

Clinical Trial Protocol

Iranian Registry of Clinical Trials

28 Jun 2026

Effects of a Diaphragmatic Stretching on Pulmonary Functions, Exercise Tolerance and Quality's of Life in Covid-19 Survivors

Protocol summary

Study aim

The aim of this study is to determine effectiveness of diaphragmatic stretching for improving pulmonary function, exercise tolerance and quality of life in Covid 19 survivors

Design

Quasi experimental study design

Settings and conduct

Subjects are single blinded

Participants/Inclusion and exclusion criteria

COVID-19 survivors (i.e., diagnosed with COVID-19, have had respiratory illness and discharged from the hospital 6 weeks ago) Aged 35 years or above Gender (Male and Female) No medical diagnosis of psychiatric illness Stated willingness to comply with all study procedures and availability for the duration of the study Ability of participant to understand and the willingness to sign a written informed consent document. Hemoglobin of 9.0 gm/dl or higher COVID-19 Survivor Group documented prior COVID-19 as evidenced by: At least 6 weeks ago since onset of COVID-19 symptoms and no fever for at least 1 week. Participants were excluded if they exhibited. Any person who experienced any back pain or who had experienced any type of illness in the past week were excluded from the study.(35) History of any of the following in the past 14 days: fever > 38.2 degrees Celsius; new or worsening respiratory symptoms (e.g. cough, dyspnea). Subjects were also excluded if they had received any manual therapy within the previous month.(35) Pregnancy Refusal to give consent

Intervention groups

Single group

Main outcome variables

Spirometry 6MWT Borg Scale SF8 questionnaire

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20211224053506N1**

Registration date: **2022-01-19, 1400/10/29**

Registration timing: **retrospective**

Last update: **2022-01-19, 1400/10/29**

Update count: **0**

Registration date

2022-01-19, 1400/10/29

Registrant information

Name

Hafiza Syeda Farah Zahid

Name of organization / entity

Ripah international university lahore

Country

Pakistan

Phone

+92 310 6238453

Email address

farahzahid977@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-07-10, 1400/04/19

Expected recruitment end date

2021-12-25, 1400/10/04

Actual recruitment start date

2021-08-05, 1400/05/14

Actual recruitment end date

2021-11-12, 1400/08/21

Trial completion date

2022-02-25, 1400/12/06

Scientific title

Effects of a Diaphragmatic Stretching on Pulmonary Functions, Exercise Tolerance and Quality's of Life in Covid-19 Survivors

Public title

Effect of stretching exercise of diaphragm on lung function

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

COVID-19 survivors (i.e., diagnosed with COVID-19, have had respiratory illness and discharged from the hospital 6 weeks ago) No medical diagnosis of psychiatric illness Stated willingness to comply with all study procedures and availability for the duration of the study Ability of participant to understand and the willingness to sign a written informed consent document. Hemoglobin of 9.0 gm/dl or higher COVID-19 Survivor Group documented prior COVID-19 as evidenced by: At least 6 weeks ago since onset of COVID-19 symptoms and no fever for at least 1 week. Aged 35 years or above. Gender (Male and Female)

Exclusion criteria:

Participants were excluded if they exhibited. Any person who experienced any back pain or who had experienced any type of illness in the past week were excluded from the study. (35) History of any of the following in the past 14 days: fever > 38.2 degrees Celsius; new or worsening respiratory symptoms (e.g. cough, dyspnea). Subjects were also excluded if they had received any manual therapy within the previous month. (35) Pregnancy Refusal to give consent

Age

From **35 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **53**

Actual sample size reached: **53**

Randomization (investigator's opinion)

Not randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

No

Placebo

Not used

Assignment

Single

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Riphah International University

Street address

qasoori chowk near jinnah chowk multan

City

lahore

Postal code

66000

Approval date

2021-07-03, 1400/04/12

Ethics committee reference number

022948

Health conditions studied

1

Description of health condition studied

Covid 19 survivors

ICD-10 code

B97.2

ICD-10 code description

Coronavirus as the cause of diseases classified elsewhere

Primary outcomes

1

Description

Spirometry

Timepoint

1st week, 9th week, 18th week of treatment

Method of measurement

spirometer

Secondary outcomes

1

Description

6 minute walk test

Timepoint

1st week, 9th week and 18th week of treatment

Method of measurement

walk test

Intervention groups

1

Description

Intervention group:

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Khawaja farid hospital multan

Full name of responsible person

Dr.Shazia

Street address

qasoori chowk near jinnah chowk multan

City

lahore

Postal code

66000

Phone

+92 61 6223119

Email

farahzahid977@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Riphah international university

Full name of responsible person

Dr.Shakeel

Street address

qasoori chowk near jinnah chowk multan

City

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Postal code

66000

Phone

+92 61 6223119

Email

farahzahid977@gmail.com

Grant name

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

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

Dr.Shakeel

Position

head of department

Latest degree

Ph.D.

Other areas of specialty/work

Physiotherapy

Street address

qasoori chowk near jinnah chowk multan

City

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Province

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Postal code

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Phone

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Email

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Person responsible for scientific inquiries

Contact

Name of organization / entity

Riphah international university

Full name of responsible person

Qurat ul ain

Position

professor

Latest degree

Master

Other areas of specialty/work

Physiotherapy

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Email

farahzahid977@gmail.com

Person responsible for updating data

Contact

Name of organization / entity

Riphah international university

Full name of responsible person

Farah zahid

Position

student

Latest degree

Bachelor

Other areas of specialty/work

Physiotherapy

Street address

qasoori chowk near jinnah chowk multan

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Email

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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

No - There is not a plan to make this available

Analytic Code

Not applicable

Data Dictionary

Not applicable