CPH News and Views

A semi-monthly column on emerging topics related to healthy workplaces

Issue # 14: Do working conditions affect personal health conditions like smoking, exercise, and being overweight?

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Occupational health is typically thought of in terms of the illnesses that result from exposures such as toxic chemicals or physical agents. In contrast, personal "lifestyle" factors are not generally recognized as related to working conditions. But there is a rapidly growing scientific literature showing that job stress increases people's risk of smoking, not exercising, and being overweight. In fact, this may not be so surprising when we think about how we respond to stress – many people grab a "comfort food" snack, a smoke or a drink. And a draining job can leave us feeling too tired to exercise.
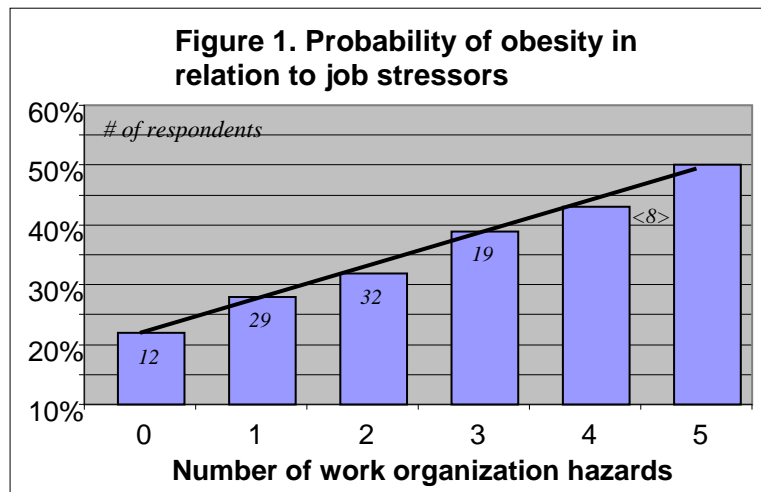
One CPH-NEW research project has studied workers in a large chain of nursing homes. The first round of questionnaires was completed by 920 employees in 12 centers. The working conditions covered included shift work, time pressure, opportunities for making decisions about how to do the job, getting along with coworkers and supervisors, being recently assaulted at work by a resident or resident's visitor, and the physical effort required. Other questions asked about height and weight, which were used to calculate body mass index, and personal health behaviors such as smoking and exercise.

Among all of the survey participants, 23% reported that they got no aerobic physical activity outside of work, 35% were obese (high body mass index), and 24% were current smokers. The key study results were that these three personal health risks were all related to stressful working conditions ("work organization hazards"), as illustrated below.

The risk of being **overweight** increased with the number of these stressful job features that were experienced by the employee:

- Few decision-making opportunities
- Little social support from coworkers
- Regular night shift work
- Lifting heavy loads
- Recent physical assault

People with 4 or 5 of these stressors were almost 3 times more likely to be obese than those who had none.

Figure 1. Probability of obesity in relation to job stressors

# of respondents

(X-axis: Number of work organization hazards; bar labels: 12, 29, 32, 19, <8>)

Lack of physical exercise was related in a similar way to almost the same organizational aspects of the job (see list below and diagram on next page). People experiencing all 5 of these were twice as likely to be inactive as people who didn't report any of them:

- Few decision-making opportunities
- Little social support from coworkers
- Regular night shift work
- Perceived interference of work demands with family life
- Perceived toleration of discrimination in the workplace by managers and supervisors
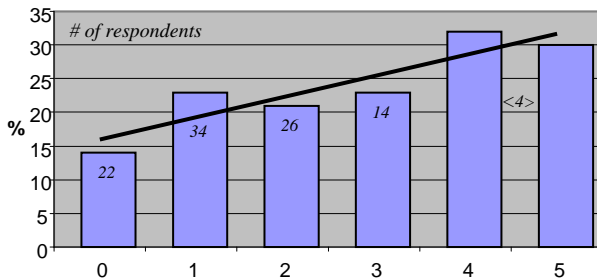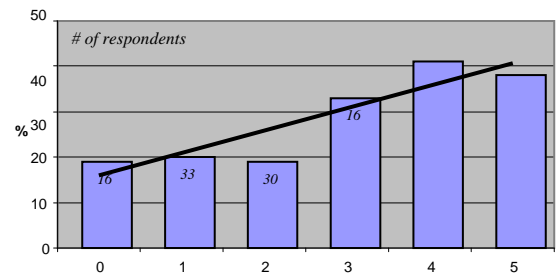
Fig. 2. Probability of physical inactivity

Fig. 3. Probability of current smoking

Current **cigarette smoking** was related to a similar set of job stressors:
- High psychological job demands, such as time pressure
- Little social support from one's supervisor
- Lifting heavy loads, and generally heavy physical workload
- Recent physical assault in the workplace

Interestingly, the effect of working conditions on obesity and smoking was much stronger among workers who were younger than 40 years old than among older workers. Perhaps this is because older people who are overweight or smokers have been so for a long time; therefore the causes might be located much earlier in their lives than their current working conditions.

These results show that it is important for health promotion programs to take into account the effect of working conditions on the health of individual employees. Worksite health promotion programs often focus primarily on encouraging individuals to change their behaviors – to stop smoking, or to use the stairs instead of elevators. However, this type of approach usually may not be enough. Just as recent studies have shown that our social and physical environments influence our eating and weight gain, for example, our work environments also influence our health behaviors. This means that improving working conditions might support employee health not only by reducing the risk of musculoskeletal disorders or acute injuries, but also by reducing stress and increasing the sense that it's worth the effort to make changes.

What types of changes in the workplace can support improved personal health?
- Opportunities to participate in deciding how the work will be organized and carried out
- A work climate with respect and appreciation for everyone's skills, abilities, and contributions
- Good communication among and within different departments or groups of jobs
- Flexibility in scheduling, e.g., offering people as many options as possible in the length of their work shifts and when they work during the week.

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