Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Effects of TMJ exercises on pain, range of motion and functional disability in patient with non-specific neck pain.

Protocol summary

Study aim
To compare the effects of Effects of TMJ exercises on pain, range of motion and functional disability in patient with non-specific neck pain.

Design
Parallel group, single-blinded, randomized controlled trial

Settings and conduct
OPD Physiotherapy department university of Lahore, Lahore

Participants/Inclusion and exclusion criteria
Inclusion Criteria:- age of 18-55 years old, and with primary complaints of NSNP (symptoms lasting for at least 3 months), one of the four signs of TMD (joint sounds, deviation during mouth opening, muscle pain at a minimum of two tender points in the temporalis or masseter muscles and pain during mouth opening), Both male and female patients, Exclusion Criteria:- acute muscle trauma, received physiotherapy during the previous 3 months, unilateral and bilateral upper extremity symptoms, any neurological disorders, Musculoskeletal systemic disease, serious spinal pathology.

Intervention groups
All person who came to physiotherapy department OPD, university of Lahore was consider and assess for NSNP. 50 patients were randomly apportioned into 2 groups, 25 patients in each group. Gathering A patient were dealt with routine physiotherapy while Group B patients were treated with jaw activities and routine physiotherapy. Randomization of patients into groups were finished by mean of lottery strategy. Plan of the investigation was single blinded RCT. In which patients was kept blind. Furthermore, in this investigation patients were kept visor.

Main outcome variables
• Pain, ROM, Functional Activity

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20200611047734N3**
Registration date: **2021-09-19, 1400/06/28**
Registration timing: **retrospective**

Last update: **2021-09-19, 1400/06/28**
Update count: **0**

Registration date
2021-09-19, 1400/06/28

Registrant information

Name
AYESHA RAZZAQ

Name of organization / entity
King Edward Medical University,Lahore

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Pakistan

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2020-01-02, 1398/10/12

Expected recruitment end date
2020-10-02, 1399/07/11

Actual recruitment start date
2020-03-07, 1398/12/17

Actual recruitment end date
2020-12-07, 1399/09/17

Trial completion date
2020-12-07, 1399/09/17

Scientific title
Effects of TMJ exercises on pain, range of motion and functional disability in patient with non-specific neck pain.

Public title
Effects of TMJ exercises on pain, range of motion and functional disability in patient with non-specific neck pain.

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
Age of 18-55 years old With primary complaints of NSNP (symptoms lasting for at least 3 months) One of the four signs of TMD (joint sounds, deviation during mouth opening, muscle pain at a minimum of two tender points in the temporalis or masseter muscles and pain during mouth opening). Both male and female patients The severity of pain should be adequate (on a numerical pain rating scale it should be higher than 2 out of 10) for approving a clinically beneficial effect to be exhibited

Exclusion criteria:
Acute muscle trauma, Received physiotherapy during the previous 3 months Unilateral and bilateral upper extremity symptoms Any neurological disorders. Musculoskeletal systemic disease Serious spinal pathology Thoracic outlet syndrome Cervical rib Cervicogenic headache and vertigo. The previous history of whiplash trauma, prior to 6 weeks of inspection .Patients with h/o fractures of cervical or thoracic spine Any former h/o cervico-thoracic surgery

Age
From **18 years** old to **55 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant

Sample size
Target sample size: **50**
More than 1 sample in each individual
Number of samples in each individual: **2**
25 patients will be in each group, estimated by using 5% level of significance, 90% power of test
Actual sample size reached: **50**
More than 1 sample in each individual
Actual sample size in each individual: **2**
25 patients will be in each group, estimated by using 5% level of significance, 90% power of test

Randomization (investigator's opinion)
Randomized

Randomization description
All the participants who will come to the physiotherapy department will be considered and screen for nonspecific neck pain. 50 patients will be allotted in two groups i.e.; group A(routine physiotherapy) and group B(TMJ exercise+ routine physiotherapy) via lottery method, 25 in each group. patients with having lottery number with group A treated with just baseline treatment of physiotherapy, and patient having lottery method with Group B managed with baseline treatment and also receive a additional technique that was TMJ exercise.

Blinding (investigator's opinion)
Single blinded

Blinding description
it will be a single-blind study in which participant/ patients will be kept blind for treatment technique. 2 different technique will be provided to patients. and they will blind about that which technique will be given to which patients.

Placebo
Not used

Assignment
Parallel

Other design features
Parallel groups, single blinded, single setting

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Institutional Review Board

Street address
Raiwind road lahore

City
LAHORE

Postal code
55150

Approval date
2020-03-06, 1398/12/16

Ethics committee reference number
IRB UOL FAHS/734 111/2020

Health conditions studied

1

Description of health condition studied
nonspecific neck pain

ICD-10 code
M43.02

ICD-10 code description
Spondylolysis, cervical region

Primary outcomes

1

Description
Pain

Timepoint
Baseline and after 4th week

Method of measurement
Numeriac pain rating scale

2

Description
Range of motion
Timepoint
Baseline and after 4th week
Method of measurement
Goniometer

3

Description
Functional activity
Timepoint
Baseline and after 4th week
Method of measurement
Neck Functional Disability index

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Group A (Routine Physiotherapy): - Hot pack + TENS+ neck isometrics exercises. Dosage: - o Hot pack for 20 minutes o TENS= 100Hz, 50 µ s pulse, 20 minutes.o Isometrics Neck exercise = 10 times repetition .
Category
Treatment - Devices

2

Description
Intervention group: Group B (Jaw Exercises + Routine Physiotherapy): - Hot pack + TENS+ jaw exercises + neck isometrics exercises. Dosage: - o Hot pack for 20 minutes o TENS= 100Hz, 50 µ s pulse, 20 minutes.o Jaw exercises: - 10 times repetitiono Isometrics Neck exercise = 10 times repetition .
Category
Treatment - Devices

Recruitment centers

1

Recruitment center
Name of recruitment center
OPD Physiotherapy department university of Lahore, Lahore.
Full name of responsible person
Muhammad Riwan
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Sponsors / Funding sources

1

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Grant name
Muhammad Rizwan
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
university of Lahore, Lahore
Proportion provided by this source
20
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
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Full name of responsible person
Muhammad Rizwan
Position
lecturer
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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
Undecided - It is not yet known if there will be 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
Undecided - It is not yet known if there will be a plan to make this available

Title and more details about the data/document
Effects of Temporomandibular joint exercises on pain, range of motion and functional disability in patient with non-specific neck pain

When the data will become available and for how long
study is completed and become available after its publication

To whom data/document is available
person in academic institute. Patient data will not be shown

Under which criteria data/document could be used
under the usage with terms in which journal is accessed /processed for publication it could be used in request.

From where data/document is obtainable
+923367595206 from the University office and Responsible supervisor and from journal we will process in future

What processes are involved for a request to access data/document
can be on call or mail It will be only used in confidential way for improving research and benefit of humanity

Comments
data can bee provided on request