ASSOCIATIONS BETWEEN VISUAL, HEARING FUNCTIONING AND COGNITIVE FUNCTIONING AMONG HISPANICS/LATINOS

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Findings that visual impairment (VI) and hearing impairment (HI) are associated with cognitive functioning are drawn from studies that involved few Hispanic/Latino participants. We utilized data from the Miami Ocular SOL ancillary study to the Hispanic Community Health Study/Study of Latinos (HCHS/SOL) with 1056 participants aged 45 and older. The outcomes were neurocognitive performances assessed by the Digit Symbol Substitution Test (DSST, executive function), Word Frequency Test (verbal fluency), Brief Spanish-English Verbal Learning Test-recall (B-SEVLT recall, episodic memory), and the Six-Item Screener (global cognitive functioning). Visual functioning was measured by National Eye Institute Visual Function Questionnaire (NEI-VFQ). Hearing function which was measured by Hearing Handicap Inventory for Adults and Elderly (HHIA/HHIE) was available for all HCHS/SOL participants (n=9343). Multiple regression was performed for each cognitive outcome while controlling for age, gender, education, Hispanic/Latino ethnicity background, cardiovascular risk factors, depression and complex design. NEI-VFQ was associated with 3 of the 4 cognitive outcomes: DSST ($\beta$ =0.14, se=0.027, p<0.01), Word Frequency Test ($\beta$=0.042, se=0.016, p<0.01), B-SEVLT-recall ($\beta$=0.021, se=0.007, p<0.03). HHIA/HHIE was not associated with any of the cognitive measures examined. The HHIA/HHIE analysis was repeated using data from all sites; similar results were observed. Visual functioning but not hearing functioning is associated with worse cognition in Hispanics/Latinos, although previous HCHS/SOL analysis indicated that hearing loss as assessed by pure tone audiometry was associated with worse cognitive functioning. Longitudinal assessment of both clinical and functional measures is needed to understand the impact of sensory impairment on cognition in Hispanics/Latinos.

BETTER BRAIN HEALTH THROUGH EQUITY: ADDRESSING HEALTH AND ECONOMIC DISPARITIES IN DEMENTIA

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Dementia disproportionately impacts the health and financial security of women and certain minority groups. Long-standing inequities create distrust of the medical system, fewer treatment options, and reduced access to care. Research predicts that from 2020 to 2060, the number of African Americans and Latinx living with dementia will grow by nearly 200 percent and 440 percent, respectively, while prevalence among non-Hispanic Whites will increase by 69 percent. As the prevalence of dementia rises, so will the costs associated with dementia care. African Americans bear 1/3 of the costs associated with dementia. And the costs for Latinx living with Alzheimer’s disease are expected to exceed $100 billion by 2060. To mitigate these growing health and economic concerns, efforts to improve dementia care must put equity front and center. This presentation highlights five actionable recommendations to build health equity by reducing disparities in dementia prevention, detection, diagnosis, and care. These recommendations center around two overarching themes: (1) Strengthening the infrastructure among healthcare, long-term care, and community-based organizations to achieve greater health equity for people living with dementia and their caregivers and (2) Expanding dementia-friendly networks and workplaces in racially and ethnically diverse communities. The recommendations discussed in this presentation will offer guidance for policymakers, health services researchers, businesses, health systems, and communities to reduce the inequitable impact of dementia on African Americans and Latinx, which is even more vital amid demographic trends showing a population growing older and more racially and ethnically diverse.

BIAS AGAINST OLDER ADULTS IN YOUNG CHILDREN AND THEIR PARENTS

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Parents are an important source of social learning for their children. However, little is known about whether they play a role in shaping ageist attitudes in children. We investigated how parents’ biases against older adults would relate to those of their children and how preferences would differ depending on the child’s age. Participants were 56 parent-child dyads with the children’s age ranging from four to eight years (parents mean age = 36.95, SD = 5.49). Children were divided into three age groups, preschool (n =18), early school-aged (n = 18), and middle school-aged (n = 20). Children and parents completed a picture rating task, which included the evaluation of 28 images of younger and older adults faces. Children used a smiley-face rating scale on a touch-screen computer, and parents used a sliding preference scale for their ratings. It was found that both, children (t(55) = 5.47, p < .001, d = 0.73) and their parents (t(55) = 2.05, p = 0.045, d = 0.27), gave significantly more positive ratings to younger than to older adults, which is consistent with an underlying bias for younger adults. Contrary to our expectations, this preference in children held across age groups and was not associated with parental preferences. Nevertheless, it has been shown that ageist preferences can already be detected in childhood. Further longitudinal research is needed to track the development of ageism from childhood on, and efforts to combat ageism should be addressed not only to adults, but to children as well.

