

### Can physical activity help cut absence?

There is limited evidence that physical activity reduces sickness absence, according to this systematic review (37 papers met inclusion criteria). Despite including nine randomised controlled trials (RCTs), the evidence is generally of low quality. Exercise is broadly categorised by intensity: low, moderate or vigorous. Evidence from the RCTs suggests that moderate intensity exercise – in one trial, for example, this included push-ups, sit-ups, squats, cycling and running – does not impact on sickness absence, while weekly exercise involving resistance or endurance training does. There is limited evidence from prospective cohort studies, using self-report questionnaires, that workers who are physically active are more likely to have lower sickness absence levels.

- *Sports Medicine* 2014; 44(7): 887–907. [ohaw.co/1n7YpzY](http://ohaw.co/1n7YpzY).
- <http://link.springer.com/article/10.1007%2Fs40279-014-0171-0>

### Wellness programmes for smaller firms

Small businesses – defined here as fewer than 500 workers – are much less likely than larger firms to adopt workplace wellness programmes, but there is at least limited evidence that they can be effective, according to this systematic review (19 included papers). In one RCT of a state-wide ‘healthy directions’ programme involving 24 US firms, employees in the intervention sites showed improved physical activity, and higher fruit and vegetable consumption, after controlling for gender, ethnicity, education, and job status. Barriers included the cost of the interventions, lack of facilities or space, lack of management support, risk of stigmatising individuals at higher health risk and employers’ fear of appearing too paternalistic. Most papers were of limited methodological quality.

- *Journal of Occupational and Environmental Medicine* 2014; 56(6): 579–87. [ohaw.co/1neDcJn](http://ohaw.co/1neDcJn).
- [http://journals.lww.com/joem/Abstract/2014/06000/Health\\_%20Promotion\\_in\\_Small\\_Business\\_\\_A\\_Systematic.3.aspx](http://journals.lww.com/joem/Abstract/2014/06000/Health_%20Promotion_in_Small_Business__A_Systematic.3.aspx)

### Smart CBT?

Cognitive behavioural therapy (CBT) is used increasingly to treat anxiety, depression and other disorders, but not every patient benefits. This study suggests that an individual’s ‘capacity for participating in the CBT process’ – essentially their ability to articulate and share thoughts and feelings in a non-defensive way in a clinical setting – is a more useful indicator of therapeutic benefit than is their attitude to the process itself. The study comprised 256 working-age patients diagnosed with depression and anxiety disorders, two-thirds of whom were employed. Each was assessed using the 10-item Suitability for Short-Term Cognitive Therapy (SSCT) scale, with symptom severity rated on the Clinical Global Impression (CGI) scale. Participants were given weekly CBT sessions (mean of 19 sessions). The mean pre-treatment CGI score was 4.01 (‘moderate symptom severity’), falling to 2.73 (‘borderline to mild’) post-treatment. Two-thirds of the variance in CGI score change was accounted for by two broad factors each covering four items in the SSCT: ‘capacity for participation in the CBT process’ and ‘attitudes relevant to the CBT process’. After controlling for pre-treatment CGI, higher scores for both factors were predictive of post-treatment CGI; however, after multiple regression analysis only ‘capacity for participation’ remained statistically significant. Patients rated as having a higher capacity to participate in the CBT process experienced greater symptom improvements than those with lower capacity to participate, regardless of their attitude to the process.

- *Journal of Clinical Psychology* 2014; online first: doi: 10.1002/jclp.22099. [ohaw.co/1mgkyAN](http://ohaw.co/1mgkyAN)
- <http://onlinelibrary.wiley.com/doi/10.1002/jclp.22099/abstract>

## Epilepsy, diabetes and risk of injury

There is no evidence that epilepsy or diabetes are contributing to workplace injuries, according to this nested case–control study of 8,000 working age people registered on the UK Clinical Practice Research Datalink (an anonymised research database of NHS GP consultations), 1,348 of whom had seen a doctor with an occupational injury between 1987 and 2009. A total of 160 subjects had epilepsy (29 had experienced an occupational injury) and 199 had diabetes (34 injury cases). There was no significantly raised risk of occupational injury for those with epilepsy (odds ratio (OR) = 1.07; 95% confidence interval (CI) 0.71–1.60) or diabetes (OR 1.01; CI 0.69–1.48). Research limitations include that the database only recorded doctor-treated injuries, not minor/self-treated cases, and that individuals with epilepsy or diabetes may have been excluded from some types of employment.

- *Occupational Medicine* 2014; online first: doi: 10.1093/occmed/kqu079. [ohaw.co/1xSTQIf](http://ohaw.co/1xSTQIf)
- <http://occmed.oxfordjournals.org/content/early/2014/06/24/occmed.kqu079.abstract>

## Hepatitis C treatment options

Current treatment for chronic hepatitis C virus (HCV) is generally based on pegylated interferon-alpha and the nucleoside inhibitor ribavirin, with around 70%–80% of patients clearing the virus. This Cochrane systematic review examines comparative evidence for a new class of antiviral drug, the aminoadamantanes. It includes six randomized controlled trials covering 581 patients where amantadine – the main drug in the class – is compared with ‘standard’ treatments. Evidence quality is rated very low, with high risk of bias. There is only low quality evidence that amantadine results in fewer patients having a sustained virological response compared with ribavirin, and very low quality evidence of no significantly different clinical outcomes compared with either interferon-alpha or interferon-gamma. Overall, there is insufficient quality evidence to either refute or recommend amantadine as a treatment option for chronic HCV.

