Clinical Trial Protocol
Iranian Registry of Clinical Trials

15 Nov 2026

Evaluation of the effects of designed exercise program on the fatigue in hemodialysis patients

Protocol summary

Summary

Aim: Fatigue is the most common and bothersome symptom in hemodialysis patients, so that almost half of them experience fatigue during their treatment for renal failure. The aim of this study is to investigate the effect of a designed exercise program on fatigue in hemodialysis patients. Methods: In a quasi-experimental design, 25 hemodialysis patients from three hospitals of the medical university of Tehran in 2010 were chosen. The patients in the experimental group (n=12) followed a designed exercise program 3 days per week, which lasted for 8 weeks. The subjects in the experimental group had to exercise for 20 minutes immediately after dialysis session followed by a 10-minute bed rest and deep slow breaths, with their eyes closed. Control group receive routine care. The Fatigue Severity Scale (FSS) questionnaire was used to measure the participants' fatigue, three times, before the exercise program and four and eight weeks after the exercise program.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201102162226N2**
Registration date: **2012-04-30, 1391/02/11**
Registration timing: **retrospective**

Last update:
Update count: **0**

Registration date

2012-04-30, 1391/02/11

Registrant information

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Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Tehran University of Medical Sciences

Expected recruitment start date

2010-04-14, 1389/01/25

Expected recruitment end date

2010-07-04, 1389/04/13

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effects of designed exercise program on the fatigue in hemodialysis patients

Public title

Effects of designed exercise program on the fatigue in hemodialysis patients

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria: age between 18 to 65 years old; performing hemodialysis treatment for at least six months; no history of intensifying of the disease during the last six months; no participation in any regular exercise program during the last six months; no specific orthopedic problems in walking; no cardiovascular disease and severe shortness of breath and heart failure preventing from the performance of the exercise

program. Exclusion criteria: absence in four sessions during the exercise program and not willing to continuing the exercise program.

Age
From **18 years** old to **65 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **25**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Other

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Faculty of Nursing and Midwifery, Tehran University of Medical Sciences

Street address
Tohid squere

City
Tehran

Postal code

Approval date
2010-04-07, 1389/01/18

Ethics committee reference number
465/130/s/89

Health conditions studied

1

Description of health condition studied
fatigue in hemodialysis patients

ICD-10 code
Z49

ICD-10 code description
Care involving dialysis

Primary outcomes

1

Description
Fatigue

Timepoint
At the start and at the end of the fourth and eighth weeks of the exercise program

Method of measurement
Fatigue Severity Scale

Secondary outcomes

1

Description
Exercise program

Timepoint
Immediately after the end of hemodialysis session

Method of measurement
Tolerance time check list

Intervention groups

1

Description
The exercise program included four stages: A) starting with warm-up by slow walking for 5min till the body would be ready, B) walking fast based on the patient’s tolerance (10 min), C) slow walking and body cooling (5 min) and D) 10 min of rest and relaxation.

Category
Prevention

2

Description
Control group: routine care

Category
Lifestyle

Recruitment centers

1

Recruitment center

Name of recruitment center
Hospitals affliated to Tehran University of Medical Sciences

Full name of responsible person

Street address

City
Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
nursing & midwifery faculty, Tehran university of medical sciences

Full name of responsible person
Dr.Negharandeh
Street address
nosrat east-Toohid square-medical sciencess of tehran university-nursing&midwifery faculty
City
Tehran
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
nursing & midwifery faculty, Tehran university of medical sciences
Proportion provided by this source
100
Public or private sector
empty
Domestic or foreign origin
empty
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
empty

Person responsible for general inquiries

Contact
Name of organization / entity
Faculty of Nursing and Midwifery, Tehran university of mdical sciences
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty
Study Protocol
empty
Statistical Analysis Plan
empty
Informed Consent Form
empty
Clinical Study Report
empty
Analytic Code
empty
Data Dictionary
empty