caregiver burden and depression among Chinese caregivers of older adults with cognitive impairment. Data came from structured interviews with 300 primary family caregiver-care recipient dyads in Wuhan, China. We used OLS to examine the association between coping strategies and caregiver burden and depression. More positive reframing and acceptance were associated with lower caregiver burden, whereas more self-distraction was associated with higher caregiver burden. More positive reframing was associated with lower caregiver depression, whereas higher self-distraction and religion were associated with higher caregiver depression. Findings of this study suggest that a psychosocial intervention package that emphasizes on enhancing positive reframing skills and affirming acceptance may be effective in reducing caregiver burden and depression among Chinese caregivers of older adults with cognitive impairment.

### IMPACT OF COVID-19 ON MEANING MAKING OF DEMENTIA CAREGIVERS IN HONG KONG: FROM THE GENERATIONAL PERSPECTIVES

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This study examined the impact of COVID-19 on meaning making among adult children dementia caregivers and the association with caregiver mental well-being. Adult caregivers (n=601) from two generations, 1946-1964 (Baby Boomers) and 1965-1980 (Generation X), were recruited in Hong Kong between October 2019 and June 2020. Participants were assessed on depressive symptoms (PHQ-9) and meaning making (Finding Meaning Through Caregiving Scale-FMTC). Generation X scored higher on sense of loss (p = 0.04) and lower on provisional meaning of FMTC (p=0.017). Moreover, an interaction effect (p=0.003) between generation and COVID-19 were found. During the pandemic, Generation X caregivers were more likely to suffer from higher losses, higher depressive symptoms (>23.2% moderate to severe) and lower provisional meaning (p=0.03) compared to their boomer counterparts. The level of meaning making is more important to Generation X caregivers, especially in COVID-19 situation. Government should consider generation-responsive services and education support in guiding service implementation.

# Session 2435 (Paper)

# Neighborhood Environments and Aging

### NEIGHBORHOOD CHARACTERISTICS AND ACCELERATED AGING: EVIDENCE FROM THE HEALTH AND RETIREMENT STUDY

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An individual's rate of aging directly impacts one's functioning, morbidity and mortality. Identifying factors related to accelerated or delayed aging may provide important information for potential areas of intervention. While race/ ethnicity, socioeconomic status and behavior characteristics have been linked to biological aging, it is unclear whether

neighborhood characteristics are associated with one's rate of aging. We use a novel aging measure, Expanded Biological Age, from the 2016 Health and Retirement Study Venous Blood Study (HRS-VBS) to investigate whether individuals living with unfavorable neighborhood conditions are experiencing accelerated aging compared to those living in more favorable conditions. We constructed a summary measure of expanded biological age using 22 novel biomarkers in the HRS-VBS; we then regressed the summary measure on age and used the residuals as indicators of accelerated or delayed aging. We measured neighborhood physical disorder, presence of green space, and perceived social cohesion using the 2016 HRS Interviewer Observation data and Self-Administered Questionnaire. We find that individuals living with higher levels of neighborhood physical disorder appeared 1.05 years older biologically than the average for those of the same chronological age. Individuals living near green space including parks were 1.5 years younger biologically than expected based on their chronological age though this association was marginally significant. We did not find an association between neighborhood social cohesion and accelerated aging. This implies that living with severe neighborhood disorder, characterized by presence of disrepair, trash/litter, and abandoned structures, and living near green space, play an important role in who lives longer.

## NEIGHBORHOOD COHESION AND THE MENTAL HEALTH OF MULTIMORBID OLDER ADULTS: CLSA PATH ANALYSIS THROUGH LONELINESS

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More older adults with multimorbidity are aging in place than ever before. Their mental health may be affected by housing and neighborhood factors. In this paper, we use structural equation modelling (SEM) to examine how the physical environment influences life satisfaction and depressive symptoms in two separate models. We included social environment (i.e., social support, social participation, walking) and loneliness as intermediate variables. Data were drawn from baseline and the first follow-up (after 3-4 years) of the Canadian Longitudinal Study on Aging (CLSA). Participants were N=14,301 adults aged D65 with D2 chronic illnesses. Good model fit were found after controlling for age, sex, education and baseline values (TFI=1.00; CFI=1.00; RMSEA<0.001; SRMR<0.001). The total effects of housing quality (Btotal=0.08,-0.07) and neighborhood cohesion (Btotal=0.03,-0.06) were weak but statistically significant in the expected direction. Together, the intermediate variables explained 21-31% of the total effects of housing quality and 67-100% of the total effects of neighborhood cohesion. Loneliness explains 27-29% of the total effects of physical environment on mental health, whereas walking explained a mere 0.4-0.9% of their total effects. Walking did not mediate between housing quality and mental health outcomes. Overall, the results support our path analysis framework: physical environment -> social environment -> loneliness -> mental health. Our model provided excellent explanations of the effects of neighborhood cohesion, especially on life satisfaction. If these associations reflect causal effects, community-based age-friendly interventions should focus on neighborhood cohesion and loneliness to promote

the well-being of older adults who are aging in place with multimorbidity.

