

The Public Health Centers of Excellence are part of a larger effort by the Centers for Disease Control and Prevention (CDC), through the BOLD Infrastructure for Alzheimer's Act and the Healthy Brain Initiative, to advance cognitive health and dementia as public health issues – and to expand the public health response to the Alzheimer's crisis. These efforts are designed to complement, not supplant, the long-standing work of the aging community to help people with dementia and their families. This presentation will discuss how the new and expanded public health work corresponds with the efforts of the aging community and will illustrate the unique roles of the public health and aging communities in the fight against Alzheimer's. In addition, the presentation will review initiatives – such as the Milken Institute's Alliance to Improve Dementia Care – that seek to bring both communities together on a common dementia agenda.

SESSION 1570 (SYMPOSIUM)

ARTIFICIAL INTELLIGENCE AND ROBOTIC APPROACHES TO SUPPORTING OLDER ADULTS

Chair: Walter Boot

Emerging technologies in the domains of artificial intelligence (AI) and robotics hold tremendous potential for supporting the health, wellbeing, independence, and quality of life of older adults. This session presents a sampling of research examining the promise of these technologies and barriers necessary to overcome in order for these technology-based solutions to be implemented, accepted, and adopted. This session will start with K. Trainum presenting a broad overview of the potential of robots to benefit individuals living in senior-living facilities, and a summary of the literature to date. L. Vergara will describe findings related to older adults' attitudes toward a socially assistive robot and implications for the design and implementation of artificial intelligence through socially assistive robots in the home environment. M. Han will present a study examining older adults' preferences for digital conversational agents that can be used to help monitor health, and factors that influence older adults' intention to adopt digital conversational agents. Finally, S. Zhang will discuss the potential of artificial intelligence approaches to maximizing adherence to technology-based cognitive assessment and training through a just-in-time adherence support system tailored to the motivations of the individual. An overarching theme of the session is the need for a careful, thoughtful, user-centered design approach to ensure the success of emerging technology-based solutions to support the health and wellbeing of older adults.

ROBOTS IN SENIOR-LIVING FACILITIES: A SYSTEMATIC LITERATURE REVIEW

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Robots are promising technologies for improving both the care of older adults living in facilities and the job satisfaction of caregivers, but concerns about their efficacy, ethics, and best practices remain. To inform this ongoing debate, we examined the literature on robots utilized in senior-living facilities. Three rounds of searching and screening were

conducted in February 2022, following PRISMA guidelines. Keyword searches produced 666 non-duplicate articles from 5 relevant databases. We screened titles and abstracts against inclusion/exclusion criteria, resulting in 127 articles. Full-text screening resulted in 78 articles for analysis, published between 2002-2022 and represent 17 countries. Most studies demonstrated promising effects of robots, however there was a lack of high-quality studies, overrepresentation of female participants, and focus on companion robots over service robots. Few studies addressed the effects of robots on caregivers or controlled for novelty effects. Research addressing these gaps should combine robotic and gerontological expertise.

UNDERSTANDING THE ROLE OF A SOCIALLY ASSISTIVE ROBOT TO SUPPORT AGING IN PLACE

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Communities may lack the infrastructure and required resources to support healthy aging and aging in place. Advancements in technology development such as socially assistive robots and artificial intelligence present new opportunities to support and meet the needs of older adults. For example, Misty is a socially assistive robot designed to allow customizability and adaptability to support and meet diverse user needs pertaining to tasks and activities. Our research aim is to understand if Misty can facilitate social interactions with older adults, control the home environment, and provide reminders. We are exploring older adults' attitudes towards Misty through demonstrations of these activities. Through this research we provide insights pertaining to the facilitators and barriers in the acceptance and use of a socially assistive robot like Misty, to support healthy aging. Furthermore, our findings will provide guidance for design and implementation of artificial intelligence through socially assistive robots in a home environment.

REFRAMING AGING: INTRA- AND INTERGENERATIONAL DIGITAL CONVERSATIONAL AGENTS TO SUPPORT OLDER ADULTS

Molly Han, and Cameron Piercy, *University of Kansas, Lawrence, Kansas, United States*

Digital conversational agents (DCAs) have become extraordinarily ubiquitous. Researchers envision the prospects of using DCAs to monitor health among older adults. However, older adults show hesitation to engage with DCAs. It is possible older adults prefer receiving human assistance rather than getting help from a machine. Another potential explanation is that communicative cues of DCAs such as voice need to be further optimized to invoke behavioral engagement. To understand how DCAs can better support older adults, we develop an experiment with three scenarios in which an agent (a human, an embodied DCA, a mixed presence of human and DCA) shares active aging information. We manipulate the agent's voice in terms of age (older voice,

younger voice). We investigate how the interplay of agent categories and intragenerational/intergenerational voice cues affect older adult participants' evaluation of information and intention to adopt DCAs. Our study will contribute to DCAs design for older clients.

