Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

The effect of cascading clinical education on clinical competence and clinical self-efficacy of nursing students of Isfahan University of Medical Sciences

Protocol summary

Study aim
Determining the effect of cascading clinical education on clinical competence and clinical self-efficacy of nursing students of Isfahan University of Medical Sciences

Design
quasi experimental

Settings and conduct
Isfahan University of Medical Sciences, internal medicine departments of Al-Zahra Hospital, Khorshid and internal medicine departments of Al-Zahra and Kashani Hospitals

Participants/Inclusion and exclusion criteria
Inclusion criteria: - Internship students (semesters 7 and 8) who are located in the internal and surgery wards - Internship students (semester 4 and above) who have internships in internal and surgery wards Exclusion criteria: - For any reason, the student will not be able to complete his internship in the mentioned semesters.

Intervention groups
n the intervention group, at the beginning of the semester, notifications are issued to doctoral and master's students, and the workplace and students under their supervision will be identified. In this way, the training takes the form of a cascade that will be connected to two nursing PhD students at the next level at the top of the faculty pyramid. In the first level, each PhD student in nursing will be associated with a Master of Nursing student. In the second level, each master's degree student in nursing will work with two nursing internship students, and in the last level (third level), each internship student will work with 5 to 6 nursing students, depending on the type of department. Thus, in each undergraduate internship group, there is one doctoral student of nursing, one master student and 2 internship students for cascading education. Before starting the internship, the graduate student is obliged to justify himself / herself and fully inform the students under study about the evaluation method.

Main outcome variables
Clinical competence, clinical self-efficacy

General information

Reason for update

Acronym

IRCT registration information
IRCT registration number: **IRCT20190712044181N6**
Registration date: **2022-03-16, 1400/12/25**
Registration timing: **registered_while_recruiting**

Last update: **2022-03-16, 1400/12/25**
Update count: **0**

Registration date
2022-03-16, 1400/12/25

Registrant information

Name
shahla Abolhassani

Name of organization / entity

Country
Iran (Islamic Republic of)

Phone
+98 31 3792 7548

Email address
abolhasani@nm.mui.ac.ir

Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2022-02-09, 1400/11/20

Expected recruitment end date
2022-07-21, 1401/04/30

Actual recruitment start date
empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

The effect of cascading clinical education on clinical competence and clinical self-efficacy of nursing students of Isfahan University of Medical Sciences

Public title

The effect of cascading clinical education on clinical competence and clinical self-efficacy

Purpose

Education/Guidance

Inclusion/Exclusion criteria

Inclusion criteria:

Internship students (semesters 7 and 8) who are majoring in internal and surgery wards students (semester 4 and above) who have an clinical education in internal and surgery wards

Exclusion criteria:

For any reason, the student will not be able to complete her internship in the mentioned semesters

Age

From **18 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **80**

Randomization (investigator's opinion)

Not randomized

Randomization description

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

Isfahan University of Medical Sciences, Nursing, Rehabilitation and Management schools

Street address

Hezzar Jarrib Street, Isfahan University of Medical sciences, Isfahan

City

Isfahan

Province

Isfehan

Postal code

81746-73461

Approval date

2021-05-22, 1400/03/01

Ethics committee reference number

IR.MUI.NUREMA.REC.1400.163

Health conditions studied

1

Description of health condition studied

No disease is checked

ICD-10 code

ICD-10 code description

Primary outcomes

1

Description

Clinical Competency

Timepoint

before-after of intervention

Method of measurement

Standard questionnaire for assessing the clinical competencies of nursing students

2

Description

Clinical Self-efficacy

Timepoint

before-after intervention

Method of measurement

Clinical self efficacy Questionnaire

Secondary outcomes

empty

Intervention groups

1

Description

Intervention group: In the intervention group, at the beginning of the semester, notifications are issued to doctoral and master's students, and the workplace and students under their supervision will be identified. An orientation course will be held for doctoral and master's students, and after acquainting them with the aim of designing students, they will start clinical education in designated places. In this way, the training takes the form of a cascade that will be connected to two nursing PhD students at the next level at the top of the faculty pyramid. In the first level, each PhD student in nursing will be associated with a Master of Nursing student. In the second level, each master's degree student in nursing will work with two nursing internship students,

and in the last level (third level), each internship student will work with 5 to 6 nursing students, depending on the type of department. Thus, in each undergraduate internship group, there is one doctoral student of nursing, one master student and 2 internship students for cascading education. In this way, an educational pyramid or waterfall is formed in which the education is transferred from the experienced professor of the faculty to the students in a hierarchical manner. The evaluation of undergraduate students under the auspices of the graduate student based on the current forms and instructions of the group is the responsibility of the student. Before starting the internship, the graduate student is obliged to justify himself / herself and fully inform the students under study about the evaluation method.

Category
Other

2

Description
Control group:In the control group, apprenticeship with the relevant professor will be done according to the previous procedure without the presence of graduate students

Category
Other

Recruitment centers

1

Recruitment center

Name of recruitment center
Isfahan University of Medical Sciences, Vice-Chancellor of Research Affairs

Full name of responsible person
Shahla Abolhassani

Street address
Hezar Jarrib Street, Isfahan University of Medical Sciences, Isfahan

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Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Esfahan University of Medical Sciences

Full name of responsible person
Mansour Siavash

Street address
Hezzar Jarrib Street, Isfahan University of Medical sciences, Isfahan

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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
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
Shahla Abolhassani

Position
Assistant Professor

Latest degree
Ph.D.

Other areas of specialty/work
Neuroscience Nursing

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Hezzar Jarrib Street, Isfahan University of Medical sciences, Isfahan

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Person responsible for scientific

inquiries

Contact

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Esfahan University of Medical Sciences
Full name of responsible person
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Position
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Latest degree
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Other areas of specialty/work
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Person responsible for updating data

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Other areas of specialty/work
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abolhasani@nm.mui.ac.ir

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
Undecided - It is not yet known if there will be a plan to make this available
Title and more details about the data/document
Data collected for the primary outcome measure
When the data will become available and for how long
after publishing data
To whom data/document is available
people working in academic institutions
Under which criteria data/document could be used
for secondary analysis
From where data/document is obtainable
with email address
What processes are involved for a request to access data/document
request with email address and send data after investigation
Comments