surgery or trauma Torticollis scoliosis Malignancy pregnancy Diagnosed cases of disc prolapse, stenosis, herniation, spondylolisthesis, and osteoporosis Current use of any medication or physical therapy treatment.

Age

From **18 years** old to **35 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **24**

Randomization (investigator's opinion)

Randomized

Randomization description

Written informed consent will be taken. After enrollment into study, patient will be allocated either to group A or Group B by lottery method. No. of Chits will be equal to total sample size, odd Numbers will be allocated to Group A and even number will be allocated to Group B. Each patient will be requested to draw a chit from the box and after that patient will be recruited into either Group A or Group B

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**

Riphah International University

Street address

28-M Quaid-e-Azam Industrial Estate, Kot Lakhpat, Lahore

City

Lahore

Postal code

54000

Approval date

2020-12-29, 1399/10/09

Ethics committee reference number

REC/RCR & AHS/20/0105

Health conditions studied**1****Description of health condition studied**

Text neck or Turtle neck posture, can be described as a repeated stress injury and pain sustained from excessive watching or texting on handheld devices for long periods of time. It can cause many harmful symptoms such as neck pain, shoulder pain, upper back pain, chronic headaches and increased curvature of the spine. Untreated text neck can result into serious permanent damage.

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

pain

Timepoint

before treatment and after treatment (6th week)

Method of measurement

Numeric Pain Rating Scale (NPRS)

2**Description**

Functional performance

Timepoint

before treatment and after treatment (6th week)

Method of measurement

Neck Disability Index (NDI)

3**Description**

Cervical AROM

Timepoint

before treatment and after treatment (6th week)

Method of measurement

Universal Goniometer

4

Description

Strength

Timepoint

before treatment and after treatment (6th week)

Method of measurement

Sphygmomanometer

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: After taking baseline measures, Group A will be treated with hot pack for 7-10 min. Kendall exercise will be performed to Strengthen the deep cervical flexors and shoulder retractors and Stretching the cervical extensors and pectoralis muscle. Kendall exercise group will participate in 5 sets consisting of 12 repetitions of postures, each taking 30 seconds, 3 sessions per week on alternate days will be given.

Category

Treatment - Other

2

Description

Intervention group: After taking baseline measures, group B will be treated with hot pack for 7-10 min. The Gong's Mobilization group will receive concurrent application of apophyseal joint gliding and end range passive physiological movements while the patients' cervical postures will passively neutral in order to induce normal cervical extension. 10-15 repetition, 3 sessions per week on alternate days will be given for 6 weeks. Treatment time of each session will be approximately 20-30 minutes.

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Fatima Hospital, University road Sargodha, Pakistan

Full name of responsible person

Hamna Afzal

Street address

University road, Sargodha.

City

Sargodha

Postal code

40100

Phone

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Email

hamnaafzal101@gmail.com

Web page address

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Fatima hospital, Sargodha

Full name of responsible person

Hamna Afzal

Street address

University road, Sargodha

City

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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

Fatima Hospital, Sargodha

Proportion provided by this source

100

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

Other

Person responsible for general inquiries

Contact

Name of organization / entity

Riphah International University Lahore, Pakistan

Full name of responsible person

Hamna Afzal

Position

student

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

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City

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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student

Latest degree

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Other areas of specialty/work

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Person responsible for updating data**Contact****Name of organization / entity**

Riphah College of Rehabilitation Sciences (RCRS)

Full name of responsible person

Hamna Afzal

Position

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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

There is no further decision and information is decided yet

Study Protocol

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

Statistical Analysis Plan

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

Informed Consent Form

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

Clinical Study Report

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

Analytic Code

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

Data Dictionary

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