

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Impact of an e-learning based postural education on musculoskeletal pain of music students

Protocol summary

Study aim

Impact of an e-learning postural education on musculoskeletal pain of music students

Design

The study will be conducted at Tehran Music Conservatories. Participants enroll the study based on inclusion criteria. Based on the number of students, grade and gender, the classes in each conservatory are first divided into two match groups randomly. Then, two groups are randomly assigned to the control and test groups. 260 eligible people enroll the study.

Settings and conduct

For pre-test, an electronic questionnaire will be sent to the participants through Shad Network and basic data will be collected. The students' body posture behavior during practicing music, with the help of a trained person, will be observed and recorded through the recording system. According basic data, the instruction program is designed and implemented for the intervention group. Training materials (messages, pamphlets, posters) will be uploaded to the test group during the intervention. The intervention duration will be 4 weeks. The primary outcome (pain intensity) and secondary outcome (posture behavior) will be evaluated online in both groups after six months of intervention.

Participants/Inclusion and exclusion criteria

Inclusion criteria include: music student of Tehran Education Conservatories; parents written consent; informed consent of participant; ability to participate in study; acquaintance with the internet. Exclusion Criteria include: more than one absence session; receive similar training programs; having any problem in the student's musculoskeletal system; and underlying disease; student cancellation.

Intervention groups

Intervention group: Include 130 music students who receive educational program based on e-learning. The control group include 130 music students who will receive a little information about the hearing health.

Main outcome variables

Posture behavior Playing-Related Musculoskeletal Pain

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20180528039885N2**

Registration date: **2021-09-11, 1400/06/20**

Registration timing: **prospective**

Last update: **2021-09-11, 1400/06/20**

Update count: **0**

Registration date

2021-09-11, 1400/06/20

Registrant information

Name

Zahra Akbari chehrehbargh

Name of organization / entity

Tarbiat Modares University

Country

Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2021-12-01, 1400/09/10

Expected recruitment end date

2022-05-31, 1401/03/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date
empty

Scientific title
Impact of an e-learning based postural education on musculoskeletal pain of music students

Public title
Impact of an e-learning based postural education on musculoskeletal pain of music students

Purpose
Prevention

Inclusion/Exclusion criteria
Inclusion criteria:
Music student of Tehran State Education Conservatories
Written consent of parents for student participation in the study
Informed consent of the student and his / her voluntary participation in the study
Ability to participate in training sessions
Acquaintance with the Internet and virtual education
Exclusion criteria:
More than one absence session
Receive training programs in this field before or during the study
Any report of injury or disorder to the student's musculoskeletal system by his / her, his / her parents, school principal or physiotherapist
Having any underlying disease
Student withdrawal in any of the research stages

Age
From **14 years** old to **20 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **260**

Randomization (investigator's opinion)
Randomized

Randomization description
The randomization method will be simple random assignment. Since individual allocation is not possible in a conservatory's context; based on the number of students, grade and gender, the classes in each conservatory are first divided into two match groups randomly. Then the groups are numbered as 1 and 2, and numbers are placed in the bowl. A neutral person asked to pull out one of the numbers from the bowl. The group number 1 is assigned to the interventional group and the second group is assigned to the control group using random numbers.

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

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Tarbiat Modarres University, Jalal Ahmad Highway

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Postal code

111-14115

Approval date

2021-08-25, 1400/06/03

Ethics committee reference number

IR.MODARES.REC.1400.140

Health conditions studied

1

Description of health condition studied

playing-related musculoskeletal pain

ICD-10 code

M96

ICD-10 code description

Intraoperative and postprocedural complications and disorders of musculoskeletal system, not elsewhere classified

Primary outcomes

1

Description

Playing-Related Musculoskeletal Pain

Timepoint

Before and six months after the intervention

Method of measurement

Using the 0-10 Numeric pain rating scale and Nordic Standard Questionnaire

Secondary outcomes

1

Description

Posture behavior

Timepoint

Before and six months after the intervention

Method of measurement

Using the Rapid Entire Body Assessment (REBA) checklist

Intervention groups

1

Description

Intervention group: The intervention consists of four sessions, each one lasting for 90 minutes with a 1-week interval. A theoretical session to increase students' awareness of the importance of proper posture when practicing music. A motivational session: using the group discussion method, expressing personal thoughts, opinions and experiences will try to motivate them to change their behavior. Two practical sessions: implementation of paying attention to body posture during playing a musical instrument, having proper posture while standing, sitting, lifting and carrying musical instrument, hand position, and practicing special stretching exercise and warming up before playing. In this section, demonstration-re-demonstration, corrective feedback, etc. will be used.

Category

Prevention

2

Description

Control group: Includes 130 music students who receive a little information about the hearing health.

Category

Prevention

Recruitment centers

1

Recruitment center

Name of recruitment center

هنرستان‌های موسیقی دخترانه و پسرانه تهران

Full name of responsible person

دکتر مهرزاد حمیدی

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Iran National Science Foundation

Full name of responsible person

Iman Eftekhari

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No. 33, 5th St., North Karegar Ave., Tehran, Iran

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Grant name

Grant code / Reference number

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

Yes

Title of funding source

Iran National Science Foundation

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

Other

Person responsible for general inquiries

Contact

Name of organization / entity

Tarbiat Modares University

Full name of responsible person

Sedigheh Sadat Tavafian

Position

Professor of Health Education & Promotion

Latest degree

Ph.D.

Other areas of specialty/work

Health Promotion

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

At this time, the data is not publicly available because the work is continuing.

Study Protocol

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

Statistical Analysis Plan

Not applicable

Informed Consent Form

No - There is not a plan to make this available

Clinical Study Report

Not applicable

Analytic Code

Not applicable

Data Dictionary

Not applicable