

Clinical Trial Protocol

Iranian Registry of Clinical Trials

31 May 2026

Comparison of the effects of concept map and problem based learning on critical thinking and clinical decision-making on Golestan Azad Islamic universities nursing students (2023).

Protocol summary

Study aim

To determine the comparison of the effect of concept map and problem based learning on critical thinking and clinical decision-making on Golestan Azad Islamic Universities nursing students(2023-2024)

Design

At first, Azad nursing schools will be selected as a cluster from the eastern, western and central regions of the province. Random allocation will be done among universities. The sealed envelopes will be given to the University professors of pediatric's studies by the research assistant. Each of the faculties will be divided into problem solving group, concept map and control group. After random allocation between faculties, students who meet the entry criteria will be included in the study

Settings and conduct

This study will be carried out in the group of undergraduate nursing students of Islamic Azad University of Golestan province in the 5th semester. At first, Islamic Azad nursing schools will be selected in clusters. Random allocation will be done among universities. The sealed envelopes will be given to the University professors of pediatric's studies by the research assistant. Each of the faculties will be divided into problem solving group, concept map and control group. 75 people will enter the study, 25 people will be selected from each faculty. All three groups will be from separate faculties. Topics will be selected from pediatric's courses that students have background in relation to the topic.

Participants/Inclusion and exclusion criteria

The study include 5th semester nursing students with sick pediatric nursing unit; no rejection in the healthy pediatric course unit; no previous use of these educational methods.

Intervention groups

Concept map and problem-oriented will be implemented during 8 sessions of 90 minutes, one session per week for 2 months

Main outcome variables

Concept map and problem-oriented education is effective on critical thinking and clinical decision-making.

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20231025059852N1**

Registration date: **2024-02-11, 1402/11/22**

Registration timing: **prospective**

Last update: **2024-02-11, 1402/11/22**

Update count: **0**

Registration date

2024-02-11, 1402/11/22

Registrant information

Name

Mahla Dousti NOURI

Name of organization / entity

Country

Iran (Islamic Republic of)

Phone

+98 17 3236 0069

Email address

mahladoustinouri@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2024-02-18, 1402/11/29

Expected recruitment end date

2024-03-19, 1402/12/29
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of the effects of concept map and problem based learning on critical thinking and clinical decision-making on Golestan Azad Islamic universities nursing students (2023).

Public title
Comparison of the effects of concept map and problem based learning on critical thinking and clinical decision-making

Purpose
Education/Guidance

Inclusion/Exclusion criteria
Inclusion criteria:
5th semester nursing students with a sick pediatric nursing unit No rejection in the healthy pediatric unit No previous use of these educational methods.

Exclusion criteria:
Students with more than three absences Students being guests in other provinces and withdrawing from further studies.

Age
From **18 years** old

Gender
Both

Phase
N/A

Groups that have been masked
No information

Sample size
Target sample size: **75**

Randomization (investigator's opinion)
Randomized

Randomization description
At first, a class of Islamic Azad university of nursing will be randomly selected from the eastern, western and central regions of the province. Random allocation will be done among universities. The sealed envelopes will be given to the University professors of pediatric's studies by the research assistant. Each of the faculties will be divided into problem solving group, concept map and control group. After random allocation between faculties, students are examined and students who meet the entry criteria will be included in the study.

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

Ethics committee of Tonekabon University of Medical Sciences

Street address

Valiabad Ave., Tonekabon

City

Tonekabon

Province

Mazandaran

Postal code

4684161167

Approval date

2023-11-19, 1402/08/28

Ethics committee reference number

IR.IAU.TON.REC.1402.080

Health conditions studied

1

Description of health condition studied

Comparison of the effects of concept map and problem based learning on critical thinking and clinical decision-making on Golestan Azad Islamic universities nursing students (2023).

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Critical thinking

Timepoint

Before the start of the intervention and 4 weeks after the last training session

Method of measurement

California Demographic Characteristics and Critical Thinking Tendency Questionnaire Form B (CCTST)

2

Description

Clinical decision

Timepoint

Before the start of the intervention and 4 weeks after the last training session

Method of measurement

Lowry clinical decision making questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group 1: concept map method, during 8 sessions of 90 minutes, one session per week and during two months in the concept map group, the researcher based on the texts available on the internet and specialized texts, created concept maps in power software. point will draw. The Professor in the conceptual map group will teach the course material using the maps made by the researcher. Then, each student is required to prepare a concept map of all the materials presented in the previous session for the next training session. In each training session, the maps prepared by the students will be evaluated by the researcher and feedback will be given to them.

Category

Other

2

Description

Intervention group 2: Problem-oriented method _ During 8 sessions of 90 minutes, one session per week and during two months, different examples of problems will be presented to the students and they will engage in a group discussion within their group, and then the answers will continue publicly with the discussion of the group members. and each of the groups will present their arguments and evidence for or against the answers.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Islamic Azad University of Golestan province

Full name of responsible person

Mahla Dousti Nouri

Street address

No. 111, Qods 4th Ave., Qods Blvd., Gorgan Town., Golestan Province

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mahladoustinouri@gmail.com

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Islamic Azad University

Full name of responsible person

Ghasem Barani

Street address

University Blvd., Kordabad Ave

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Aliabadekatool

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4917736791

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info@aliabadiu.ac.ir

Grant name

Grant code / Reference number

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

Yes

Title of funding source

Islamic Azad University

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

Islamic Azad University

Full name of responsible person

Mahla Dousti Nouri

Position

Masters student

Latest degree

Bachelor

Other areas of specialty/work

Nursery

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Aliabad Katul Islamic Azad University., University Blvd., Aliabad Katul city., Golestan province

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Person responsible for scientific inquiries

Contact

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Mahla Dousti Nouri
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Latest degree
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Other areas of specialty/work
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Person responsible for updating data

Contact

Name of organization / entity
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Sharing plan

Deidentified Individual Participant Data Set (IPD)

Yes - There is a plan to make this available

Study Protocol

Yes - There is a plan to make this available

Statistical Analysis Plan

Yes - There is 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

All data is potentially shareable after de-identifying individuals

When the data will become available and for how long

The access period starts 6 months after the results are published

To whom data/document is available

The data will be available only to researchers working in academic and scientific institutions

Under which criteria data/document could be used

The data can be used for the purpose of scientific development and non-harm for the participants.

From where data/document is obtainable

To receive the data, send an email to mahladoustinouri@gmail.com. You can also call 00989386217075 or postal code 4917736791. Name and address: Mehla Dosti Nouri Address: Islamic Azad Aliabad Katoul University., University Blvd., Aliabad City

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

Sending a manual commitment letter stating that I undertake that no harm or loss will be caused to any person or organization in case of receiving the data. Receiving data is used for the purpose of scientific growth and progress and will not cause any harm.

Comments