

Clinical Trial Protocol

Iranian Registry of Clinical Trials

31 Jul 2026

"Comparison of the effect of foot reflex massage and peppermint inhalation on job stress and fatigue severity in emergency medical technicians"

Protocol summary

Study aim

Determining the effect of foot reflex massage and peppermint inhalation scent on job stress and fatigue severity in emergency medical technicians of Zanjan University of Medical Sciences before and after intervention

Design

The trial will consist of two intervention groups (the first group of foot massage) and the second group (inhalation of peppermint drops) and the control group. The sample size will be 69 people and will be non-random and one-sided blind.

Settings and conduct

This study is a single-blind randomized clinical trial in the bases of Zanjan University of Medical Sciences on 69 participants who are equally divided into three groups of first intervention (Foot massage), second intervention (peppermint inhalation) and control group (without intervention) will be done. In the first intervention group, 3 sessions of foot massage will be performed, in the second intervention group, 3 sessions of peppermint inhalation will be performed, and in the control group (without intervention).

Participants/Inclusion and exclusion criteria

Working as an emergency medical technician - no olfactory problems and allergies to peppermint

Intervention groups

This study will include two intervention groups (the first group of foot massage) and the second group (inhalation of peppermint drops) and a control group.

Main outcome variables

Determining the level of job stress and the severity of fatigue before and after the intervention

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20211213053379N1**

Registration date: **2021-12-28, 1400/10/07**

Registration timing: **prospective**

Last update: **2021-12-28, 1400/10/07**

Update count: **0**

Registration date

2021-12-28, 1400/10/07

Registrant information

Name

Mehdi Shabani

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 24 3421 1721

Email address

shabanimehdi108@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2022-01-21, 1400/11/01

Expected recruitment end date

2022-02-20, 1400/12/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

"Comparison of the effect of foot reflex massage and

peppermint inhalation on job stress and fatigue severity in emergency medical technicians"

Public title
"The effect of foot massage and inhalation of peppermint drops on job stress and fatigue severity"

Purpose
Supportive

Inclusion/Exclusion criteria
Inclusion criteria:
Being employed as an emergency medical technician No olfactory problems Lack of sensitivity to peppermint
Exclusion criteria:
Being under 22 years old or over 50 years old Having olfactory problems and allergies to peppermint

Age
From **22 years** old to **50 years** old

Gender
Male

Phase
N/A

Groups that have been masked

- Data analyser

Sample size
Target sample size: **69**

Randomization (investigator's opinion)
Randomized

Randomization description
Using a simple random method using random selection software (Random Allocation), people will be classified into three groups of intervention (foot massage), peppermint inhalation group and control group. In this table, the numbers from 1 to 69 will be classified, respectively, and each number will belong to a participant in each group who will be randomly assigned to that group by a computer.

Blinding (investigator's opinion)
Single blinded

Blinding description
In this study, due to the type of intervention, it was not possible for the participant and the researcher to be blind. Therefore, to prevent bias, the statistical analyst will be unaware of the allocation of patients in groups.

Placebo
Not used

Assignment
Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics Committee of Zanjan University of Medical Sciences

Street address

End of Azar 3, Chamran St., Imam St., Qeydar City

City

Qeydar

Province

Zanjan

Postal code

4581917681

Approval date

2021-11-30, 1400/09/09

Ethics committee reference number

IR.ZUMS.REC.1400.368

Health conditions studied

1

Description of health condition studied

Stress

ICD-10 code

F43

ICD-10 code description

Reaction to severe stress, and adjustment disorders

2

Description of health condition studied

Fatigue

ICD-10 code

T73.2

ICD-10 code description

Exhaustion due to exposure

Primary outcomes

1

Description

Job stress score in Espio Job Stress Questionnaire

Timepoint

The amount of stress of the technicians at the beginning of the study (before the intervention) and the amount of stress one hour after the foot massage and inhalation of peppermint

