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August 24, 2018

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Almost JM, VanDenKerkhof EG, Strahlendorf P, Caicco Tett L, Noonan J, Hayes T, Van Hulle H, Adam R, Holden J, Kent-Hillis T, McDonald M, Pare GC, Lachhar K, and Silva E Silva V. A study of leading indicators for occupational health and safety management systems in healthcare. *BMC Health Services Research*. 2018; 18(1):296.

<http://dx.doi.org/10.1186/s12913-018-3103-0> [open access]

Abstract: BACKGROUND: In Ontario, Canada, approximately \$2.5 billion is spent yearly on occupational injuries in the healthcare sector. The healthcare sector has been ranked second highest for lost-time injury rates among 16 Ontario sectors since 2009 with female healthcare workers ranked the highest among all occupations for lost-time claims. There is a great deal of focus in Ontario's occupational health and safety system on compliance and fines, however despite this increased focus, the injury statistics are not significantly improving. One of the keys to changing this trend is the development of a culture of healthy and safe workplaces including the effective utilization of leading indicators within Occupational Health and Safety Management Systems (OHSMSs). In contrast to lagging indicators, which focus on outcomes retrospectively, a leading indicator is associated with proactive activities and consists of selected OHSMSs program elements. Using leading indicators to measure health and safety has been common practice in high-risk industries; however, this shift has not occurred in healthcare. The aim of this project is to conduct a longitudinal study implementing six elements of the Ontario Safety Association for Community and Healthcare (OSACH) system identified as leading indicators and evaluating the effectiveness of this intervention on improving selected health and safety workplace indicators. METHODS: A quasi-experimental longitudinal research design will be used within two Ontario acute care hospitals. The first phase of the

study will focus on assessing current OHSMSs using the leading indicators, determining potential facilitators and barriers to changing current OHSMSs, and identifying the leading indicators that could be added or changed to the existing OHSMS in place. Phase I will conclude with the development of an intervention designed to support optimizing current OHSMSs in participating hospitals based on identified gaps. Phase II will pilot test and evaluate the tailored intervention. DISCUSSION: By implementing specific elements to test leading indicators, this project will examine a novel approach to strengthening the occupational health and safety system. Results will guide healthcare organizations in setting priorities for their OHSMSs and thereby improve health and safety outcomes

Anderson DM, Rees DI, and Tekin E. Medical marijuana laws and workplace fatalities in the United States. International Journal on Drug Policy. 2018; 60:33-39.

<http://dx.doi.org/10.1016/j.drugpo.2018.07.008>

Abstract: AIMS: The aim of this research was to determine the association between legalizing medical marijuana and workplace fatalities. DESIGN: Repeated cross-sectional data on workplace fatalities at the state-year level were analyzed using a multivariate Poisson regression. SETTING: To date, 29 states and the District of Columbia have legalized the use of marijuana for medicinal purposes. Although there is increasing concern that legalizing medical marijuana will make workplaces more dangerous, little is known about the relationship between medical marijuana laws (MMLs) and workplace fatalities.

PARTICIPANTS: All 50 states and the District of Columbia for the period 1992-2015. **MEASUREMENTS:** Workplace fatalities by state and year were obtained from the Bureau of Labor Statistics. Regression models were adjusted for state demographics, the unemployment rate, state fixed effects, and year fixed effects. **FINDINGS:** Legalizing medical marijuana was associated with a 19.5% reduction in the expected number of workplace fatalities among workers aged 25-44 (incident rate ratio [IRR], 0.805; 95% CI, .662-.979). The association between legalizing medical marijuana and workplace fatalities among workers aged 16-24, although negative, was not statistically significant at conventional levels. The association between legalizing medical marijuana and workplace fatalities among workers aged 25-44 grew stronger over time. Five years after coming into effect, MMLs were associated with a 33.7% reduction in the expected number of workplace fatalities (IRR, 0.663; 95% CI, .482-.912). MMLs that listed pain as a qualifying condition or allowed collective cultivation were associated with larger reductions in fatalities among workers aged 25-44 than those that did not. **CONCLUSIONS:** The results provide evidence that legalizing medical marijuana improved workplace safety for workers aged 25-44. Further investigation is required to determine whether this result is attributable to reductions in the consumption of alcohol and other substances that impair cognitive function, memory, and motor skills

Els C, Jackson TD, Milen MT, Kunyk D, and Straube S. Random drug and alcohol testing for preventing injury in workers (Protocol). Cochrane Database of Systematic Reviews. 2018; 1:CD012921.

