



*Aging & Chronic Diseases*

## **Robot deployment in long-term care for elderly**

Can robots be implemented in long-term care for elderly with cognitive impairment?

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The aging of the population increases pressure on healthcare systems to provide care that is both affordable and meets the needs of elderly. Integrating information technology holds promise in supporting caregiving processes, such as providing medication reminders or encouraging elderly to participate in preventative therapy. While assistive technology for elderly has made big advancements in the last few years, there are a number of challenges when implementing technology into the field.

This study describes the opportunities and challenges of implementing a robot in a long-term care facility for elderly with dementia and cognitive impairment. The robot was implemented for 1 month, to assist with pacesetting during indoor Nordic walking groups. Before, during and after this period, the experiences of caregivers and patients with the robot companion were monitored. Feedback showed that the robot had a positive influence on the participation of the elderly, group coherence, motivation and the atmosphere of the group. The most important challenges were the navigation of the robot around humans and the suitability of the interaction design for different needs of patients and caregivers.



This study shows promising results for the implementation of a robot in long-term care for elderly with cognitive impairment. However, challenges such as the navigation of the robot around humans and the suitability of the interaction design for varying needs of caregivers and patients need to be addressed.

You can find more information about this research project on its [website!](#)

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