Method of measurement

Osipow Job Stress Questionnaire

2

Description

Fatigue severity score in FSS fatigue severity questionnaire

Timepoint

The degree of fatigue of technicians (before the intervention) and the degree of fatigue of technicians one hour after the intervention

Method of measurement

FSS Fatigue Intensity Questionnaire (fss)

Secondary outcomes

1

Description

Stress reduction score

Timepoint

Measure anxiety (before intervention) and one hour after intervention

Method of measurement

Questionnaire for 60 questions of ASPIO job stress

2

Description

Fatigue reduction score

Timepoint

Measurement of drowsiness (before intervention) and one hour after intervention

Method of measurement

Short questionnaire 9 questions FSS fatigue severity (fss)

Intervention groups

1

Description

Intervention group 1: Reflexology massage of the soles of the feet with olive oil in 3 sessions for 40 minutes (20 minutes each leg)

Category

Lifestyle

2

Description

Intervention group: Intervention group: Inhalation of peppermint drops by Barich Essential Oil Company with 10% concentration for 1 minute for 3 sessions after the mission of emergency medical technicians

Category

Lifestyle

3

Description

Control group: Control group: No intervention will be performed by this group. Only the ASIP job stress and FSS fatigue questionnaire will be completed by this group

Category

Lifestyle

Recruitment centers

1

Recruitment center

Name of recruitment center

Khodabandeh City Pre-hospital Emergency Bases

Full name of responsible person

Parvin Shirig Qeydari

Street address

End Of Azar 3, Chamran St., Imam St., Qeydar City

City

Qeydar

Province

Zanjan

Postal code

4581917681

Phone

+98 24 3421 1721

Email

ShabaniMehdi108@Gmail.Com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Zanjan University of Medical Sciences

Full name of responsible person

Nasrin Jafari Varjoshani

Street address

School Of Nursing And Midwifery, Haj Ahmad Mahdavi Blvd., Karmandan Town, Zanjan

City

Zanjan

Province

Zanjan

Postal code

4513956113

Phone

+98 24 3314 8383

Fax

+98 24 3314 8319

Email

jafari-ns@Zums.ac.ir

Web page address

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Zanjan 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

Zanjan University of Medical Sciences

Full name of responsible person

Mehdi Shabani

Position

Master Student Of Emergency Nursing

Latest degree
Bachelor
Other areas of specialty/work
Nursery
Street address
End Of Azar 3, Chamran St., Imam St., Qeydar City
City
Qeydar
Province
Zanjan
Postal code
4581917681
Phone
+98 24 3421 1721
Email
ShabaniMehdi109@Gmail.Com

Person responsible for scientific inquiries

Contact
Name of organization / entity
Zanjan University of Medical Sciences
Full name of responsible person
Mehdi Shabani
Position
Master Student Of Emergency Nursing
Latest degree
Bachelor
Other areas of specialty/work
Nursery
Street address
End Of Azar 3, Chamran St., Imam St.
City
Qeydar
Province
Zanjan
Postal code
4581917681
Phone
+98 24 3421 1721
Email
ShabaniMehdi109@Gmail.Com

Person responsible for updating data

Contact
Name of organization / entity
Zanjan University of Medical Sciences
Full name of responsible person
Mehdi Shabani
Position

Master Student Of Emergency Nursing
Latest degree
Bachelor
Other areas of specialty/work
Nursery
Street address
End Of Azar 3, Chamran St., Imam St.
City
Qeydar
Province
Zanjan
Postal code
4581917681
Phone
+98 24 3421 1721
Email
ShabaniMehdi109@Gmail.Com

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
Yes - There is a plan to make this available
Clinical Study Report
Yes - There is a plan to make this available
Analytic Code
Yes - There is a plan to make this available
Data Dictionary
Yes - There is a plan to make this available
Title and more details about the data/document
There is no more information.
When the data will become available and for how long
There is no more information.
To whom data/document is available
There is no more information.
Under which criteria data/document could be used
There is no more information.
From where data/document is obtainable
There is no more information.
What processes are involved for a request to access data/document
There is no more information.
Comments
There is no more information.