<http://dx.doi.org/10.1002/14651858.CD012921>

Freitas AC, Silva SA, and Santos CM. Safety training transfer: the roles of coworkers, supervisors, safety professionals, and felt responsibility. Journal of Occupational Health Psychology. 2018; [Epub ahead of print].

<http://dx.doi.org/10.1037/ocp0000125>

Abstract: The aim of this study is to identify the influence of social dimensions of the work environment and the employees' felt responsibility on the transfer of safety training. We tested a model in which responses and reactions from safety players such as coworkers, supervisors, and safety professionals are positively related to the transfer of training (TT), through the mediating effect of the employees' felt responsibility and the moderating influence of supervisor support and sanctions. A two-time data collection was implemented among blue-collar employees, all low qualified, from four city councils who attended a fundamental safety training program delivered by in-house safety trainers, all safety professionals (n = 203). Data analysis revealed that (a) supervisors' safety responses, coworkers' safety responses, and safety professionals' reactions positively influenced the TT, an effect (b) mediated by employees' felt responsibility and (c) moderated by supervisor sanctions, but not by supervisor support. The results suggest that high sanctions enhance the positive effect of high self-responsibility on TT, and, importantly, aggravate the negative effect of low self-responsibility on TT. This is the first study to empirically test both the influence of felt responsibility and the safety professionals' reactions in the transfer process. Research should continue to examine the former construct's influence on the transfer process including, for example, its effect on supervisor support, and the latter as a safety-related social dimension variable of the work environment. (PsycINFO Database Record

Gabel CP, Mokhtarinia HR, Hoffman J, Osborne J, Laakso EL, and Melloh M. Does the performance of five back-associated exercises relate to the presence of low back pain? A cross-sectional observational investigation in regional Australian council workers. BMJ Open. 2018; 8(8):e020946.

<http://dx.doi.org/10.1136/bmjopen-2017-020946> [open access]

Abstract: OBJECTIVES: Investigate the relationships between the ability/inability to perform five physical test exercises and the presence or absence of low back pain (LBP). SETTING: Regional Australian council training facility.

PARTICIPANTS: Consecutive participants recruited during 39 back education classes (8-26 participants per class) for workers in general office/administration, parks/gardens maintenance, roads maintenance, library, child care and management. Total sample (n=539) was reduced through non-consent and insufficient demographic data to n=422. Age 38.6+/-15.3 years, range 18-64 years, 67.1% male. **METHODS:** Cross-sectional, exploratory, observational

investigation. LBP presence was ascertained from a three-response option questionnaire: 0=none/rarely (no) 1=sometimes (some), 2=mostly/always (most). Statistical correlation was performed with the number of the five test exercises the individual successfully performed: (1) extension in lying: 3 s; (2) 'toilet squat'; feet flat, feet touched: 3 s; (3) full squat then stand up: 5 times; (4) supine sit-up, knees flexed: 10 times; and (5) leg extension, supine bilateral: 10 times. INTERVENTIONS: Nil. RESULTS: For the group 'no-some', 94.3% completed 4-5 test exercises, while for group 'With', 95.7% completed 0-1 test exercises. The relationship between LBP presence and number of exercises performed was highly significant ($\chi^2(10)=300.61$, $p<0.001$). Furthermore, multinomial logistic regression predicting LBP (0=no, 1=some, 2=most) from the number of exercises completed, substantially improved the model fit (initial-2LL=348.246, final-2LL=73.620, $\chi^2(2)=274.626$, $p<0.001$). As the number of exercises performed increased, the odds of reporting 'some LBP' or 'most LBP' dropped substantially (ORs of 0.34 and 0.17, respectively). CONCLUSION: The ability to complete/not complete five test exercises correlated statistically and significantly with a higher LBP absence/presence in a general working population. Training individuals to complete such exercises could facilitate reductions in LBP incidence; however, causality cannot be inferred. Randomised trials are recommended to establish the potential efficacy of exercise-based approaches, considering these five selected exercises, for predicting and managing LBP

Giga SI, Fletcher IJ, Sgourakis G, Mulvaney CA, and Vrkljan BH. Organisational level interventions for reducing occupational stress in healthcare workers (Protocol). Cochrane Database of Systematic Reviews. 2018; 4:CD013014.

