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Presented as part of Symposium 6: Social support and cortisol regulation in younger populations: Implications and potential for intervention

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An examination of hair cortisol in young caregivers: social support and resilience

Background: Research with adult/elderly informal caregivers has identified alterations in cortisol and immune functioning. In young caregivers (under 18 years) research has focussed on psychosocial outcomes (poorer mental, physical and social) without consideration of biological effects. This study aimed to investigate the impact of caregiving in young people at a physiological level and examine the contribution of protective factors including social support on psychophysiological outcomes.

Methods: Participants were 46 caregivers and 46 non-caregiver controls, matched by age (11-18 years) and gender (29 females per group). Psychosocial measures included family and friendship support, coping style, benefit finding, perceived stress and resilience. Posterior cortex hair samples (analysed as one 3cm segment) enabled assessment of cortisol concentration (HCC) levels.

Results: Caregivers reported significantly greater perceived stress than controls but no significant difference emerged between groups for HCC levels. Perceived stress correlated with HCC levels in young carers only. Resilience and perceived stress were significantly associated across both groups; HCC level was not significantly associated with resilience in either group. Regression analyses identified avoidant coping, resilience and caregiving status predicted perceived stress; social support, benefit finding, and perceived stress as predictors of resilience.

Conclusion: Findings identified greater perceived stress in young caregivers than controls and indication of this being associated with greater HCC levels in caregivers, despite no difference in HCC levels between groups. Further examination of the interplay between multiple psychosocial variables, including social support, using a wider range of biomarkers is needed to fully assess resilience versus vulnerability in young carers.