Do scenario-based online interviews promote a change in attitudes towards assistive systems among relatives of people with dementia?

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Background

Demographic change, with an increasing proportion of people with cognitive impairments who need a high level of care, increasingly requires support through technical assistive systems. The use of assistive systems should enable the people concerned to maintain a high degree of autonomy for as long as possible. Technology development and demographic aging drive transformations of dementia care that require an explicit discourse on a range of ethical and social issues: supporting and valuing family care vs. institutional care, identifying resources and aims in the professional care sector, and acceptance vs. non-acceptance of assistive technologies in care for older people [1, 2, 3, 4]. Technologies to automatically monitor activity and behavior of people with dementia (PwD) have the potential to support independent living, detect or predict upcoming problems and crises, relieve caregiver burden, and increase the overall quality and cost-efficiency of dementia care. Little is known about the sensible design of such systems. The integration of PwD into scientific studies raises a number of ethical, legal and practical issues. In the current study, we therefore decided to focus in the interviews primarily, but not exclusively, on the relatives of PwD.

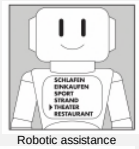
Aim

Aim of the present study is to identy attitudes towards technology in dementia care. With our methodological approach, we mainly wanted to find out how technical assistive systems can be designed regarding practical issues with the help of demonstrators after identifying first impressions regarding moral attitudes towards assistive systems in dementia care.

Methods

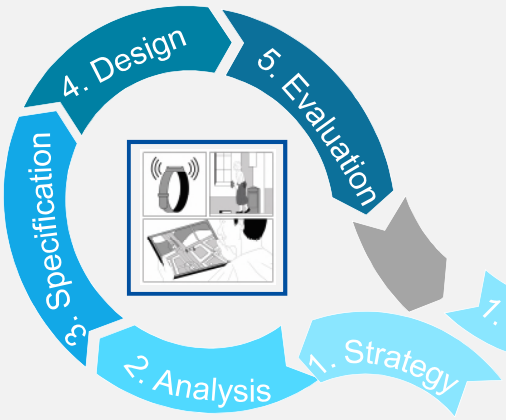
Pictogram (EiM)

GPS tracking



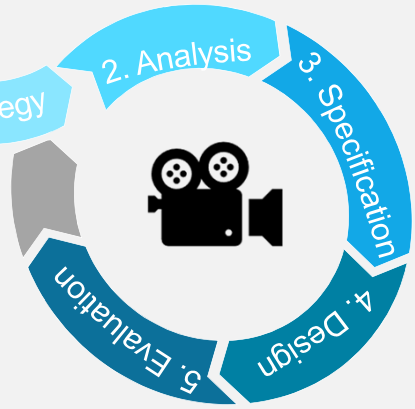
Robotic assistance

Emotion recognition

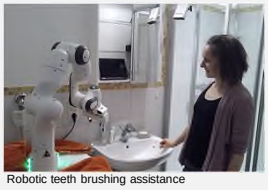


Firstly, the group “EiM” conducted 27 semi-structured interviews with PwD (n=12) and their relatives (n=15), to ascertain general and moral attitudes towards technical assistive systems. Then, the group “AMT” conducted semi-structured interviews with relatives of PwD. Technologies in dementia care were presented to the interviewees. For the presentation, the interview partners were shown a total of three short films explaining the technologies in use. In the films, the functionality of the technologies was shown using the example of an actress re-enacting a real situation (Robotino with communication tool, Button “all off”, and teeth brushing assistant). After each short film, the interviewees were asked about affinity for technology, autonomy, security and privacy of technology-assisted dementia care. All interviews were transcribed and subjected to a qualitative content analysis using the MAXQDA 2022 software.

Demonstrator & Video (AMT)



Buttom „All-off“ with environmetal GPS tracking



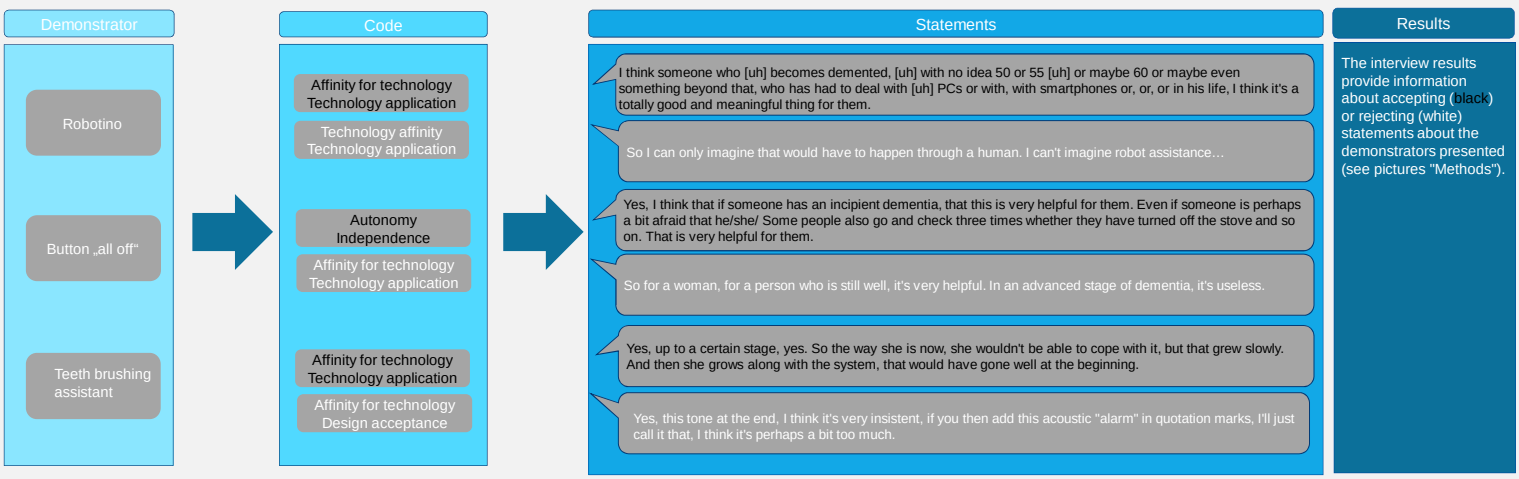
Robotic teeth brushing assistance

Robotino with communiction tool and emotion recognition

Conclusion

- A discussion was conducted with relatives of people with dementia regarding their attitudes towards technical assistive systems with the help of videos. Those showed demonstrators of ideas which support is possible and identified initial hints for potential designs.
- All interviewees were able to make (positive or negative) statements about the functionality of the assistive systems shown for the care situation of people with dementia.
- Most interviewees were able to provide specific suggestions for the design and/or additional functionalities of assistive systems if they rejected the current design.

Results



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