In the coming decades, greater numbers of people will either have Alzheimer’s Disease or a related dementia or will take care of a family member with dementia. The dementia syndromes are associated with increased risk of medical, social, and behavioral complications in both the person with dementia (PWD) and the caregiver (CG), many of which are preventable. These complications, and the dementia itself, can impede access to care and ultimately hasten residential care placement, which can be both undesirable and costly. A nearly universal unmet need in PWD/CG dyads is dementia-specific education. Therefore, it is vital we find ways to support and provide education to CG/PWD dyads to manage dementia in the community and home setting. MIND at Home is a dementia-care model developed and tested at Johns Hopkins University School of Medicine to minimize dementia complications and delay institutionalization by training non-clinical Memory Care Coordinators (MCCs) working under clinical supervision to support and guide PWD/CG dyads in the community. MCCs collaborate with CGs and PWDs in the community using an individualized care plan structured around the dyads’ specific dementia-related needs. This presentation will describe how the MIND at Home team used handheld tablets to connect MCCs to clinicians from participants’ homes, and will report on challenges encountered, strategies to address them, and participant and caregiver satisfaction with the telehealth experience.

**USABILITY AND FEATURE EVALUATION OF THE AMAZFIT BIPS SMART WATCH IN THE PRECISION START LAB**

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Interventions utilizing consumer-grade wearable and mobile devices may support older adult health and wellness. However, rapid technology change and short industry product release cycles limit timely incorporation of these devices. We developed a novel, multi-stage process to rapidly move from within-team evaluations to lab- and field-based participants studies based on small-sample technology testing methods from Human-Computer Interaction. We present findings from a first-stage evaluation of the Amazfit Bips smart watch for potential use in studies with older adults as part of the methodology validation. A four-person research team conducted evaluations using: 1) a wearables framework for user experience and feature availability; and 2) the System Usability Scale (SUS). Evaluators wore the watch seven days straight from the box. User experience checklists indicated high usability. However, corresponding comments identified challenges with downloading the mobile app, pairing the watch and phone, navigating watch and mobile interfaces, and privacy controls. Average SUS score was 65.6 indicating marginal usability (C grade). While meeting study goals, divergence in usability perceptions suggest the process could be improved by completing each set of instruments separately for the watch and mobile app rather than all at once. Given failures in pairing, app navigation challenges, and small screen size, the Amazfit Bips may be best suited for studies among older adults with a high degree of technical proficiency. For those with little technical experience or high disease burden, training materials and dedicated training with support may be required. Future steps are lab- and field-based tests with older adult participants.

**USABLE AND PRIVACY-ENHANCED TELEPRESENCE ROBOTS FOR OLDER ADULTS AGING IN PLACE**

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Aging population is growing rapidly in the United States and people are living longer. Maintaining health and wellness while aging-in-place is crucial for older adults. Telepresence technology is beneficial for this target population to stay socially connected, as well as utilize telehealth and telemedicine services. However, such technology was not specifically designed for older adults. For older users to adopt telepresence, it is important to ensure that they do not experience adoption barriers, such as issues with usability and privacy. This research used a user-centered evaluation to design, develop, and test telepresence user interfaces (UI). Thirty older adults (aged 60+) participated in a within-subjects evaluation of two telepresence UIs: 1) the controlled condition - a generic UI, called Presence, based on currently available telepresence systems; and 2) the experiment condition - an enhanced custom telepresence UI that was designed follow human factors and design principles for older adults, named InTouch. Participants tested both UIs in a virtual home environment developed in Unity. Qualitative and quantitative results suggest that older adults perceived the experiment condition – InTouch, to be more usable and private – and our older users provided insight on which usability and privacy features were critical for them. By investigating the design of telepresence for older users, and applying those findings to design recommendations, we aim to improve the ease of use and privacy level of telepresence— not only for our target users but for all users who wish to enhance social connectedness and utilize telehealth.

