

Clinical Trial Protocol

Iranian Registry of Clinical Trials

16 Sep 2026

Design and evaluation of multimedia software basic and advanced Cardio Pulmonary Resuscitation education programs with two ways of multimedia and workshop on awareness and performance of selected hospitals nurses in Tehran

Protocol summary

Summary

Objectives: Nurses are the first people who attend to the patient once the patient has heart attack. Therefore, this study aimed to designing and assessing basic and advanced CPR training course in workshop and multimedia software format on the knowledge and practice of nurses

Design: Designing and assessing basic and advanced CPR based on Scorm criteria..

Setting and conduct: This clinical trial was conducted with 243 nurses from hospitals that were randomly selected..

Participants including major eligibility criteria: This study done on nurses with this Inclusion criteria having at least bachelor's degree in general or internal nursing, having at least one year of clinical experience, familiarity with computer and using multimedia software programs and getting less than 60% in the pretest in the first stage of the study and they were exclusion if they not attending the final exams, being absent from the workshop more than 2 hours, lack of willingness to continue cooperation and not being able to use the software for any reason..

Intervention: The first a researcher-made questionnaire was used to assess nurses' knowledge. Then of nurses who got less than 60%, 116 were randomly selected and divided into two groups(n=38) of workshop and multimedia software, and a control group. Nurses' practice will be assess in all three groups using objective structured clinical exam (OSCE) in 6 stations and under the same circumstances. In the next stage, the workshop group will be enjoyed a 6-hour training for basic and advanced CPR in a workshop, and the multimedia software group will be learn the same using the software. Four weeks after the training ended, knowledge and practice of nurses in the three groups will be assess again using the same tool.

Main outcome measures (variables): Designing and assessing basic and advanced CPR, assessing basic and advanced CPR training course

in workshop and multimedia software format on the knowledge and practice of nurses.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT201301139764N3**

Registration date: **2014-06-22, 1393/04/01**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-06-22, 1393/04/01

Registrant information

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Zahra Hajiamini

Name of organization / entity

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Recruitment status

Recruitment complete

Funding source

Baqiyatallah Medical sciences University, Nursing Department

Expected recruitment start date

2013-06-22, 1392/04/01

Expected recruitment end date

2013-10-23, 1392/08/01

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Design and evaluation of multimedia software basic and advanced Cardio Pulmonary Resuscitation education programs with two ways of multimedia and workshop on awareness and performance of selected hospitals nurses in Tehran

Public title

Basic and advanced CPR

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria: Having at least bachelor's degree in nursing; having at least one year of clinical experience; familiarity with computer and using multimedia software programs; getting less than 60% in the pretest in the first stage of the study. Exclusion criteria: Not attending the final exams; being absent from the workshop more than 2 hours; lack of willingness to continue cooperation; not being able to use the software for any reason.

Age

No age limit

Gender

Both

Phase

2-3

Groups that have been masked*No information***Sample size**Target sample size: **243****Randomization (investigator's opinion)**

Randomized

Randomization description**Blinding (investigator's opinion)**

Single 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 Baqhiyatallah Medical Sciences

University

Street address

Baqiyatalah University Medical Science, Sheykh Bahaee St, Mollasadra St, Vanak Sq, Tehran

City

Tehran

Postal code**Approval date**

2013-07-16, 1392/04/25

Ethics committee reference number

S/5694/3/340

Health conditions studied**1****Description of health condition studied**

CPR training

ICD-10 code**ICD-10 code description****Primary outcomes****1****Description**

Knowledge

Timepoint

Before and 4 weeks after intervention

Method of measurement

Questionnaire

2**Description**

Performance

Timepoint

Before and 4 weeks after intervention

Method of measurement

Check list(OSCE)

Secondary outcomes**1****Description**

Increase of acknowledgment

Timepoint

4 week post intervention

Method of measurement

Questionnaire

2**Description**

Increase of performance

Timepoint

4 week post intervention

Method of measurement

OSCE

Intervention groups

1

Description

Step 1: Software design phase: For the first phase, coordination with Nursing Department and authorities conducted research environment. Then in order to have multimedia program designed and programmed, with two experts in the field of computer information technology was coordinated. Content of training for design multimedia and workshop based on objective using existing resources and scientific expertise were provided by field and library studies. In order to determine the scientific validity of objectives a group of 20 specialized cardiac anesthesia and nursing experts in CPR and faculty members of university were provided. The software design was based on the contents set in the original plan for 6 months made application to the SCORM standard procedure was performed. At the same time the nurses' awareness of basic and advanced CPR by a confirmed validity and reliability questionnaire was measured. Then randomly assigned 38 nurses from each hospital with awareness score less than 60% (n=116) and random allocation assigned to both groups of intervention (training workshop and usage of multimedia software) and control groups.

Category

Other

2

Description

Step 2: Interventional phase: At first nurses' performance will be measured by OSCE in 6-station in every hospital. For this evaluation OSCE will be provided for all 6 stations under observation of expert evaluator, in every identified station. Also for workshop group the 6 hour CPR basic and advanced training will be given as 4 hours of theory and 2 hours of practical and it should be noted that the actual holding of the workshop participants will be divided into 3 groups of 13 in practice and each group will be designed to implement the necessary training in 6 stations.

Category

Behavior

3

Description

Second group was taught using multimedia software. For this purpose during a briefing, participants will be divided into 7 groups of 5 person and usage of DVD Multimedia will be fully explained. And the nurses have to examine their instructional contents in DVD within 2 weeks if they need further details, in this period they can refer to special location in the hospital.

Category

Behavior

4

Description

The control group will not receive any training during the study and only the first and third tests to assess the awareness and performance of nurses in the group will be determined, but for ethics after completing all steps of study the multimedia DVD will make available to them.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Najmiye Hospital

Full name of responsible person

Mrs Mohammadian

Street address

Hafez Street

City

Tehran

2

Recruitment center

Name of recruitment center

Shahid Chamran Hospital

Full name of responsible person

Mr Khazdust

Street address

Nobonyad Ave, Langari St

City

Tehran

3

Recruitment center

Name of recruitment center

Golestan Hospital

Full name of responsible person

Mrs Keyvan Nasab

Street address

Shahid Sayad Highway

City

Tehran

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice chancellor for research, Baqiyatallah University of Medical Sciences

Full name of responsible person

Dr Morteza Eizadi

Street address

Baqiyatalah University Medical Science, Sheykh Bahaee St, Mollasadra St, Vanak Sq, Tehran

City

Tehran

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, Baqhiyatallah 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
 Baqiyatalah University Medical Science
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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