Rapid Field Testing of Tablet Computers with Older Adults.
Kunal Bodke, Rehab Tambe, Richard J. Holden, Robert Skipworth Comer

School of Informatics and Computing
Indiana University - Purdue University, Indianapolis

Many older adults experience depressive symptoms or suffer severe mental illnesses such as dementia. "Project T" was created within the eHealth division of an Eskenazi Health aging brain center as a pilot of rapid translational field research on health information technology for older adults with mental health needs.

The purpose of Project T was to understand whether and how older adults in the Eskenazi Aging Brain Care (ABC) program are willing and able to use a tablet device and specific applications ("apps") and functions: video call, self-report surveys, and games. We also tested: 1) the level of instruction, prompting, and demonstration required for participants to perform tablet tasks; and 2) variability in tablet use with age, medical condition, perceived likelihood of tablet acceptance, and assistance from an informal caregiver (e.g., family member).

We developed and deployed a field usability test in the Eskenazi ABC patient population. The test assessed completion speed and accuracy, user response to the tablet, difficulties encountered by users, and usability of specific features of the hardware and software.

Patients and, when applicable, informal caregivers, were exposed to the tablet in their home or clinic waiting room, in the presence of a clinician and eHealth researchers. The researchers were provided scripted instructions and prompts to guide participants. Researchers recorded both qualitative and quantitative observations.

Thirteen participants (eight males, five females) performed the test. On an average 63% used the tablet with instructions and a few required demonstrations. Except one, all participants showed interest in using the tablet.

Findings offer directions for designing mobile technologies to support professional, informal, and self-care among older adults with mental health needs.