supporting individuals with serious illness and complex conditions as well as their family caregivers through telehealth, care management, advance care planning, and other added family caregiver supports has been especially evident during the COVID-19 pandemic. Policymakers are now grappling with how to restructure hard-hit health care and long-term services and supports systems to better support these individuals and their family caregivers. The State Hub provides concrete resources for states working to implement and expand high-quality palliative care, and the RAISE Center is assisting the Family Caregiving Advisory Council with creating the country’s first national Family Caregiver Strategy.

EFFORTS BY THE NATIONAL ALLIANCE FOR CAREGIVING

C. Grace Whiting, National Alliance for Caregiving, Washington, District of Columbia, United States

The National Alliance for Caregiving (NAC) conducts research, does policy analysis, develops national best-practice programs, and works to increase public awareness of family caregiving issues. In addition to national research and advocacy, NAC provides technical assistance to a national network of caregiving coalitions representing nearly 30 states. NAC recognizes that family caregivers provide important societal and financial contributions toward maintaining the well-being of those in their care. The need to support the nation’s nearly 53 million family caregivers and sustain them as the backbone of our chronic and long-term care system is a central issue in national and state efforts to reform healthcare, especially in light of the challenges presented by the COVID-19 pandemic. This presentation will provide information on the current status of these national and state efforts.

Session 2166 (Symposium)

CAREGIVER STRESS: BIOMARKERS LINKED TO DISEASE RISK AND THE PSYCHOBIOLOGY OF STRESS REDUCTION

Chair: Janelle Beadle Co-Chair: Felipe Jain

Caregivers to older adults with chronic diseases frequently experience chronic stress which can negatively affect caregivers’ physical and mental health, and increase disease risk. This interdisciplinary symposium will highlight critical factors influencing caregiver stress, and the role of biomarkers in detecting caregiver disease risk. First, we will discuss the effects of stress and emotional experiences on risk for cardiovascular disease in caregivers of persons with dementia (PWD). In the first talk, Dr. Mausbach will examine relationships among perceived stress, blood glucose and risk of diabetes and cardiovascular disease in caregivers of PWD. Next, Dr. Losada-Baltar will discuss the degree to which caregivers’ ambivalent feelings towards providing care are associated with inflammatory markers of cardiovascular risk. Following this, two talks will investigate critical links between stress and caregiver emotional well-being. Dr. Liu will report relationships among the stress-related hormone cortisol, sleep, and anxiety in the context of adult day services. Dr. Beadle will examine the degree to which caregivers’ affiliative, empathetic interactions with others relate to their experience of stress through cortisol assessments and neuroimaging. The final talk by Dr. Jain will investigate the effects of a Mentalizing Imagery Therapy intervention for family PWD caregivers on stress, evidence for mindfulness as a causal mediator of stress reduction, and the relationship to brain networks associated with emotion regulation. Taken together, this symposium will identify relevant psychosocial and biological factors that contribute to caregiver stress, as well as discuss the psychobiology of amelioration of caregiver stress.

CAUSAL MEDIATION OF STRESS REDUCTION IN FAMILY DEMENTIA CAREGIVERS: A FOCUS ON MINDFULNESS

Liliana Ramirez Gomez, and Felipe Jain, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, United States

Although mindfulness therapies have demonstrated benefits for reducing stress and improving psychological symptoms in family dementia caregivers, the mechanisms underlying these salutary effects are unknown. We report a causal mediation pathway to improvement of stress symptoms in family dementia caregivers with Mentalizing Imagery Therapy (MIT), which employs mindfulness and guided imagery tools to reduce stress and improve understanding of self and others. In a randomized controlled trial of short-term 4-week MIT (N=24) versus a psychosocial support group (N=22), MIT demonstrated superior benefit for reducing perceived stress (p=.006). Increased trait mindfulness was a causal mediator of this effect (p=.02). Neuroimaging pre and post intervention found that increased mindfulness was associated with strengthened connectivity of the...
dorsolateral prefrontal cortex with an emotion regulation network (p<0.001). The results are discussed in light of theories of cognitive control and may inform the design of future studies aimed at reducing family caregiver stress.

DEMENTIA FAMILY CAREGIVERS’ AMBIVALENT FEELINGS AND CARDIOVASCULAR RISK: LONGITUDINAL CORRELATES

Rosa Romero-Moreno,1 Carlos Vara-García,2 Samara Barrera-Caballero,3 Javier olazarán,4 Brent Mausbach,1 Roland von Känel,4 Ricardo Olmos,7 and Andrés Losada-Balzar,7 1. Universidad Rey Juan Carlos de Madrid, Madrid, Madrid, Spain, 2. Universidad Rey Juan Carlos, Madrid, Madrid, Spain, 3. Rey Juan Carlos University, Alcorcón, Madrid, Madrid, Spain, 4. HGU Gregorio Marañón, Madrid, Madrid, Spain, 5. University of California San Diego, La Jolla, California, United States, 6. University Hospital Zurich, Zurich, Zurich, Switzerland, 7. Universidad Autónoma de Madrid, Madrid, Madrid, Spain

