

caregiver's social network changes when s/he becomes a caregiver and how her/his social network influences resilience. Thus, the purpose of this study was to use social network analysis (SNA) to examine the relation between social networks and resilience in grandparents raising their grandchildren. This was done by conducting face-to-face interviews with twenty grandparents raising grandchildren after they completed a survey measuring social support, social isolation, and resilience. The interview protocol included questions related to participants' social network, social support, and services. Prior to the interviews, using data from the surveys participants were identified as representing one of four resilience quadrants: resilient, maladaptive, competent, and vulnerable. Qualitative analysis of grandparent's social networks across groups indicated resilient grandparent caregivers' networks were structured in a way that provided more opportunities for the inflow of new information and resources. Whereas the proportion of professionals in maladaptive grandparent caregivers' networks tended to be less than for other networks. This could suggest that for grandparent caregivers, having professionals in one's network can be beneficial. Findings from the current study provide opportunities for future research such as identifying ways to help grandparent caregivers structure their social networks to promote resilience.

IMPROVING SUPPORT FOR CAREGIVERS OF SERIOUSLY ILL OLDER VETERANS: STEPS TOWARD LAY NAVIGATION

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This session will discuss mid-stage findings from a five-year, federally-funded study to develop lay navigation supporting informal caregivers, often family/friends, of older Veterans with advanced stage illness. Caregivers of Veterans report numerous burdens in their caregiver role related to food, clothing, shelter, utilities, and transportation. Current programs focus on Veterans' needs rather than caregivers' needs. Few programs focus on practical needs that can be met with VA and community-based supports. Lay navigator programs may be used to support caregivers' social/practical needs. Lay navigation is used with patient populations, but models focused on caregivers do not readily exist. Dr. Boucher will discuss establishment of and input from the study's Stakeholder Advisory Board and data from sample of caregiver and Veteran interviews informing a lay navigation training curriculum and pilot intervention. Feedback from audience members will be encouraged in this session exploring quality improvements in caregiver support applicable to multiple health systems.

SESSION 3325 (POSTER)

FRAILITY AND SARCOPENIA

PRESCRIPTION DRUG USE FOR PAIN AND FOR SLEEP AND INCIDENT FRAILITY IN OLDER ADULTS

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There is emerging evidence for association of polypharmacy with incident frailty. We performed a longitudinal study within the Health and Retirement Study (HRS) to address whether self-reported prescription drug use for pain and/or sleep (co-use or single use for pain or for sleep) influences incident frailty. We utilized data from the 2006–2014 waves of core and family member exit files in HRS to assign self-reported prescription drug use and sociodemographic and other drug use behavior variables as covariates and construct a Burden Model of frailty (≥ 0.2 ratio of positive/total indicators). We performed unadjusted and adjusted competing risk hazard model analysis with death as a competing risk. In a sample of 7,201 unique non-frail (at baseline) individuals (mean[SD] age 72[6.5] years, 54% female, 85% White, 12% African American, 7.3% Hispanic), prevalences of co-use and single-drug use for pain or for sleep were 2.2%, 14.9%, and 5.6%, respectively. Of 7,201 respondents, 2,723 (37.8%) became frail over the follow-up period and 713 (9.9%) died in non-frail state. The adjusted competing risk hazard model suggest that co-use and single use for pain or for sleep were associated with an increase in the risk of frailty by 92%, 58%, and 31%, respectively ($p < .001$), with statistically significant differences between all risk strata. Adjustment for baseline frailty score and selected chronic disease resulted in modest reductions in effect size with retention of significance. Validation of these initial findings should be undertaken with provider and pharmacy data to identify drug-, dosage-, and duration-specific risks.

SCREENING FOR LOW SHORT PHYSICAL PERFORMANCE BATTERY SCORES: CAN GRIP STRENGTH AND SINGLE CHAIR STAND BE USEFUL?

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The clinical value of low Short Physical Performance Battery (SPPB) scores for identification of older adults at-disability-risk who may benefit from structured intervention is well-established. Feasibility concerns – e.g., time, space constraints – are factors that often preclude SPPB implementation in clinical settings. We assessed whether grip strength (GS) and/or single chair stand (SCS), simple and highly feasible tests, could be useful for clinical identification of older adults with poor SPPB performance. Cross-sectional study using most recent data (Round 7) from the National Health and Aging Trends Study, which enrolled a large U.S. representative sample of Medicare beneficiaries 65 years and older (baseline round: 2011; yearly follow-ups). Nursing home residents were excluded. Sample size was 4,612. Outcome: poor SPPB performance (score < 8). Low GS: < 20 Kg (women) or < 30 Kg (men), and able to do a SCS without use of arm (yes/no) were predictors. Logistic regression, areas under the curves (AUC), and accuracy statistics were computed. AUC for low GS was 0.66, and SCS inability was 0.68; when both tests were considered together, AUC increased significantly: 0.76. Among those SCS-unable ($n=752$), 95.6% had SPPB < 8 . A two-stage screening approach; i.e., detection of SCS inability first, followed by low GS in those SCS-able resulted

in a net-sensitivity of 75.3%, and net-specificity of 83.5%. Sequential screening with SCS and GS testing might offer a case finding screening approach appealing to busy clinical settings from feasibility, accuracy, and/or efficiency perspectives for identification of older adults with low SPPB who may benefit from established interventions.

