

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

10 Jun 2026

### Comparison of aromatherapy with essential oils of orange and red flowers on pain after abdominal surgery

#### Protocol summary

##### Summary

The present research is a clinical trial which aims to make a comparison between the effect of aromatherapy with orange essential oil and rose essential oil on the pain intensity after abdominal surgery. After receiving code of ethics from Arak University of Medical Sciences and coordinating with Vali-e-Asr hospital, the sampling from surgery ward of this hospital started. The research sample was selected in terms of the inclusion criteria including: 1- patients should be between 18-40 years old, 2- patients should not suffer from acute and chronic pains, 3- patients should not suffer from vision problems, 4- patients should not suffer from mental problems, 5- patients' sense of smell should be sound, 6- patients should not suffer from any respiratory problems or allergic rhinitis, and 7- patients should not have any experience of hospitalization or medical measures due to mental problems. Also, the exclusion criteria include 1- patients use the other herbal extracts simultaneously, 2- respiratory problems or allergic rhinitis emerge during intervention, and 3- the occurrence of a crisis or an unexpected event during intervention. The sample volume of this research involved 120 patients who were selected using random sampling method and assigned into three groups: 1- aromatherapy with orange essential oil group (40 patients), 2- aromatherapy with rose essential oil group (40 patients) and 3- control group. After obtaining informed consent from the patients, the personal information questionnaire was completed by the researcher through interview with the patient. In the aromatherapy group, during 12 hours after the surgery (immediately after that the patient regains full consciousness, 4, 8, and 12 hours after operation), 1-2 drops of orange or rose essential oil was poured on a tissue and tied to the patient's shirt collar with a pin 10 cm away from the patient's head. The Visual Analog Scale (VAS) was used to assess the patient's pain intensity half an hour after each intervention. In the control group, patients only received the routine care

and then the pain intensity was measured immediately after patient's gaining full consciousness 4, 8, 12 hours after the operation. Since the aromatherapy is used as a supportive treatment method, so the conventional treatments of surgery ward were used to control the patient's pain.

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2016112131002N1**

Registration date: **2017-05-03, 1396/02/13**

Registration timing: **registered\_while\_recruiting**

Last update:

Update count: **0**

##### Registration date

2017-05-03, 1396/02/13

##### Registrant information

##### Name

Yasaman Pourandish

##### Name of organization / entity

Department of Nursing Faculty of Nursing and Midwifery

##### Country

Iran (Islamic Republic of)

##### Phone

+98 86 3223 9480

##### Email address

y.pourandish@arakmu.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

Vice Chancellor for Research and Technology University of Medical Sciences

##### Expected recruitment start date

2016-06-07, 1395/03/18  
**Expected recruitment end date**  
2017-06-08, 1396/03/18  
**Actual recruitment start date**  
empty  
**Actual recruitment end date**  
empty  
**Trial completion date**  
empty

**Scientific title**  
Comparison of aromatherapy with essential oils of orange and red flowers on pain after abdominal surgery

**Public title**  
Comparison of aromatherapy with essential oils of orange and red flowers on pain after abdominal surgery

**Purpose**  
Supportive

**Inclusion/Exclusion criteria**  
inclusion criteria including: 1- patients should be between 18-40 years old, 2- patients should not suffer from acute and chronic pains, 3- patients should not suffer from vision problems, 4- patients should not suffer from mental problems, 5- patients' sense of smell should be sound, 6- patients should not suffer from any respiratory problems or allergic rhinitis, and 7- patients should not have any experience of hospitalization or medical measures due to mental problems. Also, the exclusion criteria include 1- patients use the other herbal extracts simultaneously, 2- respiratory problems or allergic rhinitis emerge during intervention, and 3- the occurrence of a crisis or an unexpected event during intervention.