<http://dx.doi.org/10.1002/14651858.CD013014>

Heus P, Verbeek JH, and Tikka C. Optical correction of refractive error for preventing and treating eye symptoms in computer users. Cochrane Database of Systematic Reviews. 2018; 4:CD009877.

<http://dx.doi.org/10.1002/14651858.CD009877.pub2>

Abstract: BACKGROUND: Computer users frequently complain about problems with seeing and functioning of the eyes. Asthenopia is a term generally used to describe symptoms related to (prolonged) use of the eyes like ocular fatigue, headache, pain or aching around the eyes, and burning and itchiness of the eyelids. The prevalence of asthenopia during or after work on a computer ranges from 46.3% to 68.5%. Uncorrected or under-corrected refractive error can contribute to the development of asthenopia. A refractive error is an error in the focusing of light by the eye and can lead to reduced visual acuity. There are various possibilities for optical correction of refractive errors including eyeglasses, contact lenses and refractive surgery. OBJECTIVES: To examine the evidence on the effectiveness, safety and applicability of optical correction of refractive error for reducing and preventing eye symptoms in computer users. SEARCH METHODS: We searched the Cochrane Central Register of Controlled

Trials (CENTRAL); PubMed; Embase; Web of Science; and OSH update, all to 20 December 2017. Additionally, we searched trial registries and checked references of included studies. **SELECTION CRITERIA:** We included randomised controlled trials (RCTs) and quasi-randomised trials of interventions evaluating optical correction for computer workers with refractive error for preventing or treating asthenopia and their effect on health related quality of life. **DATA COLLECTION AND ANALYSIS:** Two authors independently assessed study eligibility and risk of bias, and extracted data. Where appropriate, we combined studies in a meta-analysis. **MAIN RESULTS:** We included eight studies with 381 participants. Three were parallel group RCTs, three were cross-over RCTs and two were quasi-randomised cross-over trials. All studies evaluated eyeglasses, there were no studies that evaluated contact lenses or surgery. Seven studies evaluated computer glasses with at least one focal area for the distance of the computer screen with or without additional focal areas in presbyopic persons. Six studies compared computer glasses to other types of glasses; and one study compared them to an ergonomic workplace assessment. The eighth study compared optimal correction of refractive error with the actual spectacle correction in use. Two studies evaluated computer glasses in persons with asthenopia but for the others the glasses were offered to all workers regardless of symptoms. The risk of bias was unclear in five, high in two and low in one study. Asthenopia was measured as eyestrain or a summary score of symptoms but there were no studies on health-related quality of life. Adverse events were measured as headache, nausea or dizziness. Median asthenopia scores at baseline were about 30% of the maximum possible score. **Progressive computer glasses versus monofocal glasses** One study found no considerable difference in asthenopia between various progressive computer glasses and monofocal computer glasses after one-year follow-up (mean difference (MD) change scores 0.23, 95% confidence interval (CI) -5.0 to 5.4 on a 100 mm VAS scale, low quality evidence). For headache the results were in favour of progressive glasses. **Progressive computer glasses with an intermediate focus in the upper part of the glasses versus other glasses** In two studies progressive computer glasses with intermediate focus led to a small decrease in asthenopia symptoms (SMD -0.49, 95% CI -0.75 to -0.23, low-quality evidence) but not in headache score in the short-term compared to general purpose progressive glasses. There were similar small decreases in dizziness. At medium term follow-up, in one study the effect size was not statistically significant (SMD -0.64, 95% CI -1.40 to 0.12). The study did not assess adverse events. Another study found no considerable difference in asthenopia between progressive computer glasses and monofocal computer glasses after one-year follow-up (MD change scores 1.44, 95% CI -6.95 to 9.83 on a 100 mm VAS scale, very low quality evidence). For headache the results were inconsistent. **Progressive computer glasses with far-distance focus in the upper part of the glasses versus other glasses** One study found no considerable difference in number of persons with asthenopia between progressive computer glasses with far-distance focus and bifocal computer glasses after four weeks' follow-up (OR 1.00, 95% CI 0.40 to 2.50, very low

