Clinical Trial Protocol
Iranian Registry of Clinical Trials

13 Nov 2026

Effectiveness of upper limb exercise along diaphragmatic breathing with or without lower limb exercise in covid-19 survivors

Protocol summary

Study aim
The basic purpose of this study is to assess the effectiveness of upper limb exercise along with diaphragmatic breathing with or without lower limb exercise in COVID-19 survivors
Design
Single blinded, randomized, total sample size is 176 and each groups contain 88 participants by lottery method.
Settings and conduct
conducted at khawaja farid hospital
Participants/Inclusion and exclusion criteria
Inclusion Criteria: Aged 35 and 60 years; male and female; COVID-19 survivors discharged from the hospital six weeks ago (diagnosed with COVID-19, respiratory illness) Exclusion Criteria: having any of the following symptoms in the last 14 days: fever; new or worsening respiratory symptoms; > 38.2 degrees Celsius (e.g., cough, dyspnea); Pregnant Females; Refusal to give consent approval.
Intervention groups
group A received upper limb exercise along diaphragmatic breathing while group B received upper limb exercise along diaphragmatic breathing with or without lower limb exercise in COVID-19 survivors
Main outcome variables
Respiratory function, exertion, quality of life

General information

Reason for update
Acronym
interventional
IRCT registration information
IRCT registration number: **IRCT20220606055084N1**
Registration date: **2022-06-26, 1401/04/05**
Registration timing: **retrospective**

Last update: **2022-06-26, 1401/04/05**
Update count: **0**
Registration date
2022-06-26, 1401/04/05

Registrant information
Name
Anam Zulfiqar
Name of organization / entity
Muhammad Institute of Medical and Allied Sciences
Country
Pakistan
Phone
+92 336 6389053
Email address
anamzulfiqar@mimas.edu.pk

Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2021-11-15, 1400/08/24
Expected recruitment end date
2021-12-15, 1400/09/24
Actual recruitment start date
2021-11-15, 1400/08/24
Actual recruitment end date
2021-12-20, 1400/09/29
Trial completion date
2022-02-02, 1400/11/13

Scientific title
Effectiveness of upper limb exercise along diaphragmatic breathing with or without lower limb exercise in covid-19 survivors

Public title
Effectiveness of exercise along with diaphragmatic breathing in covid-19 survivors
Purpose
Treatment
Inclusion/Exclusion criteria

Inclusion criteria:
Between the ages of 35-60 years Both male and female COVID-19 survivors; Discharged from the hospital six weeks ago (diagnosed with COVID-19, with respiratory illness)
Exclusion criteria:
Any of the following: fever; new or worsening respiratory symptoms > 38.2 degrees Celsius (e.g., cough, dyspnea) in the last 14 days, Pregnant females Refusal to give consent approval.

Age
From **36 years** old to **60 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Participant

Sample size
Target sample size: **176**
More than 1 sample in each individual
Number of samples in each individual: **88**
Each group consists of 88 participants.
Actual sample size reached: **176**
More than 1 sample in each individual
Actual sample size in each individual: **88**
Each group consists of 88 participants

Randomization (investigator's opinion)
Randomized

Randomization description
Allocation concealment occur and patients will be recruited by using simple randomization through lottery method. Lottery method carried out through sealed envelops. Every participants will randomly choose the sealed envelop and open this sealed envelop.

Blinding (investigator's opinion)
Single blinded

Blinding description
Those participants will be unaware of the method of treatment that will be evaluated after the completion of the interventional trial. Subjects will be given the option of choosing between two samples. Both the samples are in the same packing. In one sample, upper limb exercise was performed alongside diaphragmatic breathing exercise in one sample, and lower limb exercise was performed alongside diaphragmatic breathing in the other two samples. Subjects will be completely unaware of the type and effect of both interventions.

