Clinical Trial Protocol
Iranian Registry of Clinical Trials

16 Sep 2026

The effects of the x box Kinect game on posture and respiratory parameters in hyperkyphosis female students and staff in Shiraz University of Medical Science

Protocol summary

Summary

(1) Objectives: The purpose of this study is to evaluate the effect of the x box-kinect game in hyperkyphosis women on posture and respiratory parameter improvement. (2) Design: Design of this study is randomized single blind clinical trial. (3) Setting and conduct: Participants are collected among students and medical personnel of Shiraz University of Medical Science. The evaluation of the participants will conduct by another examiner who is unclear from the categorization of the study groups and type of treatment. 32 individuals will be assigned by block randomization either to control or intervention groups and are not aware that they will belong to each groups. (4) Participants including major eligibility criteria: Inclusion criteria are women aged between 18 to 35 years old; with hyperkyphosis disorder or at least one of their respiratory parameters are less than normal average. Participant with muscle-skeletal or respiratory disorders or are treated by other ways will be excluded from this study. (5) Intervention: Both groups will receive stretching and strengthening exercises during 4 weeks (12 session and 3 days per week), while the intervention group will receive fitness and dance exercises of the x box kinect game as well. (6) main outcome measures (variables): Kyphosis angle via flexible ruler and respiratory parameters via spirometer will be measured for each individual in the beginning and end of 12th session.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201704112391N37**
Registration date: **2017-07-10, 1396/04/19**
Registration timing: **registered_while_recruiting**
Last update:
Update count: **0**

Registration date

2017-07-10, 1396/04/19

Registrant information

Name
Zahra Rojhani Shirazi
Name of organization / entity
Shiraz University of Medical Sciences, School of Rehabilitation Sciences
Country
Iran (Islamic Republic of)
Phone
+98 71 1627 1552
Email address
rojhaniz@sums.ac.ir

Recruitment status

Recruitment complete

Funding source

Shiraz university of medical sience

Expected recruitment start date

2017-07-09, 1396/04/18

Expected recruitment end date

2017-08-09, 1396/05/18

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effects of the x box Kinect game on posture and respiratory parameters in hyperkyphosis female students and staff in Shiraz University of Medical Science

Public title

The effects of the x box Kinect game on posture and respiratory parameters

Purpose

Treatment

Inclusion/Exclusion criteria

Inclusion criteria: Women aged 18 to 35 years old; having hyperkyphosis; at least one of their respiratory parameters of this study will be less than normal average. Exclusion criteria: Neuron, muscle-skeletal and rheumatology disorders; vertebra fractures; scoliosis or spinal disorder; subjects treated with brace, drugs, exercise therapy or other treatment in the last 6 months; pregnancy; asthma and other respiratory disease; balance disorder; using corticosteroids during more than 2 months; contraindication for spirometery test(such as: hypertension above 180 mmhg, history of heart attack or unstable angina, recent eye and ear surgery, abdominal aortic aneurism); subjects who cannot learn to exercise.

Age

From **18 years** old to **35 years** old

Gender

Female

Phase

2-3

Groups that have been masked

No information

Sample size

Target sample size: **32**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Single blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

The participants of this study will be assigned by block randomization either to control or intervention groups and they will receive one of the treatment options. They will be assessed and treated by two physical therapist. One of them who is blind to allocated treatment groups will assess the individuals and the other one will treat the individuals in both groups.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of research in Shiraz University of Medical Science

Street address

Central building of Shiraz University of Medical Science, Zand Blvd.

City

Shiraz

Postal code

Approval date

2016-12-14, 1395/09/24

Ethics committee reference number

ir.sums.rec.1395.153

Health conditions studied

1

Description of health condition studied

Subjects with hyperkyphosis

ICD-10 code

M40.0,M40.

ICD-10 code description

Postural kyphosis,Other secondary kyphosis,Other and unspecified kyphosis,

Primary outcomes

1

Description

Kyphosis angle

Timepoint

Befor intervention,Immediately after intervention set

Method of measurement

In terms of degree via flexible ruler

2

Description

Respiratory parameters(FVC, FEV1, FEV1/FVC)

Timepoint

Befor intervention,immediately after intervention set

Method of measurement

Using spirometer in terms of liter and percentage

Secondary outcomes

1

Description

Age

Timepoint

Before treatment and immediately after intervention set

Method of measurement

By questioning individuals and on the basis of years

2

Description

Height

Timepoint

Before treatment and immediately after intervention set

Method of measurement

By use of mesure tape(cm)

3

Description
Weight
Timepoint
Before treatment and immediately after intervention set
Method of measurement
By use of scale(kg)

Intervention groups

1

Description
In intervention group, individuals playing x box kinect(fitness game and dancing) in addition to regular training of control group,in 3 days of a week for 4 weeks
Category
Other

2

Description
In control group, participants perform stretching and strengthening exercises for 4 weeks and 3 days per week.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Rehabilitation Clinic of Shiraz University of Medical Science
Full name of responsible person
Sahba Taslimipour
Street address
School of Rehabilitation, Abiverdi1, Chamran Blvd
City
Shiraz

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Vice chancellor for research, Shiraz University of Medical Sciences
Full name of responsible person
Dr. Gholamreza Hatam
Street address
Central building of Shiraz University of Medical Science, Zand Blvd
City
Shiraz
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Vice chancellor for research, Shiraz University of Medical Sciences
Proportion provided by this source
100
Public or private sector
empty
Domestic or foreign origin
empty
Category of foreign source of funding
empty
Country of origin
Type of organization providing the funding
empty

Person responsible for general inquiries

Contact
Name of organization / entity
School of Rehabilitation Sciences
Full name of responsible person
Sahba Taslimipour
Position
Student in master of science
Other areas of specialty/work
Street address
School of Rehabilitation, Abiverdi1, Chamran Blvd
City
Shiraz
Postal code
33669-71947
Phone
+98 7107136265108
Fax
Email
sahba_taslimipour@yahoo.com
Web page address

Person responsible for scientific inquiries

Contact
Name of organization / entity
School of Rehabilitation
Full name of responsible person
Zahra Rojhani Shirazi
Position
Ph.D of physical therapy
Other areas of specialty/work
Street address
School of Rehabilitation, Abiverdi1, Chamran Blvd
City
Shiraz
Postal code
Phone
+98 71 3627 1552
Fax
Email
rojhaniz@sums.ac.ir
Web page address

Person responsible for updating data

Contact

Name of organization / entity
School of Rehabilitation

Full name of responsible person
Zahra Rojhani Shirazi

Position
Associate professor/Ph.D

Other areas of specialty/work

Street address
School of Rehabilitation, Abiverdi1, Chamran Blvd

City
Shiraz

Postal code

Phone
+36 271552

Fax

Email
rojhaniz@yahoo.com

Web page address

Sharing plan

Deidentified Individual Participant Data Set (IPD)
empty

Study Protocol
empty

Statistical Analysis Plan
empty

Informed Consent Form
empty

Clinical Study Report
empty

Analytic Code
empty

Data Dictionary
empty