Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Production and evaluation of the effectiveness of the childbirth application to improve the self-confidence and clinical skills of midwifery students

Protocol summary

Study aim
The purpose of designing, implementing and evaluating the childbirth application to improve the self-confidence and clinical skills of midwifery students

Design
This study is a semi-experimental type with a pre-test and post-test design and includes two phases. The first phase aims to design, implement, and validate the childbirth application, and the second phase aims to evaluate the effectiveness of the intervention implemented through the childbirth application.

Settings and conduct
The sampling site will be the Nursing and Midwifery Faculty of Nasibeh . sample size will be equal to the population size (census), including all undergraduate nursing students in the 6th and 8th semesters of midwifery.

Participants/Inclusion and exclusion criteria
Inclusion criteria : Willingness to participate in the study, students in the 6th and 8th semesters of midwifery and having completed the theoretical unit of pregnancy and childbirth. Exclusion criteria: Lack of willingness to continue participation in the study after receiving the application.

Intervention groups
he intervention group consists of midwifery students who will receive training on the childbirth process through an application for a duration of 4 weeks. The content of the intervention will be based on the curriculum of the normal childbirth internship for midwifery specialists. The training framework through this application will be implemented using the method of repeated learning, and students will learn the same content multiple times using various methods such as educational videos, colored images, narrated slides, etc. Then, questionnaires will be completed by the students before, immediately after, and 4 weeks after the end of the intervention.

Main outcome variables
Self-confidence and clinical skills of midwifery students

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20110827007422N8**
Registration date: **2026-05-20, 1405/02/30**
Registration timing: **registered_while_recruiting**

Last update: **2026-05-20, 1405/02/30**
Update count: **0**

Registration date
2026-05-20, 1405/02/30

Registrant information

Name
Zhila Ganji

Name of organization / entity
Mazandaran University of Medical Scinces

Country
Iran (Islamic Republic of)

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Recruitment status
Recruitment complete

Funding source

Expected recruitment start date
2026-02-19, 1404/11/30

Expected recruitment end date
2026-06-20, 1405/03/30

Actual recruitment start date
empty

Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Production and evaluation of the effectiveness of the childbirth application to improve the self-confidence and clinical skills of midwifery students

Public title
Effectiveness of childbirth application on improving self-confidence and clinical skills of midwifery students
Purpose
Education/Guidance
Inclusion/Exclusion criteria
Inclusion criteria:
Willingness to participate in the study students of the 6th and 8th semester of midwifery completing the theoretical unit of pregnancy and childbirth
Exclusion criteria:
withdrawal from participation in the study after receiving the application
Age
From **20 years** old to **25 years** old
Gender
Female

Phase
N/A
Groups that have been masked
No information
Sample size
Target sample size: **31**
Randomization (investigator's opinion)
N/A
Randomization description
Blinding (investigator's opinion)
Not blinded
Blinding description
Placebo
Not used
Assignment
Single
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Mazandaran University of Medical Sciences
Street address
Sari-Moalem St., Moalem Square, Vice President of Research and Technology, Mazandaran University of Medical Sciences
City
Sari
Province
Mazandaran
Postal code
4816715793
Approval date
2026-01-28, 1404/11/08
Ethics committee reference number
IR.MAZUMS.REC.1404.581

Health conditions studied

1

Description of health condition studied
Enhancing the self-confidence and clinical skill of midwifery students
ICD-10 code
O80.0
ICD-10 code description
Spontaneous vertex delivery

Primary outcomes

1

Description
self- confidence
Timepoint
Before the intervention - immediately after the intervention - 4 weeks after the end of the intervention
Method of measurement
Cooper-Smith questionnaire

2

Description
clinical skill
Timepoint
Before the intervention - immediately after the intervention - 4 weeks after the end of the intervention
Method of measurement
Scenario-oriented online test

Secondary outcomes

1

Description
self- assessment
Timepoint
Before intervention - immediately after intervention - 4 weeks after intervention
Method of measurement
Visual analog evaluation scale

2

Description
Satisfaction
Timepoint
immediately after intervention - 4 weeks after

intervention

Method of measurement

Questionnaire of satisfaction with the teaching method

Intervention groups

1

Description

Intervention group: Intervention group: Intervention group: In this research, the intervention group includes midwifery students who will learn about the delivery process through the application for 4 weeks. The content of the intervention will be based on the natural childbirth internship curriculum of the midwifery expert. The teaching framework will be implemented through this application in the method of repeated learning (Repeated learning) and students will use various methods such as educational videos, color images, voiced slides and... They will be trained several times in a single content. The present study will be conducted in two phases for midwifery students. In the first phase, the design, implementation and evaluation of the maternity process application will be done. In the second phase, the effectiveness evaluation of the application will be implemented using Kirkpatrick's learning evaluation pyramid or model.At the first level, the reaction of the students will be done with a qualitative method (questionnaire of satisfaction with the teaching method). Then, at the second level of learning, evaluation will be done using the self-evaluation visual analog scale questionnaire. At the third level (behavior), students' self-confidence and clinical skills will be measured using the Cooper-Smith self-confidence questionnaire and the scenario-oriented online test before the intervention, immediately and one month after the intervention (for a period of one month) and a checklist will be designed to determine the frequency of the exercise.

Category

Other

Recruitment centers

1

Recruitment center

Name of recruitment center

Mazandaran University of Medical Sciences - Nasiba Faculty of Nursing and Midwifery

Full name of responsible person

Dr. Zhila Ganji

Street address

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Sponsors / Funding sources

1

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Name of organization / entity

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Grant name

Grant code / Reference number

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

No

Title of funding source

Mazandaran University of Medical Sciences--vice-chancellor for research and Technology. Dr. Ahmad Ali .Enayati

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

Mazandaran University of Medical Sciences

Full name of responsible person

Fatemeh Gholamnezhad

Position

Master student of counseling in midwifery

Latest degree

Bachelor

Other areas of specialty/work

Midwifery

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
Undecided - It is not yet known if there will be a plan to make this available
Study Protocol
Undecided - It is not yet known if there will be a plan to make this available
Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available
Informed Consent Form
Undecided - It is not yet known if there will be a plan to make this available
Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available
Analytic Code
Undecided - It is not yet known if there will be a plan to make this available
Data Dictionary
Undecided - It is not yet known if there will be a plan to make this available