one group non-RCTs. The result of meta-analysis shows that the effect size of the NPS was 0.62 (95% confidence interval [CI]=0.40-0.83, p<0.001), the caregiver burden was 0.68 (95% CI=0.29-1.07, p=0.001). Both variables indicated moderate effect. These results indicate that the TAP is an effective intervention for reducing NPS of people with dementia and the burden of caregivers. Therefore, TAP is clinically useful approach, we expect TAP to be actively applied to people with dementia in the community.

ACTION PLANNING CHECKLIST FOR SOCIAL DETERMINANTS OF HEALTH: OLDER ADULTS WITH CHRONIC CONDITIONS

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Medical residents need training to assess social determinants of health (SDOH) related to chronic conditions. We created a checklist to identify SDOH affecting residency clinic patients' ability to manage chronic conditions. The tool: 1) involves resident training; 2) provides decision support checklist; 3) influences patient activation; and 4) increases provider and patient communication through shared decision making. Action Planning Guide checklist (APG) includes questions pertaining to SDOH preventing patients from managing their chronic conditions and actions patients will take. Areas identified are discussed between patient and resident, increasing patient activation. The clinic's nurse care facilitator guides referrals to community-based resources. Fifty-two patients were enrolled, with 75% of patients responding they would like to be better managers of their chronic conditions. This information is used to develop patient's goals of care. Over 90% of patients said their conditions affect their lives and discussed ways better to care for themselves. Over 80% discussed medication management, health goals to improve their quality of life, and made a plan that maps out ways to reach their goals. All of these are essential for achieving positive health outcomes for older patients with chronic conditions. These attributes promote effective patient/provider partnerships. Seventy referrals were made; food through 2-1-1 (47%); monthly commodity food program (30%); utility payments (11%), and transportation (9%). Twenty-seven referrals were made to agencies serving older adults; 25 to the local AAA information and assistance services, and 2 to Senior Project Fresh Voucher Program.

ADDRESSING PHYSICAL, FUNCTIONAL, AND PHYSIOLOGICAL OUTCOMES IN OLDER ADULTS VIA INTEGRATED MHEALTH INTERVENTION

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Objective: We evaluated components of an integrated mobile (m)Health-based intervention "Activate for Life" (AFL) on health outcomes in lower-income older adults (65 years and older). Method: AFL incorporates balance (Otago; OG), physical strength (Gentle Yoga and Yogic Breathing; GYYB), and mental engagement (Behavioral Activation; BA) components. Thirty participants were randomly allocated to one of three Arms (n=10 per each arm): OG (Arm 1), (OG+GYYB (Arm2), or OG+GYYB+BA (Arm 3, or full AFL). Groups were evaluated for physical, functional and physiological endpoints at baseline, and posttreatment (12-weeks and/or 3-month follow up). Results: Improvements over time in pain interference and 1,5 Ag biomarker were noted for all groups. No significant changes were observed in other physical, functional and physiological measures. DiscussionThis study illustrated potential benefits of the AFL intervention on the health of lower-income older adults and lessons learned from this pilot will be used to make improvements for a large-scale randomized controlled trial.

ADVANCE CARE PLANNING AND HOSPICE USE AMONG PEOPLE WITH DEMENTIA: A REPORT FROM THE HEALTH AND RETIREMENT SURVEY

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People with Alzheimer's disease and related dementias (ADRD) frequently receive sub-optimal end-of-life care (EOLC), often enduring invasive procedures such as tube feeding, resuscitation, and surgery within days of their death. While advance care planning (ACP) has shown effectiveness in improving EOLC for those with ADRD, there are many barriers to ACP specific to the ADRD population. Research suggests that hospice care is optimal in reducing end of life suffering for ADRD patients. This study aimed to empirically assess hospice utilization and ACP for individuals with ADRD compared to individuals without ADRD, and to assess the impact of ACP on hospice utilization for individuals with ADRD. Data came from the 2016-2018 wave of the Health and Retirement Study (HRS), a national longitudinal study collecting health and demographic data on older Americans. This analysis evaluated survey responses from 1,224 proxy respondents for individuals who died during this period. In this sample, people with ADRD were both significantly more likely to have utilized hospice care (OR=1.37) and to have written EOLC instructions in place (OR=1.19). Those with ADRD were 22% less likely to have discussed their EOLC wishes with their proxy than those without ADRD. Having a written EOLC plan in place significantly increased the odds of hospice utilization (OR=1.37) but discussion around EOLC preferences increased odds of hospice utilization at a higher rate (OR=1.59). These results support policy to advance earlier ACP conversations around EOLC preferences and the implementation of written EOLC instructions to reduce suffering for individuals with ADRD diagnoses .

