

## POSTER

### Health and Self-Esteem

F. MONTALVO, M. DABYDEEN, V.N. PINEDA, E.L. PARKHURST, J.R. MICHAELIST, D.S. MCCONNELL, D. GAMMONLEY, J.A. SMITHER. *Virtual agents as social companions: explorations of social presence. Gerontechnology 2018;17(Suppl):167s; <https://doi.org/10.4017/gt.2018.17.s.162.00>* **Purpose** Intelligent personal assistants (IPA), such as Amazon's Alexa, are becoming more prevalent in households as smart speaker and personal robot use increases. With prevalence rates for loneliness and social isolation increasing among older adults<sup>1,2</sup>, finding alternatives to human-human interaction (HHI) that provide social benefits is important. Although human to human contact is the ideal solution to loneliness situations, other social agents, such as pets, have been shown to provide significant relief from subjective feelings of isolation<sup>3</sup>. Advances in IPA technology provide a platform which could mimic elements of HHI and provide a low-cost, social agent capable of low-level social interaction. For a virtual agent to provide companionship, an examination of its social presence, a user's perception that another social agent is present<sup>4</sup>, must be undertaken. The present study examines the social presence of an IPA. **Method** 42 participants (ages 52-87) interacted with an Amazon Echo for a total of 25 minutes. The interactions consisted of both social (i.e. "How are you doing?") and non-social (i.e. "What is the temperature right now?" queries. Depending on the condition, participants could either see the device or had the device hidden from view. Participants completed a series of surveys<sup>5,6</sup> pertaining to multiple dimensions of social presence, their perceptions of the IPA as a social agent, and its acceptability as a social companion. **Results & Discussion** Participants indicated that the IPA had moderate levels of social presence, with social presence declining as age of participants increased. Considering the different dimensions of social presence, social presence was negatively affected by a perceived lack of emotional exchange with the agent, as well as problems with human to agent comprehension. Although a third of participants felt the agent could serve as a social companion, the number decreased to nearly 13% if participants could see the device and referred to it by personal name. Results indicate that IPAs need improved speech recognition, conversation fluidity, and conveyance of emotion to improve social presence in older populations.

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