

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

The effects of Selected Breathing-Core Stabilization Tele-Exercises on Postural Control, Pulmonary Function and Functional Capacity in Discharged Patients Recovered from Covid-19

Protocol summary

Study aim

Investigating the effect of Selected Breathing-Core Stabilization Tele-Exercises on Postural control, Pulmonary Function and Functional Capacity in Discharged Patients Recovered from Covid-19

Design

A randomized controlled clinical trial on 30 patients. Phase III Clinical Trial. For randomization, a simple randomization method with a table of random numbers will be used.

Settings and conduct

First, patients were selected from the list of patients discharged from Shahid Beheshti Hospital in Qom and were randomly divided into control and experimental groups. The tests were performed at Behrad Sports Medicine Clinic. For the experimental group, the exercises are performed virtually and remotely for 8 weeks. Eventually the tests will be repeated.

Participants/Inclusion and exclusion criteria

Patients discharged from hospital with hospitalization due to Covid-19 From 35 years old to 60 years old Duration of hospitalization at least one week Up to one month after discharge Access to the Internet and video call service

Intervention groups

Exercise group, Selected Breathing-Core Stabilization Tele-Exercises Control group (without exercise, leads a normal life with follow-up of common treatments by the treating physician)

Main outcome variables

Pulmonary Function, Postural control, Functional Capacity

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20211015052777N1**

Registration date: **2022-01-05, 1400/10/15**

Registration timing: **retrospective**

Last update: **2022-01-05, 1400/10/15**

Update count: **0**

Registration date

2022-01-05, 1400/10/15

Registrant information

Name

mohammad mashhadi

Name of organization / entity

Shahid bahonar university of kerman

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-10-23, 1400/08/01

Expected recruitment end date

2022-01-05, 1400/10/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effects of Selected Breathing-Core Stabilization Tele-

Exercises on Postural Control, Pulmonary Function and Functional Capacity in Discharged Patients Recovered from Covid-19

Public title

The effects of Exercises on Discharged Patients Recovered from Covid-19

Purpose

Education/Guidance

Inclusion/Exclusion criteria**Inclusion criteria:**

Hospitalization due to Covid-19 At least one week of hospitalization Access to the Internet and video call service

Exclusion criteria:

Severe orthopedic and neurological injuries Follow up and do a regular exercise program in addition to the present study Pregnancy

Age

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

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **30**

Randomization (investigator's opinion)

Randomized

Randomization description

First, a list of 300 discharged persons provided to us by the hospital was numbered. Thirty of them were selected using simple random sampling. For this purpose, a table of random numbers consisting of 5-digit numbers was used, and since the number of patient lists was three digits, the middle three digits of the numbers were considered. To read the numbers after selecting the starting point, went down. Even numbers were assigned to the experimental group and odd numbers to the control group. We wrote down the numbers until the sample size reached 15 people in both groups. Then, according to these numbers, we selected individuals from the list of patients.

Blinding (investigator's opinion)

Not blinded

Blinding description**Placebo**

Not used

Assignment

Other

Other design features**Secondary Ids**

empty

Ethics committees**1****Ethics committee****Name of ethics committee**

Ethics committee of QOM University of Medical Sciences

Street address

Shahid Lavasani St. (saheli) - Qom University of Medical Sciences and Health Services

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Province

Ghous

Postal code

3713649373

Approval date

2021-10-03, 1400/07/11

Ethics committee reference number

IR.MUQ.REC.1400.136

Health conditions studied**1****Description of health condition studied**

covid-19

ICD-10 code

U07.1

ICD-10 code description

COVID-19

Primary outcomes**1****Description**

Pulmonary Function

Timepoint

Measurement of pulmonary function at the beginning of the study (before the intervention) and 8 weeks after the intervention

Method of measurement

Spirometry device

Secondary outcomes**1****Description**

postural control

Timepoint

Measurement of postural control at the beginning of the study (before the intervention) and 8 weeks after the intervention

Method of measurement

Foot pressure scanning device

2**Description**

Functional Capacity

Timepoint

Measurement of Functional Capacity at the beginning of the study (before the intervention) and 8 weeks after the intervention

Method of measurement

The six minute walking test

3

Description

fatigue

Timepoint

Measurement of fatigue at the beginning of the study (before the intervention) and 8 weeks after the intervention

Method of measurement

The Fatigue Severity Scale

Intervention groups

1

Description

Intervention group: Selected Breathing-Core Stabilization Tele-Exercises group. They will perform the training protocol for 8 weeks and 3 sessions per week. The content of each training session will last about 60 minutes, which starts with 10 minutes of warm-up and ends with 5 minutes of cooling. The rest of the session, which is about 45 minutes, will be devoted to rehabilitation exercises. The core stability exercises suggested by Jeffrey include five levels: Exercises start at level one, which includes static contractions in a steady position, level two exercises, including static contractions and slow movements in the stable surface. Level three includes holding static contraction in an unstable environment and dynamic movements in a stable environment, level four includes dynamic movements in an unstable environment, and finally, level five exercises include dynamic and resistance movements in a stable environment. In the present study, due to the limitations of Covid-19 disease, level one to three exercises will be used. Breathing exercises will consist of three parts. 1. Perform deep abdominal breathing during exercises and hold breath for 2-3 seconds. 2. Exhale slowly and passively and exhale with the lips of the bud 3. Cough after exhaling or coughing at least 5 times during exhalation. The exercises will be done remotely and will be done through video call. In a way that the therapist teaches and performs the exercises in video call and the patient also performs them at home.

Category

Rehabilitation

2

Description

Control group: The control group will have a normal life and routine treatments, including medications prescribed by their physician, Without following a regular exercise program.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Shahid Beheshti Hospital, Qom

Full name of responsible person

Ghadir Mohammadreza

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Beheshti Blvd, Shahid Beheshti, Educational and Medical Complex

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shahid Bahonar University, Kerman

Full name of responsible person

Abdolhamid Daneshjoo

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Phone

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daneshjoo.hamid@uk.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Shahid Bahonar University, Kerman

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

Shahid Bahonar University, Kerman

Full name of responsible person

mohammad mashhadi

Position

PhD student

Latest degree

Master

Other areas of specialty/work

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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

All data and results obtained from the review in the article or articles that will be published after the review and will also be available through correspondence with the responsible author.

When the data will become available and for how long

After completing the present review and publishing the article or articles resulting from the review

To whom data/document is available

All researchers in the field of the present study

Under which criteria data/document could be used

With the same purpose as the present study, citing the source. All intellectual property rights of the present study belong to Shahid Bahonar University of Kerman.

From where data/document is obtainable

The author responsible for the article or articles resulting from the present review

What processes are involved for a request to access data/document

Written request of the applicant from the author in charge of the present review after the publication of the article or articles

Comments