Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

evaluation the effect of virtual pulmonary rehabilitation on the outcome and quality of life of COVID 19 patients after recovery from the acute phase

Protocol summary

Study aim
To identify the effect of virtual pulmonary rehabilitation on the outcome and quality of life of COVID19 patients after recovery from the acute phase

Design
Clinical trial with control group, with parallel groups, randomized on 70 patients, for randomization, permutation blocks with 4 samples in each block using Random Allocation software was used.

Settings and conduct
Breathing exercises in the form of educational videos will be provided to the intervention group in a virtual way using the training site, and patients should do the exercises for 8 weeks 5 days a week, three times a day and three repetitions each time.

Participants/Inclusion and exclusion criteria
Definite diagnosis of covid 19 with PCR Hospitalization during the acute phase of the disease Lung involvement with a typical pattern of covid 19 in chest X ray or chest CT scan Being clinically stable Being able to understand and perform the virtual respiratory exercises as given to them in the study Age over 18 and less than 60 years

Intervention groups
Virtual pulmonary rehabilitation in the form of breathing exercise for intervention group

Main outcome variables
The perceived dyspnea severity during daily activities, The severity of dyspnea, General health-related quality of life, Psychological state and mood disorder

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20200930048892N1**
Registration date: **2020-10-18, 1399/07/27**
Registration timing: **prospective**

Last update: **2020-10-18, 1399/07/27**
Update count: **0**

Registration date
2020-10-18, 1399/07/27

Registrant information

Name
Fariba Erfani

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 71 5383 8166

Email address
erfanif70@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2020-10-20, 1399/07/29

Expected recruitment end date
2021-02-17, 1399/11/29

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
evaluation the effect of virtual pulmonary rehabilitation on the outcome and quality of life of COVID 19 patients after recovery from the acute phase

Public title
evaluation the effect of virtual pulmonary rehabilitaion

on covid 19 patients

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Definite diagnosis of covid 19 with PCR Hospitalization during the acute phase of the disease Lung involvement with a typical pattern of covid 19 in chest X ray or chest CT scan Being clinically stable Being able to understand and perform the virtual respiratory exercises as given to them in the study Age > 18 and < 60 years

Exclusion criteria:

COPD, asthma and any other respiratory disease Neuromuscular disorders that affect lung function History of ischemic heart disease, congestive heart failure and uncontrolled hypertension Asymptomatic carriers Sever comorbid conditions Disagree to participate in the study Lack of access to the internet and virtual applications

Age

From **18 years** old to **60 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **70**

Randomization (investigator's opinion)

Randomized

Randomization description

Randomization method was performed based on random permutation blocks with 4 samples in each block and a random list of data was obtained using Random Allocation software. Independent T test and paired T test will be used for statistical analysis of the data. Blindness will be done for people who measure the outcomes and people who analyze the data

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Shiraz University of Medical Sciences

Street address

Medical School. Imam Hossein Square.Zand Stree .Shiraz Cityt

City

shiraz

Province

Fars

Postal code

7134845794

Approval date

2020-10-02, 1399/07/11

Ethics committee reference number

IR.SUMS.MED.REC.1399.364

Health conditions studied

1

Description of health condition studied

COVID 19

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

The perceived dyspnea severity during daily activities

Timepoint

Before intervention and 8 weeks after study

Method of measurement

Medical Research Council Scale

2

Description

The severity of dyspnea

Timepoint

Before intervention and 8 weeks after study

Method of measurement

Modified Borg Scale

3

Description

General health-related quality of life

Timepoint

Before intervention and 8 weeks after study

Method of measurement

Short-Form 36 (SF-36)

4

Description

psychological state and mood disorder

Timepoint

Before intervention and 8 weeks after study

Method of measurement

The Hospital Anxiety and Depression Scale (HADS)

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: virtual pulmonary rehabilitation in the form of breathing exercise
Category
Rehabilitation

Recruitment centers

1

Recruitment center
Name of recruitment center
Shahid Faghihi hospital
Full name of responsible person
Seyed Mohammad Kazem Tadayyon
Street address
Zand Blvd, Shiraz City
City
Shiraz
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7134844119
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Email
faghihihsp@sums.ac.ir

2

Recruitment center
Name of recruitment center
Ali Asghar hospital
Full name of responsible person
Parnian Nikmanesh
Street address
Meshkin fam street
City
Shiraz
Province
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Postal code
7143918796
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+98 71 3228 8907
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aliasghar@sums.ac.ir

3

Recruitment center
Name of recruitment center
Shahid Chamran hospital
Full name of responsible person
Seyed Rouhollah Mousavi
Street address
Chamran Blvd, Shiraz City
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Postal code
7194815644
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+98 71 3624 0101
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chamhosp@sums.ac.ir

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Shiraz University of Medical Sciences
Full name of responsible person
Abbas Rezaeian zade
Street address
Zand Blvd. Shiraz Univercity of Science,Shiraz City
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Province
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7134814336
Phone
+98 71 3230 5410
Email
info@sums.ac.ir
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Shiraz University of Medical Sciences
Proportion provided by this source
100
Public or private sector
Public
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
Shiraz University of Medical Sciences
Full name of responsible person
Fariba Erfani
Position
Resident
Latest degree
Medical doctor
Other areas of specialty/work

Physical Medicine

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Person responsible for scientific inquiries

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Position
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Person responsible for updating data

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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