Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Evaluation and comparison of European classical music and Iranian classical music on pain and anxiety level of dental patients.

Protocol summary

Study aim
Evaluation and comparison of European classical music and Iranian classical music on pain and anxiety level of dental patients.

Design
Randomized controlled clinical trial with 3 parallel groups designed of 90 participants Randomization sequence carried out by using a table of computer generated random numbers

Settings and conduct
The study will be carried out in private dental office on 90 patients undergoing root canal treatment. Participants will be allocated randomly in 3 groups of instrumental piano European classical music, instrumental piano Iranian classical music and no music as control group. In each group playing music via loudspeaker will be started since 5 minutes prior dental treatment until treatment completion. State-Trait Anxiety Inventory is used for stress level assessment before, during and after dental treatment. Pulse rate and respiratory rate are measured before, during and after dental treatment. Pain level following dental anesthesia injection is assessed by visual Analog Scale

Participants/Inclusion and exclusion criteria
Inclusion criteria: People aged between 18 to 65 years old with health status ASA 1 or 2; Exclusion criteria: People with nervous or psychiatric diseases and people who take nervous or psychiatric medications

Intervention groups
In two study groups, patients listen to Iranian classical or European classical music during dental treatment. In control group dental treatment will be done in silence.

Main outcome variables
Stress level; Pain level following dental anesthesia injection; Pulse rate; Respiratory rate

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20230819059182N1**
Registration date: **2023-08-31, 1402/06/09**
Registration timing: **prospective**

Last update: **2023-08-31, 1402/06/09**
Update count: **0**

Registration date
2023-08-31, 1402/06/09

Registrant information

Name
Aidin Sooratgar

Name of organization / entity

Country
Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-09-23, 1402/07/01

Expected recruitment end date
2023-12-06, 1402/09/15

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date
empty

Scientific title
Evaluation and comparison of European classical music and Iranian classical music on pain and anxiety level of dental patients.

Public title
Comparison of European classical music and Iranian classical music on anxiety level
Purpose
Supportive
Inclusion/Exclusion criteria
Inclusion criteria:
Adults between 18 to 65 years old with medical condition ASA 1 and 2
Exclusion criteria:
People with nervous and psychiatric disorders People who take neurology and psychiatry medication
Age
From **18 years** old to **65 years** old
Gender
Both

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **90**
Randomization (investigator's opinion)
Randomized
Randomization description
Randomization will be done using stratified block randomization. First participants are allocated into homogeneous ternary blocks based on main background variables. Then in each ternary block, participants are randomly allocated to one of the study groups.
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
Ethics Committee of Mashhad University of Medical Sciences
Street address
Ghoreishi building, Daneshgah street, Mashhad, Khorasan Razavi
City
Mashhad
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Razavi Khorasan
Postal code
9138813944
Approval date
2023-07-09, 1402/04/18
Ethics committee reference number
IR.MUMS.DENTISTRY.REC.1402.025

Health conditions studied

1

Description of health condition studied
Level of pain and anxiety in dental patients
ICD-10 code
ICD-10 code description

Primary outcomes

1

Description
Stress score in Spielberger State-Trait Anxiety Inventory
Timepoint
Before dental treatment, During dental treatment, After dental treatment
Method of measurement
Spielberger State-Trait Anxiety Inventory

2

Description
Pain level in Visual Analog Scale
Timepoint
During dental anesthesia injection
Method of measurement
Visual Analog Scale (VAS)

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Listening to Iranian classical music (instrumental piano) during dental treatment
Category
Other

2

Description
Intervention group: Listening to European classical music (instrumental piano) during dental treatment
Category
Other

3

Description
Control group: Silence during dental treatment
Category
Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Private dental office

Full name of responsible person
Aidin Sooratgar

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Mashhad University of Medical Sciences

Full name of responsible person
Vice President of Research and Technology of Mashhad University of Medical Sciences

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https://v-research.mums.ac.ir/

Grant name

Grant code / Reference number

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

Title of funding source
Mashhad University of Medical Sciences

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
Tehran University of Medical Sciences

Full name of responsible person
Aidin Sooratgar

Position
Assistant professor

Latest degree
Specialist

Other areas of specialty/work
Dentistry

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Person responsible for updating data

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available

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
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