

Abstract #: 187**Racial discrimination, life stress and allostatic load in Aboriginal and Torres Strait Islander adults**

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Background: Increased allostatic load is linked with racial discrimination exposure, providing a mechanism for the biological embedding of racism as a psychosocial stressor. We undertook an examination of how racial discrimination interacts with socioeconomic, environmental and health conditions to affect multisystem dysregulation in a First Nations population.

Methods: We conducted latent class analysis (LCA) using indicators of life stress, socioeconomic background and physical and mental health from a nationally representative sample of Australian Aboriginal adults (N = 2 056). We used LCA with distal outcomes to estimate the effect of the latent class variable on our derived allostatic load index and conducted a stratified analysis to test whether allostatic load varied based on exposure to racial discrimination across latent classes.

Results: Our socioecological, environmental and health measures informed a four-class structure; 'Low risk' (30.8%), 'Challenged but healthy' (27.8%), 'Mental health risk' (24.0%) and 'Multiple challenges' (17.4%). Mean allostatic load was highest in 'Multiple challenges' compared to all other classes, both in those exposed (4.5; 95% CI: 3.9, 5.0) and not exposed (3.9; 95% CI: 3.7, 4.2) to racial discrimination. Allostatic load was significantly higher for those with exposure to racial discrimination in the 'Multiple challenges' class ($t = 1.74$, $p = .04$) and significantly lower in the 'Mental health risk' class ($t = -1.67$, $p = .05$).

Conclusions: Racial discrimination may not always modify physiological vulnerability to disease. Social and economic contexts must be considered when addressing the impact of racism, with a focus on individuals and sub-populations experiencing co-occurring life challenges.

Key messages: Racial discrimination can increase physiological dysregulation in Aboriginal and Torres Strait Islander adults with a profile of psychosocial stress and adverse health.