quality evidence). The number of persons with headache, nausea and dizziness was also not different between groups. Another study found no considerable difference in asthenopia between progressive computer glasses with far-distance focus and monofocal computer glasses after one-year follow-up (MD change scores -1.79, 95% CI -11.60 to 8.02 on a 100 mm VAS scale, very low quality evidence). The effects on headaches were inconsistent. One study found no difference between progressive far-distance focus computer glasses and trifocal glasses in effect on eyestrain severity (MD -0.50, 95% CI -1.07 to 0.07, very low quality evidence) or on eyestrain frequency (MD -0.75, 95% CI -1.61 to 0.11, very low quality evidence). Progressive computer glasses versus ergonomic assessment with habitual (computer) glasses One study found that computer glasses optimised for individual needs reduced asthenopia sum score more than an ergonomic assessment and habitual (computer) glasses (MD -8.9, 95% CI -16.47 to -1.33, scale 0 to 140, very low quality evidence) but there was no effect on the frequency of eyestrain (OR 1.08, 95% CI 0.38 to 3.11, very low quality evidence). We rated the quality of the evidence as low or very low due to risk of bias in the included studies, inconsistency in the results and imprecision.

AUTHORS' CONCLUSIONS: There is low to very low quality evidence that providing computer users with progressive computer glasses does not lead to a considerable decrease in problems with the eyes or headaches compared to other computer glasses. Progressive computer glasses might be slightly better than progressive glasses for daily use in the short term but not in the intermediate term and there is no data on long-term follow-up. The quality of the evidence is low or very low and therefore we are uncertain about this conclusion. Larger studies with several hundreds of participants are needed with proper randomisation, validated outcome measurement methods, and longer follow-up of at least one year to improve the quality of the evidence

Jung JKH, Feinstein SG, Palma LL, Macleod JS, Arrandale VH, McLeod CB, Peter A, and Demers PA. Examining lung cancer risks across different industries and occupations in Ontario, Canada: the establishment of the Occupational Disease Surveillance System. Occupational and Environmental Medicine. 2018; 75(8):545-552.

<http://dx.doi.org/10.1136/oemed-2017-104926>

Abstract: BACKGROUND: The Occupational Disease Surveillance System (ODSS) was established in Ontario, Canada by linking a cohort of workers with data created from Workplace Safety and Insurance Board (WSIB) claims to administrative health databases. The aim of this study was to use ODSS to identify high-risk industry and occupation groups for lung cancer in Ontario. METHODS: Workers in the WSIB lost time claims database were linked to the Ontario Cancer Registry using subjects' health insurance numbers, name, sex, birthdate and death date (if applicable). Several occupations and industries known to be at increased risk were outlined a priori to examine whether ODSS could replicate these associations. Age-adjusted, sex-stratified Cox proportional hazard models compared the risk of lung cancer within one industry/occupation

versus all other groups in the cohort. Workers with a lung cancer diagnosis prior to cohort entry were excluded for analysis, leaving 2 187 762 workers for analysis. RESULTS: During the 1983 to 2014 follow-up, 34 661 workers in the cohort were diagnosed with lung cancer. Among expected high-risk industries, elevated risks were observed among workers in quarries/sand pits and construction industries for both sexes, and among males in metal mines, iron foundries, non-metallic mineral products industries and transportation industries. Excess risk was also observed among occupations in drilling/blasting, other mining/quarrying, mineral ore treating, excavating/grading/paving, truck driving, painting, bus driving and construction. CONCLUSIONS: This current surveillance system identified several established high-risk groups for lung cancer and could be used for ongoing surveillance of occupational lung cancer in Ontario

Liang H, Lin KY, Zhang S, and Su Y. The impact of coworkers' safety violations on an individual worker: a social contagion effect within the construction crew. International Journal of Environmental Research and Public Health. 2018; 15(4):E773.

