PAPER

Technology for Health

A. BOURBONNAIS, J. ROUSSEAU, M.H. LALONDE, J. MEUNIER, N. LAPIERRE, M.P. GAGNON, D. TRUDEAU. What to consider when developing gerontechnologies for nursing homes? The perceptions of potential users. Gerontechnology 2018;17(Suppl):127s; https://doi.org/10.4017/gt.2018.17.s.123.00 Purpose In nursing homes, 60 to 90% of residents are older people living with Alzheimer's disease or a related disorder (ADRD)¹. Two of their most frequent problems are behavioral symptoms and falls^{1,2}. A mobile application (app) and an intelligent video monitoring system (IVS) could be innovative solutions to help family and formal caregivers manage these problems. However, nursing homes have unique characteristics that often include limited resources and complex care³. Few technologies have been developed or studied specifically for this context. Thus, our purpose was to explore the perceptions and needs of potential users of gerontechnologies in nursing homes using an app and an IVS as examples (Figure 1 & 2). Method We used an exploratory qualitative study with a maximum variation sampling to include different profiles of openness to innovation (innovators, early adopters, early majority, late majority or laggards)⁴. We recruited twenty participants from 4 nursing homes: 3 family caregivers of older people with ADRD, 9 care managers and 8 formal caregivers (nurses, nurses' aides, licensed practical nurses). We collected data with semi-structured individual interviews and a research journal. During each interview, we presented participants with an example of the app and of the IVS, followed by flexible questions. We analyzed data with a conventional contentanalysis⁵. Results & **Discussion** All types of participants shared the perceptions that these two technologies would be relevant in nursing homes to improve quality, effectiveness and safety of care. They highlighted the features to consider when developing technologies useful to improve care. These technologies must be user-friendly and scalable to various nursing homes, types of users, behaviors and devices. The participants also pointed out some preconceived ideas about the interest and capacity of users toward technologies. For example, contrary to what care managers expected, family caregivers and nurses' aides have shown a strong interest in using technologies. Based on these results, useful technologies could be developed to improve the quality of clinical practices in nursing homes. This could facilitate their adoption by potential users.

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Figure 1. Sample image from IVS



Figure 2. Sample App