

Job control and job demands as risk factors for central obesity in US workers: a 9-year follow-up study

**BongKyoo Choi¹, Peter Schnall¹, Marnie Dobson¹,
Haiou Yang¹, Paul Landsbergis², Dean Baker¹**

¹Center for Occupational and Environmental Health, University of California Irvine, Irvine, USA.

²Department of Environmental and Occupational Health Sciences, The State University of New York Downstate School of Public Health, Brooklyn, USA.

Aim: To investigate whether job control and job demands are associated with central obesity in US workers. Few studies have examined longitudinally the relationship between psychosocial work characteristics and central obesity.

Methods: This analysis was based on the National Survey of Midlife Development in the United States (MIDUS) I (1995-1996) and II (2004-2006) data. The analysis included 1,181 workers who were not centrally-obese at baseline (age range: 25 to 59). Job control and job demands were measured at both times by JCQ-like questionnaire items. Waist circumference (WC) was self-reported at both times. WC change between the baseline and follow-up and central obesity (using the WHO criteria for WCs) at follow-up were examined as main outcomes.

Results: Over the 9 years, on average, WCs increased significantly in the male and female workers: 4.93 cm and 8.15 cm, respectively. The incidence proportions of central obesity at follow-up were 19.5% and 27.4%, respectively. In male workers, after controlling for the covariates (age, education, stress-related overeating, leisure-time physical activity, sedentary work, smoking, etc.), high job demand at both times was a significant risk factor for central obesity. In female workers, low job control at both times was strongly associated with central obesity and WC increase in a bivariate analysis, but the association was weak in the multivariate analysis, mainly due to the impact of health behaviors (overeating and leisure-time physical activity).

Conclusion: Low job control and high job demands were directly and indirectly (via health behaviors) associated with central obesity in US workers.

Key words: psychosocial, job strain, health behavior, obesity.

Address for correspondence: BongKyoo Choi, Center for Occupational and Environmental Health, University of California Irvine, 5201 California Avenue, Suite 100, Irvine, CA, 92617. Tel: 1-949-824-5130, Fax: 1-949-824-2345. E-mail: b.choi@uci.edu.