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Racial/ethnic disparities exist in physical performance among older adults, but little is known about the factors leading to these differences. We evaluated how sociodemographic, health, behavioral, and psychosocial factors mediated the relationship between race/ethnicity and physical functioning performance among 1,855 Black, Chinese, Hispanic, Japanese and White postmenopausal women from the Study of Women's Health Across the Nation. White women had better mean physical performance scores (decile-based score including relative performance on grip strength, timed 4-meter walk, and timed repeat chair stand tasks) as compared to Black, Hispanic and Chinese women but slightly poorer scores vs. Japanese women. In Blacks and Hispanics, 75% and 95% of that disparity, respectively, was through mediators, particularly education, financial strain, BMI, physical activity and pain. Addressing issues of poverty, racial inequality, bodily pain and obesity could reduce some racial/ethnic disparity in functional limitations as women age.

STAIR CLIMB TIME AND FUNCTIONAL POWER ASSOCIATIONS IN EARLY OLD AGE: SWAN

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Stair climbing assesses neuromuscular components of movement, including muscle power (force*velocity) which may decline earlier in aging vs. strength. We hypothesized age and age-related factor (N=1370; 65.5±2.7 years) associations to stair climb total time (sec), ascend lap time degradation (lap 1 minus 3), power (W/kg body weight) and power degradation (lap 1 minus 3). Adjusting for demographic, lifestyle and age-related comorbidity factors using multivariate linear regression, older age independently related to slower total time and lower power. Non-white ethnicity had slower total time (Black, Hispanic), higher ascend time degradation (Hispanic), and lower power (Hispanic, Chinese, Japanese) vs. Whites. Higher 36-Item Short Form Health Survey (SF-36) and Modified Baecke physical activity scores indicated better performance: lower total time, higher power (SF-36 only), and less degradation in ascend time and power. Stair climb time and power in early old age may capture initial functional loss targets for interventions to prevent late-life disability.

SESSION 2450 (SYMPOSIUM)

AGING, DISASTERS, AND THE ENVIRONMENT: ROLE OF CLIMATE CHANGE IN DISASTER PREPAREDNESS AND RESPONSE

Chair: Judith Robertson R. Phillips, *California State University San Marcos, San Marcos, California, United States*

GSA 2019 Annual Scientific Meeting

Co-Chair: Melissa L. Cannon, *Western Oregon University, Monmouth, Oregon, United States*

Discussant: Zhen Cong, *School of Social Work, University of Texas at Arlington, Arlington, Texas, United States*

Continuing changes in the world's climate put the older adult population more at risk than other age groups. Multiple circumstances such as disasters and environmental events brought about by climate change impair the ability of older adults to maintain healthy physical and psychological well-being. Unfortunately, during these times, public and individual emergency preparation plans often fall short of having the needed resources to reach out and offer assistance to older adults. Co-sponsored by the Environmental Gerontology and Disasters and Older Adults Interest Groups, four presenters will highlight multiple circumstances where older adults face serious physical and psychological consequences as a result of climate change issues: 1) the loss of electrical power and its impact on hypothermia and hyperthermia in older adults, 2) the loss of basic public health services after Hurricane Maria and its contribution to older adults' reduced psychological well-being including increased levels of suicide, 3) homeless older adults experiencing a disaster and their resulting increased need for resources, and 4) older adults in the path of violent tornadoes and their ability to cope on their own. These presenters will discuss actions, interventions, and development of emergency disaster preparation plans that would be beneficial for older adult response and recovery. The fifth paper will review the theoretical backgrounds of and previous studies on Anthropocene with a focus on climate change policy and practice. Collectively, these papers will address various means by which older adults are affected by climate change and optimal practices to speed recovery.

ACTIONS TO REDUCE RISK OF OLDER ADULTS DURING EXTREME WEATHER EVENTS THAT THREATEN HEALTH AND LIFE

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Climate change places many older adults at unique risk for adverse, potentially life-threatening consequences. Compared to younger adults, older adults are more susceptible to the effects of extreme weather events and at greater risk for heat stroke and hypothermia. With advanced age, some people have vulnerabilities, such as social isolation and physical and mental health conditions that predispose them to a greater level of danger. Loss of power, that leaves people without functioning cooling or heating systems, can cause death because it exacerbates preexisting medical conditions and impairs thermoregulatory function for those with medical illnesses or taking certain medications. Many older adults who function independently may not self-identify as being vulnerable and take necessary precautions to remain safe. This presentation will describe recent research that found that many older adults are unaware of hypothermia and hyperthermia symptoms and the actions needed to maintain health and life.

CLIMATE CHANGE FOR OLDER INDIVIDUALS EXPERIENCING HOMELESSNESS: CONSIDERATIONS FOR DISASTER EVENTS

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