

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

The effect of physical activity with mediation tracker on body composition and self-esteem in sedentary adult

Protocol summary

Study aim

The effect of physical activity with mediation tracker on body composition and self-esteem in sedentary adult

Design

This research is a field trial based on the purpose of the clinical trial and in terms of collecting information. 45 participants were randomly assigned into three groups of 15 (two intervention and one control group).

Settings and conduct

The selected participants fill up the self-esteem questionnaire and the exercise motivation logbook before the start of physical activity tests. Also, all participants were asked to complete the Self-Esteem Questionnaire at the first week, six weeks and the twelfth week. Afterwards, all participants will take a one-mile racquet test and a body composition test plus fat percentage in the first week, the sixth week and the twelfth week. The total time of the test protocol and a one-mile racquet test is 35 minutes, which includes warm-up and exercise protocols, tests and cool down, which take place between 10 and 12 noon.

Participants/Inclusion and exclusion criteria

Participants in the study include elderly people aged more than 60 years old and in the city of Tehran at the home for the aged of district 8, they are served 24 hours a day.

Intervention groups

The intervention group number one consists of 15 people who use the activity tracker and do physical activity, and the intervention group number 2 consists of 15 people who only do physical activity and do not use the activity tracker, and the control group includes 15 People who do not use activity trackers, not physical activity.

Main outcome variables

Body composition, Self-esteem

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180423039396N1**

Registration date: **2019-01-03, 1397/10/13**

Registration timing: **retrospective**

Last update: **2019-01-03, 1397/10/13**

Update count: **0**

Registration date

2019-01-03, 1397/10/13

Registrant information

Name

Mohsen Tavakoli

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 7728 4827

Email address

tavakoli@riau.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2018-07-23, 1397/05/01

Expected recruitment end date

2018-10-23, 1397/08/01

Actual recruitment start date

2018-07-23, 1397/05/01

Actual recruitment end date

2018-10-23, 1397/08/01

Trial completion date

2018-10-23, 1397/08/01

Scientific title

The effect of physical activity with mediation tracker on body composition and self-esteem in sedentary adult

Public title

The effect of physical activity with mediation tracker in the Elderly

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Having at least 60 years of age Having physical health, Mental and lack of illness Low mobility of elderly Non-drug addiction

Exclusion criteria:

Having mental illnesses such as high depression Having physical illnesses such as disability and high blood pressure Dislike of physical activity Dislike of participate in research

Age

From **60 years** old

Gender

Male

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **150**

Actual sample size reached: **45**

Randomization (investigator's opinion)

Randomized

Randomization description

45 participants participated randomly in three groups of 15 (two experimental and one control group); The test group number one consists of 15 people who use the activity tracker and do physical activity; And the test group number two consists of 15 people who only do physical activity and do not use the activity tracker; And the control group includes 15 people who do not use the activity tracker and do physical activity, and follow daily life according to normal nursing home programs. To match the triple groups, the pre-test results of the EMI-2 logbook were used and list all participants in the order list from the highest to the least incentive to participate in the sport, and then the first three randomly assigned to the group The trilogy is located in the same way, the next three to the end of the list will be matched randomly into triple groups.

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

Islamic Azad University - Science and Research Branch

Street address

Islamic Azad University of Science and Research Branch - Shahdia Hesarak Blvd - University Square - End of Shahid Sattari Highway

City

Tehran

Province

Tehran

Postal code

۱۴۷۷۸۹۳۸۵۵

Approval date

2018-07-08, 1397/04/17

Ethics committee reference number

IR.IAU.SRB.REC.1397.013

Health conditions studied

1

Description of health condition studied

Sedentary adult

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Physical activity

Timepoint

Twelve weeks and three sessions each week

Method of measurement

Walk test is a mile rackport

2

Description

Activity Tracker

Timepoint

Twelve weeks and three sessions each week

Method of measurement

The Xiaomi smart detector has a global version of the heart rate sensor, accelerometer and altimeter that records activity and sleep information. The Xiaomi wrist can measure time, speed, calorie intake, average speed, increase and decrease in height and heart rate during exercise.

3

Description

Body composition

Timepoint

The first week and the sixth week and the twelfth week

Method of measurement

The body composition measurement test will measure

humanometric data such as height and weight for calculating body mass index (BMI) as well as the waist circumference of the hip circumference to calculate the waist to hip ratio (WHR) using tape measurements and standard scales. The body fat percentage test is also measured by measuring the fat under the skin by caliper in the dorsum of the trunk muscle and leg muscle, which is used by the modified Lumann formula (Slater).

4

Description

Self-esteem

Timepoint

The first week and the sixth week and the twelfth week

Method of measurement

Eysenck Self-Esteem Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

The intervention group number one consists of 15 people who use the activity tracker and do physical activity. The total time of the test protocol and a one-mile racquet test is 35 minutes, which includes warm-up and exercise protocols, tests and cool down, which take place between 10 and 12 noon. The warm-up phase includes walking, exercise and stretching for 10 minutes to prepare participants for the main training program. The main training phase, which includes a walking test of a mile of racquet, which is about 20 minutes. Cooling stage consisting of tensile and tensile movements for 5 minutes to overcome fatigue and accelerate the process of recovery and disposal of lactic acid and waste products from blood and muscle.

Category

Other

2

Description

The intervention group number two consists of 15 people who only do physical activity and do not use an activity tracker. The total time of the test protocol and a one-mile racquet test is 35 minutes, which includes warm-up and exercise protocols, tests and cool down, which take place between 10 and 12 noon. The warm-up phase includes walking, exercise and stretching for 10 minutes to prepare participants for the main training program. The main training phase, which includes a walking test of a mile of racquet, which is about 20 minutes. Cooling stage consisting of tensile and tensile movements for 5 minutes to overcome fatigue and accelerate the process of recovery and disposal of lactic acid and waste products from blood and muscle.

Category

Other

3

Description

The control group consists of 15 people who do not use activity trackers or physical activity.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Home for the Aged

Full name of responsible person

Mohsen Tavakoli

Street address

District 8 of Tehran - Home for the Aged

City

Tehran

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1635663896

Phone

+98 21 7728 4827

Email

mt_1355@yahoo.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Fatemeh Azizabadi Farahani

Street address

Islamic Azad University, Science and Research Branch

City

Tehran

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۱۴۷۷۸۹۳۸۵۵

Phone

+98 21 4484 5147

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mt_1355@yahoo.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Islamic Azad University

Proportion provided by this source

100

Public or private sector

Private

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**

Islamic Azad University

Full name of responsible person

Mohsen Tavakoli

Position

Faculty member

Latest degree

Ph.D.

Other areas of specialty/work

Sport Medicine

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Latest degree

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Other areas of specialty/work

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Person responsible for updating data**Contact****Name of organization / entity**

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Full name of responsible person

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Position

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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

The data and results of the research are available after the conclusion

When the data will become available and for how long

Start accessing information one year after printing results

To whom data/document is available

Researchers working in academic institutions

Under which criteria data/document could be used

Specialists and academic researchers

From where data/document is obtainable

Author

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

At the fastest time

Comments