

0.02). Age interactions indicate that findings were stronger for younger participants. Greater cumulative stress is associated with poorer cognitive function in some domains in older AA. A comprehensive assessment of cumulative stress is vital in understanding the dimensionality of racialized stress for older adults potentially experiencing cognitive decline.

GREATER ADOLESCENT COGNITIVE ABILITY LINKED TO LOWER RISK OF EARLIER MORTALITY

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There have been few investigations of the role that adolescent cognitive ability might play in predicting physical resilience across the life course, including decreased risk of early mortality. Our limited knowledge of how multiple cognitive ability domains shape trajectories of longevity is due, in part, to a lack of aging cohorts with early life cognitive assessments, and family data that allow for examination of shared family and genetic characteristics that may play a role in cognitive ability-health links. We capitalized on data from the 1960 Project Talent high school cohort ($n > 360,000$, born 1942-1946) and mortality data ($n = 22,584$; 5,497 deceased) collected as part of two recent follow-ups, the Project Talent Twin & Sibling Study and the Project Talent Aging Study, to examine these potential associations. In 1960, ability was assessed in multiple cognitive domains (e.g., general aptitude, quantitative, reasoning). Mortality status was ascertained through 2016. Binary logistic generalized estimating equations with race, age, sex, and adolescent family SES covariates, indicated that each 1 standard deviation higher ability in multiple cognitive domains in adolescence predicted lower odds of earlier mortality (ORs of 0.79 - 0.87). Co-sibling control models indicated a similar pattern, suggesting that benefits associated with higher cognitive performance do not simply reflect shared environmental and genetic background, but may represent a direct protective effect. These findings indicate that better performance in multiple cognitive domains in adolescence, above and beyond the influence of genetic and family environmental factors, may be or point to modifiable protective factors against risk of early mortality.

LONG-TERM COGNITIVE EFFECTS FROM A REAL-WORLD MULTI-SKILL LEARNING INTERVENTION IN OLDER ADULTS

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Previous cognitive learning interventions have focused primarily on learning one or two novel real-world skills at a

time, or utilizing computer-based programs to enhance specific cognitive skills (Ball et. al 2002; Park et. al, 2014). While these studies yielded immediate cognitive improvements in participants, the long-term benefits of continuing to learn several real-world skills in older adulthood is unclear. In the present two studies, the long-term (1-year post-intervention) benefits of a multi-skill learning intervention were investigated with older adult participants. Study 1 (a pilot sample) included 6 participants (67% female, $M = 66.33$ years, $SD = 6.41$, range = 58-74 years old) and Study 2 included 27 participants (67% female, $M = 69.44$ years, $SD = 7.12$, range = 58-86 years old). Following a three month intervention which entailed simultaneously learning at least three real-world skills, such as photography, drawing, and Spanish, participants' cognitive abilities were assessed using four tasks (Flanker, Set-Shifting, Dot Counting, and N-Back), as well as RAVLT and Digit Span. Follow-up assessments were completed at three-, six-, and 12-month follow-ups after the interventions. Linear mixed-effects regression models revealed significant cognitive improvements across time points up to one year following the intervention compared to baseline assessments. These promising results support the idea that intense learning experiences may lead to considerable cognitive growth in older adulthood, as they do earlier in the lifespan.

THE DUAL-LANGUAGE SEMANTIC COMPUTERIZED PROGRAM (DISC) MAINTAINED LOCAL SWITCH COSTS IN MCI OLDER ADULTS

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It has been proposed that switching cost deficit in executive control (Velichkovsky et al., 2020) could be used as an early marker for abnormal aging processes. Although research with technology-based intervention has shown benefits in improving cognitive performance with older adults, the overall results are mixed (Ge et al, 2018). This study aims to investigate whether computerized intervention program (e.g., DISC) would help to reduce the switching costs deficits in mild-to-moderate cognitively-impaired older adults (MCI-OA). Fourteen MCI-OA (79.75 ± 6.94) and 9 cognitively-healthy OA (age 77.25 ± 6.9) were randomly assigned to an experimental group or a control group (a final sample size of 30 MCI and 40 cognitive-healthy older adults would be ready by conference time). All participants first completed a set of cognitive tasks as part of a larger study (i.e., pre-tests) (e.g., MMSE, Ravens, cued-base Task Switching Task). The experimental group then played cognitive games on a touch-screen tablet for about 30-40 minutes per session with a total of 24 sessions over 8-12 weeks. The control group continued their daily activity as per usual for 8-12 weeks. Participants were then asked to complete the same set of cognitive tasks again post-test. Control group MCI-OA performed worse for the local costs in the cued Task Switching task ($p < .05$), whereas experimental group MCI-OA maintained their performance ($p = .40$) post-test compared to pre-test. All cognitively-healthy OA did not

show any difference in performance irrespective of condition. This suggests that the DISC program could be an effective tool in slowing down the abnormal accelerated aging process.

