



Socioeconomic inequalities in lifestyle-related health outcomes

Hamish Foster and colleagues¹ reported in *The Lancet Public Health* that lifestyle risk factors are associated with disproportionate harm in socioeconomically deprived populations. As for why deprivation might amplify the effects of lifestyle factors for mortality and disease, both Foster and colleagues and Marianna Virtanen and Mika Kivimäki, in their Comment,² propose increased levels of psychosocial stress as an explanation. However, although it might be more pervasive in deprived populations,³ psychosocial stress is itself associated with disproportionate harm: low socioeconomic status amplifies the negative impact of stress.⁴ As with the other factors Foster and colleagues investigate, the impact of stress cannot be explained simply by its increased prevalence in disadvantaged populations. Hence, it might be more useful to regard the effect of psychosocial stress as part of what needs to be explained when it comes to disproportionate harm, rather than to rely on it as an explanation.

The question remains, then, of why some lifestyle factors are associated with greater harm in the context of socioeconomic deprivation. An answer might be found within the framework of life history theory, whereby social disadvantage and adverse conditions early in life might trigger a fast life-history strategy, associated with accelerated ageing and increased mortality risk.⁵ The mechanisms are not understood, although they are assumed to entail a trade-off of resources favouring the present at the expense of future health. The value of this framework is that it has the potential to account for the observed disproportionality. Disadvantaged populations do not only suffer disproportionate harm because of greater exposure to unhealthy lifestyle factors;

socioeconomic deprivation might result in a biologically fast life strategy being triggered in more individuals, thus making these individuals more susceptible to the harmful impacts of their environments and lifestyles.

I declare no competing interests.

Ursula Pool
upool1@uclan.ac.uk

Healthy & Sustainable Settings Unit, University of Central Lancashire, Moor Row CA24 3JZ, UK

Copyright © The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license.

- 1 Foster HM, Celis-Morales CA, Nicholl BI, et al. The effect of socioeconomic deprivation on the association between an extended measurement of unhealthy lifestyle factors and health outcomes: a prospective analysis of the UK Biobank cohort. *Lancet Public Health* 2018; **3**: e576–85.
- 2 Virtanen M, Kivimäki M. Is an unhealthy lifestyle more harmful for poor people? *Lancet Public Health* 2018; **3**: e558–59.
- 3 Lantz PM, House JS, Mero RP, Williams DR. Stress, life events, and socioeconomic disparities in health: results from the Americans' Changing Lives Study. *J Health Soc Behav* 2005; **46**: 274–88.
- 4 Lazzarino AI, Hamer M, Stamatakis E, Steptoe A. Low socioeconomic status and psychological distress as synergistic predictors of mortality from stroke and coronary heart disease. *Psychosom Med* 2013; **75**: 311.
- 5 Belsky DW, Caspi A, Cohen HJ, et al. Impact of early personal-history characteristics on the Pace of Aging: implications for clinical trials of therapies to slow aging and extend healthspan. *Aging Cell* 2017; **16**: 644–51.