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Improving sexual health and well-being in older women through an educational program

Submission date
14/07/2026

Recruitment status
No longer recruiting

Registration date
15/07/2026

Overall study status
Completed

Last Edited
20/07/2026

Condition category
Other

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims

As people get older, changes in their bodies, emotions, and relationships can affect their sexual health and overall well-being. Many older women experience concerns related to intimacy, confidence, and emotional health but receive little information or support because sexual health is often considered a sensitive topic. This study aims to find out whether a structured sexual health education program can improve psychological health, social well-being, and confidence in managing sexual relationships (sexual self-efficacy) among older women.

Who can participate?

The study is open to married women aged 65 years and older who are registered at selected urban health centres in Ilam, Iran. Participants must be able to communicate in Persian, live with their spouse, have no significant cognitive impairment, and be willing to attend the educational sessions and complete the study questionnaires.

What does the study involve?

After providing informed consent and completing baseline questionnaires, participants are randomly assigned to one of two groups. One group receives routine healthcare plus a structured sexual health education program consisting of six face-to-face group sessions delivered over 3 weeks. The sessions cover topics such as healthy ageing, age-related changes, communication with partners, psychological well-being, and healthy sexual behaviours. The other group continues to receive routine healthcare only. All participants complete questionnaires before the program begins and again one month after it ends.

What are the possible benefits and risks of participating?

Participants may benefit from learning more about healthy ageing, sexual health, communication, and emotional well-being. However, because the sessions involve discussions about sexual health, some participants may feel embarrassed or emotionally uncomfortable. The sessions are conducted in a respectful, private, and culturally sensitive environment, and participants who experience significant distress will be referred to appropriate healthcare professionals if needed. Participation is voluntary, and participants may withdraw from the study at any time without affecting their usual healthcare.

Where is the study run from?
The study is conducted by the School of Nursing and Midwifery, Ilam University of Medical Sciences, and takes place at five urban comprehensive health service centres affiliated with Ilam University of Medical Sciences in Ilam, Iran.

When is the study starting and how long is it expected to run for?
August 2024 to April 2025

Who is funding the study?
Ilam University of Medical Sciences (Iran)

Who is the main contact?
Dr Sanaz Aazami, aazamisanaz@gmail.com

Contact information

Type(s)
Principal investigator, Scientific, Public

Contact name
Dr Sanaz Aazami

ORCID ID
https://orcid.org/0000-0002-7665-345X

Contact details
Banganjab, Pajohesh Blv, Ilam University of Medical Sciences
Ilam
Iran
6931846186
+98 (0)9188431833
aazamisanaz@gmail.com

Additional identifiers

Study information

Scientific Title
Investigating the effect of sexual health education on psycho-social health and self-efficacy of elderly women in Ilam city in 2023

Study objectives
This study aimed to evaluate the effect of a structured sexual health education program on psychological health, social health, and sexual self-efficacy in elderly women.

Ethics approval required
Ethics approval required

Ethics approval(s)

Submitted 24/04/2024, Ilam University of Medical Sciences Research Ethics Committees (Research Boulevard, Banganjab, Ilam University of Medical Sciences Campus, Ilam, 6939177143, Iran; +98 (0)84- 32235731; ethics@medilam.ac.ir), ref: IR.MEDILAM.REC.1403.001

Primary study design
Interventional

Allocation
Randomized controlled trial

Masking
Open (masking not used)

Control
Active

Assignment
Parallel

Purpose
Prevention

Study type(s)

Health condition(s) or problem(s) studied
Sexual self-efficacy and psychological health among elderly women

Interventions
After enrollment and baseline assessment, participants were individually randomized to either the intervention group (n = 55) or the control group (n = 55) using a computer-generated random allocation sequence prepared by the study statistician. The randomization sequence was maintained exclusively by the statistical consultant and was not accessible to the investigators responsible for participant recruitment and enrollment. After each participant had completed enrollment and baseline assessment, the statistical consultant informed the research team of the participant's group assignment. Randomization was performed at the participant level rather than at the health-center level, with a 1:1 allocation ratio between groups. Baseline assessments were conducted for both groups before implementation of the intervention, followed by posttest assessments one month after completion of the intervention. No participants were lost to follow-up after randomization, and all randomized participants were included in the final analyses.

The sample size calculation was performed using G*Power version 3.1 software based on a two-group comparison of means. The assumptions included an effect size of 0.50, $\alpha = 0.05$, power $(1-\beta) = 0.80$, and an allocation ratio of 1:1 between groups. All participants provided written informed consent prior to participation. Baseline assessments were conducted for both groups before the implementation of the intervention, followed by posttest assessments one month after completion of the intervention.

