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# Interpersonal Touch and Allostatic Load: The Importance of Romantic Partners for Older Adults' Neuroendocrine Health

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## Abstract

Interpersonal touch is an essential aspect of human interaction that has the ability to regulate physiological stress responses. Prolonged exposure to stress can have cumulative physiological effects; this is referred to as allostatic load. Despite the increased susceptibility of social isolation for older adults, there is a paucity of research attention regarding the efficacy of touch in regulating stress responses among this population. It is also unknown whether touch confers benefits regardless of the person with whom it is shared. This study investigates the difference in physiological stress based on the frequency of touch (hugs, holding, or other close physical contact) shared with romantic partners as compared to other close adults (family, friends, and neighbours) in an older adult population. Data was analysed from a sample of 1,419 respondents, with a mean age of 69.35 from wave one of the National Social Life, Health, and Aging Project (NSHAP). Principal components analysis (PCA) was employed to determine whether the markers of allostatic load used in the NSHAP function as a singular system or as distinct components. Analyses revealed three distinct components of allostatic load: metabolic, cardiovascular, and neuroendocrine stress. The results of stepwise multiple regression models revealed that a higher frequency of interpersonal touch shared with romantic partners was associated with lower neuroendocrine stress (but not with lower metabolic or cardiovascular stress), while touch from other close adults did not show any significant associations. These findings highlight the importance of promoting interpersonal touch with romantic partners for older adults' neuroendocrine health.

**Keywords:** Touch, allostatic load, neuroendocrine, ageing, stress

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