

ATsutsumi et al. *Occupational and Environmental Medicine*. June (2001) Vol.58 #6 p 367.

A study of a potential association of job strain and hypertension (HT).

12490 Japanese workers, 4911 men 7579 women, aged between 30 and 69 (mean age 50.8) were selected for the study (65% response rate) from a wide range of employment types.

A questionnaire was used to measure job strain (defined as demands divided by control) and physical exam was used to identify cases of hypertension.

Hypertension was defined as positive if systolic pressure was greater than 160 mmHg and/or diastolic pressure was greater than 90 mmHg or, it had been officially diagnosed.

Measured demands included: pace of work, working hard, demands for extra work, insufficient time, conflicting demands.

Job control was measured by recording views on skill discretion and decision authority.

A thorough correction for the effects of confounders was attempted.

Results were very similar for men and women. The strongest associations with hypertension were:

Explanatory Variable	Odds Ratio	95% Confidence Interval
Age.	2.14	1.9 to 2.4
Family history of HT.	1.76	1.45 to 2.14
Body Mass Index.	1.87	1.65 to 2.11
Job strain.	1.18	1.05 to 1.32

The association of HT with job strain is barely statistically significant.

Comment

Hypertension is not the same as harm, it is a symptom that is believed to be indicative of a potential for harm.

Self reported measures of perceived job strain may not be all that specific. The low variation of job strain across all employment types suggests either that job strain is not a valid explanatory variable or perhaps that it is governed by factors that were not measured here. However, in favour of the study, are the wide range of employment types and the size of the study population.

Although the study was only cross sectional in design it appears that job strain (if accurately measured) is not strongly associated with hypertension in this population.

Chronic hypertension may eventually lead to diagnosable health problems, however if the link between work and hypertension is truly as weak as reported here, there is little risk of HT related ill health being linked, on the balance of probabilities, to job strain.

