Clinical Trial Protocol
Iranian Registry of Clinical Trials

09 Nov 2026

Comparing the effect of cardiopulmonary resuscitation (CPR) training using media player and role-playing methods on the knowledge and self-efficacy of emergency medical and nursing students in Sarab

Protocol summary

Study aim
Comparing the effect of cardiopulmonary resuscitation training using the medial and role-playing methods on students' knowledge, performance, and self-efficacy.
Design
Two intervention groups as pre-test and post-test
Settings and conduct
In both groups, the intervention will be conducted in the form of role-playing and media player training. After the intervention, the level of knowledge and effectiveness will be measured.
Participants/Inclusion and exclusion criteria
Nursing students, semesters 7 and 8 and semester 5 of emergency medicine
Intervention groups
The first group of nursing students using the media player method. The second group of emergency medical students using the role-playing method.
Main outcome variables
Level of knowledge, awareness and efficiency of students

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20250601066007N1**
Registration date: **2025-08-02, 1404/05/11**
Registration timing: **prospective**

Last update: **2025-08-02, 1404/05/11**
Update count: **0**
Registration date
2025-08-02, 1404/05/11

Registrant information
Name
Mostafa Bafandeh Zendeh
Name of organization / entity
Sarab university of medical science
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Iran (Islamic Republic of)
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Recruitment status
Recruitment complete
Funding source

Expected recruitment start date
2025-08-23, 1404/06/01
Expected recruitment end date
2025-11-01, 1404/08/10
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparing the effect of cardiopulmonary resuscitation (CPR) training using media player and role-playing methods on the knowledge and self-efficacy of emergency medical and nursing students in Sarab

Public title
The effect of cardiopulmonary resuscitation (CPR) training using media player and role-playing on students' knowledge and self-efficacy
Purpose
Education/Guidance
Inclusion/Exclusion criteria
Inclusion criteria:
Nursing students in their 7th and 8th semesters who

have completed theoretical and practical courses in cardiopulmonary resuscitation. Students in the 5th semester of emergency medicine who have completed theoretical and practical courses in cardiopulmonary resuscitation. Willingness to participate in the study.

Exclusion criteria:

• Failure to cooperate in participating in the study

Age

From **22 years** old to **28 years** old

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **60**

More than 1 sample in each individual

Number of samples in each individual: **30**

In each group, one will be randomly selected from both genders.

Randomization (investigator's opinion)

Randomized

Randomization description

One class will be emergency students and the other class will be nursing students. Then, each class will be assigned to two groups (intervention) of media player and role playing by simple randomization method through a table of random numbers prepared or generated by Excel. Considering that the type of student (nursing/emergency) is an important variable in determining the outcome, assigning it to two separate classes and then randomly assigning them will eliminate the imbalance of the groups in terms of student type and will also allow for cross-disciplinary comparison.

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

Research Ethics Committees of Sarab Medical Sciences Faculty

Street address

Imam St. - Qotb Square - Khanpour Intersection, No. 165, 2nd Floor, West

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Postal code

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Approval date

2025-03-01, 1403/12/11

Ethics committee reference number

IR.SARAB.REC.1403.008

Health conditions studied

1

Description of health condition studied

Investigating the level of knowledge, awareness, self-efficacy, and psychomotor performance of nursing and emergency medical students

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Examining the level of knowledge and awareness of nursing students and medical emergencies

Timepoint

At the beginning of the study, after the intervention, one month after the intervention

Method of measurement

The researcher-made questionnaire was developed by Aliari et al. (2016). At the beginning of the questionnaire, demographic information including age, gender, and marital status will be collected. The research questions include 21 four-choice questions regarding the knowledge test. The 30-question performance evaluation checklist questionnaire will be used as a post-test in two rounds.

2

Description

Examining the level of efficiency of nursing students and medical emergencies

Timepoint

At the beginning of the study, after the intervention, one month after the intervention

Method of measurement

The researcher-made questionnaire was developed by Aliari et al. (2016). At the beginning of the questionnaire, demographic information including age, gender, and marital status will be collected. The research questions include 21 four-choice questions regarding the knowledge test. The 30-question performance evaluation checklist questionnaire will be used as a post-test in two rounds.

