

The Impact of Caregiver Physical Activity on Caregiver Burden and Quality of Life

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Introduction. Caregivers of individuals with Alzheimer's Disease and related Dementia (ADRD) report high levels of burden and poor quality of life. We examined the associations between caregiver's daily minutes of moderate to vigorous physical activity (MVPA) and caregiver burden and quality of life.

Methods. A cross-sectional analysis was conducted using baseline data from a longitudinal physical activity trial in adults with ADRD and their caregivers. Caregivers of adults with ADRD wore accelerometers (ActiGraph GT3X) over a seven-day period to monitor physical activity. Caregiver burden (Zarit Burden Interview) and eight domains of quality of life (SF- 36) data was collected from self-reported questionnaires. Pearson correlations and linear regressions were used to examine the relationship of MVPA on caregiver burden, and each of the eight quality of life domains.

Results. Valid data was obtained from 98 caregivers (~69 years of age, 70% female, 11% non-Hispanic white). Caregivers obtained ~18.6 mins/day of MVPA. MVPA was positively correlated with 6 out of 8 domains of quality of life: physical functioning, physical health, emotional problems, energy/fatigue, pain, and general health (all $p \leq 0.05$). When controlling for age, sex, and BMI there was evidence that MVPA was still positively associated with physical functioning ($b = 0.26$, $p = 0.011$), physical health ($b = 0.15$, $p = 0.009$), and pain ($b = 0.18$, $p = 0.05$). MVPA was not associated with caregiver burden.

Conclusions. There is evidence that caregiver MVPA is positively associated with some aspects of quality of life. Future research should investigate if interventions targeting increased caregiver MVPA can effectively increase quality of life.