

# Caregiver Connect: An mHealth-based intervention for supporting immigrant family caregivers to persons with dementia at home

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<b>Registration date</b> 27/06/2023	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 30/01/2025	<b>Condition category</b> Other	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

The number of persons with dementia (PWD) is estimated to be 250,000 in Sweden and 14 million in India by the year 2050. In Sweden, PWD increasingly live in their own homes. Family caregiving can lead to stress, poor health and poor quality of life. In Sweden, in 2017, only 5% of the municipalities offered any kind of support to family caregivers (FCs) whose native language was other than Swedish. The main research question in this project is whether a mHealth-based intervention given by community workers improves the caregiving competence of non-European immigrant FCs of PWD living at home and is effective at reducing caregiver stress and depressive symptoms and improving quality of life. This study will include participants from municipalities in Sweden. They will be randomly put into an intervention group and a control group.

### Who can participate?

Adult FCs of PWD living at home who are recipients of the intervention and social care professionals (SCPs) who will deliver the intervention

### What does the study involve?

The intervention will be delivered through a mobile application (app) in 10 sessions covering specific subjects to enhance the caregiving competence of FCs, e.g., introduction to dementia, being a caregiver, mental strategies, mindset, activities, diet, sleep and where to find resources in the community.

The outcomes of the study are caregiving competence, caregiver stress, depressive symptoms and quality of life. The outcomes will be measured at baseline, after completion of the 10-week-long intervention in the intervention group and after another 10-week intervention in the control group. In-depth interviews will be performed with SCPs and FCs after the intervention to understand their experiences of the ease of use and practicality of the app and the relevance of the intervention. The usage of different features of the app will be measured.

### What are the possible benefits and risks of participating?

The project aims to reduce stress, and depressive symptoms, and increase caregiver competence

and quality of life of FCs taking care of persons with dementia at home by increasing the understanding of the illness and its related symptoms. It will also equip them with strategies on how to deal with the challenges of caregiving. The intervention is person-centered through direct interaction with the SCP. As the intervention is delivered by mobile application and can be used whenever the user chooses to, regardless of time and place, it offers flexibility.

It is possible that the intervention can affect the FCs negatively by improving their understanding of the disease and its progression, leading the caregiver to feel more stressed about their responsibilities. This risk can be lowered through guidance by the SCP who will be implementing the intervention.

Sometimes, when the FC tries to communicate with SCPs by text messages, it can trigger suspicion among the PWD cared for. This risk is lessened by the fact that the FC can choose a time of his/her convenience to communicate with the SCP so as not to affect the relationship within the family.

Where is the study run from?  
Karolinska Institute (Sweden)

When is the study starting and how long it is expected to run for?  
March 2023 to February 2026

Who is funding the study?  
Swedish Research Council for Health, Working Life and Welfare (Sweden)

Who is the main contact?  
Dr Zarina Nahar Kabir, [zarina.kabir@ki.se](mailto:zarina.kabir@ki.se) (Sweden)

## Contact information

### Type(s)

Principal investigator

### Contact name

Dr Zarina Nahar Kabir

### ORCID ID

<https://orcid.org/0000-0003-0465-5701>

### Contact details

Associate Professor of Public Health  
Principal Researcher  
Division of Nursing  
Dept. of Neurobiology, Care Sciences and Society  
Karolinska Institutet  
Alfred Nobels Allé 23, 23300  
Huddinge  
Sweden  
141 52  
+46852483697  
[zarina.kabir@ki.se](mailto:zarina.kabir@ki.se)

**Type(s)**

Scientific

**Contact name**

Dr Zarina Nahar Kabir

**Contact details**

Associate Professor of Public Health  
Principal Researcher  
Division of Nursing  
Dept. of Neurobiology, Care Sciences and Society  
Karolinska Institutet  
Alfred Nobels allé 23, 23300  
Huddinge  
Sweden  
141 52  
+46 8 52483697  
zarina.kabir@ki.se

**Type(s)**

Public

**Contact name**

Dr Zarina Nahar Kabir

**Contact details**

Associate Professor of Public Health  
Principal Researcher  
Division of Nursing  
Dept. of Neurobiology, Care Sciences and Society  
Karolinska Institutet  
Alfred Nobels allé 23, 23300  
Huddinge  
Sweden  
141 52  
+46 8 52483697  
zarina.kabir@ki.se

**Additional identifiers****Study information****Scientific Title**

m-Health based intervention by community workers to support family caregivers to persons with dementia living at home in Sweden

**Acronym**

CARE-2-CONNECT-Sweden

## **Study objectives**

A mHealth-based intervention given by community workers will improve the caregiving competence of non-European immigrant family caregivers of persons with dementia living at home which in turn will reduce caregiver stress and depressive symptoms, and improve quality of life.

