

Clinical Trial Protocol

Iranian Registry of Clinical Trials

12 Sep 2026

Comparing the effects of Xbox Kinect and aerobic exercise on blood pressure, quality of sleep, and quality life among elderly

Protocol summary

Blood Pressure; Quality of Life; Quality of Sleep

Study aim

Comparison of the effect of aerobic exercise and Xbox Kinect on blood pressure and quality of sleep and life in elderly people with hypertension

Design

This study is the double-blind randomized trial. Participants randomly divided into three groups of aerobic(15), Xbox(15), and control(15).

Settings and conduct

Participants divided into three groups of aerobic, XBox and control. In this single-blind study, the outcome assessors are blind to the details of protocols. This study was done in the Jahandidegan retirement community center. duration of exercise is 8 weeks and three times per week and 40 min for each session.

Participants/Inclusion and exclusion criteria

Inclusion Criteria: the age of participants be 50 years and above; Willing to participate in the study; At least one year has passed since the diagnosis of primary hypertension by a specialist physician; No underlying diseases like diabetes, congestive heart failure, nephropathy; They have not participated in any other exercise program in the past six months;.. Have systolic and diastolic blood pressure; The participants are authorized to participate in the exercise program with the permission of a specialist physician; Having no physical limitation to attend exercise; Exclusion Criteria: Acute or chronic disease with documented influence on balance and gait Control (e.g., Parkinson's disease; diabetes or peripheral neuropathy); Joint replacement and fracture; Use of assertive gait devices (e.g., walking canes and frames; Missing exercise protocol more than two sessions;

Intervention groups

1. Aerobic Exercise Group: Perform aerobic exercises for 8 weeks and three days a week 2. Video Game Training Group: The players play Xbox Kinect games for 8 weeks and three days a week. Control group: without exercise

Main outcome variables

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180627040251N1**

Registration date: **2020-03-30, 1399/01/11**

Registration timing: **retrospective**

Last update: **2020-03-30, 1399/01/11**

Update count: **0**

Registration date

2020-03-30, 1399/01/11

Registrant information

Name

Hassan Sadeghi

Name of organization / entity

Kharazmi University

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-10-22, 1398/07/30

Expected recruitment end date

2020-02-19, 1398/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Comparing the effects of Xbox Kinect and aerobic exercise on blood pressure, quality of sleep, and quality life among elderly

Public title

Effects of aerobic exercises and Xbox Kinect on blood pressure, quality of sleep and life of older adults

Purpose

Health service research

Inclusion/Exclusion criteria**Inclusion criteria:**

Age 50 years and above Willing to participate in the study At least one year has passed since the diagnosis of primary hypertension by a specialist physician No underlying diseases like diabetes, congestive heart failure, nephropathy They have not participated in any other exercise program in the past six months With a systolic blood pressure of 120-140 mmHg and diastolic blood pressure of 90-80 mmHg The participants are authorized to participate in the exercise program with the permission of a specialist physician Having no physical limitation to attend exercise Having a sense of hearing and vision

Exclusion criteria:

acute or chronic disease with documented influence on balance and gait control (e.g., Parkinson's disease; diabetes or peripheral neuropathy Joint replacement and fracture use of assertive gait devices (e.g., walking canes and frames Missing exercise protocol more than two session

Age

From **50 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Outcome assessor

Sample size

Target sample size: **45**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple randomization

Blinding (investigator's opinion)

Single blinded

Blinding description

In this study, the outcome assessor is blind to interventions during the pre-test and post-test.

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

Ethical Committee of Shiraz University of Medical Science

Street address

5th Floor, Central building of Shiraz University of Medical Sciences, Zand St., Shiraz, Iran

City

Shiraz

Province

Fars

Postal code

71348-14336

Approval date

2019-07-20, 1398/04/29

Ethics committee reference number

IR.SUMS.REC.1398.669

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

Blood Pressure

ICD-10 code

R03

ICD-10 code description

Abnormal blood-pressure reading, without diagnosis

2**Description of health condition studied**

Quality of Life

ICD-10 code

Z73

ICD-10 code description

Problems related to life management difficulty

3**Description of health condition studied**

Quality of Sleep

ICD-10 code

G47

ICD-10 code description

Sleep disorders

4**Description of health condition studied**

Aerobic Exercise

ICD-10 code

Y93.A3

ICD-10 code description

Activity, aerobic and step exercise

Primary outcomes

1

Description

Blood Pressure

Timepoint

Before and after intervention

Method of measurement

Aneroid Sphygmomanometer Measure

Secondary outcomes

1

Description

Quality of Life

Timepoint

Before and after intervention

Method of measurement

Quality of Life questioner

2

Description

Quality of Sleep

Timepoint

Before and after intervention

Method of measurement

Quality of sleep Questioner

Intervention groups

1

Description

Exergame Intervention group: Participants play video games with Xbox Kinect for 8 weeks and three days a week. The duration of each session is 40 minutes, including pre-workout warm-up, a video game program, and post-workout cooling.

Category

Rehabilitation

2

Description

Intervention group Aerobic Exercise: Participants do aerobic exercise for 8 weeks and three days a week. The duration of each session is 40 minutes, including pre-workout warm-up, aerobic exercise program, and post-workout cooling.

Category

Rehabilitation

3

Description

Control group without exercise or Intervention:
Participants in this group will have no exercise during the study

Category

N/A

Recruitment centers

1

Recruitment center

Name of recruitment center

Jahandidegan Community Center in Shiraz

Full name of responsible person

Dr Mosavi

Street address

Khoid Barin Park, Besaat St., Shiraz. Iran

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Shiraz University of Medical Sciences

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

Shiraz University of Medical Sciences

Proportion provided by this source

60

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

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Person responsible for general inquiries

Contact

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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

Yes - There is a plan to make this available

Statistical Analysis Plan

Not applicable

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

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

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available

Title and more details about the data/document

The data can publish for publishing paper

When the data will become available and for how long

The study protocol will be available after publishing the paper

To whom data/document is available

everyone

Under which criteria data/document could be used

For future studies

From where data/document is obtainable

Via email

What processes are involved for a request to access

data/document

The applicant needs to introduce his/her and need to explain the purpose of request as well. The information will send you as soon as possible.

Comments