

EFFICARE - Improving primary care physicians' cross-cultural competences: a randomized controlled trial of two e-learning programs

Submission date 10/03/2026	Recruitment status Not yet recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 11/03/2026	Overall study status Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 10/03/2026	Condition category Other	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol

Here is the revised plain English summary with sources only at the end, as you requested. I have kept the language clear and suitable for a general audience, with no bold or italics and using sentence case for subheadings.

Background and study aims

This study aims to improve how primary care doctors care for lesbian, gay, bisexual, transgender or nonbinary, and intersex (LGBTI) patients. It compares two online training courses: one focused on LGBTI health (called ICARE) and another focused on motivational interviewing without an LGBTI component. The study will check whether the ICARE program helps doctors develop better knowledge, attitudes, skills and behaviours when working with LGBTI patients.

Who can participate?

Primary care doctors working in Frenchspeaking regions of Switzerland can take part. They must work in recognised medical specialties such as general internal medicine, paediatrics, gynaecology, obstetrics or psychiatry. They must also understand French. Doctors who helped develop the training courses or who have already completed them cannot take part.

What does the study involve?

Doctors will be randomly assigned to either the ICARE elearning course or the comparison course on motivational interviewing. Both courses are selfdirected and count toward continuing education credits. Participants will complete questionnaires before and after the course, as well as three months later. These will assess changes in knowledge, attitudes, skills, behaviours and satisfaction with the training.

What are the possible benefits and risks of participating?

Taking part may help doctors improve their communication and clinical skills when caring for diverse groups, including LGBTI patients. The risks are very low, as participation involves only online learning and short questionnaires. Doctors can withdraw at any time. Any personal data collected will be stored securely, deidentified and used only with consent.

Where is the study run from?

The study is run by several institutions in Switzerland, including Unisanté and the University of Lausanne, the Haute École de Santé du canton de Vaud and the University of Geneva.

When is the study starting and how long is it expected to run for?

Doctors can begin enrolling from 16 March 2026. Recruitment is expected to continue until the end of 2027, and the study is planned to finish in March 2029.

Who is funding the study?

The study is funded by the Swiss National Science Foundation.

Who is the main contact?

Dr Raphaël Bize at Unisanté in Lausanne, raphael.bize@unisante.ch

Contact information

Type(s)

Scientific, Public, Principal investigator

Contact name

Dr Raphaël Bize

ORCID ID

<https://orcid.org/0000-0001-5626-4628>

Contact details

Route de la Corniche 21

Lausanne

Switzerland

1010

+41 (0)21 314 72 99

raphael.bize@unisante.ch

Additional identifiers

Study information

Scientific Title

Improving primary care physicians' competence on LGBTI health: an RCT on the effectiveness of the I-CARE e-learning program in French-speaking Switzerland (EFFICARE study)

Acronym

EFFICARE

Study objectives

Our research project focuses on the training of primary care physicians (PCPs) in the field of lesbian, gay, bisexual, transgender or non-binary, and intersex (LGBTI) health, with the aim of rigorously evaluating the effectiveness and implementation a self-directed e-learning program (I-CARE) -relative to an active control program on motivational interviewing without LGBTI focus - using a randomized controlled trial (RCT) design. I-CARE (Improving Care and Access for Rainbow

Equity) is a self-directed novel e-learning program developed to foster change in healthcare professionals (HCPs)' knowledge, attitudes, skills, and behaviors towards LGBTI people and their health needs.

Ethics approval required

Ethics approval required

Ethics approval(s)

approved 07/07/2025, Commission d'éthique de la recherche de l'Université de Lausanne (CER-UNIL) (Amphipôle 353.1, Lausanne, 1015, Switzerland; +41 21 692 60 19; pabloandres.diaz@unil.ch), ref: C_Services centraux_052025_00018

Primary study design

Interventional

Allocation

Randomized controlled trial

Masking

Open (masking not used)

Control

Active

Assignment

Parallel

Purpose

Health services research, Prevention

Study type(s)

Health condition(s) or problem(s) studied

Primary care physicians' competence on LGBTI health

Interventions

This study is a type I effectiveness–implementation hybrid, two-arm (intervention and control), parallel-group, superiority randomized controlled trial with a 1:1 allocation ratio.

The intervention, I-CARE, is a novel self-directed e-learning program designed to improve primary care physicians (PCPs)' knowledge, attitudes, skills, and behaviours related to LGBTI people and their healthcare needs. The study outcomes will be assessed at baseline, immediately post-intervention, and three months post-intervention. Each participant who completes the baseline questionnaire will be randomized to either the intervention group, receiving an invitation and access to the I-CARE e-learning program, or an active control e-learning program on motivational interviewing, matched for format and duration (approximately 5-6 hours). The control program does not include specific content on LGBTI health but is comparable to I-CARE in format and duration. Each participant will have access to their allocated training program for a 6-week period.

