Research Title

The effect of a comprehensive dementia education program on improving attitudes toward people living with dementia: a Randomized Controlled Trial

NCT number:

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UNIVERSITAS AIRLANGGA

November, 2025

1. Study Overview
   Title: The Effect of a Comprehensive Dementia Education Program on Improving Attitudes Toward People Living with Dementia: A Randomized Controlled Trial
   Acronym: VReducationRCT
   Sponsor: Universitas Airlangga
   Version: 1.0
   Date: November 2025

2. Background and Rationale
   Dementia education is critical for preparing future nurses to care for an aging population. VR-based educational programs have shown promise in improving empathy, knowledge, and attitudes. This study tests a VR dementia education program among Indonesian nursing students using an RCT design.

3. Study Objectives
   Primary Objective:
   To evaluate the effect of a comprehensive VR dementia education program on attitudes toward people living with dementia.

   Secondary Objectives:
   • To measure changes in dementia knowledge.
   • To assess intention to help persons living with dementia.
   • To evaluate user experience and satisfaction with the VR program.

4. Study Design
   Design: Parallel-group, open-label RCT.
   Arms:
   1. Experimental: VR Dementia Education Program
   2. Active Comparator: Conventional Lecture Program

   Randomization:
   • Individual-level randomization using simple randomization (computer-generated list).

5. Study Population
   Participants: Fifth-semester nursing students.
   Inclusion Criteria:
   • Registered in the targeted semester and course.
   • Provide informed consent.

Exclusion Criteria:
   • Prior exposure to VR dementia training.
   • Not enrolled in designated courses.

6. Recruitment Procedures

    Recruitment through class announcement, LMS, and Google Forms.

    Participants assigned new unique IDs to protect confidentiality.

    Study explained via Zoom (control group) and in class (intervention group).

7. Interventions

    Experimental Arm (VR Program):

    • Single-session VR dementia education program with max 20 students.

    • Components include introduction, questionnaires, undesirable and desirable VR, dramas, lectures, N-impro, reflection, and conclusion.

    Control Arm:

    • Study briefing + pre-test via Zoom.

    • Conventional dementia lecture via LMS.

    • Post-test via Zoom.

    • Summary assignment required.

8. Outcome Measures

    Primary Outcome:

    • Attitudes Toward People With Dementia Scale (14 items).

    Secondary Outcomes:

    • Dementia Knowledge Scale

    • Intention to Help (vignettes)

    • User Experience Questionnaire (UEQ) for intervention arm

9. Statistical Analysis Plan (SAP)

    Analysis Principles:

    • Intention-to-treat (ITT) analysis.

    • Significance level: $\alpha = 0.05$ (two-sided).

    • Missing data handled by multiple imputation if >5%.

    Primary Outcome Analysis:

    • Compare change in attitude scores (T1 to T2 and T1 to T3) between groups.

    • Independent t-test or Mann–Whitney U (non-parametric).

    • Repeated-measures ANOVA or mixed-effects model for time × group interaction.

    Secondary Outcomes:

    • Knowledge: Pre-post difference tested using paired t-test, ANCOVA controlling baseline.

    • Intention to help: Likert-scale comparisons using Mann–Whitney U.

    • UEQ: Descriptive statistics, domain scores, and comparison with normative database.

    Subgroup Analyses:

    • Gender

    • Prior dementia experience (family exposure)

    Sample Size:

• Estimated 60 intervention, 150 control (educational-program constraints).

Data Monitoring:
• Conducted internally by the research team.

Software:
• SPSS 29 / R version 4.3
10. Ethical Considerations
Ethics approval: KEPK 3922-KEPK.
Confidentiality protected through new unique participant IDs.
Participation voluntary; withdrawal allowed at any time.

Data Storage:
• Encrypted drive, stored for 5 years, accessible only to PI and research team.
11. Timeline
• Recruitment: Sept–Oct 2025
• Intervention: Oct–Nov 2025
• Follow-up: Jan–Feb 2026
• Analysis & Reporting: Mar–May 2026

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INFORMED CONSENT FORM

Dear participant,

We invite nursing students to complete the questionnaire below.

Information about this study:

Title   : The Effect of a Comprehensive Dementia Education Program on Improving Attitudes Toward People Living with Dementia: A Randomized Controlled Trial

Purpose   : To identify the effect of a Comprehensive Dementia Education Program on improving nursing students' attitudes toward people living with dementia.

Principal Investigator: Dianis Wulan Sari, Faculty of Nursing, Universitas Airlangga

Contact Person   : Dianis; 0812-5949-7373

Study Period   : October 1, 2025 – May 30, 2026

This study is administered once and will take about 90 minutes.

We would like to assure you that:

- Your participation in this study is voluntary. You have the right to refuse or agree to participate.
- Your information will be treated anonymously and confidentially, and will not be used for purposes other than this research.
- You may leave questions unanswered without penalty.
- Your responses will be stored in an encrypted drive and will be deleted five years after the publication of the research.

Completing and returning this questionnaire signifies your consent to participate in this study. Once your response is submitted, it cannot be withdrawn.

Do you agree to participate in this survey?

□ Yes, I agree

□ No, I do not agree

This statement is made to be used as necessary.