

Clinical Trial Protocol

Iranian Registry of Clinical Trials

26 Jun 2026

Comparing the Six-Week Effect of Xbox Kinect with Periodic Exercise on Brain-Wave Changes in Young Girls Non-athlete

Protocol summary

Study aim

Comparison of the effect of six weeks of Xbox Kinect game with periodic training on alpha wave changes in young non-athlete women Comparison of the effect of six weeks of Xbox Kinect game with periodic training on beta wave changes in young non-athlete women The effect of six weeks of Xbox Kinect play on alpha brainwave changes in young non-athlete women The effect of six weeks of intermittent training on changes in beta brain waves in young non-athlete women The overall aim of the present study was to compare the effect of six weeks of Xbox Kinect game with intermittent training on brain wave changes in young non-athlete women.

Design

Clinical trial with two groups of parallel, blind, randomized, phase is not applicable, Kolmogorov-Smirnov test was used to determine the distribution of data and SPSS software was used.

Settings and conduct

This experiment was performed in the field of brain wave study. The place of brain wave measurement was done in Tehran Physical Education Research Institute by electroencephalography device and a lip swing and measurement before and after the protocol.

Participants/Inclusion and exclusion criteria

Study and fill in the consent to participate in the exam Introduction to Kinect game Girls between 25 and 35 years old The game is played individually Body mass between 20 and 25 In perfect physical and mental health Have no training history Have the opportunity to participate in exercises in three sessions per week

Intervention groups

The study was performed on brain waves of two groups, in one group intermittent exercise was considered as an intervention and in the other group Xbox game was considered as an intervention.

Main outcome variables

Alpha and beta brain waves

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20200609047710N1**

Registration date: **2020-11-14, 1399/08/24**

Registration timing: **retrospective**

Last update: **2020-11-14, 1399/08/24**

Update count: **0**

Registration date

2020-11-14, 1399/08/24

Registrant information

Name

Niloofer sadat Rostami arjmand

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 21 4461 7790

Email address

niloo.rostami64@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-08-19, 1398/05/28

Expected recruitment end date

2019-11-06, 1398/08/15

Actual recruitment start date

2019-10-27, 1398/08/05

Actual recruitment end date

2019-12-24, 1398/10/03

Trial completion date

2019-12-24, 1398/10/03

Scientific title

Comparing the Six-Week Effect of Xbox Kinect with Periodic Exercise on Brain-Wave Changes in Young Girls Non-athlete

Public title

Comparing the Effect of Xbox Kinect with Periodic Exercise on Brain-Wave Changes in Young Girls Non-athlete

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria:

Subjects were healthy in terms of risk factors for cardiovascular disease, especially high blood pressure. Subjects did not take any specific supplements or medications until at least 2 months before the start of the study. Not all subjects participated in continuous and routine activity in the previous two years. Know the Xbox Kinect game. Age range 25 to 35 years

Exclusion criteria:

Subjects with symptoms of muscle injury. Subjects who participate in other sports or extracurricular activities during six weeks of training. Age range 25 to 35 years

Age

From **25 years** old to **35 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **20**

Actual sample size reached: **18**

Randomization (investigator's opinion)

Randomized

Randomization description

Simple - using a table of random numbers - in such a way that by numbering people from 0 to 20, the first number we get is in the first intervention group: training group, the second number in the second intervention group: the game 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

Research Ethics Committee of Islamic Azad

University-Science and Research Branch

Street address

Tehran - End of Shahid Sattari Highway - University Square - Hesarak Martyrs Boulevard - Islamic Azad University, Science and Research Branch

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Tehran

Postal code

1477893855

Approval date

2019-10-16, 1398/07/24

Ethics committee reference number

IR.IAU.SRB.REC.1398.095

Health conditions studied

1

Description of health condition studied

Comparison of the effect of six weeks of Xbox Kinect game with periodic training on brain wave changes in young non-athlete girls

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Brain Wave Changes Alpha

Timepoint

Before and after the protocol (after six weeks)

Method of measurement

How to measure brain waves with electroencephalography

2

Description

Beta Wave Changes

Timepoint

Before and after the protocol (after six weeks)

Method of measurement

How to measure brain waves with electroencephalography

Secondary outcomes

1

Description

heart rate

Timepoint

During the Xbox training and game protocol

Method of measurement

By polar clock m430

Intervention groups

1

Description

Intervention group 1: Exercise group: The subjects of this group performed interval exercises for six weeks (three sessions per week, each session for one hour).

Category

Other

2

Description

Intervention group 2: Xbox game group: The subjects of this group played Xbox Kinect game for six weeks (three sessions per week, each session for one hour).

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Research Institute of Physical Education and Sports Sciences

Full name of responsible person

Dr Ali Sharif Nezhad

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No 7, Fifth Street, Miremad Ave, Motahari Ave, Tehran Town

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University, Science and Research Branch

Full name of responsible person

Dr Farzad Movahedi Sobhani

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Science and Research Branch, Daneshgah Blvd, Simon Bulivar Blvd, Tehran

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Web page address

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Islamic Azad University, Science and Research Branch

Proportion provided by this source

1

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

Niloofer sadat Rostami arjmand

Position

Research fellow

Latest degree

Master

Other areas of specialty/work

Physiology

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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

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

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

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

Comparison of the effect of six weeks of Xbox Kinect play with periodic training on brain wave changes in young non-athlete girls

When the data will become available and for how long

After publishing an article in a reputable journal

To whom data/document is available

All researchers active in this field

Under which criteria data/document could be used

All researchers active in this field

From where data/document is obtainable

All researchers active in this field

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

Xbox-Brain Waves-Periodic Exercise

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

Islamic Azad University

Full name of responsible person

Niloofer sadat Rostami arjmand

Position

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Latest degree

Master

Other areas of specialty/work

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