Session 4350 (Paper)

COGNITIVE IMPAIRMENT AND CAREGIVING

DYADIC RELATIONSHIPS BETWEEN SELF-RATED HEALTH AND COGNITION AMONG OLDER ADULTS AND THEIR SPOUSAL CAREGIVERS

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This study examines spouses who are in a caregiving situation to discern how they influence each other's health. Previous studies reported health concordance and cross-domain effects among caregiver and care-recipient dyads. However, it is less understood of the health dyadic relationships among spouses who are in a caregiving situation. No studies have specifically looked into the relationship between self-rated health (SRH) and cognitive functioning among spousal caregiving dyads over time. In this study we analyzed the longitudinal reciprocal relationships between SRH and cognitive functioning measured by the Telephone Interview for Cognitive Status among older adults and their spousal caregivers, and whether the relationship differed by whether husband or wife was the caregiver. Longitudinal data from the Health and Retirement Study (2010-2016) on 540 dyads were pooled and analyzed using structural equation modeling under an actor-partner interdependence model. Results revealed cognitive concordance among older spouses in which caregivers' cognition is associated with care-recipients' cognition subsequently ($\beta=0.05$, $p<.05$). SRH concordance was not significant. Cross-domain results showed only one significant direction, that is, care-recipients' cognition in the subsequent time was significantly correlated with caregivers' SRH, regardless of whether husband ($\beta=0.09$, $p<.05$) or wife ($\beta=0.08$, $p<.05$) was the caregiver. Our study found that married couples in a spousal caregiving situation displayed cognitive but not overall health concordance, and cross-domain effects of caregiver's SRH on spousal care recipient's cognition subsequently. The reciprocal associations suggest that addressing and improving either partner's physical health and cognition may benefit both dyad members.

EXPLORING THE EXPERIENCES OF PERSONS LIVING WITH DEMENTIA AND THEIR CARE PARTNERS DURING THE COVID-19 PANDEMIC

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Public health measures implemented to mitigate the spread of COVID-19 have transformed the physical and social

environments in which we live. The effects of these policies on persons living with dementia (PLWD) and their care partners (CPs) are not fully understood. This study explores the experiences, attitudes, and perceptions of caregiving dyads during the COVID-19 pandemic. Cross-sectional survey data were drawn from a larger longitudinal study examining the relationship between PLWD aged 65+ and their CPs being conducted in a metropolitan city significantly affected by COVID-19. Interviews with were conducted remotely via videoconferencing and telephone. Data on sources and types of care provided for the PLWD, relationship quality and conflict, and caregiver stress were collected and analyzed using descriptive statistics and tests of independence. Preliminary results from PLWD (n=8) and CPs (n=13) confirmed a reduction in social interaction with family members and friends. CPs reported they (n=5) or other family members (n=2) changed their schedules to provide care for the PLWD. CPs reported increased conflict with the PLWD regarding care provision, going out or welcoming visitors, and home management. In contrast, PLWD reported a lack of conflict among household members (n=6) and the perception of good changes (n=2) and increased quality time with CPs. Preliminary findings provide empirical evidence of the effects of pandemic public health policies on dyads enrolled in this study and reveal differences in perceived relational conflict between PLWD and their CPs. Further research is needed to better understand the experiences of dyads and develop supportive interventions.

GAPS IN THE SYSTEM: SUPPORTING PEOPLE LIVING WITH DEMENTIA AND THEIR CAREGIVERS

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As individuals are living longer, the prevalence of older adults living with dementia and other complex health and social care needs is on the rise (Alzheimer's Association, 2020; CIHI, 2020). Correspondingly, efforts to develop supportive programming and policies for persons living with dementia (PLWDs) are of paramount importance (CIHR, 2019). The challenges faced by PLWDs and other complex health and social needs are widely known (CIHR, 2019), however, a systematic understanding of how and if current and long-standing efforts are adequately meeting the needs of these individuals remains elusive. This research sought to understand how program administrators, decision makers, PLWD, and caregivers across five North American jurisdictions (British Columbia, Ontario, Newfoundland and Labrador, New York State, and Vermont) perceived specific dementia care programs and support services within their respective jurisdictions. We performed an inductive analysis of semi-structured interviews (N=37) and identified on-going care gaps experienced by participants. We present three main gaps: 1) disconnected and uncoordinated system infrastructure, 2) lack of comprehensive services to meet the diverse needs of PLWD and their caregivers, and 3) inconsistency in how dementia is understood; with associated perceived remedies. The results suggest that even when attempts to address the needs of PLWD and their caregivers are put in place there remains significant limitations of systems. The perspectives