

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jun 2026

Investigating the effect of non-technical skills training on the level of self efficacy and safety climate in the scrub personnel

Protocol summary

Study aim

Determining the effect of non-technical skills training on the level of self efficacy and safety climate in the scrub personnel

Design

The clinical trial has a control group with one side unreasoning and randomized parallel groups of 60 scrub personnel. Randomize selected hospitals using the coin method and for random selection of samples in each selected Hospital. A table of random numbers is used.

Settings and conduct

The study was conducted in Al-Zahra and Amin hospitals using the coin method, with one of the hospitals as the intervention group hospital; The other was selected as the control group hospital. By using the random number table method, 30 scrub personnel from each Hospital are selected. The intervention group receives two sessions of two-hour non-technical skills training, and the Control group does not receive the intervention. This study is single-masked, and the statistical analyst is blinded. For collection, the data uses electronic questionnaires of self efficacy, safety climate and demographic information before and one month after the intervention to be used.

Participants/Inclusion and exclusion criteria

All the studied samples have full consent to participate in the study; All the studied samples that have at least six months left of their years of service and workforce planning period; All the studied samples should have at least six months of work experience in their current workplace; All the studied samples have the experience of contributing to non-technical skills training programs.

Intervention groups

The intervention group receives two two-hour non-technical skills training sessions through video scenarios and lectures; The control group will not receive any intervention.

Main outcome variables

The average self efficacy score; The average score of the safety climate in scrub personnel

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20150715023216N15**

Registration date: **2023-08-05, 1402/05/14**

Registration timing: **prospective**

Last update: **2023-08-05, 1402/05/14**

Update count: **0**

Registration date

2023-08-05, 1402/05/14

Registrant information

Name

Said Amini Rarani

Name of organization / entity

Isfahan University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 31 3522 6158

Email address

ghadami@mui.ac.ir

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2023-08-23, 1402/06/01

Expected recruitment end date

2023-09-12, 1402/06/21

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating the effect of non-technical skills training on the level of self efficacy and safety climate in the scrub personnel

Public title

Investigating the effect of non-technical skills training on the level of self efficacy and safety climate

Purpose

Education/Guidance

Inclusion/Exclusion criteria

Inclusion criteria:

All the studied samples have full consent to participate in the study All the studied samples that have at least six months left of their years of service and workforce planning period All the studied samples should have at least six months of work experience in their current workplace

Exclusion criteria:

All the studied samples who have the experience of contributing to non-technical skills training programs

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

- Data analyser

Sample size

Target sample size: 60

Randomization (investigator's opinion)

Randomized

Randomization description

Among the two selected hospitals (Al-Zahra Hospital and Amin Hospital) using the coin randomization method, one of the hospitals was the intervention group and the other Hospital is selected as the control group. In such a way that one of the hospitals is the head of the coin and the other is the tail, and throw the coin, each of the hospitals that came, that Hospital as the Hospital of the intervention group and the other Hospital is selected as the Hospital of the control group. In the next step, 30 scrub staff in each Hospital are selected. The number of scrub personnel in the elective operating room 1 of Al-Zahra Hospital is 80 people, and the number of scrub personnel in the operating room at Amin Hospital has 54 people. In order to randomly select 30 scrub staff from each of these hospitals from the table, Random numbers are chosen. For this purpose, each of the 80 scrub personnel at Al-Zahra Hospital and 54 at Amin Hospital will be assigned a number. These numbers are between 01 and 80 in Al-Zahra Hospital and in Amin Hospital will be between 01 and 54. Then, in the table of random numbers, consider the two digits on the right side of the numbers and line up the columns with eyes closed. Alternatively, we move the rows of the pencil tip table so that 30 numbers are selected for the intervention group. This act for the hospital group Control is done definitely. For Al-Zahra Hospital, the numbers that correct two digits on the right that are greater than 80 and less than

01, For Amin Hospital, the numbers that correct two digits on the right that are greater than 54 and less than 01 are ignored. It is also forbidden to re-select the numbers that correct two digits are repeated.

Blinding (investigator's opinion)

Single blinded

Blinding description

In this study, the data analyst compared which patients were in the intervention group and those in the control group will not be conversant.

