

Clinical Trial Protocol

Iranian Registry of Clinical Trials

21 Jul 2026

Effect of vital drugs prescription principles multimedia application-based instruction and lecture on nursing students learning outcomes

Protocol summary

Summary

Medication mistakes is one of the patients health jeopardizing factors and according to the research the main reason for medication mistakes among the nurses is lack of pharmacology knowledge and skills and incorrect calculations. This one way blind semi-experiential research will be conducted by the aim of study the effect of two different instructional methods including with multi-media software and lecturing on the consequences of learning the vital drugs administration on 82 nursing students. For designing and construction of the software, at first by reviewing educational texts and using 10 Mayer multi-media designing principles, educational materials evaluation criteria and educational materials evaluation checklist will be prepared. This software is combination of text, voice, image, film, animation and Flash or Ispring Suite 7 software will be used. The conditions for participation are the students of semester 2 and 3 of nursing in faculty of nursing; written content and the exclusion criteria are avoiding the students from collaboration during research and record of clinical work. Before beginning the drug calculation ability and knowledge pre-test with the author-made questionnaire will be administered. Then the students will be divided into two control and experiment groups randomly according to the mean of previous semesters scores and pre-test scores. The instruction will be carried out in three sessions with the same instructional contents and after four weeks the post-test will be carried out and the results will be analyzed by Spss.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2015120125316N1**

Registration date: **2016-02-16, 1394/11/27**

Registration timing: **registered_while_recruiting**

Last update:

Update count: **0**

Registration date

2016-02-16, 1394/11/27

Registrant information

Name

Hossein Feizollahzadeh

Name of organization / entity

Tabriz University of Medical Sciences

Country

Iran (Islamic Republic of)

Phone

+98 41 3477 0649

Email address

feizollahzadehh@tbzmed.ac.ir

Recruitment status

Recruitment complete

Funding source

Vice chancellor for research, Tabriz University of Medical Sciences

Expected recruitment start date

2015-12-21, 1394/09/30

Expected recruitment end date

2016-02-19, 1394/11/30

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of vital drugs prescription principles multimedia application-based instruction and lecture on nursing students learning outcomes

Public title

Vital drugs prescription principles and drug calculation

Purpose

Basic science

Inclusion/Exclusion criteria
Inclusion criteria: The students of semester 2 and 3 of nursing in Faculty of Nursing; written content. Exclusion criteria: Avoiding the students from collaboration during research; record of clinical work.

Age
No age limit

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **82**

Randomization (investigator's opinion)
Randomized

Randomization description

Blinding (investigator's opinion)
Single blinded

Blinding description

Placebo
Not used

Assignment
Parallel

Other design features
blocking method randomized

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee
Ethics Committee of Tabriz University of Medical Sciences

Street address
Tabriz University of Medical Sciences

City
Tabriz

Postal code

Approval date
2015-11-23, 1394/09/02

Ethics committee reference number
TBZMED.REC1394.749

Health conditions studied

1

Description of health condition studied
vital drugs prescription principles and drug calculation

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description
knowledge of drug prescription principles

Timepoint
Pre-test and post-test 4 weeks later

Method of measurement
questionnaire

2

Description
Ability of drug dose calculation

Timepoint
Pre-test and post-test 4 weeks later

Method of measurement
researcher made questionnaire

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: The instruction for interventional group will be carried out in three sessions in interval of one week by multi-media software used in IT class in the faculty. Educational content will be contained: Introduction of causes and consequences medication mistakes, review of vital drugs, different measurement systems, drug calculation importance and easy 4- step to drug calculation method.

Category
Treatment - Drugs

2

Description
Control group: The instruction for control group will be carried out in the same manner, three sessions in interval of one week by lecturing method in one of the classes in the Faculty.

Category
Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center
Faculty of nursing and midwifery

Full name of responsible person
Mina Avari

Street address
Sina Hospital

City

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Vice Chancellor for research of Tabriz University of Medical Sciences

Full name of responsible person

Dr Mohammad Reza Rashidi

Street address

Tabriz University of Medical Sciences

City

Tabriz

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 of Tabriz 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

Tabriz University of Medical Sciences

Full name of responsible person

Dr Hossein Feizalahzadeh

Position

PHD in nursing/Assistant Professor

Other areas of specialty/work

Street address

Faculty of Nursing and Midwifery

City

Tabriz

Postal code

Phone

+98 41 3477 0649

Fax

Email

feizollahzadehh@tbzmed.ac.ir

Web page address

Person responsible for scientific inquiries

Contact

Name of organization / entity

Tabriz University of Medical Sciences

Full name of responsible person

Dr Hossein Feizalahzadeh

Position

PHD in nursing/Assistant Professor

Other areas of specialty/work

Street address

Faculty of Nursing and Midwifery

City

Tabriz

Postal code

Phone

+98 41 3477 0649

Fax

Email

feizollahzadehh@tbzmed.ac.ir

Web page address

Person responsible for updating data

Contact

Name of organization / entity

Tabriz University of Medical Sciences

Full name of responsible person

Dr Hossein Feizalahzadeh

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Other areas of specialty/work

Street address

Faculty of Nursing and Midwifery

City

Tabriz

Postal code

Phone

Fax

Email

Web page address

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