

relationships and activities that drive collaborative community change processes. The survey asks a representative from each organizational member of an AFI coalition to select “partner” organizations with whom they have worked on AFI goals. Respondents then select from a list of activities in which they engage with each partnering organization. The questions regarding collaboration activities were developed based on theories of inter-sectoral and community-wide collaboration, SNA studies of collaboration in health prevention networks, and qualitative interviews with leaders of an established AFI coalition in Upstate New York. This tool was administered with respondents from 18 organizations comprising the New York coalition. Administration of the pilot indicated that the questions were acceptable and feasible for participants to complete. Analysis of the data through SNA software (UCINET) yielded visual maps to understand dimensions of the AFI’s inter-organizational network. Local government offices and nonprofits emerged as central network nodes for connecting stakeholders. Findings also indicated denser networks around lower-intensity collaboration activities, such as sharing information, relative to higher-intensity activities, such as sharing financial resources. Implications of the tool for future research on the development of AFIs across diverse community contexts are discussed.

QUANTIFYING THE BURDEN OF HOSPITALIZED DAYS IN MEDICARE BENEFICIARIES WITH MULTIMORBIDITY

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Multimorbidity predicts several health outcomes including physical and cognitive functioning and mortality. Multimorbidity also predicts healthcare burden, but this has not been studied using a patient-centered measure that weights conditions by their impact on physical functioning. Health and Retirement Study participants were continuously enrolled in Medicare Parts A/B 1-year before and after the 2012-2013 HRS interview. Medicare claims were used to compute ICD-coded multimorbidity-weighted index (MWI-ICD) by summing physical functioning-weighted conditions. Given excess observations of zero hospital days (78.1%), we used zero-inflated Poisson regression to examine the association between multimorbidity and hospitalized days. First, logit models predicted membership into the zero-coded “no hospitalizations” group. Second, Poisson models predicted hospital days for participants not in the zero-coded group. We converted adjusted regression coefficients to odds ratios to report odds of zero hospitalized days. To compare model fit between MWI-ICD and simple disease count we used AICs. The final sample N=5201 participants had mean age 77.6+/-11.6 years, MWI-ICD 16.5+/-11.6, and 1.9+/-6.0 (range 0-90) hospitalized days. Each 1-point increase in MWI-ICD was associated with 4.3% decreased odds of zero hospitalized days (OR=0.96, 95%CI: 0.95-0.96) and 2% increased number of expected hospitalized days (IRR=1.02, 95%CI: 1.01-1.03) over one year in adjusted models. MWI-ICD

had a lower AIC than simple disease count. Multimorbidity measured with MWI-ICD was associated with a decreased odds of zero hospitalized days and an increased number of expected hospitalized days. Multimorbidity contributes greatly to patient burden through increased hospitalization and is better captured through an index weighting conditions to physical functioning.

VALIDATION OF A BRIEF SCREEN TO IDENTIFY PERSONS WITH DEMENTIA AT RISK FOR BEHAVIORAL DISTURBANCE

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Per current guidelines, clinical assessment of persons with dementia (PWD) should include potential causes of behavioral and psychiatric problems including pain, depression, and caregiver-patient relationship quality. Many validated assessment tools are available; however, administering a battery of instruments is not practical in most clinical settings. Objectives of this secondary analysis are to 1) evaluate the construct validity of brief screens (1-3 questions each) for pain, depression, and relationship strain by examining their associations with validated measures (Geriatric Depression Scale, Modified Philadelphia Pain Scale, Zarit Burden Interview, Mutuality Scale) and medication use and 2) evaluate the predictive validity of each individual screen and the screens as a set (number positive) by examining their associations with frequency of disruptive behaviors on the Revised Memory and Behavior Problem Checklist. PWDs (n=228) were included in the original trial if the PWD or the caregiver endorsed one or more of the three screens. There was evidence of good convergent and discriminate validity for each individual screen (p 's < 0.01). Although only the relationship screen was individually associated with frequency of disruptive behaviors (p < 0.00010), the total number of screens endorsed was positively associated with this frequency ($F(2,225) = 5.50, p = 0.005$). In this sample, the brief screening questions showed good construct and predictive validity. Further studies are needed to determine if they can be used to identify patients with depression, pain, and/or caregiver-patient relationship problems in the clinical setting.

