Application Fields and Innovative Technologies

Identifying Key Implementation Factors Regarding the Introduction of New Technologies in Older Adult Care Settings S.L. Hitzig, S. Mirbaha, N. Puddicombe, A. Winston, K.M. Kokorelias, C.L. Sheppard. *Gerontechnology* 25(s)

Purpose Despite the promise of technology for older adults living in congregate settings (CLS; e.g., long-term care [LTC], retirement homes, etc.), there are a number of barriers to its adoption (e.g., poor infrastructure, physical challenges or attitudinal barriers, system-level issues, etc.; Jutai et al., 2024; MacNeil et al., 2019). Implementation science frameworks (ISF; Damschroder et al., 2009) identifies factors that hinder or facilitate the introduction of an intervention (Jutai et al., 2024), but there remains limited evidence on how ISF can be used to guide technology adoption in older adult CLS. The present study used an ISF to describe how an AgeTech Implementation Response (AIR) Program supported the implementation of different technologies across various CLS for older adults. **Method** The AIR Program was introduced by AGE-WELL NCE (Canada's Technology and Aging Network) to support the implementation of new technologies, which consisted of an Implementation Specialist (IS) who worked with technology vendors and CLS staff as they introduced and piloted new technologies. Six sites were approached to participate in the program: two privately managed retirement homes (Toronto [Site A] and Halifax [Site B]), a municipally operated LTC home (Toronto; [Site C], two independent not-for-profit LTC/retirement sites (Toronto [Site D] and Ottawa [Site E]), and one community-based not-for-profit agency [Site F] (Toronto and surrounding areas in Ontario). A convenience sample of key interest groups (vendors, site staff, older adults, family members, AIR Program team) participated in qualitative interviews regarding their experiences of implementing and/or using different technologies except from Site D which declined participation in the AIR program. The Consolidated Framework for Implementation Research (CFIR; Damschroder et al. 2009) was used to inform the interview guides and to deductively code the transcripts. **Results and Discussion** Thirty-three individuals across all the sites participated, which included six vendors, five older adult residents, 20 site staff (decision-makers, frontline staff), and two IS. Of the six participating sites, three trialed a technology (*Site A* = a technology-enhanced physical activity device [Centavizer™]; *Site B* = a health and safety monitoring system [Tenera Care™]; *Site C* = the Centavizer™ and a communication and entertainment device [FamliNet™]). Key considerations identified across all sites trialing the technology were buy-in from all groups (i.e., staff, older adults, decision-makers, etc.), and participants' belief that the technology would meet a care need. Participants viewed the AIR Program favorably, and valued the support by the IS because of ease of access and the IS' willingness to support solutions to challenges; thereby fostering high levels of trust with the IS by key interest groups. The insights yielded from this study suggest the AIR Program addressed many of the barriers and facilitators of technology adoption by helping sites determine if a particular technology would be a good fit, and that the presence of a 'champion' (i.e., the IS) facilitated the introduction and uptake of technologies. Framing the insights within an implementation science framework highlights critical structural and process-related factors that other older adults CLS organizations across Canada and internationally can refer to in their future decision-making with regard to technology adoption.

References

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