Clinical Trial Protocol
Iranian Registry of Clinical Trials

07 Nov 2026

Investigating the effect of electronic simulation in the field of non-suicidal self-harm on the knowledge, attitudes and Clinical self-efficacy of nursing and emergency medical students: An interprofessional education

Protocol summary

Study aim
Determining the effect of electronic simulation in the field of non-suicidal self-harm on the knowledge, attitudes and clinical self-efficacy of nursing and emergency medical students

Design
A quasi-experimental study of an educational intervention type with a control group, with parallel groups and a pre-test and post-test design.

Settings and conduct
This quasi-experimental educational study will involve 96 students at Shahid Beheshti Faculty of Nursing and Midwifery, Rasht. Stratified (by class) and convenience sampling will be followed by lottery-based random allocation to two intervention groups and one control group. Intervention groups will receive three 30-minute NSSI simulation videos in three sessions over one week; controls will receive routine education. Data will be collected at baseline, immediately post-intervention, and one month later. The data analyst will be blinded using coded group assignments.

Participants/Inclusion and exclusion criteria
Inclusion criteria: Willingness to participate; undergraduate nursing or emergency medical care student; completion of at least one psychiatric nursing or psychiatric/behavioral emergencies course; no prior NSSI-related training. Exclusion criteria: Current or previous professional experience in psychiatric or psychiatric emergency units; physical, sensory, or cognitive limitations affecting use of the electronic simulation platform.

Intervention groups
Intervention groups will receive three 30-minute electronic simulation videos over three in-person sessions within one week, featuring real-life and AI-generated scenarios presented through talking avatars. The control group will receive routine education.

Main outcome variables
Knowledge, Attitudes, and Clinical Self-Efficacy Regarding Non-Suicidal Self-Injury

General information

Reason for update
Acronym
IRCT registration information
IRCT registration number: **IRCT20171008036651N6**
Registration date: **2026-11-01, 1405/08/10**
Registration timing: **prospective**

Last update: **2026-11-01, 1405/08/10**
Update count: **0**

Registration date
2026-11-01, 1405/08/10

Registrant information
Name
Yasaman Yaghobi
Name of organization / entity
Guilan University Of Medical Sciences
Country
Iran (Islamic Republic of)
Phone
+98 13 3355 6046
Email address
yasamanyaghobi@gums.ac.ir

Recruitment status
Not yet recruiting
Funding source

Expected recruitment start date
2026-11-22, 1405/09/01
Expected recruitment end date
2027-03-20, 1405/12/29
Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Investigating the effect of electronic simulation in the field of non-suicidal self-harm on the knowledge, attitudes and Clinical self-efficacy of nursing and emergency medical students: An interprofessional education

Public title

Investigating the effect of electronic simulation-based training on non-suicidal self-harm

Purpose

Education/Guidance

Inclusion/Exclusion criteria

Inclusion criteria:

Willingness to participate in the study Currently pursuing an undergraduate degree in Nursing or Emergency Medical Services Completion of at least one course unit in Psychiatric Nursing or Psychiatric and Behavioral Emergencies No prior experience in providing training on self-harm, nor participation in related training courses

Exclusion criteria:

Employment or a history of professional experience in psychiatric or psychiatric emergency settings Presence of a physical, sensory, or cognitive limitation affecting the ability to use the electronic simulation platform

Age

No age limit

Gender

Both

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **96**

Randomization (investigator's opinion)

Randomized

Randomization description

In this study, stratified randomization will be used to assign participants to study groups. Eligible students—serving as the units of randomization—will first be categorized into separate strata based on their academic semester. Subsequently, participants within each stratum will be allocated to three groups (two intervention groups and one control group) using an equal allocation ratio (1:1:1). To generate the random allocation sequence, a list of eligible individuals within each stratum will be compiled, and each participant will be assigned a unique numerical code. Then, using a draw-based method, a random sequence for assigning individuals to the three groups will be generated independently for each stratum. To ensure allocation concealment, sequentially numbered, opaque, sealed envelopes will be used. Following the verification of inclusion criteria, obtaining informed consent, and completing the baseline assessment, the envelope corresponding to each participant will be opened in numerical order to reveal their assigned group. It should be noted that, given the nature of the educational intervention—where both students and researchers may become aware of the specific intervention—blinding of participants and researchers is not feasible; however, the data analyst will remain unaware of the group assignment codes.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

In this study, three 30-minute educational videos including text, audio, video, and photos will be used to implement the intervention, as well as real scenarios and scenarios created with the help of artificial intelligence using AI-based tools in the form of talking avatars to increase the impact on students.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Research Ethics committee of Guilan University of Medical Sciences

Street address

Opposite 17 Shahrivar Hospital، Siadati Street، Namjoo Street

City

Rasht

Province

Guilan

Postal code

41446-66949

Approval date

2026-08-19, 1405/05/28

Ethics committee reference number

IR.GUMS.REC.1405.244

Health conditions studied

1

Description of health condition studied

Non-suicidal self-harm

ICD-10 code

X78

ICD-10 code description

Intentional self-harm by sharp object

Primary outcomes

1

Description
Knowledge of nursing and emergency medical students regarding patients with non-suicidal self-harm
Timepoint
Before the intervention, immediately after the last video, and one month after the intervention.
Method of measurement
Researcher-developed questionnaire on knowledge in the field of non-suicidal self-harm: This questionnaire will consist of 18 questions on a two-valued scale of true and false, and the possible score range will be between 0 and 18. Higher scores will indicate better knowledge in the field of NSSI.

