Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Jul 2026

The effect of corrective exercise on the severity of pain and prevalence of musculoskeletal disorders in elderly

Protocol summary

Study aim
Determining the effect of corrective exercise on musculoskeletal disorders in elderly

Design
Clinical controlled trial with a parallel group design, not blind

Settings and conduct
The research environment will be the nursing home of Rasht city. Elderly people who are eligible for inclusion in the study are randomly assigned to intervention and control groups.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Age 60 and above; Good general health status (autonomy in day activities and the ability to perform the exercise protocol); The health of the elderly for cognitive, visual and auditory. Non-inclusion criteria: History of orthopedic surgery in the past year; Skeletal fractures in the last six months; Use of assistant devices such as cane and walker; Orthopedic and neuromuscular diseases in the last 5 years; Congenital anomalies and specific skeletal diseases such as rheumatoid arthritis; Having Heart/cardiovascular disease or acute illness that is incompatible with exercise

Intervention groups
The intervention group: In this group, the intervention of corrective exercises will be done through one-hour sessions, 3 times a week for 8 weeks. Sports exercises include eight types of physical activity (waist, neck, shoulder, knee, ankle and leg, pelvic and abdominal exercises, elbows, wrists and hands). Corrective exercises will be performed under the supervision of the researcher in a group setting as well as individually according to the condition of each sample. Control group: For this group, no specific training will be considered and they will carry out routine activities.

Main outcome variables
Musculoskeletal disorders; pain

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20190315043062N1**
Registration date: **2019-09-06, 1398/06/15**
Registration timing: **registered_while_recruiting**

Last update: **2019-09-06, 1398/06/15**
Update count: **0**

Registration date
2019-09-06, 1398/06/15

Registrant information

Name
Azar Darvishpour

Name of organization / entity

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Iran (Islamic Republic of)

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+98 13 4256 5060

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2019-09-06, 1398/06/15

Expected recruitment end date
2019-11-21, 1398/08/30

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title

The effect of corrective exercise on the severity of pain and prevalence of musculoskeletal disorders in elderly

Public title
The effect of exercise on musculoskeletal disorders in elderly
Purpose
Prevention
Inclusion/Exclusion criteria
Inclusion criteria:
Age of 60 years old and above Good general health status (autonomy in daily activities and the ability to perform the exercise protocol) The health of the elderly for cognitive, visual and auditory
Exclusion criteria:
History of orthopedic surgery in the past year Skeletal fractures in the last six months Use of assistive devices such as cane and walker Orthopedic and neuromuscular diseases in the last 5 years Congenital anomalies and specific skeletal diseases such as rheumatoid arthritis Having Heart - cardiovascular disease or acute illness that is incompatible with exercise Having diabetes Doing regular exercise other than the exercises that the researcher will be applied throughout the period of research Drug and Tobacco addiction Taking analgesics and sedatives drugs
Age
From **60 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **60**
Randomization (investigator's opinion)
Randomized
Randomization description
The method of replacing the subjects in the two groups would be as follow that at first the names of the elderly will be written on separate sheets and then put them in a packet and by removing them one by one from the packet, they will be placed in the intervention and control groups (one in the intervention group and one in the control group).
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 Guilan University of Medical Sciences
Street address
Vice Chancellor for Research and Technology, in front of the 17 Shahrivar Hospital, Shahid Siadati Street - Namjo Street
City
Rasht
Province
Guilan
Postal code
66949- 41466
Approval date
2019-06-26, 1398/04/05
Ethics committee reference number
IR.GUMS.REC.1398.131

Health conditions studied

1

Description of health condition studied
Diseases of the musculoskeletal system and connective tissue
ICD-10 code
M62.9
ICD-10 code description
Disorder of muscle, unspecified

Primary outcomes

1

Description
prevalence of musculoskeletal disorders
Timepoint
One week before and one week after the end of the 8 weeks of intervention (corrective exercise)
Method of measurement
Nordic instrument

2

Description
Severity of pain in musculoskeletal disorders
Timepoint
One week before and one week after the end of the 8 weeks of intervention (corrective exercise)
Method of measurement
VAS (Visual assessment scale) Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group:The intervention includes corrective exercises that will take place within 8 weeks and 3 sessions a week. The main purpose of these exercises is to increase the flexibility and strength of the muscles. Sports exercises include eight types of physical activity (waist, neck, shoulder, knee, ankle and leg, pelvic and abdominal exercises, elbows, wrists and hands). The exercises will start with 10 repetitions and will reach 30 times by the end of the eighth week. The class begins with 10 minutes of warming (including tensile and equestrian exercises), and for 30 minutes thereafter, the corrective exercises will be assigned by the researcher, both group and special, according to the conditions of each sample. At the end of the class, cooling and back to primary state will take about 10 minutes. A pretest will performed one week before and post- test will take place one week after the end of the intervention. The research tools included demographic information questionnaire, Nordic- standardized questionnaire and Visual Analogue Pain Questionnaire (VAS) completed by the researcher.

Category
Prevention

2

Description
Control group: For the control group, no specific training will be considered and they will carry out routine activities.

Category
N/A

Recruitment centers

1

Recruitment center

Name of recruitment center
Rasht Elderly Hospice

Full name of responsible person
Azar Darvishpour

Street address
Soleymandarab, Entezam square

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Rasht

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Rasht University of Medical Sciences

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http://www.gums.ac.ir/research

Grant name

Grant code / Reference number

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

Title of funding source
Rasht 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
Rasht University of Medical Sciences

Full name of responsible person
Azar Darvishpour

Position
Assistant Professor

Latest degree
Ph.D.

Other areas of specialty/work
Nursery

Street address
School of Nursing and Midwifery, Shahid Yaghoub Sheikhi Street, Leylakooh road, Langeroud

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Person responsible for scientific inquiries

Contact

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Rasht University of Medical Sciences

Full name of responsible person

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Position

Assistant Professor

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no more information.

Study Protocol

No - There is not a plan to make this available

Statistical Analysis Plan

Not applicable

Informed Consent Form

Undecided - It is not yet known if there will be a plan to make this available

Clinical Study Report

No - There is not a plan to make this available

Analytic Code

Not applicable

Data Dictionary

Not applicable