Abstract for review

European Research Network On Philanthropy
8th International Conference Copenhagen, July 13-14, 2017

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The Biological Correlates of Volunteering and Giving

A Cross-sectional Analysis of Inflammatory Markers and Hormones

Reference:	48308549
Number of authors:	1
Keywords:	volunteering, giving, inflammatory markers, hormones
Topic:	Impact, outcomes and outputs of philanthropy
Theme of abstract:	
Research method:	Quantitative
Geographical focus:	Single country (European)
Type of article:	Research article

Abstract:

Background

Are volunteering and giving associated with biomarkers, such as hormones and inflammatory markers? Is volunteering more strongly associated with these biomarkers than giving? Does a dose-response effect exist where more volunteering and giving are associated with a stronger relationship with these biomarkers?

This paper contributes to a growing research area that investigates the relationship between volunteering and giving and biological health outcomes (for an overview see, Bekkers, Konrath and Horton-Smith 2016). Previous research using longitudinal and/or experimental techniques finds that these behaviours result in improved self-reported health outcomes (e.g. Lum and Lightfoot 2005; Piliavin and Siegl 2007; Thoits and Hewitt 2001) and objective health outcomes such as lower inflammatory markers (Konrath 2013; Schreier 2012, Schreier et al. 2013). However, giving is inconsistently associated with testosterone (Zak et al. 2009; Eisenegger et al. 2010).

Objectives

This paper contributes to this literature by exploring whether volunteering and giving are associated with inflammatory markers (C-reactive protein and Fibrinogen) and hormones

(Testosterone, Insulin-like growth factor and DHEAs) using an unusually large representative sample of adults in the UK.

Methods

Nationally representative data on 13,000 adults in the UK contained in Understanding society were used to answer the research questions. Volunteering and giving were measured as the instance of each behaviour in the past month, frequency over the past year, and number of hours volunteered and amount of money donated. Multivariate linear and logistic regression techniques were used to assess the relationship between these key explanatory variables (alongside other key demographic and biological covariates) and C-reactive protein, Fibrinogen, Testosterone, Insulin-like growth factor and DHEAs.

Results

Volunteering and giving are not associated with hormones but are associated with lower levels of both inflammatory markers. The associations with fibrinogen are substantively small, however the relationships with C-reactive Protein are substantively big (18% decrease in risk of systematic inflammation for volunteers; 12% decrease in risk for donators). There also appears to be a dosage effect: higher frequency of volunteering is associated with lower levels of inflammatory markers.

Most important references:

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