- *Cochrane Database of Systematic Reviews* 2014; 6: CD011132. [ohaw.co/1mJtsbb](http://ohaw.co/1mJtsbb)
- <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD011132.pub2/abstract>

## Sleep problems may hinder return to work

This Swedish cross-sectional study of individuals on long-term sick leave highlights the importance of addressing sleep problems in addition to managing pain and depression. The study involved 1,206 patients on sickness benefits, mostly diagnosed with depressive disorders and chronic regional or general pain. Sleep disturbance, pain and depression were assessed using various validated questionnaires. Sleep and pain scores were categorised into two levels: none or mild (level 1) and moderate to severe (level 2). The majority (83%) of participants reported some level of sleep disturbance, while 70% had depression; 57% of those with level 1 sleep problems also had depression, but this rose to 83% in level 2. Of those with level 1 pain, 64% had depression, rising to 74% in level 2. The severity of sleep disturbance, but not that of pain, influenced the prevalence of co-morbid depression ( $p < 0.001$ ). Those with more severe sleep disturbance at both pain levels also showed statistically significant ( $p < 0.005$  or  $< 0.0001$ ) reduced ability to make decisions, concentrate and undertake multiple tasks, and had higher scores for sadness and pessimistic thoughts. Those with both level 2 sleep disturbance and level 2 pain had significantly poorer energy level/fatigability scores ( $p < 0.0001$ ). These factors are considered important barriers to returning to work.

- *Journal of Rehabilitation Medicine* 2014; online first: doi: 10.2340/16501977-1833. [ohaw.co/1toff79](http://ohaw.co/1toff79)
- <http://www.medicaljournals.se/jrm/content/?doi=10.2340/16501977-1833>

## Fibromyalgia

Fibromyalgia (FM) is a disorder characterised by chronic pain, sleep disturbance, fatigue and other symptoms. This controlled cross-sectional study found that female workers with FM have higher perceived exertion – a measure of how hard individuals feel they are working – than those without the condition, and that this is associated with physical work-related factors, depression, anxiety and fear-avoidance work beliefs. Addressing these factors may improve work ability. A total of 73 women with FM were matched according to occupational factors (such as profession, physical workload and repetitive work) with 73 women without FM. There was no significant difference in physical activity at work, but those with FM had significantly higher perceived exertion ( $p = 0.002$ ). They also showed significantly lower physical capacity (eg muscle strength, six-minute walking distance), higher pain, depression and anxiety, and worked fewer hours (due to sickness absence or disability pension) compared with the control group ( $p < 0.001$  in each case). Those with FM scored highly on the Fear Avoidance Beliefs questionnaire, which measures the extent to which individuals believe work activity affects their chronic pain. Perceived exertion was correlated with fear avoidance beliefs, physical work activity and workload – the first two accounted for 50% of the perceived exertion in the regression analysis.

➤ *Journal of Rehabilitation Medicine* 2014; online first: doi: 10.2340/16501977-1843.  
ohaw.co/1mBUvn6

➤ <http://www.medicaljournals.se/jrm/content/?doi=10.2340/16501977-1843>

## Chronic knee pain

Chronic knee pain is thought to affect around three in 10 people aged 40–80, with higher rates among some occupational groups. This systematic review (17 included studies) found consistent high quality evidence, from six cohort or cross-sectional studies, linking knee pain to absence, but only limited evidence, from three studies, for an association with presenteeism. Knee-pain related absence prevalences – defined as any absence due to knee pain in the past 12 months – ranged from 5% to 22% (data from seven studies). Three papers reported mean absence rates ranging from three to 25 days a year. There was less evidence on knee pain as a cause of presenteeism, but two studies gave 12-month prevalences of 66% and 71%.

➤ *Occupational and Environmental Medicine* 2014; online first: doi: 10.1136/oemed-2013-101997.  
ohaw.co/1mC315y.

➤ <http://oem.bmj.com/content/early/2014/05/28/oemed-2013-101997.abstract>

## Mitigating the ill-health effects of nightwork

Nightshift work can have harmful health effects, including sleep disruption, breast cancer, cardiovascular disease and diabetes, as well as impinging work–life balance. This systematic review of measures taken to improve long-term health of shift workers includes 44 papers, with a combined total of 2,354 workers. A combination of timed exposure to bright light and wearing bright- or blue-light blocking goggles during the commute home helps adaptation to shiftwork in terms of sleep duration and quality. The evidence generally supports interventions specifically aimed at nightworkers to promote healthy diet, physical activity and lifestyle behaviours. Fast-forward rotating shifts may be beneficial in terms of sleep quality but the evidence is contradictory – three studies found positive changes after changing from backward to forward rotating shifts, but this was not observed in three others. There is inconsistent evidence on the benefits of changes in shift length or start time, and mixed results from using melatonin, hypnotics and stimulants. Methodological quality is variable and frequently poor – the report notes the difficulties of studying real-life workplace settings – and follow-up times generally short (the longest for a shiftwork study was eight months). Heterogeneity between studies prevented a meta-analysis.

## Research Plus August/September 2014

- *Scandinavian Journal of Work, Environment and Health* 2014; online first: doi: 10.5271/sjweh.3445. ohaw.co/1jgclHI.
- [http://www.sjweh.fi/show\\_abstract.php?abstract\\_id=3445](http://www.sjweh.fi/show_abstract.php?abstract_id=3445)