**Age**  
From **18 years** old to **40 years** old

**Gender**  
Both

**Phase**  
N/A

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **120**

**Randomization (investigator's opinion)**  
Randomized

**Randomization description**  
**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

Ethics Committee of Arak University of Medical Sciences

##### Street address

Payambare Azam Complex, Sardasht

##### City

Arak

##### Postal code

##### Approval date

2016-05-18, 1395/02/29

##### Ethics committee reference number

IR.ARAKMU.REC.1395.66

## Health conditions studied

### 1

#### Description of health condition studied

pain after surgery

#### ICD-10 code

R10.4

#### ICD-10 code description

Other and unspecified abdominal pain

## Primary outcomes

### 1

#### Description

pain after abdominal surgery

#### Timepoint

After recovery from anesthesia.4.8 and 12 hours after surgery

#### Method of measurement

Pain measured by VAS

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

In the aromatherapy group with orange essential oil , during 12 hours after the surgery (immediately after that the patient regains full consciousness, 4, 8, and 12 hours after operation), 1-2 drops of orange essential oil was poured on a tissue and tied to the patient's shirt collar with a pin 10 cm away from the patient's head. The Visual Analog Scale (VAS) was used to assess the patient's pain intensity half an hour after each intervention. Since the aromatherapy is used as a supportive treatment method, so the conventional treatments of surgery ward were used to control the patient's pain.

**Category**

Treatment - Other

**2****Description**

In the aromatherapy group with rose essential oil , during 12 hours after the surgery (immediately after that the patient regains full consciousness, 4, 8, and 12 hours after operation), 1-2 drops of rose essential oil was poured on a tissue and tied to the patient's shirt collar with a pin 10 cm away from the patient's head. The Visual Analog Scale (VAS) was used to assess the patient's pain intensity half an hour after each intervention. Since the aromatherapy is used as a supportive treatment method, so the conventional treatments of surgery ward were used to control the patient's pain.

**Category**

Other

**3****Description**

In the control group, patients only received the routine care and then the pain intensity was measured immediately after patient's gaining full consciousness 4, 8, 12 hours after the operation.

**Category**

Treatment - Other

**Recruitment centers****1****Recruitment center****Name of recruitment center**

Hospital Vali-asr

**Full name of responsible person**

moloud farmahini

**Street address**

Vali-asr Str, Vali-asr Hospital

**City**

Arak

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

Vice chancellor for Research, Arak University of Medical Sciences

**Full name of responsible person**

Dr. Rafiei

**Street address**

Payambare Azam Complex, Sardasht

**City**

Arak

**Grant name****Grant code / Reference number****Is the source of funding the same sponsor****organization/entity?**

Yes

**Title of funding source**

Vice chancellor for Research, Arak University of Medical Sciences

**Proportion provided by this source**

100

**Public or private sector***empty***Domestic or foreign origin***empty***Category of foreign source of funding***empty***Country of origin****Type of organization providing the funding***empty***Person responsible for general inquiries****Contact****Name of organization / entity**

Arak University of Medical Sciences

**Full name of responsible person**

moloud farmahini

**Position**

MSC NURSING

**Other areas of specialty/work****Street address**

Department of Nursing Faculty of Nursing and Midwifery/building university Payambar Azam/Basij square

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**Postal code****Phone**

+98 86 1417 3524

**Fax**

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**Email**

farahani91@arakmu.ac.ir

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

Department of Nursing Faculty of Nursing and Midwifery

**Full name of responsible person**

moloud farmahini

**Position**

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**Other areas of specialty/work****Street address**

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Arak University of Medical Sciences

**Full name of responsible person**

Yasaman Pourandish

**Position**

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**Other areas of specialty/work****Street address**

Department of Nursing Faculty of Nursing and  
Midwifery/Payambar Azam university complex/Basij  
square/Arak

**City**

Arak

**Sharing plan****Deidentified Individual Participant Data Set (IPD)**

*empty*

**Study Protocol**

*empty*

**Statistical Analysis Plan**

*empty*

**Informed Consent Form**

*empty*

**Clinical Study Report**

*empty*

**Analytic Code**

*empty*

**Data Dictionary**

*empty*