Mishandling medications is commonly seen in persons with dementia, which can lead to poor treatment outcome and serious complications. Whether individuals with cognitive impairment can appropriately manage dental-related medication remains unknown, raising a liability concern for dentists who fail to recognize the patients at risk for mishandling their medications. To address this concern, we conducted a study with 51 participants with various cognitive impairment to describe their ability to handle dental-related medications. After cognitive assessment, participants were asked to set up an antibiotics pill-box and use a mouthwash as instructed, and their performance were scored. Number and type of prompts given to facilitate task completion were also documented. Mishandling of dental-related medications was common in participants with cognitive impairment. As expected, participants with poor cognition needed more assistance on handling their medications. Dentists should be aware of this concern and take it into consideration when treatment plan for these individuals. Part of a symposium sponsored by the Oral Health Interest Group.

SESSION 7235 (SYMPOSIUM)

TECHNOLOGY-BASED APPLICATIONS FOR THE ASSESSMENT AND MANAGEMENT OF ALZHEIMER'S DISEASE AND RELATED DISORDERS

Chair: Lauren Massimo
Discussant: George Demiris

Over the last decade, technological advances have made it possible for people to access health information right at their fingertips. Indeed, technology-based applications (apps) have been developed to tackle a wide range of health-related issues, including Alzheimer's disease and related disorders (ADRD). As such, there is a critical need to develop and test effective dementia apps that can ultimately be converted in to scalable programs. In this interdisciplinary symposium, we will discuss the development and testing of novel apps for the assessment and management of ADRD. The first session will discuss the development of an online money management credit card task to assess cognitively vulnerable older adults who are at risk for making poor financial decisions. The second session will describe the development and psychometric testing properties of a mobile app to detect the earliest features of preclinical Alzheimer's disease. The third session will highlight findings from a study testing a smartphone-based prompting app to improve everyday task completion in persons with mild cognitive impairment and mild dementia. The last session will share findings from a study testing a mobile app to increase goal-directed behavior and reduce apathy in persons with dementia. Together, these presentations describe how technology-based applications can be used to assess and manage cognitive and behavioral symptoms of ADRD.

DEVELOPMENT OF THE ONLINE MONEY MANAGEMENT CREDIT CARD TASK

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Older adults (OAs), a wealthy but vulnerable segment of our population, are at risk to make compromised financial decisions. Evidence suggests that OAs increasingly use technology to perform everyday financial transactions, such as to manage their credit card statements. However, current tools are lacking in terms of assessing how older adults navigate and handle the online financial milieu. We will discuss the development of a novel, simulated online money management (OMM) credit card statement task. OMM examines OAs performance on several indices including reaction time, nature and frequency of errors, and their ability to comprehend and trouble shoot problems. Psychometric properties related to the reliability and validity will be discussed. Ultimately, by examining the longitudinal performance of OMM in OAs, we can better characterize the natural course of OMM. Such an approach will enable clinicians to accurately and objectively examine OMM and identify those at risk for making financial errors.

DETECTION OF ALZHEIMER'S DISEASE-RELATED COGNITIVE CHANGE WITH THE MOBILE COGNITIVE APP PERFORMANCE PLATFORM

Dawn Mechanic-Hamilton, Sean Lydon, Alexander Miller, Kimberly Halberstadter, Jacqueline Lane, Sandhitsu Das, and David Wolk, *University of Pennsylvania, Philadelphia, Pennsylvania, United States*

This study investigates the psychometric properties of the mobile cognitive app performance platform (mCAPP), designed to detect memory changes associated with preclinical Alzheimer's Disease (AD). The mCAPP memory task includes learning and matching hidden card pairs and incorporates increasing memory load, pattern separation features, and spatial memory. Participants included 30 older adults with normal cognition. They completed the mCAPP, paper and pencil neuropsychological tests and a subset completed a high-resolution structural MRI. The majority of participants found the difficulty level of the mCAPP game to be "just right". Accuracy on the mCAPP correlated with performance on memory and executive measures, while speed of performance on the mCAPP correlated with performance on attention and executive function measures. Longer trial duration correlated with measures of the parahippocampal cortex. The relationship of mCAPP variables with molecular biomarkers, at-home and burst testing, and development of additional cognitive measures will also be discussed.

SMARTPROMPT REMINDER APPLICATION IMPROVES EVERYDAY TASK COMPLETION AND REDUCES INEFFICIENT BEHAVIORS

Hackett Katherine, Sarah Lehman, Ross Drivers, Matthew Ambrogi, Likhon Gomes, Chiu Tan, and