

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

31 May 2026

### Assessment the effect of concept map teaching on procedural skills and creativity in first year nursing students at school of nursing and midwifery, Tehran 1391-92

#### Protocol summary

##### Summary

Promoting meaningful learning is one of the main objective of education and an important factor in promoting students creative thinking, critical thinking and problem-solving abilities in learners. Due to development of educational system and importance in the nursing profession, the necessity of using appropriate instructional methods for new theoretical and procedural skills is clear. The concept map is a method for facilitating thinking, teaching, learning and assessment. The present investigators aimed to evaluate and compare procedural skills and creativity in two groups, using (concept-map) or not using it (traditional). We used a quasi-experimental study on two groups with pre(creativity)-post test design (procedural skill-creativity), 70 first semester nursing students were selected through convenience sampling and then randomly divided into two groups (experimental and control). After pretest, control and experimental group received education for 4 sessions during 1 month, either lecturing method or concept map, respectively. The teaching schedule comprised 4 sessions of practical fundamental of nursing concerning: Intra venous Canulation, Intramuscular injection, airway suctioning and Nasogastric tube. Then, used a post test at the end of second and fourth week of teaching for procedural skills (checklist) and for creativity (by Abedi creativity questionnaire), respectively. The data were analyzed using SPSS statistical software (Version 22).

#### General information

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT2013121015742N1**

Registration date: **2014-02-07, 1392/11/18**

Registration timing: **retrospective**

Last update:

Update count: **0**

##### Registration date

2014-02-07, 1392/11/18

##### Registrant information

###### Name

Hamidreza Sadeghigandomani

###### Name of organization / entity

School of Nursing and Midwifery, Tehran University of Medical Sciences

###### Country

Iran (Islamic Republic of)

###### Phone

+98 38 2462 2647

###### Email address

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##### Recruitment status

###### Recruitment complete

##### Funding source

Deputy of Research, Tehran University of Medical Sciences

##### Expected recruitment start date

2013-04-04, 1392/01/15

##### Expected recruitment end date

2013-06-21, 1392/03/31

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

##### Trial completion date

empty

##### Scientific title

Assessment the effect of concept map teaching on procedural skills and creativity in first year nursing students at school of nursing and midwifery, Tehran 1391-92

**Public title**

Assessment the effect of concept map teaching on procedural skills and creativity in nursing students

**Purpose**

Other

**Inclusion/Exclusion criteria**

Inclusion criteria: older than 19; Students that have taken the practical fundamental of nursing course; student consent to participate in this project from the beginning

**Age**

From **19 years** old to **149 years** old

**Gender**

Both

**Phase**

N/A

**Groups that have been masked**

*No information*

**Sample size**

Target sample size: **70**

**Randomization (investigator's opinion)**

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**

Tehran University of Medical Sciences, School of Nursing and Midwifery

**Street address**

School of Nursing and Midwifery, East Nosrat Avenue, Tohid Square, Tehran

**City**

Tehran

**Postal code**

1419733171

**Approval date**

2013-03-16, 1391/12/26

**Ethics committee reference number**

130/3393/91/3

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

procedural skill,creativity

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

Procedural skill In Fundamental Of Nursing

**Timepoint**

Two weeks after the intervention

**Method of measurement**

Checklist

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

Creativity in four dimension elaboration, flexibility, originality, fluency

**Timepoint**

Before and 4 weeks after intervention

**Method of measurement**

Abadi creativity questionnaire

**Intervention groups****1****Description**

experimental group: The course items chosen for teaching is practical fundamental of nursing included 4 procedures comprises Intra venous Cannulation, Nasogastric tube, Airway suctioning and Intramuscular injection and taken in the first semester. The researcher taught this educational material by Concept map to the experimental group.

**Category**

Other

**2****Description**

Control group: The course items chosen for teaching is practical fundamental of nursing included 4 procedures comprises Intra venous Cannulation, Nasogastric tube, Airway suctioning and Intramuscular injection and taken in the first semester. The researcher taught this educational material by using lecture by using audiovisual material to the control group

**Category**

Other

**Recruitment centers****1****Recruitment center**

**Name of recruitment center**

School of Nursing and Midwifery, Tehran University of Medical Sciences

**Full name of responsible person**

Nasrin Rasoulzade

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## Sponsors / Funding sources

### 1

**Sponsor**

**Name of organization / entity**

Deputy of Research, Tehran University of Medical Sciences

**Full name of responsible person**

Dr Aliakbar Fotuhi

**Street address**

Sixth Floor, central university organization, ghods street, keshavarz bulvar, Tehran

**City**

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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**

Deputy of Research, Tehran 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**

Tehran University of Medical Sciences, School of Nursing and Midwifery

**Full name of responsible person**

Hamidreza Sadeghi Gandomani

**Position**

MSc student of nursing

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## Person responsible for scientific inquiries

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## Person responsible for updating data

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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*