

Application Fields and Innovative Technologies

Homecare upgraded: understanding implementation of active assisted living in older adult care provision G. Bin Noon, I. Modebelu, R. Al-Saghier, F. Manning, S. Akhtarian, J. Teague, P.P. Morita. *Gerontechnology* 25(s)

Purpose Active Assisted Living (AAL) technologies encompass a wide range of internet-connected consumer devices that can support quality of life, independence, and healthier living, with functions such as lifestyle monitoring, home automation, and Activities of Daily Living support [1]. In recent years, AAL has been increasingly explored as a means to mitigate the gap between the needs of the care recipient population, particularly older adults, and the availability of care providers [2,3]. Older adults are a growing population group in Canada, and many members of this group strongly prefer to remain in their home environments and out of institutionalized settings for as long as possible [4]. AAL can support this by extending the capabilities of the care team, giving more relevant, data-informed insights on the care recipients' health and providing support while reducing the need for travel by either party [1,5]. However, past research has found that while there is interest among care recipients and care providers to explore the integration of AAL, questions remain surrounding its practical implementation and what it would demand of an already stretched care workforce [5]. The objective of this work is to understand how AAL can be used in older adult care, and the implications for care practice. **Method** A scoping review was performed to understand the perspectives and experiences of care providers working with AAL and smart systems in older adult care provision, including relevant lessons learned. This was followed by a Delphi study targeting key clinician and allied health experts in care provision, including doctors, nurses, social workers, and occupational therapists, and optional clarifying interviews for interested participants to expand on their answers. **Results and Discussion** Both the literature and the Delphi study indicated that there are several key opportunity areas to integrate AAL-derived information into the workflows of different professional types in older adult care, for a range of purposes such as activities of daily living monitoring, sleep monitoring, fall detection, and medication tracking. However, there remain concerns about how to accommodate the new roles of care providers, whether AAL and similar technology solutions are appropriately specific, how effectively privacy is protected, and whether these systems are more of a hindrance than a help. AAL systems have the potential to support care providers in making older adult care more personalized and efficient, but significant challenges remain in making scalable AAL implementation possible. To ensure AAL implementations are effective, it is crucial to consider technology's place within the broader context of care provision, and to ensure that future AAL product and environment co-design approaches can effectively critically examine AAL's place in a largely human-driven care system.

References

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Affiliation: School of Public Health Sciences, University of Waterloo, Canada

Email: gbinnoon@uwaterloo.ca

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