

### Protective clothing used against highly infectious diseases

This Cochrane systematic review identified nine studies assessing effectiveness of full-body personal protective equipment (PPE) in preventing infection from highly infectious diseases, such as Ebola and severe acute respiratory syndrome (SARS). Adherence to official guidelines for donning and doffing gowns and aprons reduced contamination risk compared with individually chosen methods. Interactive training (eg spoken instruction and computer simulation) was more effective than passive methods (written guidance and videos) in improving adherence to guidance. Increasing the breathability of PPE fabric did not increase contamination but improved user satisfaction. Double gloving was more effective than using single pairs of gloves. Evidence quality was very low for all the above and completely lacking on whether or not goggles gave better protection than visors, use of disinfectants while doffing, benefits of long-sleeve gloves or taping parts of PPE together, or skills retention.

- *Cochrane Database of Systematic Reviews 2016; 4: CD011621. doi: 10.1002/14651858.CD011621.pub2. ohaw.co/245LSZt*
- <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD011621.pub2/full>

### Measures to reduce time spent sitting at work

A Cochrane systematic review of 20 studies on reducing sitting at work found low to very low-quality evidence from six studies that sit–stand workstations reduced office workers' sitting time by between about 30 minutes and two hours a day – though the health relevance of this remains questionable as little extra energy is expended. Sit–stand desks did not significantly affect work performance, musculoskeletal symptoms or sickness absence. There was inconsistent evidence on the benefits of active workstations, such as desks with treadmills or pedals, with only small or no impact on sitting time compared with controls. Two studies found no significant impact on sitting or strategies to encourage walking during breaks or meetings, and only conflicting evidence on whether or not prompting by computer reduces sitting time. Studies were generally of poor design.

- *Cochrane Database of Systematic Reviews 2016; 3: CD010912. doi: 10.1002/14651858.CD010912.pub3. ohaw.co/1Uw2eVq*
- <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD010912.pub3/full>

### Organisational change and wellbeing

Organisational restructuring is generally bad for employee wellbeing, this systematic review of 39 longitudinal studies concludes. Types of restructuring studied included downsizing, closure, change of ownership, mergers, privatisation or combinations of these. Restructuring had a negative effect on general, physical and mental health, sick leave and job attitudes in most (18 out of 23) studies where staff numbers were cut. Change also impaired wellbeing in eight of nine studies where there were no job losses. Communicating information about the change, procedural justice, and training related to the change promoted wellbeing; higher physical demands and lower job control hampered wellbeing; and job insecurity increased absence and harmed self-rated health and mental health. Not all employees experience the negative effects of change – workers in the higher-status pre-merger organisation or those experiencing a positive change in job position might experience improved wellbeing compared with other workers.

- *Work & Stress 2016; 30(1): 91–114. doi: 10.1080/02678373.2015.1136710. ohaw.co/1W4YrPX*
- <http://www.tandfonline.com/doi/abs/10.1080/02678373.2015.1136710>

## Re-employment for people with mental health problems

Re-employment programmes for people with mental health problems, based on a 'place-then-train' model, have a significant benefit on quality of life (QOL), but there is no evidence that the programmes improve mental health and 'functioning' (social, occupational and psychological ability), according to this systematic review and meta-analysis of 16 randomised controlled trials. Most studies assessed 'individual placement and support' programmes, which integrate job searching and workplace support with treatment services. Meta-analysis revealed a modest improvement in QOL (effect size = 0.28; 95% confidence interval (CI) 0.04–0.52) but no significant effects on functioning or mental health.