HYPERGLYCEMIA AND INCIDENCE OF FRAILITY IN OLDER MEXICAN ADULTS LIVING IN RURAL AREAS

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Hyperglycemia is the main characteristic of diabetes and is the result of an absolute or partial deficit in the production or action of insulin. Recent evidence suggests that hyperglycemia increases the risk of frailty. This issue is of great importance for the Mexican population given the high prevalence of diabetes, particularly in older adults. Our objective was to analyze the association between hyperglycemia and the incidence of frailty in a cohort of rural older adults in Mexico. Prospective cohort study with 600 rural older adults, with measurements made in 2009, 2013 and 2018. Frailty was defined using the proposal of Fried and colleagues. The determination of glycosylated hemoglobin was performed through the A1CNow® device, with capillary blood; hyperglycemia was defined considering the recommendation of the American Diabetes Association; where values greater than 6.5% (140 mg / dL) of glycosylated hemoglobin were considered hyperglycemia. We used an ordinal logistic regression model to analyze the relationship between hyperglycemia and incidence of frailty. In the baseline measurement (2009), 8.6% of older adults presented frailty. The incidence of frailty was 6.9%. After adjusting for health and sociodemographic characteristics, hyperglycemia was significantly associated with the incidence of frailty (RR = 2.24 P = 0.018). These findings allow us to determine that hyperglycemia is a prognostic factor of the incidence of frailty. Because frailty is preventable, future interventions for the prevention of frailty should consider the presence of hyperglycemia.

DOES PHYSICAL FUNCTION RESPONSE TO INTENTIONAL WEIGHT LOSS IN OLDER ADULTS VARY BY RACE-ETHNICITY?

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The purpose of this study is to explore whether the effect of weight loss on physical function in older adults varies by race/ethnicity. Individual level data from 1369 older, (67.7±5.4 years), obese (BMI: 33.9±4.4 kg/m²), adults (30% male, 21% African American) who participated in eight randomized controlled trials of weight loss were pooled. Studies were 5-6 months in duration and collected baseline demographic and pre/post gait speed (n=1296), short physical performance battery (SPPB; n=866), and grip strength (n=401) data. Treatment effects were generated by weight loss assignment [weight loss (WL; n=764) versus non-weight loss (NWL; n=605)], as well as categorical amount of weight

change (high loss: >-7%, moderate loss: -7 to -3%, and weight gain/stability: <-3%). Analyses were adjusted for age, sex/gender, study, education, baseline BMI, and baseline value of the outcome measure of interest. Race/ethnicity stratified results were presented if the interaction term was p≤0.10. A race/ethnicity*weight loss assignment interaction was observed for gait speed (p=0.07), with African Americans experiencing greater weight loss-associated improvement (WL: 0.07±0.01 m/s versus NWL: 0.02±0.01 m/s; p=0.03) compared to Whites (WL: 0.08±0.01 m/s versus NWL: 0.07±0.01 m/s). A race/ethnicity*weight loss amount interaction was also observed for gait speed (p<0.01), with greater weight loss associated with greater improvement in both African Americans and Whites; although, gains were most apparent in African Americans experiencing high loss (0.12±0.02 m/s) compared to gain/stability (0.01±0.01 m/s). The beneficial effects of weight loss on gait speed appear greater in African Americans and are augmented with greater weight loss.

OPERATIONALIZING THE FRAILITY INDEX BASED ON WEARABLE SENSOR TO ASSESS FUNCTIONAL PERFORMANCE IN OLDER ADULTS

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Frailty status is a well-known predictor of adverse health outcomes and functional performance. An assessment tool based on a wearable sensor was developed to quickly assess frailty using an upper extremity flexion and extension test. However, the current tool has relied on conventional frailty assessment to classify the frailty status of the participant. The aim of this study is to operationalize the frailty index based on wearable sensor to classify frailty status of older adults. 104 older adults were recruited for the study (age=78.6 ±9.7 years old). Participants were asked to perform a quick 20-second upper flexion and extension task while wearing a gyroscope on the wrist. A sensor-based frailty index (FI) was derived using parameters extracted from the sensor. Participants were also assessed using the Fried Phenotype Criteria (FC) and were classified into three groups: robust, pre-frail, and frail. Mean-shift clustering algorithm was used to operationalize the FI by identifying the cut-off point for each group. Grip strength and physical activity level were used as functional outcome measures. Regression analysis (r) was used to compare the correlation of the FC and FI with the identified metrics. Bivariate analysis show that grip strength was highly associated with the sensor-based frailty classification (r=-0.547) and FC (r=-0.503). The sensor-based classification was significantly associated with walking activity (r=-0.355). The results showed that the sensor-based frailty assessment tool could be used to quickly classify frailty status in older adults and eliminated the need for subjective and time-consuming evaluation.

VALIDITY OF COMMUNITY-BASED FRAILITY CHECK-UP BY SENIOR VOLUNTEERS FOR PREDICTING ADVERSE HEALTH OUTCOMES

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