

## Technology for Health

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**Purpose** In recent years, we have experienced increased population longevity due to successful advancements in the health care system. However, longevity also poses new challenges with respect to maintaining health and functional capacity through old age especially in the current context of scarce human and financial medical resources<sup>1</sup>. As such, it becomes essential to find innovative ways to support independence in later years so that older adults can age in place as they desire<sup>2,3</sup>. Gerontechnology, an interdisciplinary field whose objective is to develop technological products that cater specifically to the maintenance of independence, social participation, and the quality of life needs of the elderly<sup>4</sup>, offers the potential to assist occupational therapists (OTs) in supporting home care. However, to our knowledge, no study has investigated which factors influence their use of gerontechnologies.

**Method** A Canada-wide online survey to investigate OT clinical practices specific to the use of technology was conducted. The survey included demographic questions and questions about technology use. Provincial and territorial professional OT organizations were contacted to invite their members to complete the short survey, available in both English and French. Descriptive statistics and chi-square analyses were done to describe clinical practices and identify which factors are associated with the use of gerontechnology.

**Results & Discussion** There were 874 respondents to the survey and 681 full completions. Among those, 387 reported working with geriatric clientele. Of those, 46% reported being familiar with gerontechnology but only 13% reported using it in practice. This highlights that being familiar with gerontechnology is not sufficient to drive its use in clinical practice. Notably, as opposed to OTs working with a pediatric, adult or mixed clientele, OTs with only a geriatric clientele were the least familiar with, and users of, technology. The OTs familiar with gerontechnologies mainly consisted of females (89%). 38% percent were aged between 24-34 years old, 32% between 35-45 years old and 30% were over the age of 45. Moreover, 54% have completed a bachelor degree as their highest level of education and 59% have over 10 years of clinical experience. Among the users, 98% reported using at least one technology addressing disability with communication in clinical practice and 83% using at least one technology addressing disability related to cognition. More specifically, within those to support communication, the most common was text to speech applications (35%) for websites on computers, tablets or smartphones. Within those for cognition, the most common was applications on tablets or smartphones for cognitive stimulation or "reminders"/"calendar" applications (48% respectively). Finally, age and clinical experience are factors associated with usage of technology in practice and findings also support that there are differences in client services offered, work environments, and client conditions being treated, between users and non-users. As such, formulating recommendations for increase in use of gerontechnology in practice can be addressed on multiple levels.

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