Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Effect of Lavender, Peppermint and Rose Oil on Pain and Anxiety Associated with Arteriovenous Fistula Cannulation in Hemodialysis Patients

Protocol summary

Study aim
Evaluate the effects lavender , Peppermint and Rose oil aromatherapy inhalation for reducing level pain and anxiety associated with cannulation arteriovenous fistula for patients undergoing hemodialysis

Design
(Randomized Controlled Trial)

Settings and conduct
this study will be conducted at Al-Sayyab Teaching Hospital, Al-Basra Teaching Hospital, Basra Dialysis Center and Al-Zubair Dialysis Center.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Their being at least 18 years old. Agreeing to participate in study. Undergoing conventional hemodialysis twice or more than times a week. Obtaining a visual analog scale (VAS) mild pain score or higher during AVF insertion. Exclusion criteria: patient within hepatic or as heart failure disease. panic disorder. Not good function fistula. Use analgesic drugs within two hours before hemodialysis procedures. Pregnant woman.

Intervention groups
To perform lavender,peppermint and rose oil: Before the administration to application , two drops of oils essential oil was applied to the forearm region of participants in the group (initial interview), and were test for any allergy sign such as erythema, rash, and swelling on the administrated region area. The essential oils that will be given to participations in groups lavender ,peppermint and rose are 100% pure. After pouring 200cc of boiling water into a bowl, five drops will be dripped into the bowl and patients will be inhalation at a distance of approximately 30 cm for five minutes. Patients will be completely covered with a cloth and advice to closed their eyes and deeply inhalation.

Main outcome variables
lavender, peppermint and rose oil pain and anxiety

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20241112063678N1**
Registration date: **2024-11-28, 1403/09/08**
Registration timing: **prospective**

Last update: **2024-11-28, 1403/09/08**
Update count: **0**

Registration date
2024-11-28, 1403/09/08

Registrant information

Name
Abdulrazaq Abdulrahman Khalid Alfarih

Name of organization / entity
University of Baghdad

Country
Iraq

Phone
+964 773 138 4575

Email address
abd.abd2302m@conursing.uobaghdad.edu.iq

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2024-12-01, 1403/09/11

Expected recruitment end date
2025-02-01, 1403/11/13

Actual recruitment start date
empty

Actual recruitment end date
empty

Trial completion date

empty

Scientific title
Effect of Lavender, Peppermint and Rose Oil on Pain and Anxiety Associated with Arteriovenous Fistula Cannulation in Hemodialysis Patients

Public title
Effect Aromatherapy in Hemodialysis Patients
Purpose
Health service research
Inclusion/Exclusion criteria
Inclusion criteria:
Their being at least 18 years old. Agreeing to participate in study. Undergoing conventional hemodialysis twice or more than times a week. Obtaining a visual analog scale (VAS) mild pain score or higher during AVF insertion. No allergy to aroma oils. No diagnostic with chronic obstructive pulmonary diseases (COPD). No loss in the sense of smell. Healthy AVF access. Speak Arabic. fistula cannulation not exceed one year.
Exclusion criteria:
patient within hepatic or as heart failure disease. persistent bleeding. panic disorder. Not good function fistula. Use analgesic drugs within two hours before hemodialysis procedures. Pregnant woman.
Age
From **18 years** old
Gender
Both

Phase
N/A
Groups that have been masked

- Investigator

Sample size
Target sample size: **300**
Randomization (investigator's opinion)
Randomized
Randomization description
The sampling method involves simple random sampling to obtain representative elements of populations. The sampling procedure includes a small colored ball containing three colors (white, black, green and red) and will give each patient the choice of one color. Each color represents one of three groups. White = control group. Black = lavender group. Green= peppermint group. Red = rose group. This method aims to eliminate bias in intervention assignments, greatly growing the ability to generalize study findings. Additionally, since the number of participant's variation daily, simple random sampling confirm to be the most efficient method for sampling.
Blinding (investigator's opinion)
Single blinded
Blinding description
The sampling procedure includes a small colored ball containing three colors (white, black, green and red) and will give each patient the choice of one color. Each color represents one of three groups. White = control group. Black = lavender group. Green= peppermint group. Red = rose group. This method aims to eliminate bias in intervention assignments, greatly growing the ability to generalize study findings.
Placebo
Not used
Assignment
Single
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics committee of University of Baghdad College of Nursing
Street address
Bab almuadham ,Baghdad
City
Baghdad
Postal code
10011
Approval date
2024-10-28, 1403/08/07
Ethics committee reference number
9

