Clinical Trial Protocol
Iranian Registry of Clinical Trials

18 Sep 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
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Iran (Islamic Republic of)
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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 Esipio 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
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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
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Fax
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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
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End Of Azar 3, Chamran St., Imam St., Qeydar City
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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
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.