

### AGE MODERATES THE ASSOCIATION BETWEEN ENGAGEMENT IN MINDFULNESS AND PSYCHOLOGICAL DISTRESS AMONG CANCER SURVIVORS

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Geriatric cancer survivors constitute up to 65% of the U.S. survivorship population, and their psychosocial wellbeing are increasingly recognized. Facing high risk of psychological distress, many cancer survivors engage in mindfulness to reduce psychological distress. However, the acceptance of mindfulness across age groups was rarely examined. Based on the Motivational Theory of Life Span Development, mindfulness practice activates survivors' secondary control strategies to better cope with the loss of primary control caused by cancer. In other words, older survivors may respond differently than their young counterparts when facing psychological distress. Therefore, it is important to examine to what extent engagement in mindfulness is different across age groups. Using the cross-sectional 2017 National Health Interview Survey (N=3,068), this study evaluated the association between engagement in mindfulness and psychological distress among cancer survivors and examined whether age moderates such relationship. Age significantly moderated the association between psychological distress and engagement in mindfulness, OR=0.97,  $p < 0.05$ . The correlation coefficient between engagement in mindfulness and psychological distress were significantly greater among younger cancer survivors (<65 years old) than their older counterparts (65+),  $z = 2.24$ ,  $p < 0.05$ . Consistent with previous literature and the Motivational Theory, this study found age moderates the relationship between psychological distress and mindfulness engagement, and this relationship was much stronger among younger cancer survivors comparing to their older counterparts. Therefore, geriatric cancer survivors' unique psychosocial challenges should be addressed in ways that are appropriate to their developmental characteristics.

### STRAIN AMONG CAREGIVERS OF OLDER BREAST CANCER PATIENTS

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Caregiver strain is the emotional and physical demands associated with providing care, particularly when the needs exceed the resources. The purpose of this presentation is to illustrate the predictors of strain among caregivers of older breast cancer patients. Relationships among caregiver strain (Modified Caregiver Strain Index), age, employment status, patient characteristics and scores on the comprehensive geriatric assessment (grip strength,

Timed up & Go, Mini Nutritional Assessment, MiniCog, Geriatric Depression Scale, Pittsburgh Sleep Quality Index, and Brief Fatigue Inventory) are described. This cross sectional study included women who were diagnosed with breast cancer, over the age of 69 years, receiving any type of treatment and seeking an initial assessment in a geriatric oncology program.. Dyads (N=39) had a mean patient age of 77 and caregiver age of 64 years. Most patients were diagnosed with infiltrating ductal carcinoma 30 (76.9%), most had lumpectomy 23 (59%), and were stage 1 15 (38.5%). Most patients had one caregiver 22(56.4%) who worked full-time 12(30.8) and rated their health as very good 16 (25.4%). Increasing age of the caregiver was associated with less caregiver strain ( $r = -0.45$ ,  $p = .02$ ). Employment status of the caregiver was significantly related to caregiver strain  $-0.35$  ( $p = .03$ ). Caregivers employed full time 3.5 ( $p = .08$ ), and part time 5.9 ( $p = 0.3$ ) experienced greater strain (mean±SD:  $9.4 \pm 8.8$ ) than those employed full-time ( $4.7 \pm 3.4$ ). Patient depression, caregiver employment status and age of the caregiver are related to caregiver strain. Healthcare providers must assess for strain in cancer givers of cancer patients.

### GENETIC INFLUENCES ON LUNG FUNCTION CONTRIBUTE TO SUBSEQUENT AGE CHANGES IN MOTOR FUNCTION

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Researchers have striven to determine whether the age changes in physical and cognitive functioning are coincident, or does change in one domain precede functioning in the other. Dual change score models (DCSM) facilitate testing of hypotheses about temporal patterns of aging. Previous investigations in the Swedish Adoption/Twin Study of Aging (SATSA) indicate three directional effects: age changes in processing speed contribute to subsequent age changes in cognition, age changes in lung function contribute to subsequent age changes in processing speed, and age changes in motor function contribute to subsequent age changes in processing speed. In the current analysis we apply DCSM to twin data to examine the nature of the longitudinal relationship between motor functioning and lung function. Three motor functioning factors were created from 20 performance measures: balance, flexibility, and fine motor movement. Peak expiratory flow measured lung function. Participants were 829 adults aged 50-88 at the first of 9 waves of testing (mean = 4.4 waves) covering a 27-year follow-up period (mean = 13.1 years). Model comparisons indicated that genetic influences on decline in lung function contributed to subsequent decline in motor function. Combined with previous results, these results suggest a pathway that may start with age declines in lung function, which then contribute to declines in motor function, which in turn contribute to subsequent declines in processing speed and then cognitive decline. These data indicate that interventions focusing on improving or maintain lung function should have the added effect of maintaining motor and cognitive function.