

# Care of family caregivers of persons with dementia

|                          |                                  |  |
|--------------------------|----------------------------------|--|
| <b>Submission date</b>   | <b>Recruitment status</b>        | <input checked="" type="checkbox"/> Prospectively registered |
| 04/09/2019               | No longer recruiting             | <input checked="" type="checkbox"/> Protocol                 |
| <b>Registration date</b> | <b>Overall study status</b>      | <input type="checkbox"/> Statistical analysis plan           |
| 10/10/2019               | Completed                        | <input type="checkbox"/> Results                             |
| <b>Last Edited</b>       | <b>Condition category</b>        | <input type="checkbox"/> Individual participant data         |
| 30/01/2025               | Mental and Behavioural Disorders | <input type="checkbox"/> Record updated in last year         |

## Plain English summary of protocol

Current plain English summary as of 15/07/2020:

### Background and study aims

In Sweden, most people with dementia (PWD) live in their own home and are cared for by family members. The health consequences of caregiving of PWD include stress, depressive symptoms, loneliness and poor self-rated health. The aim of this study is to assess the effectiveness of introducing a mobile application through the existing health care system in Sweden for reducing stress, depressive symptoms and loneliness, and improving quality of life of family caregivers of PWD.

### Who can participate?

Adult family members who have provided care to a person with dementia living at home for at least six months, possess a smartphone or tablet, have access to the internet at his/her own cost and are able to read and write Swedish.

### What does the study involve?

The study is conducted in the Stockholm and Västerbotten Regions in a sample of 78 family caregivers of PWD. The intervention is implemented by dementia nurses randomly selected in each of the study sites. The family caregivers are selected from the network of the selected dementia nurses. The intervention is a mobile application (app) on a smartphone/tablet through which the family caregivers, in groups of 8-10, can communicate with peers and a nurse, exchanging ideas how to deal with the PWD's behaviour and where family caregivers can get support in their neighborhood; discuss stressful events to get support from the nurse; conduct self-assessments of stress, depressive symptoms, loneliness, self-rated health, and quality of life; and nurses can make announcements to family caregivers. Data is collected through the app before and three time points after the 8-week long intervention to assess changes in the health outcomes of the family caregivers. In-depth interviews are done after the intervention to understand the experiences of family caregivers and dementia nurses regarding the ease of use and practicality of the app, especially in integrating in the existing healthcare system. Gender, socio-economic status, and lifestyle practices are taken into account in the collection and analysis of the data.

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

This intervention provides a platform for the rising digitally literate family caregivers of persons with dementia to alleviate stress and improve quality of life irrespective of distance to the nearest health center.

**Where is the study run from?**

The study will be conducted by two universities in Sweden, Karolinska Institute (lead centre) in Stockholm and Umeå University in Umeå

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

January 2019 to September 2025

**Who is funding the study?**

The study is financed by funding received from Kamprad Foundation and grants from Karolinska Institute.

**Who is the main contact?**

Dr Zarina Nahar Kabir

Zarina.kabir@ki.se

**Previous plain English summary plan:**

**Background and study aims**

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**Who can participate?**

Adult family members who have provided care to a person with dementia living at home for at least six months, possess a smartphone or tablet, have access to the internet at his/her own cost and are able to read and write Swedish.

**What does the study involve?**

The study is conducted in the Stockholm and Östergötland Regions in a sample of 297 family caregivers of PWD. The intervention is implemented by dementia nurses randomly selected in each of the study sites. The family caregivers are selected from the network of the selected dementia nurses. The intervention is a mobile application (app) on a smartphone/tablet through which the family caregivers, in groups of 8-10, can communicate with peers and a nurse, exchanging ideas how to deal with the PWD's behaviour and where family caregivers can get support in their neighborhood; discuss stressful events to get support from the nurse; conduct self-assessments of stress, depressive symptoms, loneliness, self-rated health, and quality of life; and nurses can make announcements to family caregivers. Data is collected through the app before and three time points after the 8-week long intervention to assess changes in the health outcomes of the family caregivers. In-depth interviews are done after the intervention to understand the experiences of family caregivers and dementia nurses regarding the ease of use and practicality of the app, especially in integrating in the existing healthcare system. Gender, socio-economic status, and lifestyle practices are taken into account in the collection and analysis of the data.