FEASIBILITY OF ONLINE SYNCHRONOUS CAREGIVER DEMENTIA COACHING FOR REJECTION-OF-CARE BEHAVIORS

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Problem: Two-thirds of family caregivers of persons living with dementia have encountered rejection-of-care behavior, usually during assistance with activities of daily living. Purpose: To describe the feasibility of an online videoconferencing platform to help caregivers prevent and reduce ROC behavior. Design: Quasi-experimental. Sample: Twenty-six family caregivers: 54% female, 77% white, 62% spouses (31% wives, 31% husbands), mean age 65 years, and college-educated (92%). Their care recipients were 61% female, 77% white, mean age of 76 years, and college-educated

(88%). Procedure: Family caregivers who endorsed problematic ROC behaviors in their care recipients participated in six online, individual, synchronous, sequential, and weekly 1-hour coaching sessions. We measured general burden (Zarit Burden Inventory) and the frequency, severity, and associated distress of responsive behaviors (Neuropsychiatric Inventory Questionnaire). Data collection intervals were before coaching (baseline), immediately after the final session (Time 1), and six weeks (Time 2) and 12 weeks (Time 3) after the final session, respectively. Results: Caregivers reported less overall distress scores at Time 2 compared to baseline: 13.58 (SD 6.44) versus 17.42 (SD 6.90), $t=2.56$, $p=0.017$). Distress scores returned to baseline by Time 3. Caregivers reported less severe ROC behavior at Time 2 which was not statistically significant. Burden remained unchanged throughout the 24 weeks. Conclusion: Online caregiver coaching that targets ROC behavior is feasible. Qualitative review of the encounters suggests that a longer period of intervention and an outcome measure more sensitive to ROC effects on activities of daily living may be needed in future studies.

ATTACHMENT SECURITY AND DEPRESSIVE SYMPTOMS IN OLDER-ADULT MARRIAGES

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Attachment theory emphasizes attachment security, providing and receiving communication of safety and emotional support, as one of the most fundamental needs in close relationships across the lifespan. Having an insecure attachment style, anxious or avoidant attachment, has been related to depressive symptoms in mostly young adult marriages. This study examined the interpersonal associations between attachment anxiety, attachment avoidance, and depressive symptoms in 98 older adult couples, using self-report measures. The Actor Partner Interdependence model was used to analyze the data. Results show that one partner's anxious attachment was significantly positively associated with their own greater depressive symptoms ($\beta=2.10$, $p=0.000$). This effect was stronger for husbands than for wives ($\beta=1.13$, $p=0.002$). Results remained when controlling for age, physical functioning, marital length, and socio-demographics. There were no significant cross-partner associations. Findings suggest that attachment anxiety may be particularly impactful for depressive symptoms in husbands.

ABO GENE AND AGING-RELATED OUTCOMES IN OVER 379,000 EUROPEAN-DESCENT PARTICIPANTS OF UK BIOBANK

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Genetic variants associated with multiple traits are potential targets to delay aging. Drugs supported by genetic evidence are twice as likely to succeed in human trials. Single nucleotide polymorphisms (SNPs) in the ABO gene were

reported by genome-wide associations studies, associated with breast cancer, coronary artery disease, stroke, and type II diabetes. To evaluate the potential of ABO gene as a target for aging intervention, we conducted a genome-wide association study (PheWAS) to associate the genotype-derived blood types (based on two SNPs in the ABO gene) with a wide range of aging-related outcomes. The genotype-derived blood type distribution (41% A, 9% B, 3% AB, and 47% O) is similar to that reported by the UK National Health Service (39% A, 10% B, 3% AB, and 48% O). The blood type was not associated with parental lifespan or extreme parental longevity. Non-O types had modestly lower risk of hypertension than O type but higher risk of type II diabetes and pancreatic cancer (e.g., OR= 1.37, 95% CI: 1.17 to 1.59 comparing A to O). Additionally, "A" type had modestly higher risk of breast cancer than other types. "A" allele (in A or AB type) was associated with lower heel bone mineral density, alkaline phosphatase (e.g., 0.41 standard deviation lower in A than that in O, 95% CI: -0.42 to -0.40), and hemoglobin concentration, but higher HbA1c, direct LDL, and cholesterol. Blood types with A allele(s) are less favored than other blood types, which however are adversely associated with some aging traits.

SEX HORMONES AND ARTHRITIS IN A LONG-LIVED ANIMAL MODEL, THE ELEPHANT

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Arthritis affects women more so than men, particularly after menopause. Sex hormones may play a role in arthritis development, yet this is still unclear. Elephants have a similar lifespan to humans and develop arthritis and joint issues (musculoskeletal impairments (MI)), but do not undergo menopause. Interestingly, many female zoo elephants do not exhibit normal ovarian cycles, closely resembling that in post-menopausal women. Objectives: 1) examine ovarian cyclicity status with MI (Asians: N=84; Africans: N=83); 2) determine whether gonadotropin and sex hormones are reduced in cycling elephants with MI (Asians: N=16; Africans: N=26); and 3) evaluate whether serum CTXI, a marker of type 1 collagen degradation, is associated with MI in elephants (Asians: N=40; Africans: N=32). We used longitudinal serum and health data on ovarian cycling and non-cycling zoo African and Asian elephants with and without MI. Serum progesterone, leutinizing hormone, follicle stimulating hormone, and CTXI concentrations were measured. Cyclicity status was based on progesterone patterns. Zoo veterinarians classified the elephant with MI based on clinical exams and observations. In both Asian and African elephants, MI was significantly associated with cyclicity