The educational intervention was informed by Bandura's Social Cognitive Theory, particularly the concept of self-efficacy. The educational sessions were designed to enhance participants'

knowledge, confidence, communication skills, and perceived ability to manage age-related sexual health concerns. The educational content was developed based on valid scientific and educational resources extracted from reputable academic databases. Educational strategies included information provision, group discussion, question-and-answer sessions, and practical recommendations intended to strengthen self-efficacy beliefs regarding sexual health. The program was delivered to the intervention group through six face-to-face educational sessions, each lasting 30 minutes, conducted in a 22-participant classroom setting, along with the distribution of an educational booklet summarizing the topics presented during the sessions. The sessions were held in the training hall of the health center during the morning shift and were delivered by the researcher. The educational methods included lectures accompanied by visual materials, such as educational images and videos. Prior to implementation, the educational content was reviewed for content validity by 10 experts in relevant fields, including nursing, midwifery, reproductive and sexual health, health education and health promotion, psychology, and psychiatry, and their feedback was incorporated into the final program.

The intervention was conducted over six 30-minute face-to-face sessions, held twice weekly for three consecutive weeks, in the training classrooms of the health centers by the researcher. At the end of each session, doubt-clearing sessions lasting approximately 30–60 minutes were conducted to address participants' questions and concerns. Individual consultations were provided privately when requested. At the conclusion of the first session, an educational pamphlet written in simple language and covering the session content was distributed to all participants, who were encouraged to review it and raise any questions or concerns in subsequent sessions.

Considering that sexual health is a dyadic issue between spouses, elderly women were asked to attend the final educational session accompanied by their spouses. During this session, a summary of key topics was presented jointly to couples, and the session concluded with a question-and-answer discussion.

Given the cultural sensitivity of sexual health discussions in the Iranian context, several measures were taken to facilitate participant engagement. Educational sessions were conducted in a respectful and culturally appropriate manner by a female researcher, confidentiality was emphasized throughout the study, and opportunities for private consultation were provided. In addition, because sexual health is inherently relational, spouses were invited to participate in the final educational session to encourage mutual understanding and support while respecting cultural norms regarding marital relationships.
To enhance intervention consistency, all sessions were delivered by the same educator using a standardized educational booklet, predefined learning objectives, and identical educational materials across all groups. The content and sequence of topics were maintained throughout the intervention period. Participants received an educational booklet summarizing the session content and were encouraged to review the material between sessions. No formal homework assignments were required. All educational sessions, verbal communications, educational materials, and questionnaires were administered in Persian (Farsi), the native language of the participants.

The control group continued to receive routine services provided by the health centers, including standard health advice, routine follow-up visits, and access to usual healthcare professionals. They did not participate in any structured sexual health education sessions during the study period. Participants in the intervention group continued to receive routine health services in addition to the educational intervention. Following completion of the intervention in the intervention group, posttest assessments were conducted for participants in both the intervention and control groups. One month after the intervention, participants in both groups

were contacted by telephone and asked to return to the health centers to complete the Social Well-Being Questionnaire, General Health Questionnaire, and Sexual Self-Efficacy Questionnaire, following the same procedures as the pretest. In cases where in-person attendance was not possible, questionnaires were administered via telephone by the researcher, and responses were recorded accordingly (in some cases, multiple phone contacts were required due to logistical constraints). For ethical considerations, as the control group did not receive any intervention during the study, educational booklets and a summary of the session content were provided to them after completion of the study.

Intervention Type
Other

Primary outcome(s)
1. Self-efficacy measured using the Sexual Self-Efficacy Questionnaire at baseline, post intervention at 12th week, follow up after 1 month

2. Psychological health measured using the General Health Questionnaire (GHQ-28) at baseline, post intervention at 12th week, follow up after 1 month

Key secondary outcome(s)

Completion date
01/04/2025

Eligibility

Key inclusion criteria
1. Age ≥65 years
2. Being married
3. Absence of cognitive impairment and Alzheimer’s disease in both the elderly women and their spouses
4. Ability to communicate verbally
5. Adequate visual and auditory ability
6. Absence of severe physical conditions that could significantly impair participation or influence sexual health outcomes.

Healthy volunteers allowed
Yes

Age group
Senior

Lower age limit
65 Years

Upper age limit
80 Years

Sex
Female

Total final enrolment
110

Key exclusion criteria
1. Presence of physical disability or debilitating disease
2. Unwillingness to continue participation
3. Failure to complete the study questionnaires
4. Absence from at least one educational session in the intervention group

Date of first enrolment
22/08/2024

Date of final enrolment
12/12/2024

Locations

Countries of recruitment
Iran

Sponsor information

Organisation
Medical University of Ilam

ROR
https://ror.org/042hptv04

Funder(s)

Funder type

Funder Name
Ilam University of Medical Sciences

Alternative Name(s)

Funding Body Type
Government organisation

Funding Body Subtype
Local government

Location
Iran

Results and Publications

Individual participant data (IPD) sharing plan

The datasets used and analyzed during the current study are available from the corresponding author upon reasonable request. The data are not publicly available due to privacy and ethical restrictions but can be shared in anonymized form for research purposes.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		19/07/2026	20/07/2026	Yes	No