Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

the effects of pranayama on the respiratory function in discharged covid-19 patients

Protocol summary

Study aim
Investigating the effect of pranayama on the respiratory function of recovered patients from covid-19

Design
Before starting the interventions, all independent and dependent variables related to individual characteristics and the main and secondary outputs of the present study will be measured. Then, the participants of the intervention group will perform paranayama exercises on a regular basis, during 12 sessions. All spirometry measurements in this study will be performed according to standard recommendations. each patient will perform breathing exercises using a standard spirometry to measure forced expiratory flow in the first second , vital capacity , FEV1/FVC ratio should be evaluated.

Settings and conduct
Pranayama breathing is performed 10 rounds of 10 s during 6 weeks and 3 times a week {at homes} and the parameters are checked with spirometry and 6-minute walk methods at Vali E asr Fasa Hospital.

Participants/Inclusion and exclusion criteria
A definite diagnosis of covid-19 and discharge from the hospital over 18 has not suffered from any other acute illness except for covid-19 in the past 6 months. The patient does not have Chronic obstructive pulmonary disease or other respiratory diseases The participant's forced expiratory volume in 1s must be above 70% discharged from the hospital for a week.

Intervention groups
participants will be selected from among the discharged patients of Covid-19 from Valiasr Hospital.Then, the process of conducting the intervention and reviewing the results will be explained to the qualified people and the participants will enter the study while completing the written informed consent. To measure the desired goals in this study, we need to divide the participants into two control and intervention groups. The subjects will be randomly divided into seven blocks of ten in two groups .

Main outcome variables
Respiratory function

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20220805055622N1**
Registration date: **2022-09-23, 1401/07/01**
Registration timing: **registered_while_recruiting**

Last update: **2022-09-23, 1401/07/01**
Update count: **0**

Registration date
2022-09-23, 1401/07/01

Registrant information

Name
marzie shahriary

Name of organization / entity

Country
Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2022-09-23, 1401/07/01

Expected recruitment end date
2023-03-20, 1401/12/29

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date

empty

Scientific title
the effects of pranayama on the respiratory function in discharged covid-19 patients

Public title
the effects of pranayama on the respiratory function in discharged covid-19 patients

Purpose
Treatment

Inclusion/Exclusion criteria

Inclusion criteria:
The patient has been discharged from the hospital for a week. over 18 years of age In the past 6 months, he has not suffered from any other acute illness except for Covid-19. The patient does not have Chronic obstructive pulmonary disease or other respiratory diseases. The participant's forced expiratory volume in 1s must be above 70%. (The recovered patient does not have severe respiratory restriction and is able to participate in the study) The patient has been discharged from the hospital for a week

Exclusion criteria:
Have underlying cardiovascular diseases including severe ischemia or hemorrhagic stroke Suffer from neurodegenerative diseases Get infected with Covid-19 again and show symptoms of the disease

Age
From **18 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **40**

Randomization (investigator's opinion)
Randomized

Randomization description
We divide people into individual blocks{7 blocks of 10} , which include the following variables. Age-Sex-Education-Occupation-History of Disease-Body Mass Index {Method of measuring these 6 items is a questionnaire} experimental group {measurement method is randomization} 6-min walk distance {chronometer} Forced expiratory volume in 1-inspiratory capacity-inspiratory time to total breathing cycle time-Forced vital capacity-FEV1/FVC {measurement method is Spirometry} Variable role: independent, dependent, contextual, and confounding Variable type: continuous quantity, discrete quantity, rank quality, nominal quality Measurement scale: nominal, ordinal, interval, relative

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 fasa university of medical sciences

Street address
Ebn sina blv.fasa university of medical science

City
Fasa

Province
Fars

Postal code
74616_86688

Approval date
2022-07-31, 1401/05/09

Ethics committee reference number
IR.FUMS.REC.1401.049

Health conditions studied

1

Description of health condition studied
covid-19

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
Measurement of respiratory volume

Timepoint
6 week

Method of measurement
Spirometry

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group :The intervention group should perform pranayama breathing 3 times a week for 6 weeks and the effect of this exercise will be measured using spirometry and 6 minutes walk .Exercises are provided to people in the form of brochures and educational videos. The executive protocol is as follows: First, sit on all fours on the floor in a comfortable position, so that the back is straight and not hunched

over. The position of the eyes can be half open or closed. Breathing begins and all the focus and awareness of the person is directed to his breathing. Correct breathing method: inhale for 4 seconds, hold for 2 seconds and exhale for 4 seconds. According to the ability of each person, the duration of inhaling and exhaling should increase and the duration of inhaling should be longer than inhaling [if possible and without any pressure]. 10-12 times of this breathing. Another exhalation. A deep breath is taken from both nostrils. The right nostril is closed with the thumb and the exhalation comes out from the left nostril. The thumb still remains on the right nostril. Now one breath is done through the left nostril. The breath is held and the little finger is placed on the left nostril and the thumb is removed and exhaled through the right nostril. This breathing period should be done 8 to 10 times according to the person's capacity. This breathing should be done 3 times a week for 6 weeks. In case of dizziness or headache, you should immediately stop the exercise and rest in a state like prostration .After 6 weeks, spirometry and 6 minute walk are performed again and the results are compared with the control group.

Category

Rehabilitation

2

Description

Control group: At the beginning of the study, the control group performs spirometry and 6 minute walk at the same time as the intervention group. In the continuation of the study, this group does not perform any breathing exercises. At the end of the study, after 6 weeks, this group is again performs spirometry and 6 minute walk and the result is measured with the intervention group.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Vali e Asr Hospital

Full name of responsible person

Marzie Shahriary

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Fasa University of Medical Sciences

Full name of responsible person

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Fasa 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

Fasa University of Medical Sciences

Full name of responsible person

Marzie Shahriary

Position

Student

Latest degree

A Level or less

Other areas of specialty/work

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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