Placebo

Not used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ethics committee of Isfahan University of Medical Sciences

Street address

Hezarjerib Street, Isfahan, Iran

City

Isfahan

Province

Isfahan

Postal code

8174673461

Approval date

2023-06-25, 1402/04/04

Ethics committee reference number

IR.MUI.NUREMA.REC.1402.044

Health conditions studied

1

Description of health condition studied

Self efficacy

ICD-10 code

ICD-10 code description

2

Description of health condition studied

Safety climate

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

The average score of self efficacy in the researcher-made questionnaire of self efficacy in non-technical skills of a scrub person

Timepoint

Measuring the average score of self efficacy at the beginning of the study (before the intervention) and one month after the intervention

Method of measurement

Researcher-made questionnaire of self efficacy in non-technical skills of a scrub person

2

Description

The average safety climate score in the Nordic Safety Climate Questionnaire-50(NOSACQ-50)

Timepoint

Measuring the average safety climate score at the beginning of the study (before the intervention) and one month after the intervention

Method of measurement

Nordic Safety Climate Questionnaire-50(NOSACQ-50)

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: In this research phase, the researcher conducted two sessions of two-hour training in the operating room environment for the samples of the intervenes group, and the researcher provided training. These meetings are arranged by telephone in advance with samples On sample working days, the intervention group will be held before the start of surgery so that it does not interfere with their working conditions. First session until completion the training continues for all samples of the intervention group, and the second training session is held. In the first training session, first Situational awareness and task management skills are taught to the samples for one hour each. Second, communication skills and teamwork are taught in the session for two hours. The researcher in each of the training sessions first Defines the skill and then explains and clarifies it further by playing prepared videos and giving objective and practical examples makes more, If a sample is removed from the study before the first training session, the researcher will replace him, but in the case of samples that are excluded from the study after the first training session, there is no possibility of replacement.

Category

Behavior

2

Description

Control group: This group will not receive any intervention.

Category

Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center

Al-Zahra Hospital

Full name of responsible person

Ahmad Ghadami

Street address

Hezarjerib Street, Isfahan, Iran

City

Isfahan

Province

Isfahan

Postal code

8174673461

Phone

+98 31 3792 7583

Email

ghadami@mui.ac.ir

2

Recruitment center

Name of recruitment center

Amin Hospital

Full name of responsible person

Masoumeh Mohammadi

Street address

Hezarjerib Street, Isfahan, Iran

City

Isfahan

Province

Isfahan

Postal code

8174673461

Phone

+98 31 3792 7583

Email

masoomemohammadi13755@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Esfahan University of Medical Sciences

Full name of responsible person

Mansour Siavash

Street address

Hezarjerib Street, Isfahan, Iran

City

Isfahan

Province

Isfahan

Postal code

8174673461

Phone

+98 31 3792 7500

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

Ahmad Ghadami

Position

Assistant professor

Latest degree

Ph.D.

Other areas of specialty/work

Medical Education

Street address

Hezarjerib Street, Isfahan, Iran

City

Isfahan

Province

Isfahan

Postal code

8174673461

Phone

+98 31 3792 7583

Email

ghadami@mui.ac.ir

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

Esfahan University of Medical Sciences

Full name of responsible person

Ahmad Ghadami

Position

Assistant professor

Latest degree

Ph.D.

Other areas of specialty/work

Medical Education

Street address

Hezarjerib Street, Isfahan, Iran

City

Isfahan

Province

Isfahan

Postal code

8174673461

Phone

+98 31 3792 7583

Email

ghadami@mui.ac.ir

Person responsible for updating data**Contact****Name of organization / entity**

Esfahan University of Medical Sciences

Full name of responsible person

Masoumeh Mohammadi

Position

Student

Latest degree

Master

Other areas of specialty/work

Medical Education

Street address

Hezarjerib Street, Isfahan, Iran

City

Isfahan

Province

Isfahan

Postal code

8174673461

Phone

+98 31 3792 3028

Email

masoomemohammadi13755@gmail.com

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

No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD

There is no further information.

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