<http://dx.doi.org/10.3390/ijerph15040773> [open access]

Abstract: This research developed and tested a model of the social contagion effect of coworkers' safety violations on individual workers within construction crews. Both situational and routine safety violations were considered in this model. Empirical data were collected from 345 construction workers in China using a detailed questionnaire. The results showed that both types of safety violations made by coworkers were significantly related to individuals' perceived social support and production pressure. Individuals' attitudinal ambivalence toward safety compliance mediated the relationships between perceived social support and production pressure and both types of individuals' safety violations. However, safety motivation only mediated the effects of perceived social support and production pressure on individuals' situational safety violations. Further, this research supported the differences between situational and routine safety violations. Specifically, we found that individuals were more likely to imitate coworkers' routine safety violations than their situational safety violations. Coworkers' situational safety violations had an indirect effect on individuals' situational safety violations mainly through perceived social support and safety motivation. By contrast, coworkers' routine safety violations had an indirect effect on individuals' routine safety violations mainly through perceived production pressure and attitudinal ambivalence. Finally, the theoretical and practical implications, research limitations, and future directions were discussed

Liu C. Ostracism, attributions, and their relationships with international students' and employees' outcomes: the moderating effect of perceived harming intent. Journal of Occupational Health Psychology. 2018; [Epub ahead of print].

<http://dx.doi.org/10.1037/ocp0000130>

Abstract: The two studies reported in this article tested the relationships among ostracism, attributions of ostracism, and the victims' outcomes. I examined the moderating effect of perceived harming intent on these mediational relationships. Study 1 used online survey design and was based on a group of 150 international students who studied in the United States. Ostracism was positively related to both internal and external attributions. Internal attribution was more strongly negatively related to self-esteem than was external attribution. Perceived harming intent moderated the relationship between ostracism and internal attribution. International students made more internal attributions when the perceived harming was low rather than high. Study 2 used time-lagged online survey design and was based on data from 403 (Time 1, N = 236 at Time 2) full-time employees. Employees made both internal and external attributions of ostracism. Internal attribution was more strongly related to employee outcomes (i.e., lower self-esteem, higher depression, psychological strains, physical strains, and absence) than was external attribution. Perceived harming intent of ostracism moderated ostracism in relation to both internal and external attributions. Employees made more internal attributions when perceived harming intent was low (i.e., nonpurposeful ostracism); they made more external attributions when perceived harming intent was high (i.e., purposeful ostracism). Both studies provided support to the moderated mediation model in which the indirect effect of ostracism on employee outcomes via internal attribution was dependent upon the level of perceived harming intent. (PsycINFO Database Record

Liu Q. Influence mechanism of construction workers' safety psychology on their safety behavior based on event-related potentials. NeuroQuantology. 2018; 16(6):171-175.

<http://dx.doi.org/10.14704/nq.2018.16.6.1601>

Marchand A, Blanc ME, and Beauregard N. Do age and gender contribute to workers' burnout symptoms? Occupational Medicine. 2018; 68(6):405-411.

<http://dx.doi.org/10.1093/occmed/kgy088>

Abstract: Background: Despite mounting evidence on the association between work stress and burnout, there is limited knowledge about the extent to which workers' age and gender are associated with burnout. Aims: To evaluate the relationship between age, gender and their interaction with burnout in a sample of Canadian workers. Methods: Data were collected in 2009-12 from a sample of 2073 Canadian workers from 63 workplaces in the province of Quebec. Data were analysed with multilevel regression models to test for linear and non-linear relationships between age and burnout. Analyses adjusted for marital status, parental status, educational level and number of working hours were conducted on the total sample and stratified by gender. Results: Data were collected from a sample of 2073 Canadian workers (response rate 73%). Age followed a non-linear relationship with emotional exhaustion and total burnout, while it was linearly related to cynicism and reduced professional efficacy. Burnout level

reduced with increasing age in men, but the association was bimodal in women, with women aged between 20-35 and over 55 years showing the highest burnout level. Conclusions: These results suggest that burnout symptoms varied greatly according to different life stages of working men and women. Younger men, and women aged between 20-35 and 55 years and over are particularly susceptible and should be targeted for programmes to reduce risk of burnout

