Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 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

Niloofar 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
City
tehran
Province
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
Street address
No 7,Fifth Street,Miremad Ave,Motahari Ave,Tehran Town
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Email
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Web page address
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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
Street address
Science and Research Branch, Daneshgah Blvd, Simon Bulivar Blvd, Tehran
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Email
f-movahedi@srbiau.ac.ir
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
Niloofar sadat Rostami arjmand
Position
Research fellow
Latest degree
Master
Other areas of specialty/work
Physiology
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No 1/3,Fifth East Alley,West Chaharbagh Ave,Shouth Janat Abad Ave,Tehran Town
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Master
Other areas of specialty/work
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Person responsible for updating data

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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