The randomization will be stratified by sex assigned at birth (male or female), and age category. Three age categories will be used: PCPs born after 1980 (Generation Z and Millennials); PCPs born between 1965 and 1980 (Generation X); and PCPS born before 1965 (Baby Boomers generation or older ones if any). Allocation tables will be generated using Stata 19 (StataCorp LLC, College Station, TX, USA) with block randomization (block size of four) to ensure balanced distribution between the treatment and control groups. Participant allocation will be implemented directly within REDCap.

Intervention Type

Behavioural

Primary outcome(s)

1. Knowledge measured using “The QUEering Individual Relational and Knowledge Scales” for provider (QUIRKS-Provider) at t0 (before the intervention) and t1 (after the intervention). We will measure changes between t0 and t1
2. Attitudes measured using The Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale” (LGBT-DOCSS) at t0 (before the intervention) and t1 (after the intervention). We will measure changes between t0 and t1

Key secondary outcome(s)

1. Skills (clinical preparedness) measured using The Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale” (LGBT-DOCSS) at t0 (before the intervention) and t1 (after the intervention). We will measure changes between t0 and t1
2. Self-reported behaviours measured using “The Gay Affirmative Practice Scale” (GAP) at t0 (before the intervention) and t1 (after the intervention). We will measure changes between t0 and t1
3. The use of LGBTI-friendly Environmental Cues measured using “The QUEering Individual Relational and Knowledge Scales” for provider (QUIRKS-Provider) at t0 (before the intervention) and t1 (after the intervention). We will measure changes between t0 and t1
4. Knowledge (a), Attitudes (b), Skills (clinical preparedness) (c), Self-reported behaviours (d), The use of LGBTI-friendly Environmental Cues (e) measured using (a,e) “The QUEering Individual Relational and Knowledge Scales” for provider (QUIRKS-Provider) ; (b,c) The Lesbian, Gay, Bisexual, and Transgender Development of Clinical Skills Scale” (LGBT-DOCSS); (d) “The Gay Affirmative Practice Scale” (GAP) at at t2, 3 months after the intervention. We will measure changes between t0, t1 and t2
5. Satisfaction measures measured using Likert-scale questions at t1 (after the intervention)

Completion date

31/03/2029

Eligibility

Key inclusion criteria

Primary care physicians who practice clinical medicine:

1. In at least one of the following medical disciplines (as defined by Swiss medical discipline

standards): General internal medicine (formerly general medicine or internal medicine), “General” pediatrics (excluding pediatric surgery), “Specialized” pediatrics with advanced training (excluding pediatric surgery), “General” gynecology and/or obstetrics, “Specialized” gynecology and/or obstetrics with in-depth training, Psychiatry and psychotherapy (for adults and/or the elderly), Psychiatry and psychotherapy for children and adolescents

2. In the French-speaking Switzerland, defined as practicing in at least one of the following cantons: Fribourg, Geneva, Jura, Neuchâtel, Wallis, Vaud, Bern
3. At least 1 day a week

Healthy volunteers allowed

Yes

Age group

Mixed

Lower age limit

25 years

Upper age limit

99 years

Sex

All

Total final enrolment

0

Key exclusion criteria

1. Primary care physicians who were involved in the development of the e-learning training courses offered in the intervention and control arms of the study, or who had completed any of them
2. Not understanding French at all

Date of first enrolment

16/03/2026

Date of final enrolment

31/12/2027

Locations

Countries of recruitment

Switzerland

Study participating centre

University Center for Primary Care and Public Health, Lausanne (Unisanté)
Route de la Corniche 21
Lausanne
Switzerland

Study participating centre
University of Lausanne (UNIL)
Lausanne
Switzerland

Study participating centre
Haute École de Santé du canton de Vaud (HESAV)
Lausanne
Switzerland

Study participating centre
University of Geneva (UNIGE)
Geneva
Switzerland

Sponsor information

Organisation
Unisanté

Funder(s)

Funder type

Funder Name
Swiss National Science Foundation (SNSF)

Results and Publications

Individual participant data (IPD) sharing plan

Upon obtaining specific consent, the data may be used for scientific purposes and for the publication of research results in scientific journals or books. This data is coded or aggregated, which means that it is not possible to identify participants.

Upon obtaining specific consent, the data may subsequently prove important in answering other related research questions in Switzerland or abroad. The data will be made available with protected access on the Unisanté data repository. This data will be de-identified, which means that any personal information collected during the project (name, email address, etc.) will be deleted. The reuse of data for scientific purposes with protected access means that the data can only be shared with research teams affiliated with a recognized institute and after signing a data transfer agreement.

For participants that specifically consent, the data may be used for educational purposes (undergraduate or professional training courses and seminars). This data will be aggregated or de-identified.

Each participant may withdraw from the study at any time without providing justification and may, if necessary, explicitly request the destruction of data concerning them. Once the data has been de-identified, it will no longer be possible to request the deletion of your data as we will no longer be able to identify it.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Participant information sheet	in French		10/03/2026	No	Yes