Cross-sectional data show that caregivers’ ambivalent feelings are associated with psychological distress. The association of ambivalent feelings with caregivers’ cardiovascular risk has not been studied. For this purpose we analyzed preliminary data from the Spanish Longitudinal Caregiving Spanish Longitudinal Study (CUIDA-LONG). One-year follow-up data were available for 96 dementia family caregivers. The following variables were assessed: sociodemographics, body mass index (BMI), disruptive behaviors, ambivalence, depressive symptomatology and cardiovascular risk with the inflammatory biomarker C-reactive protein (CRP). A hierarchical regression model was tested. Sociodemographic variables and change over time in stressors, ambivalence and depression were entered as predictors of change in CRP. 27% of the variance in CRP was explained through the model. More time since being a caregiver, higher BMI and greater increase in ambivalence contributed significantly to an increase in CRP. Ambivalent feelings contribute significantly to the cardiovascular risk of those who care for a relative with dementia.

AN INTENSIVE LONGITUDINAL STUDY OF THE ASSOCIATION OF STRESS WITH HYPERGlyCEREMIA USING REAL-TIME DATA COLLECTION

Brent Mausbach, University of California San Diego, La Jolla, California, United States

Caregivers of persons with dementia (PWD) are at significantly elevated risk for cardiovascular disease (CVD). A higher risk for diabetes is one potential mechanism of morbidity in caregivers. Diabetes has been associated with dyslipidemia, hypertension, oxidative stress, increased low-grade inflammation, and endothelial dysfunction, which all place individuals at risk for CVD. Elevated blood glucose, even in the nondiabetic range, is a significant risk marker for the development of CVD. The current study examined the semi-continuous association between stress and glucose. Participants wore a continuous glucose monitor that measured blood glucose every 5 minutes for a period of 10 days (n = 2,880/participant). Ecological Momentary Assessment (EMA) was used to measure stress, positive affect, negative affect, and dietary intake 3x/day over the 10-day period. Hierarchical linear models indicated significant within-person associations between stress and blood glucose levels (t = 3.88, df = 3.92, p = .018; R2 = 26.2%).

DAILY CORTISOL TOTAL OUTPUT MEDIATED SLEEP AND AFFECT AMONG DEMENTIA FAMILY CAREGIVERS

Daniel Fleming, Elizabeth Fauth, and Yin Liu, Utah State University, Logan, Utah, United States

Cortisol is a primary stress hormone associated with sleep. We examined daily cortisol as the potential mechanism linking prior night’s sleep and daily mood among 173 dementia family caregivers (M (SD) age = 61.97 (10.66)) who used adult day services (ADS) at least two days a week. Caregivers self-reported sleep characteristics (bed and wake time, sleep quality, care receiver’s night-time problems) and affect (anxiety, depressive symptoms) across eight consecutive ADS/non-ADS days. Salivary cortisol was collected five times each day. Multilevel mediation analysis suggested that daily cortisol total output (assessed as “area under the curve”) mediated prior nights’ total time in bed and daily anxiety, but only on high-stress (non-ADS) days. Mediation was non-significant on low-stress (ADS) days, and at the between-person level. ADS use is respite from a chronically stressful role. Reducing exposure to stress via respite may protect against harmful processes related to sleep, cortisol reactivity, and daily anxiety.

Session 2170 (Paper)

AGEISM (BSS PAPER)

AGE DISCRIMINATION DURING THE COVID-19 PANDEMIC: ASSOCIATIONS WITH DAILY WELL-BEING

Lydia Ong, Patrick Klaiber, Anita DeLongis, and Nancy Sin, University of British Columbia, Vancouver, British Columbia, Canada

During the COVID-19 pandemic, ageist attitudes have been pervasive in public discourse, interpersonal relationships, and medical decision-making. For example, older adults have been portrayed as vulnerable while younger adults have been portrayed as reckless. The current study examined age discrimination during COVID-19 and associations with daily affect and physical symptoms. Positive events and age were examined as moderators. From March to August 2020, 1493 participants aged 18-91 (mean=40) in the U.S. and Canada completed surveys for seven consecutive evenings about discrimination, positive events, affect, and physical symptoms. Multilevel models controlled for age, race, income, education, sample (university students vs. community), and country of residence. Results indicated that individuals who reported more age discrimination had higher negative affect (b=36.44, SE=3.97), lower positive affect (b=-19.07, SE=4.10), and increased physical symptoms (b=3.85, SE=0.49; p<0.001 for all), compared to those with fewer reports of age discrimination. Within-persons, days with age discrimination were associated with higher negative affect (b=3.66, SE=1.36, p=0.008), lower positive affect (b=-2.60, SE=1.23, p=0.037), and increased physical symptoms (b=0.26, SE=0.11, p=0.02), compared to days on which age discrimination was not reported. Positive events moderated the between-person association of age discrimination with...