

Clinical Trial Protocol

Iranian Registry of Clinical Trials

27 Jun 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
Isfahan
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

City

Isfahan

Province

Isfahan

Postal code

81746-73461

Phone

+98 31 3668 0048

Email

t_momeni@nm.mui.ac.ir

Sponsors / Funding sources**1****Sponsor****Name of organization / entity**

Esfahan University of Medical Sciences

Full name of responsible person

Dr. Mansour Siavash

Street address

Hazar Jarib Street, Isfahan University of Medical Sciences

City

Isfahan

Province

Isfahan

Postal code

81746-73461

Phone

+98 31 3668 8138

Email

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

Street address

Hazar Jarib Street, Isfahan University of Medical Sciences

City

Isfahan

Province

Isfahan

Postal code

81746-73461

Phone

+98 31 3668 0048

Email

t_momeni@nm.mui.ac.ir

Person responsible for scientific

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

Street address

Hazar Jarib Street, Isfahan University of Medical Sciences

City

Isfahan

Province

Isfahan

Postal code

81746-73461

Phone

+98 31 3668 0048

Email

t_momeni@nm.mui.ac.ir

Person responsible for updating data

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

Street address

Hazar Jarib Street, Isfahan University of Medical Sciences

City

Isfahan

Province

Isfahan

Postal code

81746-73461

Phone

+98 31 3668 0048

Email

t_momeni@nm.mui.ac.ir

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