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Environmental stress, psychological stress and allostatic load

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Abstract

The mechanism by which chronic caregiving stress results in poor health is not well understood. The objective was to determine whether such a mechanism may be allostatic load, a novel concept specifying physiological systems that may suffer cumulative wear and tear following chronic stress, leading collectively to poor health. The study examines the association of allostatic load with environmental and psychological stress in the contexts of dementia caregiving and relinquishment of care, and is a 2-year longitudinal comparison of three groups: 80 new dementia spouse caregivers, 120 veteran caregivers, and 60 non-caregivers. Data comprised allostatic load markers and environmental and psychological stress measures. Cross-lagged analyses produced a statistically significant association between psychological stress and one allostatic load component (primary mediators). Psychological stress was a

better predictor of primary mediators than environmental stress. Primary mediators rose with time for caregivers, but not for non-caregivers. A greater rise was evident for caregivers who had relinquished their role by the second year, although the level of psychological stress actually declined. Primary mediators are a key component of the relationship between allostatic load and prior stress. When allostatic load is treated as an outcome of stress, it is important to distinguish environmental and psychological stress.

Keywords:

Stress

allostatic load

caregiving

dementia

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