

Clinical Trial Protocol

Iranian Registry of Clinical Trials

10 Jul 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

Street address

Ostad Motahari Blvd, Jahrom University of Medical sciences

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r.emadi69@gmail.com

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

Latest degree

Master

Other areas of specialty/work

Nursery

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Email

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Person responsible for scientific inquiries**Contact****Name of organization / entity**

Jahrom University of Medical Sciences

Full name of responsible person

Ali Abbasi jahromi

Position

Instructor, faculty member

Latest degree

Master

Other areas of specialty/work

Nursery

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Person responsible for updating data**Contact****Name of organization / entity**

Jahrom University of Medical Sciences

Full name of responsible person

Razieh EmadAbadi

Position

Student

Latest degree

Bachelor

Other areas of specialty/work

Anesthesiology

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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