



Emerging Evidence Alert May 2019

This Emerging Evidence Alert supports Comcare's strategic focus of working with employees and employers to minimise the impact of harm in the workplace, improve recovery at and return to work, and promote the health benefits of work through good work design. It also provides the latest research evidence to support Comcare's Strategic Partnerships and Engagement's five areas of importance to Comcare's strategic direction.

- Enabling healthy and safe workplaces
- Enhancing employer capability
- Guiding and supporting mental health
- Fostering work participation
- Adapting to the future of work

The following topics support these areas of strategic importance.

Where possible, links to the full text of the articles have been included. The Digital Object Identifier (DOI) has also been included where possible, to enable direct links to the article and journal. Check with your library to see if you have access or may ask for an interlibrary loan.

Emerging Evidence Topics

- [Absenteeism and presenteeism](#)
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IMPROVING WORKPLACE CULTURE AND CIVILITY

A positive workplace culture attracts talent, drives engagement and retention, and improves employee productivity and performance. A negative culture however, can lead to disengagement, absenteeism, instances of bullying and harassment, and is a significant contributor to psychological injury in the workplace.

There are many factors that can determine workplace culture including procedural fairness, work content and leadership support. Workplace civility is also a key factor impacting workplace culture.

Civility can be anything from smiling at your colleagues in the morning, greeting them by name, making eye contact when you're talking to them, and saying 'thank you' when they lend a hand. None of these things cost money – however harbouring an uncivil workplace can lead to poor mental health, higher staff turnover, insurance claims, and lost productivity.

The [Harvard Business Review](#) has a good overview of the price of incivility. Research from [Sweden](#) has shown that witnessing incivility, from both coworkers and supervisors, was related to individuals instigating incivility.

The [April](#) Journal of Occupational Health Psychology has several articles on the impact of incivility on employee performance, citizenship and recovery. One paper found employees' own incivility experiences predicted lower performance and citizenship behavior and higher counterproductive behavior. Meanwhile, customer mistreatment was found to be positively associated with increased negative affect, which, in turn, predicted poor sleep quality at night and poor recovery state the next morning.

Comcare's next Mental Health Community of Practice event is being held on 30 May 2019. The keynote speakers for this event are industry leaders and experts who will discuss culture and civility in the workplace and how they impact on mental health. For more information on the event, please contact Comcare's [Mental Health team](#).

A recording of the event will be available via the Safe Work Australia [virtual seminar series](#).

ABSENTEEISM AND PRESENTEEISM

Title **Employee experience of workplace supervisor contact and support during long-term sickness absence.**

Author/s Buys, Nicholas J. Selander, John, Sun, Jing

Source *Disability & rehabilitation*. April 2019 41 7p 808-814. 7p. DOI: 10.1080/09638288.2017.1410584

Abstract Purpose: Workplace support is an important factor in promoting successful return to work. The purpose of this article is to examine relationships between supervisor contact, perceived workplace support and demographic variables among employees on long-term sickness absence.
Materials and method: Data were collected from 204 public employees at a municipality in Sweden who had been on long term sickness absence (60 days or more) using a 23 question survey instrument that collected information on demographic variables, supervisor contact and perceived workplace support.
Results: Most injured employees (97%) reported having contact with their supervisors during their sickness absence, with a majority (56%) reporting high levels of support, including early (58.6%) and multiple (70.7%) contacts. Most were pleased with amount of contact (68.9%) and the majority had discussed workplace accommodations (68.1%). Employees who self-initiated contact, felt the amount of contact was appropriate, had a personal meeting with their supervisors and discussed workplace adjustments reported experiencing higher levels of support from supervisors.
Conclusions: Employees on long-term sickness absence appreciate contact from their supervisors and this is associated with perceived workplace support. However, the amount and employee experience of this contact is important. It needs to be perceived by employees

as supportive, which includes a focus on strategies (e.g., work adjustment) to facilitate a return to work. Supervisor training is required in this area to support the return to work process.

Implications for Rehabilitation: Contact and support from workplace supervisors is important to workers on long-term sickness absence. Employees appreciate frequent contact from supervisors during long-term sickness absence. Employees appreciate a personal meeting with supervisors and the opportunity to discuss issues related to return to work such as work adjustment. Employers should provide training to supervisors on how to communicate and assist employees on long-term sickness absence.

Title **Psychological treatments for return to work in individuals on sickness absence due to common mental disorders or musculoskeletal disorders: a systematic review and meta-analysis of randomized-controlled trials.**

Author/s Finnes, Anna; Enebrink, Pia; Ghaderi, Ata; Dahl, JoAnne; Nager, Anna; Öst, Lars-Göran.