AN ENVIRONMENTAL CONTRIBUTOR TO PARKINSON'S DISEASE CAUSES A HORMETIC LIFESPAN EFFECT IN C. ELEGANS

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Only 5-10% of Parkinson's Disease (PD) cases have a direct genetic origin; however, exposure to herbicides, pesticides, and interactions with soil are potential risk factors. PD is characterized by the loss of dopaminergic (DA) neurons and the formation of protein inclusions that contain α-synuclein (α-syn). Conversely, a soil bacterium,

Streptomyces venezuelae (S. ven), produces a secondary metabolite that causes age- and dose- dependent DA neurodegeneration in C. elegans; it also exacerbates α-syn-induced DA neurodegeneration. Previous studies from our lab determined that exposure to the S. ven metabolite caused oxidative stress, mitochondrial fragmentation and enhanced reactive oxygen species (ROS). Here we report that exposure to S. ven metabolite causes a hormetic effect on C. elegans lifespan, where low concentrations (5X) extend lifespan in N2 animals, but at higher concentrations (20X) lifespan is decreased. To further examine this hormetic response, we examined daf-16 mutants in this assay. daf-16 mutants displayed no significant differences between solvent and metabolite at both high and low concentrations, suggesting the hormetic response is daf-16 dependent. We also studied S. ven metabolite on C. elegans aging mutants. We investigated mutants in the AMPK signaling pathway and found when exposed to the 20X concentration of S. ven metabolite, aak-2 mutants displayed no significant difference between solvent and metabolite over lifespan. However, when aak-2 mutants were exposed to solvent control and the 5X concentration, mutants displayed a decreased lifespan. This suggests that functional aak-2 might be important for increased lifespan when combating toxicants following chronic exposure.

ARE LONELINESS AND SOCIAL ISOLATION EQUAL THREATS TO HEALTH AND WELL-BEING? AN OUTCOME WIDE LONGITUDINAL APPROACH

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The detrimental effects of loneliness and social isolation on health and well-being outcomes are well documented. In response, governments, corporations, and community-based organizations have begun leveraging emerging tools to create interventions and policies aimed at reducing loneliness and social isolation at-scale. However, these efforts are frequently hampered by a key knowledge gap: when attempting to alleviate specific health and well-being outcomes, decision-makers are unsure whether to target loneliness, social isolation, or both. Participants (N=13,752) were from the Health and Retirement Study- a diverse nationally representative, and longitudinal sample of U.S. adults aged > 50 years. We examined how changes in loneliness and social isolation over a 4-year follow-up period (from t0:2008/2010 to t1:2012/2014) were associated with 32 indicators of physical-, behavioral-, and psychosocial-health outcomes 4-years later (t2:2016/2018). We used, multiple logistic-, linear-, and generalized-linear regression models, and adjusted for sociodemographics, personality traits, pre-baseline levels of both exposures (loneliness and social isolation), and all outcomes (t0:2008/2010). After adjusting for a wide range of covariates, we observed that both loneliness and social isolation have similar effects on physical health outcomes and health behaviors, whereas loneliness is a stronger predictor of psychological outcomes. In particular, behavioral dimensions of the social isolation measure (i.e., participation in social/religious activities, social interaction frequency) were most strongly associated with the largest number of health and well-being outcomes, including all-cause mortality. Loneliness and social isolation have independent effects on various health and well-being outcomes, thus, should be distinct targets for interventions aimed at improving the health and well-being.

ARE SUBACUTE CARE PATIENTS LIVING LONGER?

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In order to provide prognostic information for gerontologists who regularly counsel families, we determined to measure the longevity of subacute patients who have feeding tubes and tracheostomies. This study compares two cohorts of patients: 2002-2006 and 2015-2019. T-tests were performed to compare the total days in acute care, the total survival days, and the number of hospital admissions between the two groups. Results revealed (2002-2006, 2015-2019), some variance in the acute care days between the two groups (M= 15.4186, 21.49438) and p= .66. There is a wide difference in the total survival days between the two groups with individuals from 2015-2019 living longer than 2002-2006 (M= 229.8198, 644.0449), p< .001. However, there is no statistically significant difference in the number of hospital admissions between the two groups (M= 0.994186, 0.7752809), p= .09754. We hypothesize that advances in technology, medicine, and care over the span of 17 years contribute to increased longevity. On average, patients in the 2015-2019 group survived 414 days longer than the first group. Yet, even with such advances, more days were spent in acute care in the second group (2015-2019). Our data show subacute longevity has nearly tripled in the last decade. Although patients are living longer, they are often in a vegetative state; in most instances, there is no apparent improvement in quality of life. This study provides current data which will help gerontologists improve prognostication and allow them to form a more realistic long view of care.

ASSOCIATION BETWEEN ANTICHOLINERGIC BURDEN AND DEMENTIA IN UK BIOBANK

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Previous studies on the association between the long-term use of anticholinergic drugs and dementia report heterogenous results. This variability could be due to, among other factors, different anticholinergic scales used, and differential effects of distinct classes of anticholinergic drugs. Here, we use 171,775 participants of UK Biobank with linked GP prescription records to calculate the cumulative annual anticholinergic burden (ACB) and ascertain dementia diagnoses through GP- and inpatient records. We then use Cox proportional hazards