Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Investigating the effect of citrus aurantium inhalation essential oil on students' exam anxiety

Protocol summary

Study aim
Investigating the effect of Citrus aurantium inhalation essential oil on students' anxiety

Design
This research has a control and intervention group, three blind groups, randomized on 80 students. Random allocation software is used for randomization.

Settings and conduct
This study is about reducing students' Test anxiety. The research community consists of all nursing students. Blinding includes the participants, the outcome assessor and the statistical analyst, who are unaware of the type of groups. Before the exam, the TAI is completed by the intervention and control groups.Intervention is done.After the end of the exam, the TAI is completed again by both groups.

Participants/Inclusion and exclusion criteria
Do not have an olfactory disorder. Do not have a history of allergy to the scent of spring flowers. Do not have any underlying diseases such as heart problems, respiratory problems, epilepsy, diseases and skin allergies. Not being treated with sedatives or self-administered sedatives. They have not used other relaxation methods before the test. No unfortunate accident or change in emotional relationships, etc. since one month before and during the study. Non-entry conditions:

Intervention groups
Intervention: It is mixed with a ratio of 0.1 ml (spring orange) and 1.9 (ordinary water) and poured into the tank of the humidifier and we turn on the humidifier.The humidifier spreads the solution in the air for 15 minutes. Before the test and intervention, the test anxiety inventory(TAI) is completed by the students. Immediately after the test, the is completed by the TAI students. Control : The procedure is completely similar to the intervention group. But the tank of the humidifier is only filled with tap water.

Main outcome variables
reducing students' test anxiety; quality of education of students; Increasing the quality of social life of students

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20230110057097N1**
Registration date: **2023-02-07, 1401/11/18**
Registration timing: **registered_while_recruiting**

Last update: **2023-02-07, 1401/11/18**
Update count: **0**

Registration date
2023-02-07, 1401/11/18

Registrant information

Name
Seyed mehdi Hosseinifard

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 933 668 3428

Email address
mhoseinifard92@gmail.com

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2023-01-23, 1401/11/03

Expected recruitment end date
2023-02-18, 1401/11/29

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date

empty

Scientific title
Investigating the effect of citrus aurantium inhalation essential oil on students' exam anxiety

Public title
Investigating the effect of citrus aurantium inhalation essential oil on students' exam anxiety

Purpose
Prevention

Inclusion/Exclusion criteria

Inclusion criteria:
Dont have an olfactory disorder. Do not have a history of allergy to the scent of spring flowers. Do not have any underlying diseases such as heart problems, respiratory problems, epilepsy, diseases and skin allergies. Not being treated with sedatives or self-administered sedatives. They have not used other relaxation methods before the test. No unfortunate accident or change in emotional relationships, etc. since one month before and during the study.

Exclusion criteria:
Unwillingness to continue cooperation The student feels uncomfortable during the intervention.

Age
From **18 years** old

Gender
Both

Phase
N/A

Groups that have been masked

- Outcome assessor
- Data analyser

Sample size
Target sample size: **80**

Randomization (investigator's opinion)
Randomized

Randomization description
Based on the size of the study sample and using the random number allocation table, 80 codes from one to eighty are assigned to the students. Even numbers are considered for the intervention group and odd numbers are considered for the control group, and in this way, the students are divided into two groups. intervention and control.

Blinding (investigator's opinion)
Double blinded

Blinding description
In this study, blinding includes the statistical analyst and the outcome evaluator, who are unaware of the type of groups and the type of materials used.

Placebo
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, Behbahan branch

Street address
Amirkabir Blvd., Behbahan

City
Bebahan

Province
Khouzestan

Postal code
۶۳۶۱۷۱۳۱۹۸

Approval date
2023-01-22, 1401/11/02

Ethics committee reference number
IR.IAU.BEHBAHAN.REC.1401.023

Health conditions studied

1

Description of health condition studied
Test anxiety

ICD-10 code
F40

ICD-10 code description
Phobic anxiety disorders

Primary outcomes

1

Description
Reducing test anxiety in students

Timepoint
15 minutes before the start of the test to the end of the test

Method of measurement
test anxiety inventory(TAI)

Secondary outcomes

empty

Intervention groups

1

Description
A humidifier is placed in the room.The door and window of the class will be closed 15 minutes before the start of aromatherapy. It is mixed with a ratio of 0.1 ml (spring orange) and 1.9 (ordinary water) and poured into the tank of the humidifier and we turn on the humidifier.The humidifier spreads the solution in the air for 15 minutes.The door and window of the classroom will not be opened until the end of the exam.Before the test and intervention, the test anxiety inventory is completed by

the students. Immediately after the test, the test anxiety inventory is completed by the students.

Category

Prevention

2

Description

Control group: A humidifier is placed in the room. The door and window of the classroom are closed 15 minutes before the start of aromatherapy. Only plain water is poured into the humidifier tank. We turn on the humidifier. The humidifier spreads the solution in the air for 15 minutes. The door and window of the classroom will not be opened until the end of the exam. Before the exam and intervention, the test anxiety questionnaire is completed by the students. Immediately after the test, the test anxiety questionnaire is completed by the students.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Behbahan Islamic Azad University, Nursing faculty

Full name of responsible person
Seyed Mehdi Hosseinifard

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Fadaeiyan Islam blvd., Farrokhshahr

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Islamic Azad University

Full name of responsible person
Majid Sina

Street address
Amirkabir blvd

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sinamajid@yahoo.com

Grant name

Grant code / Reference number

Is the source of funding the same sponsor organization/entity?
No

Title of funding source
Vice-Chancellor's Office for Research of Islamic Azad university, Behbahan branch

Proportion provided by this source
1

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
Islamic Azad University

Full name of responsible person
Seyed Mehdi Hosseinifard

Position
Faulty member of Nursing department

Latest degree
Master

Other areas of specialty/work
Nursery

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