### NEIGHBORHOOD ENVIRONMENTS AND COGNITIVE DECLINE IN MIDDLE AND OLD AGE IN CHINA: GENDER AND AGE VARIATIONS

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Older adults are more vulnerable to neighborhood physical and social conditions due to longer exposure, increased vulnerability, changing spatial use, and a greater reliance on access to community sources of integration. Previous research has demonstrated an association between neighborhood environments and cognitive function in older adults. However, most studies were cross-sectional, focused on western countries, and did not examine potential moderating factors. This study examined gender and age variations in the relationship between neighborhood environments and cognitive decline in middle and old age in a developing country that is experiencing rapid population aging and rising prevalence of Alzheimer's disease and related dementias. Using data from a nationally representative sample of adults aged 45 years and older from the three waves of China Health and Retirement Longitudinal Study (CHARLS 2011-2015), this study estimated multilevel growth curve models for the effects of neighborhood environments on cognitive decline separately for men and women and for those aged 45 to 64 and those aged 65 and above. It showed that the cross-sectional effect of outdoor facility and longitudinal effect of handicapped access were more significant for men, but the cross-sectional effect of community social participation and longitudinal effects of raining days, number of disasters, employment service, and community SES were more significant for women. The cross-sectional effect of infrastructure advantages and longitudinal effects of employment service and old age income support were more significant for adults aged 65 and over. These findings suggest that community-level interventions may be more beneficial for older women.

### SOCIAL ISOLATION AND SUICIDAL IDEATION OF OLDER PEOPLE: THE BUFFERING EFFECTS OF NEIGHBORHOOD SOCIAL COHESION

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This study aimed to examine the buffering effect of neighborhood social cohesion on the association of social isolation and suicidal ideation among Korean older people. The sample was older adults who were 65 years old or older and participated in the Korea Health Survey 2017 collected by the Center for Disease and Prevention (N=67,835). Social isolation was measured with three indicators: living-alone, contact isolation (less than weekly contact with family, friends, or neighbors), and participation isolation (less than monthly social organization attendance). Neighborhood social cohesion was measured with two indicators: trust in neighbors

and the welfare budget ratio to represent social capital and social inclusion capabilities, respectively. Multilevel logistic regression analyses were performed to estimate the dynamic relationships between social isolation, neighborhood social cohesion, and suicidal ideation. Results of the main effect indicated that social isolation is a significant risk factor for suicidal ideation and neighborhood social cohesion works as a protective factor against suicidal ideation. Results of cross-level interactions showed that the welfare budget ratio moderated the association between participation isolation and suicidal ideation (OR=0.960, p<.001). The negative effect of participation isolation was reduced as the welfare budget ratio of the neighborhood increased. Neighborhood social cohesion indicators did not moderate the association between the remaining types of social isolation and suicidal ideation. The evidence from this study highlights the importance of social welfare expenditures when building suicide prevention interventions and age-friendly communities.

## TWIN SIMILARITY FOR NEIGHBORHOOD, GEOGRAPHIC MOBILITY, AND HEALTH OUTCOMES IN LATE ADULTHOOD

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Socioeconomic status (SES) is one of the most robust predictors of health. The source of SES-health associations is heavily debated; one approach is investigating neighborhoodlevel environmental characteristics. Challenges include selection effects and the possibility of reverse causation: people choose their neighborhoods. Longitudinal twin research can overcome these issues by assessing location choice over time as well as twin similarity; however, few existing twin studies have incorporated neighborhood-level data, and none of those focus on aging. Using longitudinal data from the Swedish Adoption/Twin Study of Aging, the current study examined the impact of location at various points in life. Location at birth and in 1993 were available for 972 participants. Birth years ranged from 1926 to 1948; mean age in 1993 was 54.55 (range = 35-67). Thirty-nine percent of the sample had moved to a different county between birth and midlife: individuals who moved had significantly higher parental SES and had achieved significantly higher education. Moreover, identical twin concordance for geographic mobility (77%) was significantly higher than fraternal twin concordance (65%), indicating a modest but significant genetic contribution. Geographic mobility did not impact identical twin similarity on a functional aging factor (corrected for age and education), but fraternal twins concordant for mobility were more similar than discordant twins, suggesting genetic contributions to mobility may also impact health. Ongoing retrieval of location information for twins born 1900-1925 and geocoding of location information available at 9 waves of data collection will allow for expanded investigation of the SES-health relationship at the neighborhood level.