

to prevent and reduce co-morbid depression by addressing loneliness through improving social skills, enhancing social support, and reducing maladaptive social cognition.

DISPARITIES OF MENTAL HEALTH SERVICE NEEDS AND UTILIZATION AMONG OLDER ADULTS

Yuanyuan Hu,¹ and Qingwen Xu,² 1. *New York University, Elmhurst, New York, United States*, 2. *New York University, New York University, New York, United States*

Prior studies have examined mental health disparities, however, without adequate attention to the older adult population. Framed by the Andersen Behavioral Model of Health Service Use, this study was to examine the prevalence of depression and anxiety and the mental health service use among older adults of different race/ethnicity; and to investigate factors associated with mental health services use (counseling and psychotropic medication). Data from the National Health Interview Survey 2019 were analyzed by bivariate tests and logistic regression analyses. Hispanic older adults have the highest rates of depressive and anxious symptoms, followed by Whites, Blacks, and Asians. Non-Hispanic Asians and Blacks reported significantly lower rates of taking medication. The severity of depression and anxiety was consistently associated with mental health service use across all groups. Education was positively associated with counseling use in white and black groups. For older whites, better general health, male and foreign-born were significantly predicting less medication use. Older blacks with better general health were significantly less likely to use medication. For Hispanic older adults, female and being single were associated with anxiety medication use. Results suggest that older adults, despite different perceptions and cultural understandings of mental health, use mental health services for severe conditions. This study also highlights the important role that education and health literacy could have played in the use of counseling services. For the medication use, the result—that general health status was important for both black and white older adults, but not Hispanics—could suggest a few directions for further exploration.

FEASIBILITY PILOT: PROBLEM ADAPTATION THERAPY FOR EMOTION REGULATION IN COMMUNITY-DWELLING OLDER ADULTS

Julia Sheffler,¹ Melissa Meynadas,² Dimitris Kiosses,³ and Natalie Sachs-Ericsson,² 1. *Florida State University College of Medicine, Tallahassee, Florida, United States*, 2. *Florida State University, Tallahassee, Florida, United States*, 3. *Weill-Cornell Medicine, White Plains, New York, United States*

Emotion regulation (ER) difficulties in older adults are associated with increased depression and decreased resiliency to stressful life events. In general, maladaptive ER is a transdiagnostic risk factor for a range of psychological and physical problems across the lifespan. Thus, interventions targeting ER may be valuable in reducing risk for a range of late-life pathologies. The present study evaluated and adapted an existing ER-focused treatment (i.e., Problem Adaptation Therapy (PATH)) for community older adults. We completed a small clinical pilot study to assess the feasibility of the adapted protocol and initial signals of effect of the intervention on ER, depression, and resiliency. Participants were recruited using an online survey, which was

used to then identify participants scoring in the highest and lowest quartiles for ER. Individuals in the lowest ER quartile (N=27) were randomly assigned to the PATH condition or a physical health education (PHET) control condition. Of the 27 participants in the low ER group, four participants (3 PATH, 1 PHET) dropped out of the intervention. A paired samples t-tests revealed significant decreases in depressive symptoms, significant increases in self-reported ER skill, and improvements in resiliency (all $ps < .05$) for the PATH condition. For the PHET condition, only significant increases in self-reported ER skill ($t(12) = -2.68, p = .020$) were observed. In sum, the intervention protocol proved feasibility and demonstrated initial signals of effect in the expected directions. Future studies will examine mechanisms of action and the efficacy of the adapted PATH protocol.

FUNCTIONAL MOBILITY, AGING, AND PEOPLE WITH MENTAL ILLNESS: ISSUES AND CHALLENGES

Michelle Zechner,¹ Ellen Anderson,² and Kenneth Gill,³ 1. *Rutgers, New Jersey, United States*, 2. *Rutgers, Newark, New Jersey, United States*, 3. *Rutgers, Piscataway, New Jersey, United States*

People with serious mental illness (SMI) are more likely to experience chronic health conditions at younger ages, which increases the risk of premature death. Co-morbid health conditions and risk for premature death are well-studied in the population, however less is understood about the impact of aging and SMI on functional ability. Research suggests that the population walk less and may have lower fitness levels than other populations (Gill et al., 2016). Specific data exploring functional age of people with SMI is sparse. The authors compared published standardized geriatric functional fitness values for people over 65 to baseline values of a community sample of people living with SMI who participated in a community health promotion intervention. The average age of the sample was 50 (SD=11). Three physical functioning measures were used in the comparison to measure physical functioning; the Sit to Stand Test, 6 Minute Walk, and Single Legged Stance. Results indicated significant differences in mean physical functioning values between the sample and standardized geriatric values. The sample performed at levels 20-30 years older than their chronological age. This finding suggests that mental health and aging services may need to adjust interventions, services and methods to improve physical functioning in middle-aged and older adults living with SMI. Premature functional decline impacts community living skills, independent living, housing choice, vocational options, and may impede personal goal attainment. Recommendations for interventions will be offered, as will suggestions for policies targeting services that cross aging and mental health silos.