Placebo
Used

Assignment
Parallel

Other design features
Borg Scale, spirometry, 6-minutes walk test and SF8 questionnaire was used to assess the patients before and after treatment.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Institutional ethical committee of Muhammad institute of medical and allied science Multan

Street address
HBL street near sabzazar metro station busan road, Multan

City
Multan

Postal code
60700

Approval date
2021-09-18, 1400/06/27

Ethics committee reference number
2021/IRB/10/PT/17

Health conditions studied

1

Description of health condition studied
corona virus

ICD-10 code
U07.1

ICD-10 code description
Covid-19, virus identified

Primary outcomes

1

Description
Respiratory function

Timepoint
before and after treatment(4 week duration)

Method of measurement
brog scale, spirometry, 6-minutes walk test and SF8 questionnaire

Secondary outcomes

1

Description
Endurance

Timepoint
Before and after treatment(4 week duration)

Method of measurement
borg scale, spirometry, 6-minutes walk test and SF8 questionnaire

Intervention groups

1

Description
Intervention group: group A received upper limb exercise

along diaphragmatic breathing for 4 week (5 session per week)

Category

Treatment - Other

2

Description

Intervention group: Group B received upper limb along diaphragmatic breathing with lower limb exercise for 4 week(per week 5 session)

Category

Treatment - Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Khawja Fareed hospital

Full name of responsible person

Farah Zahid

Street address

HBL street near Sabsazar metro station, Busan road, Multan

City

Multan

Postal code

60700

Phone

+92 336 6389053

Email

anamzulfiqar049@gmail.com

Web page address

http://mimas.edu.pk/

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Muhammad Institute of Medical and Allied Sciences

Full name of responsible person

Farah Zahid

Street address

HBL street near Sabzazar metero station, Bosan road, Multan

City

Multan

Postal code

60700

Phone

+92 336 6389053

Email

anamzulfiqar@gmail.com

Web page address

http://mimas.edu.pk/

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Muhammad Institute of Medical and Allied Sciences

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

Muhammad institute of medical and allied sciences, Multan

Full name of responsible person

Dr. Zahid Manzoor

Position

Professor

Latest degree

Medical doctor

Other areas of specialty/work

Physiotherapy

Street address

HBL street Sabzazar, Bosan road, Multan

City

Multan

Province

Punjab

Postal code

60700

Phone

+92 336 6389053

Email

anamzulfiqar049@gmail.com

Web page address

http://mimas.edu.pk/

Person responsible for scientific inquiries

Contact

Name of organization / entity

Muhammad institute of medical and allied sciences, Multan

Full name of responsible person

Farah Zahid

Position

professor

Latest degree

Medical doctor

Other areas of specialty/work

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anamzulfiqar049@gmail.com
Web page address
http://mimas.edu.pk/

Person responsible for updating data

Contact
Name of organization / entity
Muhammad institute of medical and allied sciences Multan
Full name of responsible person
Farah Zahid
Position
professor
Latest degree
Medical doctor
Other areas of specialty/work
Physiotherapy
Street address
HBL street near sabzazar metro station bosan road multan
City
Multan
Province
Punjab
Postal code
60700
Phone
0366389053
Email
anamzulfiqar@gmail.com
Web page address
http://mimas.edu.pk/

Sharing plan

Deidentified Individual Participant Data Set (IPD)
Yes - There is a plan to make this available
Study Protocol
Yes - There is a plan to make this available
Statistical Analysis Plan
Yes - There is a plan to make this available
Informed Consent Form
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
Effectiveness of upper limb exercise along diaphragmatic breathing with or without lower limb exercise in COVID-19 survivors
When the data will become available and for how long
this will be available at the end of 2022
To whom data/document is available
Farah zahid
Under which criteria data/document could be used
for reserach purpose
From where data/document is obtainable
https://www.researchgate.net/
What processes are involved for a request to access data/document
open assess
Comments
I want randomized clinical trial registration, please provide me as soon as possible so that i can continue my study