Source *International archives of occupational & environmental health*. April 2019 92 3 273-293. 21p. DOI: 10.1007/s00420-018-1380-x

Abstract Purpose: Common mental disorders (CMDs) and musculoskeletal disorders are highly prevalent in the population and cause significant distress and disability, and high costs to society. The main objective of this systematic review and meta-analysis was to examine the outcome and comparative effectiveness of psychological **interventions** in reducing sickness absence (SA) due to CMDs or musculoskeletal disorders, compared to a waitlist control group, usual care or another clinical intervention.
Methods: We reviewed 3515 abstracts of randomized controlled trials published from 1998 to 2017. Of these, 30 studies were included in the analysis.
Results: The psychological interventions were overall more effective than treatment as usual in reducing SA (small effect sizes), but not compared to other clinical **interventions**. Results were similar for studies on CMDs and musculoskeletal pain. A few significant moderating effects were found for treatment-specific variables. However, these were difficult to interpret as they pointed in different directions.
Conclusion: There was a small but significant effect of psychological treatments in reducing SA. We identified areas of improvement such as methodological problems among the included studies and failure to specifically address RTW in the **interventions** that were evaluated. Clinical implications of the findings, and ways of improving methodological rigour of future studies are discussed

AGEING WORKFORCE

Title **Do we act as old as we feel? An examination of subjective age and job crafting behaviour of late career employees**

Author/s Nagy, Noemi Johnston, Claire S. Hirschi, Andreas

Source *European journal of work and organizational psychology* 2019 28 3 373-383 DOI: 10.1080/1359432X.2019.1584183

Abstract Ageing research calls for a focus on the mechanisms that can explain effects of ageing beyond the purely chronologic marker of age. To address this issue, the present study focuses on subjective age as a holistic construct that is related to various developmental and motivational processes and allows deeper insights into the interindividual variability of the ageing experience in older workers. Specifically, the current study examines on a sample of $N = 485$ late career employees (mean age 54 years), if subjective age is related to job crafting behaviours of older workers and whether job crafting is related to higher levels of work meaningfulness in late career. Results indicate that subjective age is significantly negatively related to job crafting behaviour over and above the effect of chronological age, self-rated

health and workplace autonomy. Job crafting, in turn, significantly predicted work meaningfulness, above the effect of workplace autonomy. In sum, our study provides evidence for the utility of psychological representations of ageing to understand job crafting at work for an increasingly important segment of the working population.

Title **Occupational balance as described by older workers over the age of 65**

Author/s Hovbrandt, Pia Carlsson, Gunilla Nilsson, Kerstin Albin, Maria Håkansson, Carita

Source *Journal of occupational science* 2019 26 1 40-52 DOI: 10.1080/14427591.2018.1542616

Abstract Occupational balance promotes health, knowledge about occupational balance among older workers is important. This qualitative study aimed to describe occupational balance among older workers in Sweden. Six focus groups and two individual interviews were conducted with 26 workers, aged 65 years and older. The findings showed that drawing on abilities and resources, a harmonious mix of occupations, as well as congruence with values and personal meaning contributed to the participants' occupational balance. From a work perspective, organizational factors such as support from managers and having the freedom to influence work tasks, as well as work time, also contributed to occupational balance. The participants changed their occupational pattern to achieve a more harmonious mix of occupations. This change was based on values and experience derived through the meaning of occupations, and on abilities and resources. Enabling older people to achieve occupational balance and promoting health may contribute to possibilities for an extended working life and active ageing.

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ASBESTOSIS AND MESOTHELIOMA

Title **Malignant mesothelioma in Lynch syndrome: A report of two cases and a review of the literature**

Author/s Shih, A Kradin, RL

Source *American journal of industrial medicine* May 2019 62 5 448-452
<https://doi.org/10.1002/ajim.22968>

Abstract Malignant mesothelioma is a rare and aggressive cancer most typically associated with prior asbestos exposure. The nature of the relationship between asbestos exposure and hereditary familial syndromes predisposing to malignancy has not been determined. We report two Lynch syndrome patients with paraoccupational asbestos exposure who developed diffuse malignant mesothelioma of the pleura or peritoneum. Interestingly, one showed a separate focus of pleural well-differentiated papillary mesothelioma. It is likely that Lynch syndrome patients are at increased risk for the development of mesothelioma in the setting of exposure to asbestos, even at what is generally considered to be low levels. In the presence of a documented history of low-level asbestos exposure, patients with genetic predisposition disorders (including Lynch syndrome) should be considered to have an independent risk factor modifying the effects of asbestos exposure.

Title **Mortality for mesothelioma and lung cancer in a cohort of asbestos cement workers in Bari (Italy) time related aspects of exposure**

Author/s Cuccaro, F et al

Source *Journal of occupational and environmental medicine*: May 2019 61 5 410–416 doi: 10.1097/JOM.0000000000001580

Abstract Objective: In this cohort mortality study we used an exposure index to evaluate individual cumulative exposure as proxy of asbestos dose and we evaluated change in cancer mortality pattern after long time since the end of exposure.
Methods: We calculated standardized mortality ratios (SMRs) for several causes of death stratified by latency, cumulative exposure, and time since last exposure (TSLE).
Results: Latency: we observed a peak and then a decrease in SMR for lung, pleural, and peritoneal cancer. Cumulative Exposure: We observed a peak and then a decrease in SMR for lung and pleural cancer, not for peritoneal cancer. TSLE: Pleural cancer SMR peaked at 20 to 29 years, then decreased, peritoneal cancer SMR reached a plateau after 20 years and lung cancer mortality was in excess in each class.
Conclusions: We found different patterns in mortality in the main asbestos-related tumors.

