

POSTER PRESENTATION 1: HOUSING AND DAILY LIVING

Digital Reminders for Everyday Activity Memory (DREAM): Initial results from a needs assessment study

E. C. Sanders, S. Zhang, W. R. Boot

Purpose Prospective memory, the ability to remember to execute an intention in the future, is crucial for the performance of many everyday tasks important for independent living (Beaver & Schmitter-Edgecombe, 2017). Age-related changes can result in prospective memory failures (Kliegel et al., 2016), and these failures can be even greater for individuals with cognitive impairments due to mild cognitive impairment (MCI), traumatic brain injury (TBI), and stroke (Schmitter-Edgecombe et al., 2009; Wong Gonzalez & Buchanan, 2019). Prospective memory failures are associated with worsening health, financial hardship, social withdrawal, and isolation. Prospective memory impairments are frustrating, both for the older adult living with cognitive impairment and their care partners (Smith et al., 2000). The first goal of the Digital Reminders for Everyday Activity Memory (DREAM) project is to establish proof of concept for an adaptive cognitive aid to support the prospective memory of older adults with various cognitive impairments. To this end, needs assessment activities were conducted to establish the most common and significant prospective memory challenges faced by older adults with cognitive impairment. **Method** Fourteen cognitively impaired older adults (target $n = 18$) and six caregivers (target $n = 18$) participated in structured interviews regarding prospective memory issues across several domains of instrumental activities of daily living (IADLs) and enhanced activities of daily living (EADLs), and preferences for how technology might support these activities. Activity domains included relationship and social activities, healthcare activities, transportation activities, shopping, household activities, and financial activities. Interviews were transcribed and content analyses were performed. Transcriptions were coded for the activity domain in which prospective memory challenges were reported and the types of strategies used by participants to combat those challenges. **Results and Discussion** 71% of participants reported at least one frequent prospective memory problem. Notably, participants may be underreporting prospective memory problems due to others (i.e., care partners) performing certain tasks for them. The reported prospective memory challenges were idiosyncratic, sometimes affecting only one IADL domain. Further, initial trends indicate that participants with TBI may be more susceptible to prospective memory challenges compared to participants with MCI and post-stroke cognitive impairment (PSCI). Strategies used by participants to combat prospective memory challenges fell into three categories: analog, digital, and social. Preliminary results confirm the need for a tailored prospective memory support system for older adults with cognitive impairment and will guide the prototype development of an adaptive cognitive aid for this population.

References

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Address: Department of Psychology, Florida State University, US

Email: sanders@psy.fsu.edu

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