BUTTERFLY GARDEN CONNECTS COMMUNITY LIVING CENTER RESIDENTS, FAMILY, AND STAFF DURING THE COVID-19 PANDEMIC

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The COVID-19 Pandemic has led to significant morbidity and mortality in older residents of long-term care facilities. In addition, the stringent restrictions on visitation of family and loved ones has further socially isolated residents leading to an increase in depression, loneliness, and spiritual distress. The Community Living Center (CLC) staff at West Palm Beach VA Medical Center wanted to address this dilemma and created a unique “Butterfly Garden” (BG) visitation space. This space is a therapeutic garden adjacent to the CLC that can be accessed by families without having to enter the facility. Participants in the BG reported feelings of peace, undisturbed reflection, and tranquility as they observed and experienced nature’s life cycle. This show of nature’s beauty promotes visual, tactile, and olfactory sensory stimulation while attracting hummingbirds, bees, butterflies, and peace to this calm garden space. The BG visitations offers residents, family, and staff opportunities to experience the health benefits of nature during their visits under strict CDC social contact guidelines. From September through December 2020 and from January through March 2021 there were 67 and 184 visits respectively as families became more involved. The feedback from residents, families, and staff indicated that the spirits of all participants were raised by the BG visits despite the difficult challenges of social distancing and limited CLC visitations. This BG concept could serve as a model for other long-term care facilities to allow socially distant family visits to loved ones in a safe nature-based environment of care with or without a pandemic.

CAN REMOTE MONITORING MEASURE LIFE ACTIVITY AND CAREGIVER EXPERIENCE? EARLY RESULTS OF MULTI-MODAL ASSESSMENTS

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Subjective assessments of dementia caregiver burden are vulnerable to recall and recency biases. Objective continuous home assessment using passive technologies (e.g., bed mats, activity watches) can provide ecologically valid detail on caregiver stress and family function. We tested the utility of objective assessment of activity before, during and after the behavioral intervention of STELLA (Support via Technology: Living and Learning with Advancing AD) which facilitates effective online management of behavioral symptoms of dementia. We present preliminary data on objective measures of sleep and step counts, and subjective measures of burden. We captured data from three caregivers caring for a family member with dementia. Each family lives in home with unobtrusive monitoring devices that recorded data on sleep (Emfit sleep mat) and daily steps (Withings watch). Self-report assessments of burden, depression and grief were collected prior to and after the 2-month intervention. Objective data was collected continuously. Pre/post subjective assessments suggest that the STELLA intervention has the potential to reduce behavioral symptom frequency and caregiver reactivity to symptoms (pre-STELLA behavior frequency=44.9, post=39.2; pre-STELLA reactivity=50.5; post=38.5). Step count ranged from 775 steps/day to 5065, with each participant trending fewer steps during the intervention. Mean sleep time ranged from 6.3 to 8.6 hours and didn’t change during the intervention. The small sample size limits interpretation but provides evidence that it is feasible to collect continuous objective life-activity data during caregiver interventions. This digital data has the potential to inform the validity of subjective findings by limiting recall and recency biases.

CARDIOVASCULAR MONITORING SYSTEMS FOR AGING IN PLACE: CURRENT PERSPECTIVES AND A NOVEL TOILET SEAT-BASED SYSTEM


Cardiovascular disease (CVD) is a leading cause of death. Questions remain as to how older adults, providers and researchers can harness remote patient monitoring (RPM) to maintain/improve cardiovascular health--especially in light of COVID-19 and increased reliance on telehealth. The objective of this study was to understand the perceptions of older adults with cardiovascular challenges and providers surrounding a novel RPM device. The Heart Seat (THS) developed by Casana, is a toilet-seat-based cardiac monitoring device. Focus groups, stratified by gender, were conducted in 2021 by the UF Health Precision Health Research Center (UFIRB202100290) with older (55+) adults (n=36) in The Villages, Florida. Adoption, benefits/concerns, usability, utility and gender differences were explored. One-on-one provider interviews (n=6) explored future utility of THS. The primary benefit of THS noted by providers and older adults was ease-of-use and passive data collection, promoting adherence. Providers considered THS ‘easy-to-use’ and a positive alternative to current RPM devices. While genders’ sentiments towards cardiac monitoring devices were similar, males reported having more experience with RPM. Despite this, females reported using cardiac monitoring devices more consistently than males. Therefore, passive RPM may be beneficial for increasing adherence in males. Participants’ largest concern surrounding RPM was information sharing, including data monitoring, and security. Providers were also concerned about information sharing, specifically who would receive/monitor and interpret data from RPM. RPM devices should focus on enhancing ease-of-use, catering to user and provider information sharing and data monitoring/interpretation preferences and privacy.