Clinical Trial Protocol
Iranian Registry of Clinical Trials

08 Nov 2026

Comparison of the Effect of Two Educational Methods, In-Person and Virtual, on Awareness, Attitudes, and Performance of Female Students at Tarbiat Modares University Regarding Human Papillomavirus (HPV) Infection and Vaccination Related to Cervical Cancer: A Randomized Controlled Trial

Protocol summary

Study aim

Comparison of the Effect of Two Educational Methods, In-Person and Virtual, on Awareness, Attitudes, and Performance of Female Students at Tarbiat Modares University Regarding Human Papillomavirus (HPV) Infection and Vaccination Related to Cervical Cancer: A Randomized Controlled Trial

Design

In this study, simple random sampling is used among the students of Tarbiat Modares University. In this way, first, after obtaining permission from the university, the list of students is selected according to the student number using the R software, from the first row to the last, to the required number of samples. Then, the selected samples will be randomly divided into 3 groups: control, intervention 1, and intervention 2, using the R software.After selecting the initial sample using R software, random numbers including a sequence of numbers 1, 2, and 3 are assigned to the samples in equal numbers. Students who received label one will be placed in group A, students who received label two will be placed in group 2, and students who received label three will be placed in group 3. Therefore, we will have three groups of 33 people, which will be 35 people if we consider the 5% dropout, which will be the sample size of 35 people.

Settings and conduct

The sample will be selected using a simple random method. The research setting for this study is Tarbiat Modares University.

Participants/Inclusion and exclusion criteria

Female students of Tarbiat Modares University

Intervention groups

Intervention group 1, intervention 2 and control group

Main outcome variables

Independent variable، Two methods of virtual and in-person education on human papillomavirus (HPV), its vaccination, and cervical cancer Dependent variable, Students awareness, attitude and performance

General information

Reason for update

Acronym

IRCT registration information

IRCT registration number: **IRCT20250721066580N1**
Registration date: **2025-08-03, 1404/05/12**
Registration timing: **prospective**

Last update: **2025-08-03, 1404/05/12**
Update count: **0**

Registration date

2025-08-03, 1404/05/12

Registrant information

Name

Fatemeh Madadizadeh

Name of organization / entity

Tarbiat modares

Country

Iran (Islamic Republic of)

Phone

+98 34 3285 0223

Email address

mddyzadhfatmh0@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date
2025-09-06, 1404/06/15
Expected recruitment end date
2025-12-11, 1404/09/20
Actual recruitment start date
empty
Actual recruitment end date
empty
Trial completion date
empty

Scientific title
Comparison of the Effect of Two Educational Methods, In-Person and Virtual, on Awareness, Attitudes, and Performance of Female Students at Tarbiat Modares University Regarding Human Papillomavirus (HPV) Infection and Vaccination Related to Cervical Cancer: A Randomized Controlled Trial

Public title
Comparison of the Effect of Two Educational Methods, In-Person and Virtual, on Awareness, Attitudes, and Performance of Female Students at Tarbiat Modares University Regarding Human Papillomavirus (HPV) Infection and Vaccination Related to Cervical Cancer: A Randomized Controlled Trial
Purpose
Education/Guidance
Inclusion/Exclusion criteria
Inclusion criteria:
Girls aged 21 to 41, all students of Tarbiat Modares University, no specific disease
Exclusion criteria:
Unwillingness to continue participation, failure to attend educational classes, receiving education from other sources on HPV during the study, receiving specific treatments or interventions during the study
Age
From **21 years** old to **41 years** old
Gender
Female

