

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

combined effects of diaphragmatic breathing and thoracic kinesio taping on pulmonary functions, dyspnea, thoracoabdominal mobility and quality of life in Chronic obstructive Pulmonary Disease

Protocol summary

Study aim

To determine Combined Effects of diaphragmatic breathing and Thoracic Kinesio Taping on Pulmonary functions, dyspnea, Thoracoabdominal mobility and quality of life in mild to moderate COPD Chronic Obstructive Pulmonary Disease patients .

Design

Two parallel group ,single blinded ,Randomized Controlled Trial with pre and post assessment

Settings and conduct

Pulmonology ward : Ittefaq hospital Lahore

Participants/Inclusion and exclusion criteria

Inclusion Criteria: ●Mild to moderate level COPD patients ●Both male and female gender ●Age between 40-60 years ●Vitally stable patient ●Individuals with no prior experience with thoracic Kinesio taping Exclusion Criteria: ● Participants with unstable medical conditions (e.g., cardiovascular instability) ● Individuals with cognitive impairments ●Pregnant women ● Participants with known allergies to tape ● Participants with known respiratory conditions other than COPD ● Diabetic patients

Intervention groups

Thoracic Kinesio Taping along with diaphragmatic breathing

Main outcome variables

• Dyspnea 12 Questionnaire will be used to assess change in Dyspnea • Digital Spirometer will be used to assess Pulmonary functions changes • St. George's Respiratory Questionnaire for COPD patients (SGRQ-C) will be used to assess quality of life

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20191117045462N19**

Registration date: **2024-07-23, 1403/05/02**

Registration timing: **prospective**

Last update: **2024-07-23, 1403/05/02**

Update count: **0**

Registration date

2024-07-23, 1403/05/02

Registrant information

Name

Wajeeha Zia

Name of organization / entity

Riphah International University

Country

Pakistan

Phone

+92 42 35126110

Email address

wajeeha_z@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-08-15, 1403/05/25

Expected recruitment end date

2024-12-15, 1403/09/25

Actual recruitment start date

2024-08-15, 1403/05/25

Actual recruitment end date

2024-12-15, 1403/09/25

Trial completion date

2024-12-25, 1403/10/05

Scientific title

combined effects of diaphragmatic breathing and thoracic kinesio taping on pulmonary functions, dyspnea,

thoracoabdominal mobility and quality of life in Chronic obstructive Pulmonary Disease

Public title

combined effects of diaphragmatic breathing and Thoracic Kinesio Taping on Pulmonary functions, dyspnea, thoracoabdominal mobility and quality of life in Chronic Obstructive Pulmonary Disease

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Mild to moderate level COPD patients Both male and female gender Age between 40-60 years Vitally stable patient Individuals with no prior experience with thoracic Kinesio taping

Exclusion criteria:

Participants with unstable medical conditions (e.g., cardiovascular instability) Individuals with cognitive impairments Pregnant women Participants with known allergies to tape Participants with known respiratory conditions other than COPD Diabetic patients

Age

From **40 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Investigator

Sample size

Target sample size: **74**

Actual sample size reached: **74**

Randomization (investigator's opinion)

Randomized

Randomization description

Taking into account the aforementioned inclusion and exclusion criteria patients will be divided into two groups by convenient sampling and allocated to 2 groups by simple randomization process by sealed opaque envelope method and labeled as 0 for group A and 1 for group B.

Blinding (investigator's opinion)

Single blinded

Blinding description

Investigator will be blind. Assessment will be done by 2nd therapist who will not be involved in treatment and data analysis.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Riphah College of rehabilitation & Allied health sciences

Street address

25 Raza Saeed Rd, Bhabra Block M Gulberg III, Lahore, Punjab

City

Lahore

Postal code

54000

Approval date

2024-01-15, 1402/10/25

Ethics committee reference number

RCR&AHS/REC/MS-CPPT

Health conditions studied

1

Description of health condition studied

Mild to moderate COPD patients

ICD-10 code

J44.9

ICD-10 code description

Chronic obstructive pulmonary disease, unspecified

Primary outcomes

1

Description

Dyspnea

Timepoint

Pre post treatment

Method of measurement

Dyspnea 12 Questionnaire

Secondary outcomes

1

Description

Pulmonary functions

Timepoint

Pre post treatment

Method of measurement

Digital Spirometer

Intervention groups

1

Description

Experimental group will receive thoracic kinesio taping and diaphragmatic breathing exercises. Diaphragmatic breathing exercises will be performed by assuming flat position. Be sure to flex your knees and support your head. • Put one hand over your breastbone in the center of your chest, and the other just below your rib. Take a

calm, deep breath in through your nose. • Squeeze out with your lips pursed and tense the muscles directly beneath your ribs. • Advice: Tighten your muscles while using the hand you placed below your ribs to gently push in and up. • Participant will be scheduled to attend 20 treatment sessions (5 sessions every week for 4 weeks, 35 minutes each session) Assessment will be done on 0 weeks, 2nd week, and 4th week • Thoracic Kinesio Taping will be performed by this process :The material to be used for thoracic KT application will be 100% cotton, latex-free, 5-cm wide, elastic tape. Patients will be instructed to sit upright on an armless chair with no back support, with knees flexed to 90 degrees, feet on the floor and arms relaxed. Kinesio tape will be applied anteriorly and posteriorly to facilitate respiratory muscles (primarily diaphragm) along the subcostal area. Anteriorly, the base point of an “I” shaped kinesio tape will be applied on xiphoid process with 50-75% tension only on the linea alba and the tails of the tape will be applied towards subcostal curvature with no tension. Posteriorly, a second “I” shaped kinesio tape will be applied from the back. The base point of the tape will be applied on the projection of 12th Thoracic vertebra with 50-75% tension and the tails will be applied toward the ribs without any tension. Additionally, two more kinesio tapes will be applied to upper trapezius area which lies between neck and acromion at both sides (left and right). • Patient will be taped for about 48 hours • Participant will be scheduled to attend 12 treatment sessions (3 sessions every week for 4 weeks, 35 mins each session) • Assessment will be done on 0-week, 2nd week, and 4th week. Treatment evaluation will be done by measuring severity of dyspnea by dyspnea-12 scale, quality of life will be measured by st. george questionnaire and pulmonary function by spirometry.

Category

Rehabilitation

2

Description

Control group: will receive diaphragmatic breathing exercises. Diaphragmatic breathing exercises will be performed by assuming flat position. Be sure to flex your knees and support your head. • Put one hand over your breastbone in the center of your chest, and the other just below your rib. Take a calm, deep breath in through your nose. • Squeeze out with your lips pursed and tense the muscles directly beneath your ribs. • Advice: Tighten your muscles while using the hand you placed below your ribs to gently push in and up. • Participant will be scheduled to attend 20 treatment sessions (5 sessions every week for 4 weeks, 35 minutes each session) Assessment will be done on 0 weeks, 2nd week, and 4th week • Treatment evaluation will be done by measuring severity of dyspnea by dyspnea-12 scale, quality of life will be measured by st. george questionnaire and pulmonary function by spirometry.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Riphah College of Rehab & Allied health sciences

Full name of responsible person

Riphah College of Rehab & Allied health sciences

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Recruitment center

Name of recruitment center

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Full name of responsible person

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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

Educational

Grant code / Reference number
Is the source of funding the same sponsor organization/entity?

No

Title of funding source

Riphah international university

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

Academic

Person responsible for general inquiries

Contact

Name of organization / entity

Riphah international university

Full name of responsible person

Arfa Amin

Position

Student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Person responsible for updating data

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Student

Latest degree

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Other areas of specialty/work

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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 information

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