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Long-Term Impact of Caregiving and Metabolic Syndrome with Perceived Decline in Cognitive Function 8 Years Later: A Pilot Study Suggesting Important Avenues for Future Research

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ABSTRACT

The chronic stress of caregiving has been associated with increased risk for cognitive decline and dementia. One theoretical model suggests that a group of risk factors known as the metabolic syndrome MET_SYN (e.g., hypertension, poor glucose regulation, central obesity, and high triglyceride levels) that have demonstrated associations with both stress and cognitive decline, may mediate the association between caregiver stress and cognitive decline. It is also possible that caregiving may moderate the association between MET_SYN and cognitive decline. The present study examined these two potential models. The study sample consisted of 53 caregivers for a relative with dementia and 24 participants who did not have caregiving responsibilities at baseline. We examined associations among caregiving history (yes/no), self-reported decline in cognitive function (the AD8) at follow-up, and a MET_SYN factor comprised of increased systolic blood pressure (SBP), glycosylated hemoglobin concentration (HbA1c), waist circumference, and triglyceride levels at baseline when caregiving was assessed. MET_SYN was associated with AD8 ($p = 0.010$). Caregiving history was not directly associated with AD8 ratings, however, caregiving did moderate the association between MET_SYN and AD8 ($p = 0.043$) assessed 8 years later. In caregivers MET_SYN scores reflecting higher risk were associated with scores on the AD8 indicating decline, whereas, in controls MET_SYN was unrelated to AD8 assessment. Thus, it can be concluded that caregiver stress may increase the association between metabolic risk factors and decline in cognitive functioning up to 8 years later.

KEYWORDS

Caregiving; Metabolic Syndrome; Cognitive Decline

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