Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

The effect of lavender inhalation aromatherapy on the accuracy, performance and anxiety of nursing students in the Objective Structured Clinical Examination

Protocol summary

Study aim
Determining the effect of lavender inhalation aroma therapy on the accuracy, performance and exam anxiety of nursing students in an objective structured test.

Design
Clinical trial with control group, with parallel groups, randomized, on 60 students. Blocking was used for randomization.

Settings and conduct
Sampling will be done in an easy way among nursing students who meet the admission criteria of Isfahan College of Nursing and Midwifery. Then, they will be randomly assigned to two groups of 30 people, test and control. Before the intervention, the students of the experimental and control groups are asked to answer the Toulouse-Piron drawing accuracy test and Sarason's test anxiety questionnaire. Then the test group will undergo lavender aromatherapy for 10 minutes. Immediately after the therapeutic aroma, the level of accuracy and anxiety of their examination is recorded.

Participants/Inclusion and exclusion criteria
Entry requirements: 1. Interested in participating in research. Non-entry conditions: 1. Having a history of allergic rhinitis, eczema, or known respiratory problems such as asthma 2. Catching a cold or any other case that affects a person's ability to smell. 3. Drug addiction 4. smoking 5. Suffering from migraine headaches (self-reported)

Intervention groups
Intervention group: The intervention group will undergo aromatherapy with lavender for 10 minutes. In this way, the researcher drips 2 drops of lavender essential oil (a product of Barij Essential Oil Company of Kashan) with a dropper on a 10x10 cloth and attaches it to the clothes of the research unit at a distance of 10 cm from the nose. After that, he is asked to breathe normally for 10 minutes Control group: no intervention is done and they only complete the questionnaires.

Main outcome variables
accuracy; Function; exam stress

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20111002007692N5**
Registration date: **2022-07-03, 1401/04/12**
Registration timing: **prospective**

Last update: **2022-07-03, 1401/04/12**
Update count: **0**

Registration date
2022-07-03, 1401/04/12

Registrant information

Name
tahere momeni

Name of organization / entity
Isfahan university of medical science

Country
Iran (Islamic Republic of)

Phone
+98 913 239 0798

Email address
t_momeni@nm.mui.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2022-07-22, 1401/04/31

Expected recruitment end date
2023-02-19, 1401/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of lavender inhalation aromatherapy on the accuracy, performance and anxiety of nursing students in the Objective Structured Clinical Examination

Public title

The effect of lavender inhalation aromatherapy on the accuracy, performance and anxiety of students

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Interested in participating in research

Exclusion criteria:

Having a history of allergic rhinitis, eczema, or known respiratory problems such as asthma Catching a cold or any other case that affects a person's ability to smell. Drug addiction Using other stress reduction methods including progressive muscle relaxation, music therapy smoking Suffering from migraine headaches (self-reported) History of allergy to lavender (skin or inhalation)

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Block randomization is of size 4. Randomization unit: individual. Randomization tool: random allocation software. Hiding the random chain is by placing patient codes in opaque envelopes.

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

Research Ethics Committees of Nursing, Rehabilitation and Management schools- Isfahan University of

Street address

Isfahan University of Medical Sciences, Hazar Jarib St

City

Isfahan

Province

Isfehan

Postal code

81746-73461

Approval date

2022-06-10, 1401/03/20

Ethics committee reference number

IR.MUI.NUREMA.REC.1401.045

Health conditions studied

1

Description of health condition studied

Anxiety

ICD-10 code

F06.4

ICD-10 code description

Anxiety disorder due to known physiological condition

Primary outcomes

1

Description

The score obtained from the Toulouse Pieron drawing test

Timepoint

Immediately before and immediately after aromatherapy

Method of measurement

the Toulouse Pieron drawing test

Secondary outcomes

1

Description

The score obtained from the Sarason test anxiety questionnaire

Timepoint

Immediately before and immediately after aromatherapy

Method of measurement

the Sarason test anxiety questionnaire

Intervention groups

1

Description

Intervention group: Before the intervention, the students of the experimental group are asked to answer the

Toulouse-Piron drawing accuracy test and Sarason's test anxiety questionnaire. Then the test group will be subjected to aromatherapy with lavender essential oil for 10 minutes, in this way the researcher drips 2 drops of 100% pure lavender essential oil (product of Barij Essential Oil Company of Kashan) with a dropper on a 10x10 cloth. And it is attached to the clothes of the research unit with a clip at a distance of 20 cm from the nose. After that, he is asked to breathe for 10 minutes; The intervention is implemented in a separate class that is already prepared for the intervention. Immediately after the therapeutic aroma, the level of accuracy and anxiety of their exam is recorded again.

Category

Other

2

Description

Control group: Before conducting the study, the students of the control group are asked to answer the Toulouse-Piron drawing accuracy test and Sarason's test anxiety questionnaire. Immediately after the end of the study, the level of accuracy and anxiety of their exam will be recorded again. The control group acted according to the clinical skills laboratory program and there was no intervention by the researcher for them.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Isfahan University of Medical Sciences

Full name of responsible person

Tahere Momeni

Street address

Hazar Jarib Street, Isfahan University of Medical Sciences

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Dr. Mansour Siavash

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research@mui.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Esfahan 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

Esfahan University of Medical Sciences

Full name of responsible person

Tahere Momeni

Position

Faculty instructor

Latest degree

Master

Other areas of specialty/work

Nursery

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Person responsible for scientific

inquiries

Contact

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Position
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Latest degree
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Other areas of specialty/work
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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
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