

Table 5. Crude and Adjusted Odds Ratios (OR) and 95% Confidence Intervals (CI) of Smoking and Lack of Exercise by Job Strain Categories

Job strain category	Smoking		Lack of exercise	
	Crude OR (95% CI)	Adjusted ^a OR (95% CI)	Crude OR (95% CI)	Adjusted ^a OR (95% CI)
Low	1.0	1.0	1.0	1.0
Active	1.5 (1.1-2.0)	1.2 (0.8-1.6)	1.2 (0.9-1.4)	1.1 (0.9-1.4)
Passive	1.4 (1.1-1.9)	1.4 (1.0-1.7)	1.3 (1.0-1.6)	1.3 (1.0-1.5)
High	1.6 (0.9-1.7)	1.7 (1.2-2.1)*	1.4 (1.1-1.7)	1.4 (1.1-1.8)

* Significant trend after adjustment for age, level of education, physical activity at work, and alcohol consumption ($p < 0.05$) analyzed by logistic regression.

^a Adjusted for age, education, physical activity at work, and alcohol consumption.

the true associations. In particular, the cross-sectional design did not allow the evaluation of the effect of exposure duration, which, in turn, could have led to an underestimation of the true association. As multiple tests were performed, some significant associations could be due to chance. Most instances of elevated ORs were of borderline statistical significance, therefore increasing the potential for chance findings.

In this study, decision latitude, psychological demands, and job strain categories were not associated with BMI in our subjects. These results are consistent with previous studies done with different measures of psychosocial factors at work in men. Like us, Geroge et al. and Kornitzer et al. found no association between high stress and BMI.^{9,10} However, Hellerstedt et al. did observe an association of BMI with psychological demands and high job strain.⁵

In this study, the prevalence of smoking was associated with job strain categories in our subjects. The highest ORs were found in the high strain group (high psychological demands and low decision latitude). This is consistent with the hypothesis that workers exposed to high strain smoke as a way of relaxing. Green and Johnson⁴ observed a strong association (OR, 3.86) between high job strain and prevalence of smoking. On the other hand, no association between job strain categories and smoking prevalence was reported in several studies.^{5,7,15} In our study, low decision latitude and high strain, but not high psychological demands, were related to intensity of smoking. Similarly, Alterman et al. found an association between decision latitude and intensity of smoking.¹⁵ However, opposite results have been found for psychological de-

mands by Hellerstedt et al.⁵ and for decision latitude by Johansson et al.⁷ In our study, decision latitude was found to be significantly associated with intensity of smoking (number of cigarettes smoked per day) but not with prevalence of smoking. This is probably due to loss of information when using nominal variables to measure prevalence of smoking in contrast to using interval variables to measure intensity of smoking.

In our study, the prevalence of lack of exercise was increased by job strain categories. This is consistent with Karasek's observation² that high strain work can encourage a passive lifestyle outside of work, including a lack of exercise. Our finding for subjects in the high strain group is also consistent with a few previous studies. Johansson et al. and Hellerstedt et al. both observed an association between sedentary behavior and high job strain.^{5,7} Weidner et al. reported associations between high job strain and health-damaging behaviors, including alcohol consumption and lack of exercise in the Family Heart study.⁸

Results of this study suggest that combined exposure to psychological demands and decision latitude provides a better evaluation than exposure to each factor separately when determining the effect of occupational stress on the prevalence of intensity of smoking and lack of exercise.

It is noteworthy that, as with our study, none of the previous studies of occupational stress factors and cardiovascular risk factors, with the exception of one,¹⁸ used a prospective design or evaluated the effect of exposure duration. The effects of long-term exposure to these occupation stresses on the adoption of healthy behaviors are still largely unknown. Our subjects are currently be-