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DOES A SHORT GRATITUDE INTERVENTION IMPACT CARDIOVASCULAR REACTIVITY?

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Background: Psychophysiological scholars have explored the role of psychosocial factors, like positive affect and social support, in buffering against pathogenic effects of stress. Of these, gratitude has recently been associated with the cardiovascular stress response. However, previous research has been predominantly cross-sectional in nature.

Aims: This study investigates the effects of a gratitude intervention on cardiovascular responses to stress using a randomised-control trial design.

Method: A convenience sample of 129 participants underwent a laboratory-based stress task while their systolic blood pressure, diastolic blood pressure, and heart rate were measured. Participants were randomly assigned to either a gratitude letter intervention or an active control condition.

Results: Results of mixed between-within ANOVAs revealed no significant time by intervention interaction for diastolic blood pressure ($F(1, 109) = 1.234, p = .269$), or heart rate ($F(1, 109) = 1.964, p = .164$). However, there was a significant time by intervention interaction for systolic blood pressure ($F(1, 120) = 4.573, p = .035$), demonstrating that the pattern of increase for systolic blood pressure differed by experimental condition.

Conclusions: These findings provide support for the hypothesis that gratitude may have a beneficial relationship with cardiovascular responses to stress. Future research should replicate and extend these findings with larger and more diverse samples and a longer intervention period, assess additional cardiovascular parameters, and explore long-term relationships between gratitude, cardiovascular reactivity, and health outcomes.

Keywords: Gratitude, Cardiovascular, Stress, Reactivity

Publications:

Leavy, B., O'Connell, B. & O'Shea, D. (2023). Gratitude, affect balance and stress buffering: A growth curve examination of cardiovascular responses to a laboratory stress task. *International Journal of Psychophysiology*, 183, 103-116. <https://doi.org/10.1016/j.ijpsycho.2022.11.013>

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