3

Description

Examining the level of psychomotor skills of nursing and emergency medical students

Timepoint
At the beginning of the study, after the intervention, one month after the intervention

Method of measurement
The researcher-made questionnaire was developed by Aliari et al. (2016). At the beginning of the questionnaire, demographic information including age, gender, and marital status will be collected. The research questions include 21 four-choice questions regarding the knowledge test. The 30-question performance evaluation checklist questionnaire will be used as a post-test in two rounds.

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Nursing students using the media player method: After explaining the study objectives to the students eligible for the study and obtaining written informed consent and ensuring their willingness to participate in the research, the samples will be divided into two nursing and emergency medical groups (to conduct a comparison after the intervention). Both training groups will undergo theoretical and practical training for 2 days, 8 hours each day. At the beginning of the study, participants in both groups will be given a pre-test on their level of knowledge about cardiopulmonary resuscitation. In the nursing students intervention group using the media player method and film screening, the topic of cardiopulmonary resuscitation will be taught to students during a 3-session day (6 hours), with a break between sessions. Theoretical content will include: a review of the anatomy and physiology of the heart and breathing, recognizing the symptoms of cardiopulmonary arrest, how to open the airway, give breaths, and establish blood circulation. The location of the film screening will be coordinated with the person in charge of classroom affairs at Sarab School of Nursing and Midwifery. After implementing the educational intervention, the questionnaire will be completed again by the instructors as a post-test immediately and one month after the intervention. In order to standardize the educational process in both groups, two fixed instructors (project facilitators) will be used.

Category
Behavior

2

Description
Intervention group: Emergency medical students will undergo a role-playing method: In the emergency training group, theoretical and practical training will be conducted. At the beginning of the study, participants from both groups will be given a pre-test on their level of awareness about cardiopulmonary resuscitation. Initially, the topic of cardiopulmonary resuscitation will be taught to students through a lecture method over a 3-session day (6 hours), with breaks between sessions. Theoretical content will include: a review of the anatomy and physiology of the heart and breathing, recognizing the symptoms of cardiopulmonary arrest, how to open the airway, give breaths, and establish blood circulation. And on the next day, a practical course will be conducted for students in 3 sessions (6 hours) on a mock-up and they will practice under the supervision of instructors. The theoretical class will be held in coordination with the class affairs officer at Sarab Nursing and Midwifery School, and the practical class will be held in the school's practice hall. After implementing the educational intervention, the questionnaire will be completed again by the trainers as a post-test immediately and one month after the intervention. In order to standardize the training process in both groups, two permanent trainers (project facilitators) will be used.

Category
Behavior

Recruitment centers

1

Recruitment center

Name of recruitment center
Sarab Faculty of Medical Sciences

Full name of responsible person
Mostafa Bafandeh Zendeh

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
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Full name of responsible person
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Grant name

Grant code / Reference number

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

Title of funding source
Sarab Faculty 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
Sarab Faculty of Medical Sciences

Full name of responsible person
Mostafa Bafandeh Zendeh

Position
Assistant Professor

Latest degree
Ph.D.

Other areas of specialty/work
Nursery

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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
Yes - There is 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

Title and more details about the data/document

A decision will be made after the study is completed in accordance with the protocol of the sponsoring organization.

When the data will become available and for how long

A decision will be made after the study is completed in accordance with the protocol of the sponsoring organization.

To whom data/document is available

A decision will be made after the study is completed in accordance with the protocol of the sponsoring organization.

Under which criteria data/document could be used

A decision will be made after the study is completed in accordance with the protocol of the sponsoring organization.

From where data/document is obtainable

A decision will be made after the study is completed in accordance with the protocol of the sponsoring organization.

What processes are involved for a request to access data/document

A decision will be made after the study is completed in accordance with the protocol of the sponsoring organization.

Comments

A decision will be made after the study is completed in accordance with the protocol of the sponsoring organization.