

Clinical Trial Protocol

Iranian Registry of Clinical Trials

11 Sep 2026

Comparison of breathing exercises and low intensity circuit training in asthma patients

Protocol summary

Study aim

The aim of the study is to comprehensively compare the efficacy of breathing exercises and low-intensity circuit training as therapeutic interventions for asthma patients. This will help patients of asthma to become more independent.

Design

Pragmatic,community based,parallel group,double blinded, randomised control trial. There will be 357 patients that we will enroll.Study will be done form April-July 2024.

Settings and conduct

1. Azeem Hospital Multan 2. Sughran Wazeer Child Clinic Hospital Multan 3. South Punjab Hospital Multan 4. Muhammad Rehabilitation Clinic (Muhammad Institute of Medical and Allied Sciences Multan) after approval from institutional ethical committee

Participants/Inclusion and exclusion criteria

Inclusion criteria: Patients of 18-40 years, diagnosed asthmatic patients, both genders. Exclusion criteria: Patients with vascular neoplasia, fibromyalgia, radiculopathy, neuropathy, tumor, joint fractures, and vestibular problems, heart problems, not willing to participate, pschycological unfit patients, pregnant/lactating ladies were excluded.

Intervention groups

Group-A will be given breathing exercises and group-B will be given low-intensity circuit exercises for 12 weeks. Breathing exercises for group-A includes pursed lip breathing, diaphragmatic breathing and breath holding exercises. For group-B low intensity circuit exercises includes walking, running and abdominal crunches.

Main outcome variables

Lung capacity, forced expiratory volume, exercise capacity and quality of life.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20230202057310N6**

Registration date: **2024-06-09, 1403/03/20**

Registration timing: **registered_while_recruiting**

Last update: **2024-06-09, 1403/03/20**

Update count: **0**

Registration date

2024-06-09, 1403/03/20

Registrant information

Name

Imran Ahmad Khan

Name of organization / entity

Muhammad Nawaz Shareef University of Agriculture, Multan

Country

Pakistan

Phone

+92 333 6120602

Email address

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-04-12, 1403/01/24

Expected recruitment end date

2024-07-12, 1403/04/22

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparison of breathing exercises and low intensity

circuit training in asthma patients	
Public title	Breathing exercises and low intensity circuit training in asthma patients
Purpose	Treatment
Inclusion/Exclusion criteria	Inclusion criteria: Both male and female Age 18-40 years Patients diagnosed with asthma Exclusion criteria: Not willing to participate Psychological unfit patient Patients with heart problems/diseases Patient with musculoskeletal disorders Pregnant/ lactating ladies Patients with any trauma/neoplasms
Age	From 18 years old to 40 years old
Gender	Both
Phase	1-2
Groups that have been masked	- Participant - Investigator - Data analyser
Sample size	Target sample size: 357 More than 1 sample in each individual Number of samples in each individual: 3 At day 1, 6th week and at the end (12th week) parameters will be checked
Randomization (investigator's opinion)	Randomized
Randomization description	Double blinded study will be conducted randomization of participants in two groups will be done by lottery method
Blinding (investigator's opinion)	Double blinded
Blinding description	In a double-blinded study, participants will be blinded. Participants will be unaware of the type of treatments that will be evaluated after the completion of the intervention trial. subjects will choose between two samples and also the investigator will be kept blind as he will not know who is receiving the treatment and who is receiving a placebo or alternative treatment.
Placebo	Not used
Assignment	Parallel
Other design features	
Secondary Ids	empty
Ethics committees	

<u>1</u>	
Ethics committee	
Name of ethics committee	The Institutional Ethical Committee of Muhammad Institute of Medical and Allied Sciences,
Street address	Bosan Road
City	Multan
Postal code	66000
Approval date	2024-02-02, 1402/11/13
Ethics committee reference number	MIMAS/03/IRB/Farah
Health conditions studied	
<u>1</u>	
Description of health condition studied	Asthma
ICD-10 code	J45
ICD-10 code description	Asthma
Primary outcomes	
<u>1</u>	
Description	Lung capacity
Timepoint	12 weeks
Method of measurement	Spirometry
<u>2</u>	
Description	Forced expiratory volume
Timepoint	12 weeks
Method of measurement	Spirometry
<u>3</u>	
Description	Exercise capacity
Timepoint	12 weeks
Method of measurement	6-minute walk test and shuttle walk test
Secondary outcomes	
<u>1</u>	
Description	

Quality of life
Timepoint
12 weeks
Method of measurement
Asthma Quality of Life Questionnaire (AQLQ)

2

Description
Asthma Related Anxiety and Depression
Timepoint
12 weeks
Method of measurement
Asthma Related Anxiety and Depression Scale

Intervention groups

1

Description
Intervention group: Group-A will be treated with breathing exercises for 3 times/ week each session lasted for 45 minutes and total duration is 12 weeks
Category
Treatment - Other

2

Description
Intervention group: Group-B will be treated with low-intensity circuit exercises including cycling argometer, low intensity walking, running squats for 3 times/ week each session lasted for 45 minutes and total duration is 12 weeks12 weeks
Category
Treatment - Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Muhammad Rehabilitation Clinic
Full name of responsible person
Dr. Gul-e-Mizgan
Street address
Bosan road
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gulemizgan@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Ali -UI- Murtaza Department of Rehabilitation Science, MIMAS
Full name of responsible person
Gul-e-Mizgan
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Email
mimasmultan99@gmail.com
Grant name
Student fund
Grant code / Reference number
03/MIMAS/ANAS
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Ali -UI- Murtaza Department of Rehabilitation Science, MIMAS
Proportion provided by this source
50
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
Muhammad Nawaz Shareef University of Agriculture,Multan
Full name of responsible person
Imran Ahmad Khan
Position
Lecturer
Latest degree
Ph.D.
Other areas of specialty/work
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Person responsible for scientific inquiries**Contact****Name of organization / entity**

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Latest degree

Specialist

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Physiotherapy

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Person responsible for updating data**Contact****Name of organization / entity**

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Sharing plan**Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be 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

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