Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

Investigating the effect of Telerehabilitation exercises on quality of life, balance, functional disability, aerobic capacity and pain in elderly chemical veterans

Protocol summary

Study aim
The effect of Telerehabilitation exercises on quality of life, balance, functional disability, aerobic capacity and pain in elderly chemical veterans

Design
A controlled clinical trial with parallel groups, unblinded, randomized, on 32 samples. The Excel RAND function is used for randomization.

Settings and conduct
Health and medical centers in Tehran, Iran. Subjects entered the study according to the inclusion criteria and filled out an informed consent form. Pre-test was administered to all subjects. Subjects were divided into two intervention and control groups. The eighth week of intervention was conducted and at the end, all subjects were given a post-test.

Participants/Inclusion and exclusion criteria
Elderly male chemical warfare veterans with a proven history of exposure to mustard gas during chemical bombing and a history of moderate to severe chronic pulmonary disease

Intervention groups
The intervention group's exercise program includes warm-up, aerobic exercises, strength exercises, balance and flexibility exercises, relaxation and cool-down. Exercises will be provided three days a week for 8 weeks and via web-based platforms such as Telegram or WhatsApp. Each exercise will be performed by the researcher personally, then the video of this performance will be made available to the subjects. After each exercise session, the subjects will send the video of the exercise performance to the researcher. During this time, the control group will continue their normal daily activities. They are allowed to do light activities such as slow walking or housework but should not participate in any structured rehabilitation program. Weekly monitoring will be done via phone call and if interventions similar to the main intervention are started, the subject's continued participation in the study will be reviewed.

Main outcome variables
Quality of life

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20100505003871N4**
Registration date: **2025-10-22, 1404/07/30**
Registration timing: **prospective**

Last update: **2025-10-22, 1404/07/30**
Update count: **0**

Registration date
2025-10-22, 1404/07/30

Registrant information

Name
Alireza Shamsoddini

Name of organization / entity
Baqiyatallah University of Medical Sciences

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Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2025-11-22, 1404/09/01

Expected recruitment end date

2025-12-22, 1404/10/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating the effect of Telerehabilitation exercises on quality of life, balance, functional disability, aerobic capacity and pain in elderly chemical veterans

Public title

Investigating the effect of Telerehabilitation exercises in elderly chemical veterans

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria:

Male chemical veterans over 60 years of age with a proven history of exposure to mustard gas Participants must have moderate to severe chronic lung disease.

Exclusion criteria:

Participants had a history of tuberculosis or resection of 1 or more lung lobes. No history of exposure to mustard gas is recorded in the Veterans Foundation's medical file.

Age

From **60 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **32**

Randomization (investigator's opinion)

Randomized

Randomization description

To randomize participants into two groups, control and intervention, a block randomization method will be used with the help of Excel software. The allocation sequence will be generated with the help of the software's random functions (RAND) and participants will be placed equally and randomly in two groups in blocks of four. The final allocation will be made by someone outside the implementation team and through prepared lists to prevent any bias. Measures will be taken to control and reduce possible measurement errors in the pre-test and post-test stages. All tests will be performed by a fixed and trained examiner to prevent errors.

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 Bagheiat-allah University of Medical sciences

Street address

Sports Physiology Research Institute, Bagheiat-allah University of Medical sciences, South Sheikh Bahai St., Molla Sadra St.

City

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Province

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Postal code

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Approval date

2025-10-06, 1404/07/14

Ethics committee reference number

IR.BMSU.REC.1404.089

Health conditions studied

1

Description of health condition studied

Chronic complications of chemical warfare exposure (elderly chemical veterans)

ICD-10 code

T59.4

ICD-10 code description

Toxic effect of chlorine gas

Primary outcomes

1

Description

Comparison of Quality-of-life scores in the control and intervention groups

Timepoint

At baseline and after eight weeks of intervention

Method of measurement

SF-36 Quality of Life Questionnaire

Secondary outcomes

1

Description

Comparison of balance scores in the control and intervention groups

Timepoint

At baseline and after eight weeks of intervention

Method of measurement

Sharpened Romberg Test

2

Description
Comparison of functional disability scores in the control and intervention groups
Timepoint
At baseline and after eight weeks of intervention
Method of measurement
Oswestry Disability Index

3

Description
Comparison of aerobic capacity scores in the control and intervention groups
Timepoint
At baseline and after eight weeks of intervention
Method of measurement
6-Minute Walk Test

4

Description
Comparison of pain scores in the control and intervention groups
Timepoint
At baseline and after eight weeks of intervention
Method of measurement
Visual Analogue Scale

Intervention groups

1

Description
Intervention group: The group's exercises will be performed three days a week for 8 weeks. The video exercise program will be provided through web-based platforms such as Telegram or WhatsApp. First, the researcher will perform each exercise personally and provide the necessary explanations during the exercise. Then, the video of this performance will be made available to the subjects, and after each exercise session, the subjects will send the video of the exercise performance to the researcher. The exercise program of the intervention group will include the following steps: Warm-up (5-7 minutes) / Aerobic exercises (10-12 minutes) / Strength exercises (10-12 minutes) / Balance and flexibility exercises (8-10 minutes) / Relaxation and cooling down (3-5 minutes). Participants are required to complete the weekly monitoring form. This form includes the following: Days of exercise / Type of exercise performed (aerobic, strength, balance, stretching) Approximate duration of exercise / Physical feeling after exercise (comfort, fatigue, pain, etc.) Obstacles or problems in performing the exercises. Participation in at least 75% of training sessions is considered acceptable adherence.
Category
Rehabilitation

2

Description
Control group: During the eight-week intervention, participants in the control group will continue their normal daily activities. They are allowed to do light activities such as walking or housework but should not participate in any structured exercise or rehabilitation program. Weekly monitoring will be done by telephone, and if interventions similar to the main intervention are initiated, the subject's continued participation in the study will be reviewed.
Category
Lifestyle

Recruitment centers

1

Recruitment center
Name of recruitment center
Baqiyatullah Hospital
Full name of responsible person
Alireza Shamsodini
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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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
Bagheiat-allah 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
Bagheiat-allah University of Medical Sciences
Full name of responsible person
Alireza Shamsoddini
Position
Assistant professor
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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

Yes - There is a plan to make this available

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

Results from the analysis of participant data, both primary and secondary outcomes, will be published.

When the data will become available and for how long

Access to the data will be possible after the publication of the article.

To whom data/document is available

Researchers of academic and scientific centers could access the data.

Under which criteria data/document could be used

Analyzes that do not overlap with the objectives of the present study will be allowed

From where data/document is obtainable

Dr. Alireza Shamsoddini Email: shamseddin23@gmail.com

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

The requester could access the data by providing the research area as well as the purpose of accessing the data

Comments