

Associations between physically demanding work and life-style: results from the Swedish WOLF study

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1. Introduction

Leisure-time physical activity and exercise are well-known protective factors for several chronic diseases, such as diabetes and coronary heart disease (Gill & Cooper, 2008; Sofi et al., 2008). The associations between work related physical activity and health outcomes are less clear, with some studies pointing toward an increased risk for ill-health and premature death with high physical demands at work (Holtermann et al., 2011, 2012). Having high physical demands at work may also be related to unfavorable life-style such as physical inactivity during leisure-time, smoking and unhealthy diet. The aim with the present analyses was to explore the associations between physical demands at work and life-style factors such as leisure-time physical activity, smoking, moist snuff use, intake of fruit and vegetables and fast food consumption. Overweight and self-reported health were also considered.

2. Methods

Cross-sectional data from the Swedish Work, Lipids and Fibrinogen (WOLF) study, collected in 2009, was used in the present analyses. The study comprised 4026 working individuals (2712 men, 1314 women), with mean age of 51.5 (sd 8.1) years. The participants responded to a questionnaire covering a broad range of issues regarding work, life-style and health. Crude and multivariable logistic regression models were used to analyse the associations between physical demands at work and life-style factors, overweight and self-reported health. The multivariable logistic regression models were adjusted for age, sex and socio-economic status. Potential effect measure modification by socio-economic status was evaluated by including statistical interaction terms between physical demands at work and socio-economic status in the logistic regression models, as well as by stratified analyses.

3. Results

In the total study sample, 1241 (32%) participants reported that they had a job where they were standing or walking the main part of the working day, while 690 (18%) reported that their job included repetitive or heavy lifting. About half of the participants (52%) reported regular leisure-time physical activity, 11% were current smokers, 59% were overweight, and 15% reported sub-optimal health. In the crude analyses, standing or walking the main part of the working day and having a job with repetitive or heavy lifting were associated with smoking, moist snuff use, low intake of vegetables, overweight and less leisure-time physical activity. Repetitive or heavy lifting at work was also associated with low intake of fruit and sub-optimal health. In logistic regression models adjusted for age, sex and socio-economic status the observed associations were attenuated, but standing or walking the main part of the working day remained significantly associated with smoking (OR 1.32, 95% CI 1.04-1.68) and low intake of vegetables (OR 1.33, 95% CI 1.13-1.58), while repetitive or heavy lifting at work remained associated with smoking (OR 1.62, 95% CI 1.23-2.14), moist snuff use (OR 1.52, 95% CI 1.21-1.92), overweight (OR 1.52, 95% CI 1.22-1.88) and less leisure-time physical activity (OR 0.80, 95% CI 0.66-0.97). Further analyses of potential effect measure modification by socio-economic status revealed that the associations between repetitive or heavy lifting at work and smoking, low intake of vegetables, less leisure-time physical activity and sub-optimal health were more pronounced in intermediate or higher socio-economic groups as compared with the group with lowest socio-economic status.

4. Conclusion

A physically demanding work, especially work including repetitive or heavy lifting, was associated with several unfavourable life-style factors, also after controlling for age, sex and socio-economic status. For some of the studied associations, the associations were stronger in intermediate or higher socio-economic groups as compared with the group with lowest socio-economic status.

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