

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Effects of Inspiratory Muscle Training on Dyspnea and Daily Living Activity in the Management of Asthmatic Patients.

Protocol summary

Study aim

The aim of this study is to determine the effects of Inspiratory Muscle Training on Dyspnea and Daily Living Activity in the Management of Asthmatic Patients.

Design

Randomized, two parallel groups, single-blind, controlled trial with pre and post-assessment

Settings and conduct

WAPDA Teaching Hospital Complex, Lahore

Participants/Inclusion and exclusion criteria

Inclusion criteria: The age group of 20 to 40 years; Diagnosed with asthma according to the Global Initiative for Asthma criteria; Moderate cases (FEV1=50-79); Well-controlled hypertension or diabetes mellitus if exist; At least 12 months asthma diagnosed by a physician. Exclusion criteria: Pregnancy; Rib Fracture; Risk Of Pneumothorax; Neuromuscular disease; Unstable cardiovascular disease; Musculoskeletal disease; Pneumonectomy; Red flags like fever, night sweats, malaise.

Intervention groups

Intervention group: conventional asthmatic rehabilitation program along with inspiratory muscle training. Control group: conventional asthmatic rehabilitation program.

Main outcome variables

Functional pulmonary assessment using measurement of exercise capacity; 5 Times Sit to Stand Test for dyspnea; London Chest Activity of Daily Living scale for daily life.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20191117045462N3**

Registration date: **2021-07-13, 1400/04/22**

Registration timing: **retrospective**

Last update: **2021-07-13, 1400/04/22**

Update count: **0**

Registration date

2021-07-13, 1400/04/22

Registrant information

Name

Wajeelha Zia

Name of organization / entity

Riphah International University

Country

Pakistan

Phone

+92 42 35126110

Email address

wajeelha_z@yahoo.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-04-29, 1400/02/09

Expected recruitment end date

2021-06-30, 1400/04/09

Actual recruitment start date

2021-04-29, 1400/02/09

Actual recruitment end date

2021-06-30, 1400/04/09

Trial completion date

2021-07-10, 1400/04/19

Scientific title

Effects of Inspiratory Muscle Training on Dyspnea and Daily Living Activity in the Management of Asthmatic Patients.

Public title

Effects of Inspiratory Muscle Training on Dyspnea and Daily Living Activity in the Management of Asthmatic Patients.

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
 Diagnosed with asthma according to the Global Initiative for Asthma criteria. Moderate cases FEV1 =50-79 Well-controlled hypertension or diabetes mellitus if they have At least 12 months asthma diagnosed by a physician

Exclusion criteria:
 Pregnancy Rib Fracture Risk Of Pneumothorax Neuromuscular disease Unstable cardiovascular disease Musculoskeletal disease Pneumonectomy Red flags like: fever, night sweats, malaise

Age
 From **20 years** old to **40 years** old

Gender
 Both

Phase
 N/A

Groups that have been masked

- Investigator

Sample size
 Target sample size: **30**
 Actual sample size reached: **24**

Randomization (investigator's opinion)
 Randomized

Randomization description
 Patients will be recruited in the study through a convenient sampling technique and then will be randomly assigned to each group through Random Sampling sealed opaque enveloped. Labeled as 1 group A and 2 for group B. Half enveloped will be labeled with 1 and a half with labeled 2. If a patient gets the envelope with label 1 then will be treated in group A, and if a patient gets the envelope with label 2 that will be treated in group B.

Blinding (investigator's opinion)
 Single blinded

Blinding description
 Investigator will be blind. Assessment will be done by another 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

13-14-C-civic center, township near Hamdard Chowk, Lahore

City

Lahore

Postal code

54000

Approval date

2642-02-16, 2020/11/27

Ethics committee reference number

RCR&AHS/REC/MS-CPPT

Health conditions studied

1

Description of health condition studied

asthmatic patient

ICD-10 code

J45

ICD-10 code description

Asthma

Primary outcomes

1

Description

effects of Inspiratory muscle training

Timepoint

Pre- Post treatment

Method of measurement

London Chest Activity of Daily Living scale

Secondary outcomes

1

Description

Dyspnea and Daily Living Activity

Timepoint

Pre-Post Treatment

Method of measurement

• Functional pulmonary assessment to measure exercise capacity • 5 Times Sit to Stand Test for dyspnea • London Chest Activity of Daily Living scale for daily life

Intervention groups

1

Description

Intervention group: Conventional asthmatic rehabilitation program along with inspiratory muscle training.

Conventional asthmatic rehabilitation of the treatment which included pursed lip breathing, diaphragmatic breathing exercises and thoracic expansion exercises. 3 times/week with 10 repetitions/3 set/session/day.

Category

Rehabilitation

2

Description

Control group: Conventional asthmatic rehabilitation program. Conventional asthmatic rehabilitation of the treatment which included pursed lip breathing, diaphragmatic breathing exercises and thoracic expansion exercises along with inspiratory muscle training. The inspiratory muscle training will be performed using a incentive spirometer. The patient will be asked to breath in slowly through incentive spirometer after 10 inspiration. It will be repeated with few seconds of rest. The cycle of 10 inspiration for 15 times 3 times/week with 10 repetitions/3 set/session/day.

Category

Rehabilitation

Recruitment centers

1

Recruitment center

Name of recruitment center

Riphah college of rehabilitation & Allied Health Sciences

Full name of responsible person

Nida Ghaffar

Street address

13-14-C-civic center, township near Hamdard Chowk, Lahore

City

Lahore

Postal code

54000

Phone

+92 42 35126110

Email

nidaghaffar9@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Riphah International University

Full name of responsible person

Wajeetha

Street address

13-14-C-civic center, township near Hamdard Chowk, Lahore

City

Lahore

Postal code

54000

Phone

+92 42 35126110

Email

wajeetha_z@yahoo.com

Grant name

Educational

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?

Yes

Title of funding source

Riphah International University

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

Name of organization / entity

Riphah International University

Full name of responsible person

Nida Ghaffar

Position

student

Latest degree

Master

Other areas of specialty/work

Physiotherapy

Street address

13-14-C-civic center, township near Hamdard Chowk, Lahore

City

Lahore

Province

Punjab

Postal code

54000

Phone

+92 42 35126110

Email

nidaghaffar9@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity

Riphah International University

Full name of responsible person

Wajeetha

Position

Senior Lecturer

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

Street address

13-14-C-civic center, township near Hamdard Chowk, Lahore

City

Lahore
Province
Punjab
Postal code
54000
Phone
+92 42 35126110
Email
wajeeha_z@yahoo.com

Person responsible for updating data

Contact

Name of organization / entity
Riphah International University
Full name of responsible person
Nida Ghaffar
Position
student
Latest degree
Master
Other areas of specialty/work
Physiotherapy
Street address
13-14-C-civic center, township near Hamdard Chowk,
Lahore
City
Lahore
Province
Punjab

Postal code
54000
Phone
+92 42 35126110
Email
nidaghaffar9@gmail.com

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