- *Occupational and Environmental Medicine* 2016; online first: doi: 10.1136/oemed-2015-103121. [ohaw.co/1W7upM0](http://ohaw.co/1W7upM0)
- <http://oem.bmj.com/content/early/2016/01/06/oemed-2015-103121.abstract>

## Mind your back

Mindfulness-based stress reduction (MBSR) produced clinically meaningful improvements in functional limitations and self-reported pain in adults suffering chronic low-back pain (LBP) in this randomised controlled trial. A total of 342 people aged 20 to 70 with LBP for at least three months (mean 7.3 years) were randomised into: MBSR; cognitive behavioural therapy (CBT) specific for chronic pain; or usual care. Both MBSR and CBT were given in eight two-hour weekly sessions. Those receiving MBSR had significantly greater improvement (60%) in functionality measured on the Roland-Morris Disability Questionnaire at six months from the start of the study compared with those receiving usual care (44%) ( $p = 0.04$ ), but not compared with the CBT group (58%). They were also more likely than the usual care group to show meaningful improvement – defined as at least 30% improvement compared with baseline scores (relative risk (RR) = 1.37; CI 1.06–1.77). Pain 'bothersomeness' (on a scale of 0–10) was also significantly improved at six months in the two treatment groups compared with normal care: MBSR 44% improvement; CBT 45%; usual care 27% ( $p = 0.01$ ). The differences remained significant at one year.

- *JAMA* 2016; 315(12): 1240–1249. doi: 10.1001/jama.2016.2323. [ohaw.co/1T0Vgsh](http://ohaw.co/1T0Vgsh)
- <http://jama.jamanetwork.com/article.aspx?articleid=2504811#Abstract>

## Workplace interventions for depression and anxiety

A meta-review (review of systematic reviews) found strong evidence that some workplace interventions can be effective in preventing, treating or rehabilitating individuals with depression or anxiety, but their impact on absence, presenteeism and productivity remains 'relatively unexplored'. The 140 reviews that were included covered 481 research studies. There was strong evidence that workplace physical activity reduced symptoms, but only limited and conflicting evidence for a positive effect on absence. There was strong evidence that CBT used to treat anxiety and depression reduced symptoms, and moderate evidence that return-to-work programmes incorporating CBT improved occupational outcomes (eg faster return to work). There was also strong evidence that CBT-based stress management programmes reduced symptoms, but no evidence of impact on work outcomes (eg absence and productivity). There was only limited evidence and mixed results for the effectiveness of workplace health promotion; limited evidence of a positive effect on symptoms and occupational outcomes for workplace screening coupled with a secondary intervention (such as counselling or CBT); and there was limited evidence for the benefits of counselling on its own. There is strong evidence that exposure therapy can reduce symptoms in people who have developed post-traumatic stress disorder following an occupational injury and moderate evidence that it can reduce sickness absence in people with anxiety disorders.

- *Psychological Medicine* 2016; 46, 683–697. doi: 10.1017/S0033291715002408. ohaw.co/1ruL66V
- <http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=10186597>

### Nightshift nurses at greater risk of heart disease

Female nurses working rotating nightshifts for over five years have a slightly higher risk of coronary heart disease (CHD), compared with those who have never done nightshifts or had done them for less than five years, this prospective cohort study found. It followed 189,158 female nurses in the ongoing US Nurses Health Study (NHS), which started in 1976, and the NHS2, which commenced in 1989 – 10,822 incident CHD cases were identified during 24 years' follow-up. After adjusting for age, women who worked less than five years of rotating nightshifts were not at increased risk of CHD compared with nurses without a history of shiftwork. For the NHS, female nurses who worked five to nine years of rotating night shiftwork had a significantly raised risk of CHD (hazard ratio (HR) = 1.21; 1.11–1.33); the risk was greater in those working at least 10 years of rotating nightshifts (HR = 1.36; CI 1.27–1.46) with a significant trend ( $p < 0.001$ ). The results were similar for the NHS2 cohort. NHS2 data showed that CHD risk decreased with increasing time since quitting shiftwork ( $p < 0.001$ ).