## **Ethics approval required**

Ethics approval required

## **Ethics approval(s)**

approved 09/08/2023, Swedish Ethical Review Authority (Box 2110, Uppsala, 750 02, Sweden; +46104750800; [registrator@etikprovning.se](mailto:registrator@etikprovning.se)), ref: 2023-02911-01

## **Study design**

Randomized controlled trial

## **Primary study design**

Interventional

## **Study type(s)**

Prevention, Quality of life

## **Health condition(s) or problem(s) studied**

Strengthening caregiving competence thereby reducing stress, and depressive symptoms and improving the quality of life of non-European immigrant family caregivers of persons with dementia

## **Interventions**

This randomized controlled study will include a waitlist control group. Participants from municipalities in Sweden with high immigrant density will randomly be assigned to the intervention group (n=44) and the waitlist control group (n=44).

Participants in the study will include:

1. Family caregivers (FCs) of persons with dementia (PWD) living at home and are recipients of the intervention
2. Social care professionals (SCP) who will deliver the intervention

The intervention will be delivered through a mobile application (app) in 10 sessions on specific subjects to enhance the caregiving competence of FCs, e.g., introduction to dementia, being a caregiver, mental strategies, mindset, activities, diet, sleep and where to find resources in the community.

Outcomes will be measured quantitatively at baseline, after completion of a 10-week intervention in the intervention group and after another 10-week intervention in the control group. In-depth interviews will be performed with SCPs and FCs after the intervention to understand their experiences with the ease of use and practicality of the app. Analytics information logged on the backend system will be used to assess the usage of different features of the app.

## **Intervention Type**

Behavioural

**Primary outcome(s)**

Caregiving competence measured using a questionnaire developed by the project team at baseline and 10 weeks after the intervention (in intervention and control groups)

**Key secondary outcome(s)**

1. Caregiver stress, depressive symptoms and quality of life measured using the Zarit Burden Index-12, Patient Health Questionnaire-9 and Carer QoL, respectively at baseline and 10 weeks after the intervention in both intervention and control groups
2. Ease of use/practicality of the App measured using in-depth interviews directly after the intervention in the intervention group
3. Usage of different features measured using analytics information logged on the backend system at the end of the study

**Completion date**

28/02/2026

**Eligibility****Key inclusion criteria**

1. Adults who are of non-European immigrant background in Sweden
2. Have provided care to a person with dementia living at home for at least six months
3. Possess a smartphone or tablet
4. Have access to the Internet at his/her own cost
5. Able to read and write Swedish

**Participant type(s)**

Carer, Other

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

All

**Key exclusion criteria**

1. Family caregivers aged less than 18 years
2. Family caregivers suffering from conditions that impede communication

**Date of first enrolment**

01/03/2024

**Date of final enrolment**

31/10/2025

# Locations

## Countries of recruitment

Sweden

## Study participating centre

### Karolinska Institute

Dept of Neurobiology, Care Sciences and Society

Alfred Nobels Allé 23

Huddinge

Sweden

14152

# Sponsor information

## Organisation

Swedish Research Council for Health Working Life and Welfare

## ROR

<https://ror.org/02d290r06>

# Funder(s)

## Funder type

Government

## Funder Name

Forskningsrådet om Hälsa, Arbetsliv och Välfärd

## Alternative Name(s)

Swedish Research Council for Health, Working Life and Welfare, Forskningsrådet om Hälsa, Arbetsliv och Välfärd, FORTE

## Funding Body Type

Government organisation

## Funding Body Subtype

Local government

## Location

Sweden

# Results and Publications

## Individual participant data (IPD) sharing plan

The data sets generated during and/or analysed during the current study are not expected to be made available due to ethical considerations.

## IPD sharing plan summary

Not expected to be made available

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol article</a>		14/06/2024	17/06/2024	Yes	No