Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effect of aromatherapy with lavender oil and citrus limon on undergraduate students of the faculty of nursing and para-medicine anxiety before the post-internship Objective Structured Clinical Examination test (OSCE)

Protocol summary

Study aim

Determining and comparing the effect of aromatherapy with lavender and citrus limon essential oil on the anxiety of undergraduate students of nursing and paramedical faculties before the objective structured clinical examination (OSCE) at the end of the course at Jahrom University of Medical Sciences in the academic year 2023-2024

Design

A clinical trial has two intervention groups and one control group, with parallel groups, three-blinded, Census sampling method with random allocation by throwing dice

Settings and conduct

This study will be conducted in the Faculty of Nursing and Paramedicine of Jahrom University of Medical Sciences and the participants will be asked to be in classes according to the division. Sarason's anxiety questionnaire and vital signs will be recorded before entering the class, 15 minutes after being placed in the class and at the end of the test.

Participants/Inclusion and exclusion criteria

lack of respiratory allergies, lack of olfactory disorders, mental health, not using other stress reduction methods such as drug therapy, music therapy, etc., informed consent to participate in the study

Intervention groups

This study has three groups, intervention group with lavender, intervention group with citrus limon and control group. Each group is placed in a classroom that is completely clean and well ventilated. A few minutes before the groups are placed in the classes, a napkin containing 3 drops of the relevant essential oil will be placed on each chair. In the control group, 3 drops of distilled water will be placed on the napkins. Before entering classes,15 minutes after the participants are placed in the classes, and at the end of the test, data will be collected.

Main outcome variables

Test anxiety score before the intervention, 15 minutes after and after the test

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20130718014049N11**
Registration date: **2024-01-07, 1402/10/17**
Registration timing: **registered_while_recruiting**

Last update: **2024-01-07, 1402/10/17**
Update count: **0**

Registration date

2024-01-07, 1402/10/17

Registrant information

Name

Ali Abbasi Jahromi

Name of organization / entity

Jahrom University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 79 1334 1501

Email address

abbasija@jums.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-12-31, 1402/10/10

Expected recruitment end date

2024-07-20, 1403/04/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of aromatherapy with lavender oil and citrus limon on undergraduate students of the faculty of nursing and para-medicine anxiety before the post-internship Objective Structured Clinical Examination test (OSCE)

Public title

The effect of aromatherapy with lavender oil and Citrus Limon on undergraduate students anxiety before the post-internship Objective Structured Clinical Examination test (OSCE)

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

All final year undergraduate students of nursing and paramedical faculties Consent to participate in the study

Exclusion criteria:

Having a respiratory sensitivity to the scent of lavender and citrus limon Having olfactory disorders Use of sedative drugs Using stress-reducing methods such as music therapy and... Having anxiety disorders

Age

From **18 years** old to **25 years** old

Gender

Both

Phase

N/A

Groups that have been masked

- Participant
- Outcome assessor
- Data analyser

Sample size

Target sample size: **80**

Randomization (investigator's opinion)

Randomized

Randomization description

The division will be random allocation based on the class list in such a way that the students number 1, 2 and 3 of the list of each class will be divided into the intervention group with lavender and the intervention group with citrus lemon and control, by throwing a dice and randomly. The rest of the students will be systematically divided into the above groups. Numbers 1 and 4 of the dice will be assigned to the intervention group with lavender, numbers 2 and 5 of the dice will be assigned to the intervention group with citrus lemon, and numbers 3 and 6 of the dice will be assigned to the control group. This process will be done for all groups.

Blinding (investigator's opinion)

Triple blinded

Blinding description

This is a triple-blind study, the nature of the essential oil is unknown to the study participant, Outcome assessor, and the data analyst.

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Jahrom University of Medical Sciences

Street address

Ostad motahhary Blvd, Jahrom University of Medical Sciences

City

Jahrom

Province

Fars

Postal code

7414846199

Approval date

2023-12-16, 1402/09/25

Ethics committee reference number

IR.JUMS.REC.1402.096

Health conditions studied

1

Description of health condition studied

Anxiety of undergraduate students before the Objective Structured Clinical Examination (OSCE) test at the end of the course

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Test anxiety score

Timepoint

Before the intervention, 15 minutes after the intervention, after the test

Method of measurement

Sarason questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group:At the beginning of the research, the students' demographic information questionnaire will be filled and for the first time, Sarason's anxiety and vital signs questionnaire will be completed by each student. Then, the intervention group will be placed in a classroom that has been completely cleaned and properly ventilated. A tissue paper with 3 drops of lavender essential oil will be placed on each chair. The distance between these tissue papers and the nose of the participants will be 15 cm. 15 minutes after the placement of the students in the class, the Sarason and vital signs questionnaire will be completed again by the students, and finally, for the third time and after the test, the Sarason and vital signs questionnaire will be completed by each student after the test. Vital signs will be measured by Saadat model vital signs monitor and will be announced to the students.

Category

Treatment - Other

2

Description

Intervention group:At the beginning of the research, the students' demographic information questionnaire will be filled and for the first time, Sarason's anxiety and vital signs questionnaire will be completed by each student. Then, the intervention group will be placed in a classroom that has been completely cleaned and properly ventilated. A tissue paper with 3 drops of Citrus Limon L will be placed on each chair. The distance between these tissue papers and the nose of the participants will be 15 cm. 15 minutes after the placement of the students in the class, the Sarason and vital signs questionnaire will be completed again by the students, and finally, for the third time and after the test, the Sarason and vital signs questionnaire will be completed by each student after the test. Vital signs will be measured by Saadat model vital signs monitor and will be announced to the students.

Category

Treatment - Other

3

Description

Intervention group:At the beginning of the research, the students' demographic information questionnaire will be filled and for the first time, Sarason's anxiety and vital signs questionnaire will be completed by each student. Then, the intervention group will be placed in a classroom that has been completely cleaned and properly ventilated. A tissue paper with 3 drops of distilled water will be placed on each chair. The distance between these tissue papers and the nose of the participants will be 15 cm. 15 minutes after the placement of the students in the class, the Sarason and vital signs questionnaire will be completed again by the students, and finally, for the third time and after the test, the Sarason and vital signs questionnaire will be completed by each student after the test. Vital signs will be measured by Saadat model vital signs monitor and will be announced to the students.

Category

Placebo

Recruitment centers

1

Recruitment center

Name of recruitment center
Jahrom University of Medical Sciences

Full name of responsible person
Razieh Emadabadi

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Jahrom University of Medical Sciences

Full name of responsible person
Amir Abdoli

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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
Jahrom 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
Jahrom University of Medical Sciences
Full name of responsible person
Ali Abbasi jahromi
Position
Instructor, faculty member
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7414846199
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r.emadi69@gmail.com

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
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Yes - There is 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
Title and more details about the data/document
IPD collected for the primary outcome measure only
When the data will become available and for how long
Six months after printing results
To whom data/document is available
Only available for people working in academic institutions
Under which criteria data/document could be used

Only scientific and practical use is allowed

From where data/document is obtainable

Jahrom University of Medical Sciences

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

Apply to university and receive information

Comments