Mikkelsen MB and Rosholm M. Systematic review and meta-analysis of interventions aimed at enhancing return to work for sick-listed workers with common mental disorders, stress-related disorders, somatoform disorders and personality disorders. Occupational and Environmental Medicine. 2018; 75(9):675-686.

<http://dx.doi.org/10.1136/oemed-2018-105073>

Abstract: OBJECTIVES: Mental disorders are associated with significant functional impairment, sickness absence and disability. The consequences of sickness absence warrant investigation into interventions aimed at enhancing return to work (RTW) for workers with mental disorders. The present systematic review and meta-analysis aim to synthesise evidence on the effectiveness of interventions aimed at enhancing RTW in sick-listed workers with mental disorders. METHODS: EconLit, Embase, PsychInfo, PubMed, Svemed+ and Web of Science were searched for peer-reviewed, randomised or controlled studies assessing employment-related outcomes of interventions. A meta-analysis was conducted and meta-regressions were performed to explore prespecified potential sources of heterogeneity between studies. RESULTS: The literature search yielded 3777 publications of which 42 (n=38 938) were included in the systematic review and 32 (n=9459) had appropriate data for the meta-analysis. The pooled effect size (95 % CI) was 0.14 (0.07 to 0.22). Meta-regressions revealed that the heterogeneity could not be attributed to study quality, timing of the intervention or length of the intervention. However, it could be partly explained by number of components included in the intervention, if the intervention included contact to the work place and by the disorder targeted by the intervention. CONCLUSIONS: The results reveal strong evidence for interventions including contact to the work place and multicomponent interventions and moderate evidence for interventions including graded RTW. In addition, the results provide strong evidence for interventions targeting stress compared with interventions targeting other mental disorders. The findings point to important implications for policy and design of future interventions

Ostlund G and Johansson G. Remaining in workforce - employment barriers for people with disabilities in a Swedish context. Scandinavian Journal of Disability Research. 2018; 20(1):18-25.

<http://dx.doi.org/10.16993/sjdr.4>

Shrestha N, Kukkonen-Harjula KT, Verbeek JH, Ijaz S, Hermans V, and Pedisic Z. Workplace interventions for reducing sitting at work. Cochrane Database of Systematic Reviews. 2018; 6:CD010912.