TRAUMA, POSTTRAUMATIC STRESS DISORDER, AND TREATMENT AMONG MIDDLE-AGED AND OLDER WOMEN

Laura Sampson,¹ Shaili Jha,² Andrew Ratanatharathorn,¹ Andrea L. Roberts,¹ Laura D. Kubzansky,¹ Eric B. Rimm,¹ and Karestan C. Koenen,¹ 1. *Harvard T.H. Chan School of Public Health, Boston, Massachusetts, United States*, 2. *Harvard T.H. Chan School of Public Health, Harvard T.H. Chan School of Public Health, Massachusetts, United States*

Posttraumatic stress disorder (PTSD) is twice as prevalent in women as in men, and is an established risk factor for chronic disease, but few studies have comprehensively assessed lifetime PTSD in middle-aged and older civilian women. We surveyed 33,328 women aged 54-74 from the Nurses' Health Study II from August 2018 to January 2020 to understand trauma exposure, PTSD based on the Diagnostic and Statistical Manual of Mental Disorders Version 5, and trauma-related treatment use. The majority (82.2%) of women reported one or more lifetime traumas. 10.5% of those with trauma had lifetime PTSD and 1.5% had past-month PTSD. The most common trauma types were sudden or unexpected death of a loved one (44.9%) and interpersonal or sexual violence (43.5%). Almost 30% experienced occupational (nursing-related) trauma. Interpersonal or sexual violence event types explained the largest proportion of PTSD cases (33.6%) out of seven categories of events assessed. Only 25% of women with trauma ever accessed trauma-related treatment, but this proportion was higher (66.4%) among those with diagnosable PTSD, and among those with current depression (35.9%). Treatment was most common among women who experienced interpersonal/sexual violence and lowest among those with occupational trauma, but treatment satisfaction did not vary by worst trauma type. Psychotherapy was the most common type of treatment. These results demonstrate that trauma is nearly universal in middle-aged to older women, which has important implications for their long-term health and well-being—particularly in the era of COVID-19 which is likely to produce additional trauma in this population.

Session 3600 (Symposium)

Models to Study Aging

UNIVERSAL DNA METHYLATION AGE ACROSS MAMMALIAN TISSUES

Chair: Viviana Perez Ake Lu,¹ Zhe Fei,² Ken Raj,³ and Steve Horvath,² 1. *UCLA, Los Angeles, California, United States*, 2. *UCLA, Los Angeles, California, United States*, 3. *Centre for Radiation, Chemical and Environmental Hazards, Public Health England, Chilton, England, United Kingdom*

Aging is often perceived as a degenerative process caused by random accrual of cellular damage over time. In spite of this, age can be accurately estimated by epigenetic clocks based on DNA methylation profiles from almost any tissue of the body. Since such pan-tissue epigenetic clocks have been successfully developed for several different species, it is difficult to ignore the likelihood that a defined and shared mechanism instead, underlies the aging process. To address this, we generated over 10,000 methylation arrays, each profiling up to 37,000 cytosines in highly-conserved stretches of DNA, from over 59 tissue-types derived from 128 mammalian species. From these, we identified and characterized specific cytosines, whose methylation levels change with age across mammalian species. Genes associated with these cytosines are greatly enriched in mammalian developmental processes and implicated in age-associated diseases. From the methylation profiles of these age-related cytosines, we successfully constructed three highly accurate universal

mammalian clocks for eutherians, and one universal clock for marsupials. The universal clocks for eutherians are similarly accurate for estimating ages ($r > 0.96$) of any mammalian species and tissue with a single mathematical formula. Collectively, these new observations support the notion that aging is indeed evolutionarily conserved and coupled to developmental processes across all mammalian species - a notion that was long-debated without the benefit of this new and compelling evidence.

THE COMMON MARMOSET: A HIGHLY TRANSLATABLE SMALL NONHUMAN PRIMATE MODEL OF AGING

Ricki Colman, *University of Wisconsin, Madison*

BATS: SECRETS OF EXTENDED HEALTHSPAN

Emma Teeling, *University College Dublin, Ireland, Ireland*

Of all mammals, bats possess the most unique and peculiar adaptations that render them as excellent models to investigate the mechanisms of extended longevity and potentially halted senescence. Indeed, they are the longest-lived mammals relative to their body size, with the oldest bat caught being >41 years old, living approx. 8 times longer than expected. Bats defy the 'rate-of-living' theories that propose a positive correlation between body size and longevity as they use twice the energy as other species of considerable size, but live far longer. The mechanisms that bats use to avoid the negative physiological effects of their heightened metabolism and deal with an increased production of deleterious Reactive Oxygen Species (ROS) is not known, however it is suggested that they either prevent or repair ROS damage. Bats also appear to have resistance to many viral diseases such as rabies, SARS and Ebola and are the suspected reservoir species for a huge diversity of newly discovered viruses, including Sars-CoV-2. This suggests that their innate immunity is different to other mammals, perhaps playing a role in their unexpected longevity. Here the potential genomic basis for their rare immunity and exceptional longevity is explored across multiple bat genomes and divergent ageing and immune related markers (e.g. microbiome, telomeres, mitochondria, cellular dynamics, cytokine response) studied in wild bat populations. These findings provide a deeper understanding of the causal mechanisms of ageing and tolerant immunity, potentially uncovering the key molecular pathways that could be utilised to benefit society.

Session 3605 (Paper)

Nursing Homes

A CROSS-SECTIONAL STUDY COMPARING YOUNGER AND OLDER NURSING HOME RESIDENTS IN WESTERN CANADA

Bianca Shieu,¹ Todd Schwartz,² Anna Beeber,³ Matthias Hoben,⁴ Mark Toles,² and Ruth Anderson,³ 1. *University of Pittsburgh/ School of Medicine, Pittsburgh, Pennsylvania, United States*, 2. *UNC Chapel Hill, UNC Chapel Hill, North Carolina, United States*, 3. *University of North Carolina at Chapel Hill, UNC Chapel Hill, North Carolina, United States*, 4. *University of Alberta at Edmonton, Edmonton, Alberta, Canada*