

PAPER

Video Games and Virtual Reality

A.M. HERNANDEZ, M. STEELE, P. LOGANATHAN, A.J. ASTELL. *InTouch: Introducing touchscreen applications to people with advanced dementia through staff-client co-play*. *Gerontechnology* 2018;17(Suppl):148s; <https://doi.org/10.4017/gt.2018.17.s.144.00> **Purpose** Recent research has demonstrated that touchscreen technology provides an accessible and engaging source of leisure activity for people in the earlier stages of dementia or MCI, who can play games independently^{1,2,3}. However, the potential of touchscreen technology as engagement at more advanced stages of dementia is underexplored. The purpose of this study was to evaluate the application of touchscreen games for enhancing staff-client engagement for individuals with advanced dementia. **Method** Eight individuals with advanced dementia (6-CIT=28) and four nursing staff members, recruited from a specialized geriatric dementia unit, took part over 4 months. Four games were selected, using a game evaluation framework⁴, for staff to offer to the clients. Staff selected two clients each to play with and co-played on 3 occasions. Staff engagement, client engagement, enjoyment, and social interaction, including turn-taking were measured by analyzing face-view and screen-view video recordings using Observer™. We also qualitatively analyzed the themes that emerged during the post-play interviews to evaluate facilitators and barriers identified by staff (Figure 1). **Results & Discussion** All participants showed signs of engagement and enjoyment in the majority of sessions. Various forms of social interaction were exhibited during gameplay, including eye contact and the use of social touch by both staff and clients. Additionally, turn-taking behaviour was exhibited in 50% of the sessions. Touchscreen games can facilitate an opportunity for meaningful staff-client engagement in advanced dementia care and can provide an opportunity for social interaction between clients and staff.

References

1. Jodrell P, Astell AJ. Studies Involving People with Dementia and Touchscreen Technology: A Literature Review. *JMIR Rehabilitation Assistance Technology*. 2016;(3)2:e10
2. Astell AJ. Technology and fun for a happy old age. In: A. Sixsmith, G. Gutman (Eds) *Technology for Active Aging*. ISBN: 897-1-4419-8347-3. Astell AJ, Jodrell P, Groenewoud H, de Lange J, Goumans M, Cordia A, Schikhof Y. Does familiarity affect the enjoyment of touchscreen games for people with dementia? *International Journal of Medical Informatics*. 2016;(91)1:e1-e8. <https://doi.org/10.1016/j.ijmedinf.2016.02.001>
3. Jodrell P, Astell AJ, Hernandez AM. Identifying existing, accessible touchscreen games for people living with dementia. *ICCHP, Part 1, LNCS*. 2016;9758:509–514

Keywords: Dementia care, co-play, games, touchscreen, engagement, social interactions

Address: Research & Academics Department, Ontario Shores Centre for Mental Health Sciences, Whitby, ON, Canada;

E: hernandeza@ontarioshores.ca



Figure 1. A nursing staff member supporting a client to play tablet games