

Improving self-management of health through an eHealth application

An action-based study among older adults living in the community

Margot Jager

Maarten Lahr, Sophie Spoorenberg, Erik Buskens, Klaske Wynia

Background

- Older adults living at home benefit from self-management support to stay healthy for as long as possible.
- An eHealth application could be a solution to meet older adults' individual supportive needs.
- The aim of this study was to identify quality criteria for eHealth applications targeting personalized access to self-management support of health from a community-living older adult's perspective.
- The study is conducted as part of the EU-supported CONNECARE research and the NFU program eHealth.



NEDERLANDSE FEDERATIE VAN UMC'S
E-HEALTH





Staying healthy: Physical activity



gesinus.hemmes@gmail.com

gesinus.hemmes@gmail.com



Staying Healthy: Nutrition



Staying Healthy: social contacts



Older adults and ICT

Main concerns concerning the participants:

- Relatively low literacy, high level of computer illiteracy and decreasing learnability due to the ageing process.
- Question: (when) are older adults willing and able to use ICT-tools?



Methods

Development and evaluation of a self-management application in three steps

Step 1: older adults' perspectives

- Focus group discussions (robust older adults)
- Individual interviews and app testing (robust older adults)
- Questionnaire (robust, frail and complex care needs)

Step 2: health professional perspective (general practitioners, elderly care physicians, district nurses, social workers)

- Questionnaire
- Individual interviews

Step 3: evaluation study amongst older adults with asthma/ COPD

Older adults' perspective

focus group discussions



Participants:

- Two groups (rural/urban) that met twice
- Robust older adults (n = 8 and n = 4)
- Eight men and four women. Age: 76 – 85 years
- Living in a small village (n=8) and small town (n=4)
- Using internet (n=12), on a daily basis (n=11)
- Mobile phone (n=8), PC (n=7), Tablet (n=6), Laptop (n=4)
- For: finding information (n=11), E-mail (n=11), banking (n=8), photo's (n=6)

Topic of the first meeting:

Perspectives on self-management of health, i.e. physical activity, nutrition, social contacts

Topic of the second meeting:

Self-management of health through ICT-applications

Quality criteria (1)

Accessibility:

- no difficult login systems: registration and login should speak for itself.
- Simple and self-evident operation: explanations should not be necessary.
- Appealing name for the application (no English)

Important functionalities:

- The possibility of printing data.
- To get feedback after filling out questionnaires.
- Possibility to navigate through an online questionnaire while filling it in.
- Contact with others: chat feature.
- Contact with health care providers: chat feature.
- Popup notifications when something new happens (but: decide for yourself if you want this)

Navigation:

- Clear home page to start easy navigation with a clear home button
- Menu should always stay visible in the screen and should not be minimized during scrolling or navigating

Quality criteria (2)

Readability:

- Possibility to adapting the font size.
- Clear menu buttons with clear names related to the readability and shaky hands.
- Menu buttons in clear colors stimulate older adults' recognition, more than text or menu icons
- Relevant information: personalized.
- Summary information.
- Avoid scrolling
- Understandable, clear language in health providers' messages (no medical jargon)

Trust and privacy:

- To have control on who has access to data.
- Provide clear feedback on what is happening with data ('your message has been sent, you will receive an answer within 10 minutes')
- Phone numbers for 'If we have any questions'.
- A clear 'log out' button increases trust.

Motivators

Working on health with others:

- Using an app on the level of the neighborhood.
- Contacting others

When there is a clear goal:

- A medical necessity

Older adults' perspective



Phase 2

- Individual interviews and app testing
 - Robust older adults (n = 3)
 - A second version of the application was developed
 - Robust older adults (n = 4) and Asthma/ COPD patients (n = ?)
 - A third version of the application was developed
- Video's of older adults working with the prototype of the application
 - An example

Process evaluation after two phases

- Older adults have great difficulty working with the application
- Development of the application cannot enough be adapted to the specific needs of older adults due to:
 - Multiple partners that should work with the app: European project, different target groups (mainly hospital-based and aimed at professionals)
 - Difficulty in communication between clinical and technical partners
- Consequence: we decided to quit this project and not to perform the third phase of app evaluation among 40 community-living older adults.

Phase 3

- Evaluation research amongst older adults with asthma/ COPD
- Additional data collection to identify quality criteria for a Personal Health Record aimed at community-living older adults:
 1. Questionnaire to identify needs and preferences:
 - a. Based on results of phase 1 and 2

