Clinical Trial Protocol
Iranian Registry of Clinical Trials

02 Nov 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

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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
City
QOM
Province
Ghoum
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
Street address
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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Pajoohesh Sq
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Kerman
Province
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Postal code
7616913439
Phone
+98 34 3325 7623
Email
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
SPORTS SCIENCE

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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