# Clinical Trial Protocol
# Iranian Registry of Clinical Trials

22 Nov 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 pauients (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

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**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.Assesment 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, 35mints 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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### 2

**Recruitment center**

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## Sponsors / Funding sources

### 1

**Sponsor**

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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**
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Arfa Amin
**Position**
Student
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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