

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Comparative Effect of Buteyko Breathing Technique and Lotorp Method Among COPD

Protocol summary

Study aim

To find out comparative effect of Buteyko Breathing Technique and Lotorp Method among COPD patients

Design

40 participants will be recruited. Two parallel groups, double blinded, randomized clinical trial with pre and post assessment.

Settings and conduct

Pulmonary Ward Gulab Devi Educational Complex

Participants/Inclusion and exclusion criteria

Inclusion Criteria Patients between age group of 40-65 years. Patients of both genders. Patients with mild or moderate COPD according to the GOLD criteria Exclusion Criteria: Patients with restrictive lung disease. Patients with any infection. Patients having uncontrolled asthma. Pregnant women. Risk of pneumothorax Low resting oxygen saturation(13) Unstable conditions, active infections and neurological condition Patients who cannot comply this technique

Intervention groups

Group A: It will be treated by Buteyko Breathing Technique Group B: It will be treated with Lotorp Method

Main outcome variables

Dyspnea measured using Modified Medical Research Council (MMRC) scale, Chest Expansion measured using Measuring tape, Pulmonary Function Tests using Diagnostic Spirometer and St George Respiratory Questionnaire

General information

Reason for update

Acronym

Effects of Lotorp Method Among COPD.

IRCT registration information

IRCT registration number: **IRCT20191117045462N24**

Registration date: **2024-08-29, 1403/06/08**

Registration timing: **retrospective**

Last update: **2024-08-29, 1403/06/08**

Update count: **0**

Registration date

2024-08-29, 1403/06/08

Registrant information

Name

Wajeeha Zia

Name of organization / entity

Riphah International University

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Pakistan

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-07-16, 1403/04/26

Expected recruitment end date

2024-07-16, 1403/04/26

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparative Effect of Buteyko Breathing Technique and Lotorp Method Among COPD

Public title

Comparative Effect of Buteyko Breathing Technique and Lotorp Method Among COPD

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Patients between age group of 40-65 years Patients of both genders. Patients with mild or moderate COPD according to the GOLD criteria Exclusion criteria: Patients with restrictive lung disease. Patients with any infection. Patients having uncontrolled asthma. Pregnant women Risk of pneumothorax Low resting oxygen saturation unstable conditions, active infections and neurological condition Patients who cannot comply this technique	Lahore Postal code 54660 Approval date 2024-07-16, 1403/04/26 Ethics committee reference number RCS&AHS/REC/MS-CPPT
Age From 40 years old to 60 years old Gender Both Phase N/A Groups that have been masked <i>No information</i> Sample size Target sample size: 40 Randomization (investigator's opinion) Randomized Randomization description Taking into account the above mentioned inclusion and exclusion criteria, patients will be recruited into two groups labeled as 0 for group A and 1 for group B by simple random sampling through sealed opaque enveloped. Blinding (investigator's opinion) Double blinded Blinding description The study will be double blinded. The assessor physiotherapist and the patient both will be blinded. Although the consent form will be taken from the patient. But the patient will not be aware of the study. Accessor physiotherapist will be involved in the study. He or She must have 2 or 3 year experience in relevant domain. He will access the patient by defined outcome measure tools before the start of study at the end Placebo Not used Assignment Parallel Other design features	Health conditions studied 1 Description of health condition studied Chronic Pulmonary Obstructive Disease ICD-10 code Chronic br ICD-10 code description J44.8
	Primary outcomes 1 Description Pulmonary function Timepoint Pre- Post Treatment Method of measurement Spirometer (Diagnostic) 2 Description Dyspnea Timepoint Pre- Post Treatment Method of measurement Modified Medical Research Council Scale (MMRC) 3 Description Chest expansion Timepoint Pre- Post Treatment Method of measurement Measuring Tape 4 Description Disease Specific Timepoint Pre- Post Treatment Method of measurement St Georges Respiratory Questionnaire (SGRQ)
Secondary Ids empty	Secondary outcomes 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 25-M Block, Lahore City	

Intervention groups

1

Description

Intervention group A: Buteyko breathing technique: Treatment to this groups will be performed twice a day, 3-5 times per week, for 3-4 months. . The idea behind it is that people tend to hyperventilate -to breathe faster and more deeply than necessary. Subjects in the Buteyko a groups were trained for 3-5 days and instructed to practice the exercises for 15 minutes twice daily, and for three months duration. Step 1: The "Control pause (CP)" breathing test Step 2: Shallow breathing Sit up straight Step 3: Putting it together Take Control pause Each patient was trained by Buteyko breathing technique twice per week, and the session was about (20 min). The first week each patient of this group trained by Buteyko breathing technique intensively for 4 days then the following 3 weeks were 2 sessions per week. The time of the session was in the morning at least two hours after meals. Each patient performed the BBT by himself at home twice daily (in the morning and in the evening, at least 2 h after meals) during the time of the study Buteyko Breathing Technique.

Category

Rehabilitation

2

Description

Intervention group B : Lotorp Method: Lotorp Method is a two-part therapy involving daily breathing exercises and massage of thoracic muscles at the clinic every third week. The treatment at the clinic is performed for a time of about 60 min. It starts massage based on classic Swedish massage, combined with trigger point treatment if the therapist finds specially tense points in the muscles. On the larger muscles are performed a little faster rubbing movement. The patient lies on his/ her stomach when the back is treated. Back muscles and tendons treated with deep massage are: Erector spinae, (the sacro spinal system), Rhomboids major and minor, Quadratus lumborum, and external intercostal muscles, Sternum (several muscles attach to the sternum, and a rubbing movement is used to stimulate these attachments), Subclavius, Serratus anterior (upper parts), Scalene Sternocleidomastoids, Diaphragm (external front part), abdominal muscles (transverses abdominis, oblique, internus abdominis, externus abdominis and rectus abdominis). After this exhalations are manually assisted during exhalation by pressing the chest, slowly but powerfully. The hands are placed along the side of the chest and deep exhalations are performed 10 times. Then the hands are moved to the upper parts of the chest. A similar manual pressure during exhalation is performed 5 times. After this the patient is instructed to breathe in and out so that the thorax is moving as much as possible. Treatment to this groups will be performed twice a day, 3-5 times per week, for 3-4 months.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Gulab Devi Trust Hospital Lahore

Full name of responsible person

Gulab Devi Trust Hospital Lahore

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Sponsors / Funding sources

1

Sponsor

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Full name of responsible person

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Grant name

Nil
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
No
Title of funding source
Riphah International University Lahore
Proportion provided by this source
15
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

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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

No - There is not 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