- *JAMA* 2016; 315(16): 1726–1734. doi: 10.1001/jama.2016.4454. ohaw.co/1ruRawq
- <http://jama.jamanetwork.com/article.aspx?articleid=2516715>

### Psychosocial factors predict early retirement

Job satisfaction and good psychosocial working conditions are significant predictors of delaying retirement from work, this Danish population study found. Employees aged 56 to 64 in 2008 were followed up over four years – 1,000 workers (53% of the sample) retired during that period. After controlling for ill health and other confounders, 10 psychosocial factors were significantly predictive of taking early retirement (ie retiring between the ages of 60 and the 'official' retirement age of 65). These included low job satisfaction (HR = 3.33; CI 2.4–4.7;  $p < 0.0001$ ); lack of possibilities for development (HR = 2.04; CI 1.4–3.0;  $p = 0.0002$ ); low recognition by management (HR = 1.87; CI 1.4–2.5;  $p < 0.0001$ ) and perceived age discrimination (HR = 1.8; CI 1.3–2.5;  $p = 0.0003$ ). Work pace, quantitative demands, emotional demands, role conflicts, social community between colleagues, and trust between colleagues did not predict early retirement.

- *International Archives of Occupational and Environmental Health*; 2016; online first: doi: 10.1007/s00420-016-1125-7. ohaw.co/1Uzl7qu
- <http://link.springer.com/article/10.1007%2Fs00420-016-1125-7>

### Impact of multisite pain on work ability

Multisite musculoskeletal pain (MMP) – defined as pain in two or more of the following sites: neck and shoulders; low back; upper extremities; and lower extremities – is often associated with poor work ability (WA). But this is not always the case, as this Finnish population-based study revealed. Various modifiable health, work and lifestyle factors were found to mitigate the effects of MMP on WA. Of 3,884 employees aged 30 to 64 in the study, 1,351 reported MMP. WA was assessed on a scale of 0 (worst) to 10 (best), with good WA defined as a score of nine or 10. Nearly half (48%) of women and 37% of men with MMP reported good WA. Among those with MMP, good WA was associated with younger age and female gender. After adjusting for these, good WA was associated with: non-strenuous work (prevalence rate ratio (PRR) = 1.4; CI 1.2–1.6); low job strain (PRR = 1.5; CI 1.3–1.8); high supervisor support (PRR = 1.4; CI 1.2–1.6); high co-worker support (PRR = 1.3; CI 1.2–1.5); absence of musculoskeletal disease (PRR = 1.3; CI 1.2–1.5), absence of

mental disorder (PRR = 1.5; CI 1.2–2.0); no daytime tiredness (PRR = 1.7; CI 1.5–1.9); no money worries (1.3; CI 1.2–1.5); and low alcohol consumption (PRR = 1.2; CI 1.1–1.4).

- *Scandinavian Journal of Public Health* 2016; 44(3): 300–310. doi: 10.1177/1403494815617087. ohaw.co/1W9rdzz
- <http://sjp.sagepub.com/content/44/3/300.abstract>

### **Participatory interventions to reduce absence**

An organisation-level participatory occupational health intervention achieved a small but significant reduction in short-term sickness absence levels. The aim of participatory (or joint-ownership) interventions is for employees to be involved with addressing issues that they perceive as problems at work. The cluster randomised controlled trial involved 78 pre-schools in Denmark, together employing more than 3,000 employees. All employees were involved in developing workplace-specific interventions that focused on improving the performance of core work tasks and procedures – implementation was managed by a workplace steering group and assisted by a dedicated work environment consultant. During the 29-month follow-up, the risk of taking short-term absence was significantly lower in the intervention group (average absence = 8.68 days/person-year) compared with the control group (9.17 days/person-year) (adjusted RR = 0.89; CI 0.83–0.96). The effect was slightly more pronounced in absence data that excluded the first 12 months, which mainly involved planning and initial activities (intervention = 8.00 days days/person-year; control = 8.76 days/person-year; adjusted RR = 0.88; CI 0.81–0.95).

- *Scandinavian Journal of Work, Environment and Health* 2016; 42(3): 192–200. doi: 10.5271/sjweh.3559. ohaw.co/23oURzv
- [http://www.sjweh.fi/show\\_abstract.php?abstract\\_id=3559](http://www.sjweh.fi/show_abstract.php?abstract_id=3559)