**USE OF GPS TRACKING TECHNOLOGY TO MEASURE MOBILITY IN OLDER ADULTS: A SYSTEMATIC REVIEW**

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Global positioning system (GPS) tracking technology is increasingly used in aging research to objectively measure the spatial and temporal aspects of mobility in older adults. The review aims to systematically synthesize the literature to identify GPS-driven mobility measures and potential determinants of mobility limitation for community-dwelling older adults. A systematic search of six electronic databases was conducted. A total of 4897 articles were found with 2578 left to review after deduplication. Twenty-five studies met inclusion criteria: 24 cross-sectional studies and one...
follow-up study that measured mobility changes over time. Various types of GPS devices were used, including smartphones, GPS watches, or portable data logging kits. The GPS tracking period ranged from 1 to 30 days. The daily device wear time varied from 10 to 24 hours. Commonly reported GPS-based mobility measures included time out of home, distance moved, the number of out-of-home trips or walking tracts, the number of visited places, life-space area, and walking speed. Twenty-one studies reported some aspects of demographic, physical, psychosocial, or environmental factors related to the levels of GPS-based mobility. GPS tracking technology can continuously record individuals’ activities and functional abilities within their life space. We found that there was heterogeneity in ways of applying GPS technology and defining and measuring mobility in community-dwelling older adults. Given the lack of consistency in GPS-based mobility assessment, a clear definition of mobility and standardization of GPS data collection and analysis are required for comparison across studies and better understanding determinants of mobility limitation in community-dwelling older adults.

USE OF VIDEO-ENABLED TABLET FOR VIRTUAL CARE AMONG OLDER VETERANS

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With the proliferation of virtual care, healthcare systems are exploring ways to bridge the digital divide among vulnerable patients. Department of Veterans Affairs (VA) is distributing devices for qualifying Veterans to enable video visits with medical providers at home, yet their use among older patients is unknown. This retrospective cohort study used administrative data to characterize the use of VA-loaned iPads among older Veterans compared to younger Veterans and identify demographic predictors of utilization. Among 16,385 patients who were shipped a VA-loaned iPad in 2014-2019, 33.66% (n=5,516) were over 65 years old, and 3.1% (n=503) were over the age of 85. Two thirds (n=6799) of younger patients had a video visit (mean=3 visits) with provider using iPad in the 6 months since shipment, compared to 50% (n=253) of 85+ year-olds (mean=1.8 visits). Most common types of virtual visits for the oldest old patients were for geriatrics or home-based primary care, compared to mental health visits among younger patients. Logistic regression identified characteristics of older patients who were more likely to use iPads, such as a marital status, urban location, and lower disease burden, which is similar to their younger counterparts. While older age groups used VA-loaned tablets less frequently, those who engaged with the devices were similar in demographics as their younger counterparts. Older patients used iPads differently, with higher engagement in geriatric and primary care services. Providing devices for virtual care may allow health systems to more easily reach older patients in the comfort of their home.

USING WEARABLE SENSORS TO REMOTELY EVALUATE PROGRESS ON GOALS SET BY PATIENTS WITH DEMENTIA

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Patient Priorities Care (PPC) is a communication framework designed to facilitate priorities-based conversations between clinicians and older adults with multiple chronic conditions. PPC focuses on collaboratively setting specific and measurable goals based on what matters most, and patients often set goals involving physical activity. Measuring goal achievement for patients with dementia is difficult because they often struggle to report activity accurately. In this pilot study, we assessed the feasibility of using a wearable sensor to evaluate patient-defined goal achievement. The wearable sensor measured daily mobility and sleep performance, including length of walking bouts, time sitting, postural transitions, and sleep duration. Patients wore pendant sensors for 48 hours at baseline (before PPC conversations) and 3-6 month follow-up. We present a case in which remote monitoring exhibited evidence of goal achievement and another case in which monitoring exhibited failure to achieve a goal. In the former, the patient set a goal of walking his dogs daily. At baseline, mobility performance suggested that he was not engaged in this activity. At follow-up, in contrast, all parameters showed accomplishment of the patient’s goal. In the latter case, the patient set a goal of maintaining his habit of walking a mile per day. At follow-up, sensor measures showed that the patient was not making progress on this goal. Conclusion: Remote monitoring using wearable sensors can provide objective information about goal achievement for patients with dementia. Sensor measurement can assist clinicians in evaluating goal achievement for patients with dementia and adjusting care based on these measures.

VIRTUAL REALITY BASED INTERVENTIONS AMONG PEOPLE WITH DEMENTIA: APPLICATIONS AND HEALTH-RELATED OUTCOMES

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The use of virtual reality (VR) technology to improve health among older adults has been receiving increased attention. VR technology has many applications and can produce benefits for people with various medical conditions such as symptom reduction or improving the diagnostic process. Despite the increase in the number of research studies of VR technology, little is known about how it has been used to improve health-related outcomes among people with dementia. This systematic review aimed to synthesize research evidence regarding the scope and impact of VR-based interventions among people with dementia. Five databases, CINAHL, Embase, PsychINFO, PdMed, and Web of Science were searched to identify studies leveraging VR to facilitate interventions designed for people with dementia. Multiple keywords were used in combination including: dementia, Alzheimer’s, VR, virtual reality, and Virtual Reality