<http://dx.doi.org/10.1002/14651858.CD010912.pub4>

Abstract: **BACKGROUND:** A large number of people are employed in sedentary occupations. Physical inactivity and excessive sitting at workplaces have been linked to increased risk of cardiovascular disease, obesity, and all-cause mortality. **OBJECTIVES:** To evaluate the effectiveness of workplace interventions to reduce sitting at work compared to no intervention or alternative interventions. **SEARCH METHODS:** We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, Embase, CINAHL, OSH UPDATE, PsycINFO, ClinicalTrials.gov, and the World Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP) search portal up to 9 August 2017. We also screened reference lists of articles and contacted authors to find more studies. **SELECTION CRITERIA:** We included randomised controlled trials (RCTs), cross-over RCTs, cluster-randomised controlled trials (cluster-RCTs), and quasi-RCTs of interventions to reduce sitting at work. For changes of workplace arrangements, we also included controlled before-and-after studies. The primary outcome was time spent sitting at work per day, either self-reported or measured using devices such as an accelerometer-inclinometer and duration and number of sitting bouts lasting 30 minutes or more. We considered energy expenditure, total time spent sitting (including sitting at and outside work), time spent standing at work, work productivity and adverse events as secondary outcomes. **DATA COLLECTION AND ANALYSIS:** Two review authors independently screened titles, abstracts and full-text articles for study eligibility. Two review authors independently extracted data and assessed risk of bias. We contacted authors for additional data where required. **MAIN RESULTS:** We found 34 studies - including two cross-over RCTs, 17 RCTs, seven cluster-RCTs, and eight controlled before-and-after studies - with a total of 3,397 participants, all from high-income countries. The studies evaluated physical workplace changes (16 studies), workplace policy changes (four studies), information and counselling (11 studies), and multi-component interventions (four studies). One study included both physical workplace changes and information and counselling components. We did not find any studies that specifically investigated the effects of standing meetings or walking meetings on sitting time. Physical workplace changes Interventions using sit-stand desks, either alone or in combination with information and counselling, reduced sitting time at work on average by 100 minutes per workday at short-term follow-up (up to three months) compared to sit-desks (95% confidence interval (CI) -116 to -84, 10 studies, low-quality evidence). The pooled effect of two studies showed sit-stand desks reduced sitting time at medium-term follow-up (3 to 12 months) by an average of 57 minutes per day (95% CI -99 to -15) compared to sit-desks. Total sitting time (including sitting at and outside work) also decreased with sit-stand desks compared to sit-desks (mean difference (MD) -82 minutes/day, 95% CI -124 to -39, two studies) as did the duration of sitting bouts lasting 30 minutes or more (MD -53 minutes/day, 95% CI -79 to -26, two studies, very low-quality evidence). We found no significant difference between the effects of standing desks and sit-stand desks on reducing sitting at work. Active workstations, such

as treadmill desks or cycling desks, had unclear or inconsistent effects on sitting time. Workplace policy changes We found no significant effects for implementing walking strategies on workplace sitting time at short-term (MD -15 minutes per day, 95% CI -50 to 19, low-quality evidence, one study) and medium-term (MD -17 minutes/day, 95% CI -61 to 28, one study) follow-up. Short breaks (one to two minutes every half hour) reduced time spent sitting at work on average by 40 minutes per day (95% CI -66 to -15, one study, low-quality evidence) compared to long breaks (two 15-minute breaks per workday) at short-term follow-up. Information and counselling Providing information, feedback, counselling, or all of these resulted in no significant change in time spent sitting at work at short-term follow-up (MD -19 minutes per day, 95% CI -57 to 19, two studies, low-quality evidence). However, the reduction was significant at medium-term follow-up (MD -28 minutes per day, 95% CI -51 to -5, two studies, low-quality evidence). Computer prompts combined with information resulted in no significant change in sitting time at work at short-term follow-up (MD -10 minutes per day, 95% CI -45 to 24, two studies, low-quality evidence), but at medium-term follow-up they produced a significant reduction (MD -55 minutes per day, 95% CI -96 to -14, one study). Furthermore, computer prompting resulted in a significant decrease in the average number (MD -1.1, 95% CI -1.9 to -0.3, one study) and duration (MD -74 minutes per day, 95% CI -124 to -24, one study) of sitting bouts lasting 30 minutes or more. Computer prompts with instruction to stand reduced sitting at work on average by 14 minutes per day (95% CI 10 to 19, one study) more than computer prompts with instruction to walk at least 100 steps at short-term follow-up. We found no significant reduction in workplace sitting time at medium-term follow-up following mindfulness training (MD -23 minutes per day, 95% CI -63 to 17, one study, low-quality evidence). Similarly a single study reported no change in sitting time at work following provision of highly personalised or contextualised information and less personalised or contextualised information. One study found no significant effects of activity trackers on sitting time at work. Multi-component interventions Combining multiple interventions had significant but heterogeneous effects on sitting time at work (573 participants, three studies, very low-quality evidence) and on time spent in prolonged sitting bouts (two studies, very low-quality evidence) at short-term follow-up. AUTHORS' CONCLUSIONS: At present there is low-quality evidence that the use of sit-stand desks reduce workplace sitting at short-term and medium-term follow-ups. However, there is no evidence on their effects on sitting over longer follow-up periods. Effects of other types of interventions, including workplace policy changes, provision of information and counselling, and multi-component interventions, are mostly inconsistent. The quality of evidence is low to very low for most interventions, mainly because of limitations in study protocols and small sample sizes. There is a need for larger cluster-RCTs with longer-term follow-ups to determine the effectiveness of different types of interventions to reduce sitting time at work

Tricco AC, Rios P, Zarin W, Cardoso R, Diaz S, Nincic V, Mascarenhas A, Jassemi S, and Straus SE. Prevention and management of unprofessional behaviour among adults in the workplace: a scoping review. PLoS ONE. 2018; 13(7):e0201187.