Phase
N/A
Groups that have been masked

- Participant

Sample size
Target sample size: **33**
More than 1 sample in each individual
Number of samples in each individual: **99**
Three groups of 33 people, which will be 35 people if we take into account a 5% dropout
Randomization (investigator's opinion)
Randomized
Randomization description
In this study, simple random sampling is used among the students of Tarbiat Modares University. In this way, first, after obtaining permission from the university, the list of students is selected according to the student number using the R software, from the first row to the last, to the required number of samples. Then, the selected samples will be randomly divided into 3 groups: control, intervention 1, and intervention 2, using the R software.After selecting the initial sample using R software, random numbers including a sequence of numbers 1, 2, and 3 are assigned to the samples in equal numbers. Students who received label one will be placed in group A, students who received label two will be placed in group 2, and students who received label three will be placed in group 3. Therefore, we will have three groups of 33 people, which will be 35 people if we consider the 5% dropout, which will be the sample size of 35 people.
Blinding (investigator's opinion)
Single blinded
Blinding description
The samples will be selected using a simple random method. Initially, using the list of students prepared from university education according to student number using R software, the required number of samples will be selected from the first row to the last.Then, the selected samples will be randomly divided into 3 groups: control, intervention 1, and intervention 2 using R software. After selecting the initial sample, random numbers including a sequence of numbers 1, 2, and 3 are assigned to the samples in equal numbers using R software.Students who received a label of one will be placed in Group A, students who received a label of two will be placed in Group 2, and students who received a label of three will be placed in Group 3.
Placebo
Not used
Assignment
Parallel
Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee
Name of ethics committee
Ethics Committee of Tarbiat Modares University
Street address
Jalal Al-Ahmad Highway - No. 7 Street, Tarbiat Modares University
City
Tehran
Province
Tehran
Postal code
141115111
Approval date
2025-07-21, 1404/04/30
Ethics committee reference number
IR.MODARES.REC.1404.074

Health conditions studied

1

Description of health condition studied
Genital Warts
ICD-10 code
A00-B99
ICD-10 code description
certain infectious and parasitic diseases

Primary outcomes

1

Description
Virtual education includes holding online classes, providing multimedia content, live or non-live interaction with students, and using interactive tools such as Q&A and online exercises, which increases flexibility and wider coverage of students.
Timepoint
There is no specific time
Method of measurement
There is no way to measure

Secondary outcomes

empty

Intervention groups

1

Description
Intervention group: Intervention group 1 will use training through a reputable domestic platform and gamification in the form of questions and answers with online prizes based on the latest revision of the Ministry of Health's content related to HPV and its vaccine and cervical cancer.
Category
N/A

2

Description
Intervention group: Intervention Group 2: They will receive training through in-person group sessions in the form of questions and answers and through slides whose content is based on the latest Ministry of Health review on sexually transmitted diseases.
Category
N/A

3

Description
Control group: They will not receive any intervention and will only complete questionnaires before and after the study.
Category
N/A

Recruitment centers

1

Recruitment center
Name of recruitment center
Tarbiat Modares University
Full name of responsible person
Fatemeh Maddizadeh
Street address
Jalal Al Ahmad Highway, Street No. 7
City
Tehran
Province
Tehran
Postal code
141115111
Phone
+98 913 343 1051
Email
mddyzadhfatmh0@gmail.com

Sponsors / Funding sources

1

Sponsor
Name of organization / entity
Tarbiat Modares University of Tehran
Full name of responsible person
Najmeh Tehranian
Street address
Jalal Al Ahmad Highway, Street 7
City
Tehran
Province
Tehran
Postal code
141115111
Phone
+98 912 327 0155
Email
N_tehranian@yahoo.com
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
Yes
Title of funding source
Tarbiat Modares University of Tehran
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
Tarbiat Modares University

Full name of responsible person
Fatemeh Maddizadeh

Position
Student

Latest degree
Bachelor

Other areas of specialty/work
Medical Education

Street address
Jalal Al Ahmad Highway, Street 7

City
Tehran

Province
Tehran

Postal code
141115111

Phone
+98 34 3285 0223

Email
mddyzadhfatmh0@gmail.com

Person responsible for scientific inquiries

Contact

Name of organization / entity
Tarbiat Modares University

Full name of responsible person
Fatemeh Maddizadeh

Position
Student

Latest degree
Bachelor

Other areas of specialty/work
Medical Education

Street address
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141115111

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+98 34 3285 0223

Email
mddyzadhfatmh0@gmail.com

Person responsible for updating data

Contact

Name of organization / entity
Tarbiat Modares University

Full name of responsible person
Fatemeh Maddizadeh

Position
Student

Latest degree
Bachelor

Other areas of specialty/work
Medical Education

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Email
mddyzadhfatmh0@gmail.com

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
Pamphlet, questionnaire, in-person class

When the data will become available and for how long
November 1404

To whom data/document is available
Participants

Under which criteria data/document could be used
During research and study

From where data/document is obtainable
Fatemeh Maddizadeh

What processes are involved for a request to access data/document
Email or in person

Comments