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Associations of Smoking, Lack of Exercise, and Body Mass Index with Occupational Stress Factors in a Population of Male White-collar Workers in Taipei, Taiwan

ABSTRACT

The purpose of this study was to determine whether occupational stress factors (defined as high psychological demands and low decision latitude on the job) were associated with smoking, lack of exercise, and increased body mass index. We conducted a cross-sectional study of 534 white-collar male workers aged 20-66 years with no evidence of cardiovascular disease. Data were collected at worksites. Psychological demands and decision latitude at work were measured with a questionnaire embedded with Karasek's job strain model. Smoking, lack of exercise, and body mass index were compared by quartiles of decision latitude and psychological demands and by job strain categories. The number of cigarettes smoked per day was consistently associated with quartiles of decision latitude and job strain categories. Smoking was found to be associated with job strain categories. Lack of exercise and body mass index were not consistently associated with decision latitude, psychological demands, or job strain, although a prevalence for lack of exercise occurred in the lowest quartile of decision latitude (OR, 1.3; 95% CI, 1.0 to 1.7) and was elevated linearly by job strain categories. These results provide partial support for the association between job strain categories and smoking as well as associations between quartiles of decision latitude, job strain categories, and number of cigarettes, smoked per day. (N. Taipei J. Med. 2001; 3:115-120)

INTRODUCTION

Several studies have found that occupational stress factors such as high job demands and low job decision latitude are associated with the prevalence and incidence of cardiovascular diseases.¹ Cigarette smoking, lack of exercise, and increased body mass index (BMI) are common cardiovascular risk factors. One of the mechanisms by which occupational stress

factors may contribute to the risk of cardiovascular diseases is the adoption of unhealthy habits such as smoking and lack of exercise.¹ A number of studies have found that some occupational stress factors are associated with the prevalence² and intensity³⁻⁶ of smoking, lack of exercise,^{5,7,8} and obesity.^{5,9} However, opposite results have also been observed.^{3,10-14}

It is still uncertain whether such associations exist. Some factors could explain the discrepancies in the re-

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