

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jun 2026

Impact of Active Video Games (Xbox Kinect) on Static and Dynamic Balance in Children with Autism Spectrum Disorder

Protocol summary

Study aim

The effect of active video games on static and dynamic balance in autistic children

Design

The present study has a control group, a randomized, blinded strain. Includes an active video game group and a control group.

Settings and conduct

After selecting the case study, the static balance pre-test will be performed using modified stork test and dynamic balance test using the heel toe test. Subjects were given an intervention for 8 weeks after being placed in their groups. A multi functional room will be used for the intervention. Xbox Games Kinect is a new technology that creates an interactive environment to execute individual movements on the screen. Children will stand in front of the device and try to imitate the character's movements on the screen. Individuals will be individually intervened and the control group will not use Xbox Kinect games.

Participants/Inclusion and exclusion criteria

Age range; no visual impairment, orthopedic and cardiovascular disease, family satisfaction with conditions. Over 3 sessions of absenteeism during the intervention process, having comorbidities such as severe sensory-motor disorders will be excluded.

Intervention groups

After the pre-test, the subjects will be randomly divided into 2 groups of active and control video games and will run for 8 weeks, 2 sessions per week for a total of 16 sessions. The time is 45 minutes per minute and will be divided into 4 sections. The first 15 minutes consist of warm-up, the last 20 minutes of playing selected Xbox Kinect games, and the last 10 minutes include cooling off. The intervention group active video games, including track and field and bowling will run. The control group will have no exercise other than autism center daily programs.

Main outcome variables

Because Xbox Kinect games are fun for autistic children, their participation in these activities can improve their physical, behavioral, and physical problems.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20191009045039N1**

Registration date: **2019-10-21, 1398/07/29**

Registration timing: **registered_while_recruiting**

Last update: **2019-10-21, 1398/07/29**

Update count: **0**

Registration date

2019-10-21, 1398/07/29

Registrant information

Name

Neda Ghobadi

Name of organization / entity

Education

Country

Iran (Islamic Republic of)

Phone

+98 11 4201 1632

Email address

nedaghobadikhu@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2019-10-14, 1398/07/22

Expected recruitment end date

2020-01-15, 1398/10/25

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Impact of Active Video Games (Xbox Kinect) on Static and Dynamic Balance in Children with Autism Spectrum Disorder

Public title

The Impact of Xbox Kinect Games on the Static and Dynamic Balance of Autism Children

Purpose

Health service research

Inclusion/Exclusion criteria**Inclusion criteria:**

No visual impairment No orthopedic problems No cardiovascular problems

Exclusion criteria:

There are up to 3 times absence during the intervention Existence of obvious abnormalities Vestibular system disorder and body sensations

Age

From **4 years** old to **12 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant

Sample size

Target sample size: **16**

Randomization (investigator's opinion)

Randomized

Randomization description

The statistical population of autistic children is Sari. The sampling method will be made available. Subjects will be randomly divided into experimental and control groups after the pre-test.

Blinding (investigator's opinion)

Single blinded

Blinding description

The present study is a single blinded one and the participants who will be divided into two intervention and control groups will be unaware of the type of intervention.

Placebo

Not used

Assignment

Parallel

Other design features**Secondary Ids**

empty

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

Ethics committee of Tarbiat Modares

Street address

AL Ahmad Ave., Nasr Bridge

City

Tehran

Province

Tehran

Postal code

14115-111

Approval date

2019-05-25, 1398/03/04

Ethics committee reference number

IR.MODARES.REC.1398.051

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

Autism Neural Developmental Disorder

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Static and dynamic balance score

Timepoint

The static and dynamic balance measurement sessions were active at baseline (before intervention) and after 16 sessions of video game exercises.

Method of measurement

How to measure static balance is a Modified Stork Test. How to measure dynamic balance is a Walking heel to Toe Test.

Secondary outcomes

empty

Intervention groups**1****Description**

Intervention group: Use Xbox Kinect games for 16 sessions.

Category

Rehabilitation

Recruitment centers**1****Recruitment center**

Name of recruitment center

Nik Andishan Autism Home

Full name of responsible person

Ebrahimi Sediqe

Street address

Moalem Ave., Moalem 6., Mellat Bank Alley; No. 67

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Province

Mazandaran

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4763868181

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dr.ebrahimi@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

The University of kharazmi

Full name of responsible person

Farhad Ghadiri

Street address

End of Mirdamad, End of South Razan Ave, Shahid Keshvari Complex, School of Physical Education and Sport Sciences

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15447-33111

Phone

+98 21 2222 8001

Email

nedaghobadikhu@gmail.com

Grant name

Grant code / Reference number

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

Yes

Title of funding source

The University of kharazmi

Proportion provided by this source

100

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

Person responsible for general inquiries

Contact

Name of organization / entity

Education

Full name of responsible person

Neda Ghobadi

Position

Teacher

Latest degree

Master

Other areas of specialty/work

Pediatrics

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Person responsible for updating data

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Fax**Email**

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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

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable

Title and more details about the data/document

All data will be shared after unidentifiable people.

When the data will become available and for how long

The period for accessing the data will be 6 months after the results are published.

To whom data/document is available

Data will be available only to researchers working in academic and research institutions.

Under which criteria data/document could be used

Researchers can use the documentation for their research.

From where data/document is obtainable

E-mail nedaghobadikhu@gmail.com will be responsible for receiving the documentation.

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

Within 2 weeks after the request has been submitted, the applicant can access the files. محقق

Comments