Health conditions studied

1

Description of health condition studied
Preparatory care for renal dialysis
ICD-10 code
Z49.0
ICD-10 code description
Preparatory care for renal dialysis

Primary outcomes

1

Description
The primary outcomes variable is level pain and anxiety associated with arteriovenous fistula changed after inhalation oils
Timepoint
During intervention and 30 minutes after intervention
Method of measurement
Visual Analog Scale and The Arabic version of State and Trait Anxiety Invetory (STAI)

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Before the administration to application , two drops of lavender,peppermint and rose essential oisl was applied to the forearm region of participants in the group (initial interview), and were test for any allergy sign such as erythema, rash, and swelling on the administrated region area. The essential oil that will be given to participations in group lavender,peppermint and rose are 100% pure. After pouring 200cc of boiling water into a bowl, five drops will be dripped into the bowl and patients will be inhalation at a distance of approximately 30 cm for five minutes. Patients will be completely covered with a cloth and advice to closed their eyes and deeply inhalation.

Category
Other

2

Description
Control group: without any intervention

Category
Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Al-Sayyab Teaching Hospital,Al-Basra Teaching Hospital,Basra Dialysis Center,Al-Zubair Dialysis Cent

Full name of responsible person
Abdulrazaq Abdulrahman Khalid

Street address
Al-zubair

City
Al-Basrah

Postal code
61004

Phone
+964 773 138 4575

Email
abd.abd2302m@conursing.uobaghdad.edu.iq

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
University of Baghdad

Full name of responsible person
Abdulrazaq Abdulrahman Khalid

Street address
AL-zubair

City
AL-zubair

Postal code
61001

Phone
+964 773 138 4575

Email
abd.abd2302m@conursing.uobaghdad.edu.iq

Web page address
https://conursing.uobaghdad.edu.iq

Grant name

Grant code / Reference number

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

Title of funding source
University of Baghdad

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
University of Baghdad

Full name of responsible person
Abdulrazaq Abdulrahman Khalid

Position
Master student

Latest degree
Bachelor

Other areas of specialty/work
Nursing

Street address
AL-zubair

City
AL-zubair

Province
AL-basrah

Postal code
61001

Phone
+964 773 138 4575

Email
abd.abd2302m@conursing.uobaghdad.edu.iq

Person responsible for scientific inquiries

Contact

Name of organization / entity
University of Baghdad

Full name of responsible person
Abdulrazaq Abdulrahman Khalid

Position
Master student

Latest degree

Bachelor

Other areas of specialty/work
Nursing

Street address
AL-zubair

City
AL-zubair

Province
AL-basrah

Postal code
61001

Phone
+964 773 138 4575

Email
abd.abd2302m@conursing.uobaghdad.edu.iq

Person responsible for updating data

Contact

Name of organization / entity
University of Baghdad

Full name of responsible person
Abdulrazaq Abdulrahman Khalid

Position
Master student

Latest degree
Bachelor

Other areas of specialty/work
Nursing

Street address
AL-zubair

City
AL-zubair

Province
AL-basrah

Postal code
61001

Phone
+964 773 138 4575

Email
abd.abd2302m@conursing.uobaghdad.edu.iq

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
Yes - There is 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
The data will be the results of the VAS and STAIs that measures pain and anxiety level in both control and intervention group

When the data will become available and for how long
God Willing, once the article is published, the data will be available after 6 months of publication. If the article will be published in a subscribed journal, the data will be available after one year because of the policy of the subscribed journals.

To whom data/document is available
With academic nurses and any researcher who is interested in the data

Under which criteria data/document could be used
the data could be used after getting the permission via email .Also, users need to acknowledge the owner

From where data/document is obtainable
Users can ask for the data and the permission via email. Abdulrazaq Abdulrahman Khalid is the corresponding author. He will be in contact with whom ask for the data. His email is abd.abd2302m@conursing.uobaghdad.edu.iq

What processes are involved for a request to access data/document
Users can ask for the data and the permission via email. Abdulrazaqz Abdulrahman Khalid is the corresponding author. He will be in contact with whom ask for the data. His email is abd.abd2302m@conursing.uobaghdad.edu.iq

Comments
none