Frailty is a state of heightened vulnerability due to the cumulative declines across multiple physiological systems. Growing attention is given to identifying social environmental factors associated with the risk of frailty. It is not yet known how different aspects of social relationships (structure and quality) are linked to frailty, and whether the strength and directions of links may differ by relationship types. Current study aims to 1) to identify sub-populations that follows distinctive trajectory of frailty and 2) to examine the multidimensional social relationship predictors of frailty trajectory. Data came from six waves of the Health and Retirement Study (2006-2016). Sample was older adults aged over 65 (n = 8,892; Mage = 74, SD = 6.96). Frailty index was created using 32 items each wave. Network size, frequency of contact, support, and strain with each relationship type (spouse, children, family, friends) was measured at baseline. Growth mixture model identified three distinctive subpopulations of older adults who share similar frailty trajectory, namely the average, high, and steep increase frailty group. Multinomial logistic regression results showed that frequent contact with friends were associated with lesser frailty. Perceived strain with the spouse, children, and family members all had additive influence on the membership to the higher or steep increase frailty group, compared to the average frailty group. Total network size or perceived support from ties were not significant factors for frailty progression. Interventions can target friendships and stress with kin members as modifiable factors to reduce the risk of frailty progression.

SYSTEMS BIOLOGY OF HUMAN AGING - NETWORK MODEL 2019

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This network schema is presented to aid in conceptualizing the many processes of aging, the causal chains of events, and the interactions among them, including feedback and vicious cycles. Contemplation of this network suggests promising intervention points for therapy development. This diagram is maintained on the Web as a reference for researchers and students. Content is updated as new information comes to light. www.LegendaryPharma.com/chartbg.html At first glance the network looks like a complicated web. However, as a conceptual summary, in one view, we can see how the many biogerontological processes relate to each other. Importantly, examination of these relationships allows us to pick out reasonably plausible causal chains of events. Within these chains, we can see age-related changes or accumulations that appear to be promising targets for future therapy development. Especially harmful is damage to the body's regeneration and repair systems, because they normally repair damage to other structures and systems. The many observable signs of human senescence have been hypothesized by various researchers to result from several primary causes. Inspection of the biochemical and physiological pathways associated with age-related changes and with the hypothesized causes reveals several parallel cascades of events that involve several important interactions and feedback loops. This network model includes both intracellular and extracellular processes. It ranges in scale from the molecular to the whole-body level. Effects due to externalities, lifestyle, environment, and proposed interventions are highlighted around the margins of the network.

BUILDING H.O.U.S.E. (HEALTHY OUTCOMES USING A SUPPORTIVE ENVIRONMENT) FOR LGBTQ OLDER ADULTS

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Lesbian, gay, bisexual, transgender, and queer (LGBTQ) older adults face unique challenges in finding affordable, inclusive, and supportive housing. These challenges may be due to discrimination, income disparities, and higher rates of health problems compared to cisgender heterosexual seniors. To our knowledge, this is the first longitudinal study of the health and wellbeing of older adults who move into LGBTQ-welcoming, affordable senior housing. Participants completed a brief baseline survey at the time of their housing lottery application. Questions focused on physical, psychological, and social health and current health service use. We calculated descriptive statistics on health status at baseline. 184 participants completed the baseline survey, mean age was 68 years (SD 5.2), and nearly 75% reported an annual income under $30,000. Almost half reported a diagnosis of hypertension, 40% depression, 27% anxiety, and 25% HIV/AIDS. Around 70% reported their health as good to excellent, 21% fair, and 9% poor or very poor. However, 58% reported their physical activities were at least somewhat limited by their physical health, 43% reported difficulties with balance or walking, and 32% reported memory problems. Nearly 3% had been admitted into the hospital and 10% had visited the emergency room in the past 30 days. In terms of social wellbeing, 63% felt isolated from others at least some of the time. In summary, LGBTQ older adults seeking affordable senior housing report relatively good health, although they also experience functional and social difficulties. New forms of housing that are explicitly LGBTQ-welcoming may help address these health challenges.

CORRELATES OF MENTAL HEALTH PROBLEMS AMONG OLDER AFRICAN AMERICANS WITH CHRONIC ILLNESS

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Prior epidemiologic studies have established that high rates of comorbidity of diabetes and depression is common. The aim of this study is to examine prevalence and correlates of mental health conditions among older African Americans with chronic health conditions The sample (n=1,399) from the first round of the NHATS includes older African Americans living in their community: 60% women, 35% married, 39% less than HS, 57% from the South. A two-way MANCOVA was conducted to determine the