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Dr Zarina Nahar Kabir

[Zarina.kabir@ki.se](mailto:Zarina.kabir@ki.se)

## Contact information

**Type(s)**

Scientific

**Contact name**

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**Contact details**

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## Additional identifiers

**Clinical Trials Information System (CTIS)**

Nil known

**ClinicalTrials.gov (NCT)**

Nil known

**Protocol serial number**

# Study information

## Scientific Title

Care of Family Caregivers of Persons with Dementia (CAFCA): mobile application to alleviate stress and improve quality of life

## Acronym

CaFCa

## Study objectives

The proposed project aims to assess the effectiveness of implementing a mobile application through existing health care system in Sweden in reducing stress and loneliness, and improving mental health and quality of life of family caregivers of persons with dementia.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

Current ethics approval as of 25/05/2021:

Approved 23/04/2019, Swedish Ethical Review Authority (Etikprövningsmyndigheten, Box 2110, 750 02 Uppsala, Sweden; Tel: + 46 (0)10 4750800; Email: [registrator@etikprovning.se](mailto:registrator@etikprovning.se)), Dnr: 2019-01632; Dnr: 2020-06882

Previous ethics approval:

Approved 23/04/2019, Swedish Ethical Review Authority (Etikprövningsmyndigheten, Box 2110, 750 02 Uppsala, Sweden; Tel: + 46 (0)10 4750800; Email: [registrator@etikprovning.se](mailto:registrator@etikprovning.se)), Dnr: 2019-01632

## Study design

Pragmatic intervention design

## Primary study design

Interventional

## Study type(s)

Quality of life

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

Stress, depressive symptoms, loneliness and quality of life of family caregivers of persons with dementia

## Interventions

Using a pragmatic intervention design, this study will use pre- and post-intervention assessment to evaluate the effectiveness of the proposed intervention in a sample of 297 family caregivers (FC) of persons with dementia (PWD). The intervention will be implemented by approximately 30 healthcare professionals specialized in dementia care (HP) based in the municipalities in Sweden. The main thrust of the intervention is to provide professional support, with help of an interactive mobile app, to family members in their caregiving role for a PWD. Qualitative

interviews with HPs and FCs form the groundwork of the development of the mobile app. By using the app on smartphone or tablet, the FC, in groups of 8-10, will communicate with peers and a HP exchanging ideas on how to deal with PWD's behavioural and cognitive changes, and where FCs can get support; discuss stressful events; access mindfulness exercises focused on themselves. Quantitative data will be collected through the app before and at three timepoints after the 8-weeks long intervention to assess changes in the health outcomes of the FCs. In-depth interviews will be conducted after the intervention to capture the experiences of FCs and HPs regarding the ease of use and practicality of the app.

### **Intervention Type**

Mixed

### **Primary outcome(s)**

Caregiver stress is measured using Zarit Burden Interview questionnaire at baseline, directly after completion of the intervention, 4 weeks and 8 weeks after the intervention

### **Key secondary outcome(s)**

1. Depressive symptoms assessed using a 9 items Patient Health Questionnaire

2. Loneliness assessed with a single item question

3. Quality of life assessed with Carer QoL7D

All assessments will be done at baseline, directly after completion of the intervention, 4 weeks and 8 weeks after the intervention

### **Completion date**

30/09/2025

## **Eligibility**

### **Key inclusion criteria**

1. Adults who have provided care to a person with dementia living at home for at least six months
2. Possess a smartphone or tablet
3. Have access to the internet at his/her own cost
4. Able to read and write Swedish

### **Participant type(s)**

Other

### **Healthy volunteers allowed**

No

### **Age group**

Adult

### **Sex**

All

### **Total final enrolment**

46

## **Key exclusion criteria**

Caregivers aged less than 18 years and/or with severe physical or mental illness restricting their ability as caregivers

## **Date of first enrolment**

15/09/2020

## **Date of final enrolment**

23/11/2023

## **Locations**

### **Countries of recruitment**

Sweden

### **Study participating centre**

#### **Karolinska Institute**

Dept. Neurobiology, Care Sciences and Society,  
Karolinska Institute,  
Alfred Nobels Allé 23  
Huddinge  
Sweden  
141 83

### **Study participating centre**

#### **Umeå University**

Departement of Nursing  
Umeå  
Sweden  
90187

## **Sponsor information**

### **Organisation**

Karolinska Institute

### **ROR**

<https://ror.org/056d84691>

## **Funder(s)**

**Funder type**

University/education

**Funder Name**

Kamprad Foundation

**Funder Name**

Karolinska Institutet

**Alternative Name(s)**

Karolinska Institute, KI

**Funding Body Type**

Government organisation

**Funding Body Subtype**

Local government

**Location**

Sweden

**Funder Name**

Strategic Research Area Health Care Science: Karolinska Institute

## Results and Publications

**Individual participant data (IPD) sharing plan**

The datasets generated during and/or analysed during the current study are not expected to be made available as the application for ethical approval of the study specified the researchers of the research team who would have access to the participant level data. The data will be stored at a secure server of the lead university, Karolinska Institute.

**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>              | protocol                      | 26/08/2020   | 03/09/2020 | Yes            | No              |
| <a href="#">Other publications</a>            | Qualitative results           | 25/06/2024   | 30/01/2025 | Yes            | No              |
| <a href="#">Participant information sheet</a> | Participant information sheet | 11/11/2025   | 11/11/2025 | No             | Yes             |