THE DEVELOPMENT OF ADHERENCE SUPPORT MESSAGES FOR AN AI-BASED REMINDER SYSTEM

Shenghao Zhang, Michael Dieciuc, Andrew Dilanchian, and Walter Boot, *Florida State University, Tallahassee, Florida, United States*

Artificial Intelligence (AI) holds tremendous potential for aiding in the customization and tailoring of interventions. This talk will focus on the initial development of an adherence support system to maintain older adults' engagement with at-home cognitive training and assessment delivered via mobile devices. As part of the NIA funded Adherence Promotion with Person-centered Technology (APPT) project, a reminder and adherence support system is being developed to automatically detect adherence lapses and provide just-in-time reminders with tailored messaging to facilitate reengagement. The results of an initial study (N=40) will be presented in which participants were delivered reminders via SMS text messaging that were either tailored or not tailored to their self-reported motivation to engage with the intervention. Tailored messages were perceived as more motivating, and qualitative data informed additional ways in which messages might further be tailored based on individual preferences to support adherence.

SESSION 2000 (SYMPOSIUM)

A POLICY- AND PRACTICE-ALIGNED RESEARCH AGENDA FOR ENGAGING AND SUPPORTING DEMENTIA CAREGIVERS IN CARE DELIVERY

Chair: Catherine Riffin Co-Chair: Francesca Falzarano
Discussant: Sara Czaja

The Cornell Institute for Translational Research on Aging (CITRA) Research-to-Practice Consensus Workshop Model is an evidence-based method for generating practice- and policy-informed research agendas on aging-related topics. The model aims to bridge the gap between research-based knowledge and practice-based insight by involving multidisciplinary stakeholders in all aspects of the agenda-setting process. Using the CITRA model as a guiding framework, we convened an NIA-funded Conference on Engaging Family Caregivers of Persons with Dementia in Healthcare Delivery, with the goal of generating actionable research priorities that will lead to improvements in dementia caregiver identification, assessment, and support in health and long-term care settings. Conference attendees were multidisciplinary thought leaders representing five stakeholder groups: family caregivers of persons with dementia, healthcare providers, researchers, payers, and policy advocates. This symposium will describe the CITRA model, using our caregiver conference as an example, and provide practical guidance on how to use the model to promote cross-disciplinary dialogue and integrate research, policy, and practice perspectives. The first presentation will

provide an overview of the CITRA model and its 5-step method (Pillemer). Subsequent presentations will describe the model's application to the topic of improving caregiver identification and support in care delivery (Griffin) and discuss how novel technology-based adaptations to the model helped to facilitate hybrid participation of virtual and in-person attendees (Falzarano). The final presentation will delineate the major priorities that resulted from the conference, discuss ongoing and future dissemination activities, and offer practical suggestions for leveraging the CITRA model in future consensus efforts (Riffin).

A FRAMEWORK FOR IDENTIFYING MAJOR RESEARCH PRIORITIES: THE CITRA RESEARCH-TO-PRACTICE CONSENSUS WORKSHOP MODEL

Karl Pillemer, *Cornell University, Ithaca, New York, United States*

The CITRA Research-to-Practice Consensus Workshop Model is an evidence-based method for identifying research priorities on aging-related topics. Its major goals are to promote knowledge translation and equal-status dialogue among stakeholders from multidisciplinary backgrounds. In this presentation, Dr. Pillemer, co-creator of the CITRA model, will provide an overview of the 5-step method: (1) Identifying a topic that is both an important challenge in aging-related policy or practice and one on which there is scientific evidence; (2) Selecting a panel of multidisciplinary experts from relevant stakeholder groups; (3) Preparing a non-technical background document that summarizes available research findings; (4) Convening multidisciplinary experts in a consensus conference involving panel presentations, discussion of the background document, and consensus activities; and (5) Preparing a final consensus report and disseminating the findings to relevant policy organizations, practice groups, and funding agencies. Common challenges and practical tips for executing each of the 5 steps will be addressed.

CONVENING A NATIONAL CONSENSUS CONFERENCE TO PROMOTE DEMENTIA CAREGIVERS' ENGAGEMENT AND SUPPORT IN CARE DELIVERY

Joan Griffin, *Mayo Clinic, Rochester, Minnesota, United States*

The goal of the 2021 Conference on Engaging Family and Other Unpaid Caregivers of Persons with Dementia in Healthcare Delivery, funded by the NIA, was to establish a policy- and practice-aligned research agenda for enhancing dementia caregivers' engagement and support in health and long-term care settings. Using the CITRA model as a guiding framework, Dr. Griffin will discuss important planning decisions leading up to the event, including the formation of a Steering Committee, selection of expert panelists and conference participants, and preparation of the non-technical background report. Her presentation will also describe the format of the consensus conference itself, focusing on the structure of the panel presentations and consensus activities, including small group breakout sessions in which conference attendees were charged with generating research recommendations; the process for voting on and prioritizing the identified recommendations; and method for refining and organizing the recommendations into major priority areas.