<http://dx.doi.org/10.1371/journal.pone.0201187> [open access]

Abstract: BACKGROUND: Unprofessional behaviour is a challenge in academic medicine. Given that faculty are role models for trainees, it is critical to identify strategies to manage these behaviours. A scoping review was conducted to identify interventions to prevent and manage unprofessional behaviour in any workplace or professional setting. METHODS: A search of 14 electronic databases was conducted in March 2016, reference lists of relevant systematic reviews were scanned, and grey literature was searched to identify relevant studies. Experimental and quasi-experimental studies that reported on interventions to prevent or manage unprofessional behaviours were included. Studies that reported impact on any outcome were eligible. Two reviewers independently screened articles and completed data abstraction. Qualitative analysis of the definitions of unprofessional behaviour was conducted. Data were charted to describe the study, participant, intervention and outcome characteristics. RESULTS: 12,482 citations were retrieved; 23 studies with 11,025 participants were included. The studies were 12 uncontrolled before and after studies, 6 controlled before and after studies, 2 cluster-randomised controlled trials (RCTs), 1 RCT, 1 non-randomised controlled trial and 1 quasi-RCT. Four constructs were identified in the definitions of unprofessional behaviour: verbal and/or non-verbal acts, repeated acts, power imbalance, and unwelcome behaviour. Interventions most commonly targeted individuals (22 studies, 95.7%) rather than organisations (4 studies, 17.4%). Most studies (21 studies, 91.3%) focused on increasing awareness. The most frequently targeted behaviour change was sexual harassment (4 of 7 studies). DISCUSSION: Several interventions appear promising in addressing unprofessional behaviour. Most of the studies included single component, in-person education sessions targeting individuals and increasing awareness of unprofessional behaviour. Fewer studies targeted the institutional culture or addressed behaviour change

Wendeu-Foyet MG, Bayon V, Cenee S, Tretarre B, Rebillard X, Cancel-Tassin G, Cussenot O, Lamy PJ, Faraut B, Ben Khedher S, Leger D, and Menegaux F. Night work and prostate cancer risk: results from the EPICAP Study. Occupational and Environmental Medicine. 2018; 75(8):573-581.

<http://dx.doi.org/10.1136/oemed-2018-105009> [open access]

Abstract: OBJECTIVE: To investigate the role of night work in prostate cancer based on data from the EPICAP Study. METHODS: EPICAP is a French population-based case-control study including 818 incident prostate cancer cases and 875 frequency-matched controls that have been interviewed face to face on several potential risk factors including lifetime occupational history. Detailed information on work schedules for each job (permanent or rotating night work, duration, total number of nights, length of the shift, number of consecutive

nights) as well as sleep duration and chronotype, was gathered. Prostate cancer aggressiveness was assessed by Gleason Score. RESULTS: Night work was not associated with prostate cancer, whatever the aggressiveness of prostate cancer, while we observed an overall increased risk among men with an evening chronotype (OR=1.83, 95% CI 1.05 to 3.19). A long duration of at least 20 years of permanent night work was associated with aggressive prostate cancer (OR=1.76, 95% CI 1.13 to 2.75), even more pronounced in combination with a shift length >10 hours or ≥ 6 consecutive nights (OR=4.64, 95% CI 1.78 to 12.13; OR=2.43, 95% CI 1.32 to 4.47, respectively). CONCLUSION: Overall, ever night work, either permanent or rotating, was not associated to prostate cancer. Nevertheless, our results suggest that a long duration of permanent night work in combination with a long shift length or at least six consecutive nights may be associated with prostate cancer, particularly with aggressive prostate cancer. Further studies are needed to confirm those findings