

Care of adults with Autism Spectrum Disorder (ASD) is a public health priority and costs are projected to be 549 billion US dollars by 2025. Middle and older adult FCGs of adults with ASD often provide lifelong care, experience chronic stress, consequently, are at risk of poor mental health and QOL. An integrative review examined factors associated with resilience in studies of middle and older adult FCGs of adults with ASD. A comprehensive literature search found 10 reports of 8 studies published in peer-reviewed scholarly journals before October 13, 2020. Studies and/or reports of factors associated with resilience in middle and older adult FCGs of adults with ASD were examined using PRISMA, and quality checklists. Some 340 articles met search criteria, 14 were fully reviewed, and 10 were included. Findings suggest FCGs of adults with ASD show capacity for resilience consistent with research on FCGs of children with ASD significant chronic stress. A broad range of resilience factors were studied, and resilience was associated with positive social support, higher QOL, self-efficacy, and problem and meaning-focused coping styles. There is a dearth of research on middle and older adult FCGs of adults with ASD. Increased reporting of social determinants of health and participation of underrepresented groups is needed. Future research must address FCG heterogeneity and specify theoretically grounded conceptual and operational definitions of resilience. Identifying resilience factors is necessary for intervention studies to enhance resilience.

#### SLEEP QUALITY IN FAMILY CAREGIVERS AND MATCHED NON-CAREGIVING CONTROLS: THE REGARDS STUDY

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The high levels of stress experienced by family caregivers may affect their physical and psychological health, including their sleep quality. However, there are few population-based studies comparing sleep between family caregivers and carefully-matched controls. We evaluated differences in sleep and identified predictors of poorer sleep among the caregivers, in a comparison of 251 incident caregivers and carefully matched non-caregiving controls, recruited from the national REasons for Geographic and Racial Differences in Stroke (REGARDS) Study. Incident caregivers and controls were matched on up to seven demographic and health factors (age, sex, race, education level, marital status, self-rated health, and self-reported serious cardiovascular disease history). Sleep characteristics were self-reported and included total sleep time, sleep onset latency, wake after sleep

onset, time in bed, and sleep efficiency. Family caregivers reported significantly longer sleep onset latency, before and after adjusting for potential confounders, compared to non-caregiving controls ( $p < 0.05$ ). Depressive symptoms in caregivers predicted longer sleep onset latency, greater wake after sleep onset, and lower sleep efficiency. Longer total sleep time in caregivers was predicted by employment status, living with the care recipient, and number of caregiver hours. Employed caregivers and caregivers who did not live with the care recipient had shorter total sleep time and spent less time in bed than non-employed caregivers. Additional research is needed to evaluate whether sleep disturbances contributes to health problems among caregivers.

#### TELOMERE LENGTH AND THE TRANSITION TO FAMILY CAREGIVING IN THE REGARDS STUDY

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An increase in life expectancy and an aging population has resulted in increased risks and prevalence of age-related diseases. Previous studies have shown that factors, such as chronic stress, are associated with shorter telomere length. When telomeres become critically short, cells enter a state of senescence, which is a hallmark of aging. Several prior studies examining the relationship between caregiving and telomere length have reported mixed results. The present study utilized data from the Caregiving Transitions Study, an ancillary study to the Reasons for Geographic and Racial Differences in Stroke (REGARDS) study. The difference in telomere length across an average ~8.6 years was compared between 235 incident caregivers and 229 controls. Telomere length was determined using the qPCR telomere-to-single copy gene (IFNB1) ratio (T/S) for each participant at both baseline and follow-up timepoints. Regression models controlling for age, sex, race, and baseline telomere length examined the association between caregiving status (exposure) and the telomere length change ( $\Delta$ T/S). Sensitivity models adjusted for potential lifestyle and socioeconomic factors, including income, education, BMI, cigarette smoking, and alcohol use. We did not observe a significant association between  $\Delta$ T/S and caregiving ( $\beta=0.041$ ,  $p=0.615$ ). Adding lifestyle and socioeconomic factors did not change the null relationship ( $\beta=0.062$ ,  $p=0.455$ ). In conclusion, this study provides evidence against an association between caregiving and the change in telomere length. Ultimately, more research to address the complex relationship between caregiving and telomere attrition is needed in order to prevent or reduce adverse outcomes and improve the well-being of caregivers and care recipients.