Secondary outcomes

1

Description
Attitudes of nursing and emergency medicine students towards patients with non-suicidal self-harm
Timepoint
Before the intervention, immediately after the last video, and one month after the intervention.
Method of measurement
Nurses' Attitudes Towards Patients with Non-Suicidal Self-Injury (NANSSI): This questionnaire consists of 22 questions across four dimensions, including negativity about outcomes of care, adoption of a consultative approach, violation of norms of care, and perceptions about self-injury, designed on a five-point Likert scale with a midpoint of "undecided" (from one: "strongly disagree" to five: "strongly agree"). In the final version of the scale, these items were 1, 3, 10, 18, 19, 20, 21, and 22. The range of possible scores was between 22 and 110. Higher scores indicated a more positive attitude toward patients with NSSI.

2

Description
Clinical Self-Efficacy of Nursing and Emergency Medical Services Students in Encountering Patients with Non-Suicidal Self-Injury
Timepoint
Before the intervention, immediately after the last video, and one month after the intervention.
Method of measurement
Self-Efficacy in Dealing with Self-Harm Questionnaire (SEDSHQ): This questionnaire consists of 27 items across three dimensions—self-efficacy in personal skills, communication with the patient, and communication with the patient's support network (family and friends)—designed using a four-point Likert scale ranging from "probably no" to "definitely yes." The total score is calculated by summing the item scores and ranges from 27 to 108; a higher score indicates greater perceived self-efficacy in dealing with individuals who engage in self-harming behavior.

Intervention groups

1

Description
Intervention group: The educational intervention will be delivered using three 30-minute videos based on electronic simulation and using a variety of media including text, audio, video, and images. The educational content includes six main areas: (1) definition and differentiation of non-suicidal self-injury (NSSI), prevalence, age of onset, and epidemiological trends; (2) causes and motivations, risk and protective factors, and physical, psychological, and social outcomes; (3) influential psychological and social factors and the role of stigma and misbeliefs; (4) identification of signs and symptoms and assessment of NSSI; (5) educational and therapeutic interventions aimed at reducing self-injury; and (6) psychological support and referral principles. In order to increase educational effectiveness, real-life scenarios and scenarios generated with artificial intelligence-based tools in the form of talking avatars will be used. After completing the pre-test, the educational videos will be presented to the intervention groups in three face-to-face sessions over a week.
Category
Behavior

2

Description
Control group: The control group will receive routine theoretical and clinical training during the intervention in the intervention groups. Post-test data will be collected online from all three groups immediately after the end of the last session and one month after the intervention. In line with the ethical principles of intervention research, educational videos will also be made available to control group participants after the completion of post-test data collection.
Category
Behavior

Recruitment centers

1

Recruitment center
Name of recruitment center
Shahid Beheshti School of Nursing and Midwifery, Rasht
Full name of responsible person
Yasaman Yaghobi
Street address
Daneshjoo Street, Shahid Beheshti Highway
City
Rasht
Province
Guilan
Postal code

4146939814

Phone
+98 13 3255 3202

Fax
+98 13 3255 0097

Email
nursing@gums.ac.ir

Web page address
https://nmr.gums.ac.ir/

Sponsors / Funding sources

1

Sponsor

Name of organization / entity
Rasht University of Medical Sciences

Full name of responsible person
Ramyar Farzan

Street address
Parastar street

City
Rasht

Province
Guilan

Postal code
4193713111

Phone
+98 13 3334 6489

Email
riasat@gums.ac.ir

Grant name

Grant code / Reference number

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

Title of funding source
Rasht 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
Rasht University of Medical Sciences

Full name of responsible person
Yasaman Yaghobi

Position
Associate Professor

Latest degree
Ph.D.

Other areas of specialty/work
Nursery

Street address
Daneshjoo Street، Shahid Beheshti Highway

City
Rasht

Province
Guilan

Postal code
4146939814

Phone
+98 13 3255 3202

Email
yasamanyaghobi@gums.ac.ir

Person responsible for scientific inquiries

Contact

Name of organization / entity
Rasht University of Medical Sciences

Full name of responsible person
Yasaman Yaghobi

Position
Associate Professor

Latest degree
Ph.D.

Other areas of specialty/work
Nursery

Street address
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City
Rasht

Province
Guilan

Postal code
4146939814

Phone
+98 13 3255 3202

Email
yasamanyaghobi@gums.ac.ir

Person responsible for updating data

Contact

Name of organization / entity
Rasht University of Medical Sciences

Full name of responsible person
Yasaman Yaghobi

Position
Associate Professor

Latest degree
Ph.D.

Other areas of specialty/work
Nursery

Street address
Daneshjoo street, Beheshti highway

City
Rasht

Province
Guilan

Postal code
4146939814

Phone
+98 13 3255 3202
Email
yasamanyaghobi@gums.ac.ir

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