ERGONOMICS

Title Do office workers adjust their chairs? End-user knowledge, use and barriers to chair adjustment

Author/s Underwood, D Sims, R

Source Applied ergonomics May 2019 77 100-106 <https://doi.org/10.1016/j.apergo.2018.12.007>

Abstract Highlights:
•Users knew and used fewer than half of their office chair's adjustable functions.
•Physical needs were a strong driver for previous chair adjustment behavior.
•Perceived cognitive barriers limited chair adjustable function knowledge and use.
•Chair adjustable functions need to be available and known in order to be used.
A quantitative field study measured end-user availability, knowledge and use levels of adjustable office chair functions in Korea-based office workers, together with their perceived barriers towards making adjustments. Fifty-one English-speaking workers were interviewed and surveyed in a related design. Results showed that of the number of adjustable functions available on their office chair ($M=5.39$, $SD=2.3$), participants knew fewer than half of them ($M=2.51$, $SD=1.52$) and used even less ($M=1.86$, $SD=1.21$). Fifty-three percent of participants knew two or less and 73% had used only two or less. Ten percent had used none. Results suggested physical needs (such as increased comfort or postural change) were a strong driver for previous chair adjustment behaviour. Perceived cognitive barriers played a more significant role in limiting chair adjustment knowledge and use than physical or organizational barriers. Highly adjustable office chairs have the possibility of satisfying the adjustment needs of most end-users. However, adjustable chair functions need to be both available and known in order to be used.

Title Evaluation of the effects of two alternative participatory ergonomics intervention strategies for construction companies

Author/s Steven Visser, Henk F. van der Molen, Judith K. Sluiter & Monique H. W. Frings-Dresen

Source *Ergonomics* 2019 62 1 42-51 DOI: 10.1080/00140139.2018.1516806

Abstract To improve the use of ergonomics tools by construction workers, the effect of two guidance strategies – a face-to-face strategy (F2F) and an e-guidance strategy (EG) – of a participatory ergonomics intervention was studied. Twelve construction companies were randomly assigned to the F2F group or the EG group. The primary outcome measure, the percentage of workers using ergonomics tools, and secondary outcome measures – work ability, physical functioning and limitations due to physical problems – were assessed using surveys at baseline and after 6 months. Additionally, a cost-benefit analysis was performed on company level. No differences in primary and secondary outcomes were found with the exception of the use of ergonomics tools to adjust working height (F2F +1%; EG +10%; $p=.001$). Newly-

implemented tools were used by 23% (F2F) and 42% (EG) of the workers ($p = .271$). Costs were mainly determined by guidance costs (F2F group) or purchase costs (EG group).
Practitioner Summary: Participatory strategies aim to stimulate behavioural change of stakeholders to increase the use of ergonomics tools. Two guidance strategies – face-to-face or e-mail interventions – among construction companies were studied. Both guidance strategies led to an increase in the use of new ergonomics tools.

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HEALTH AND WELLBEING

Title **Associations of device-measured sitting, standing, and stepping time with informal face-to-face interactions at work**

Author/s Sugiyama, Takemi Winkler, Elisabeth A.H., LaMontagne, Anthony D. Healy, Genevieve N., Hadgraft, Nyssa T. Dunstan, David W., Owen, Neville

Source *Journal of occupational and environmental medicine*: May 2019 61 5 431–436 doi: 10.1097/JOM.0000000000001586

Abstract Objective: This cross-sectional study examined the interrelationships between workplace movement (sitting, standing, and stepping), availability of discussion space, and face-to-face (FTF) interactions between workers.

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Methods: Desk-based workers ($n = 221$) wore an activity monitor for 7 days and self-reported their weekly frequency of FTF interactions and discussion space availability. Negative binomial regression models examined behavioral and spatial factors associated with the frequency of FTF interactions.

Results: Adjusted for potential confounders, each one standard deviation increment in time spent sitting, standing, stepping, and discussion space availability was associated with 20% lower ($P = 0.004$), 19% higher ($P = 0.003$), 6% higher ($P = 0.16$), and 11% higher ($P = 0.26$) frequency of FTF interactions, respectively

Conclusions: Lower workplace sitting was often linked to reduced risk of chronic diseases. Our findings suggest that less sitting at work may have additional benefits of increasing informal interactions between office workers.

Title **Constructing better health and wellbeing? Understanding structural constraints on promoting health and wellbeing in the UK construction industry**

Author/s Hanna, ES Steven Markham, S

Source *International journal of workplace health management* 2019 12 3146-159
<https://doi.org/10.1108/IJWHM-03-2018-0031>

Abstract Purpose: The construction industry has high rates of work-related ill health. Whilst there have been more recent calls for a “health like safety” narrative within the industry, health has still predominantly been viewed via health risks rather than a more holistic conceptualisation of health and well-being. The workplace is viewed as a fruitful site for health promotion work, yet we know little about the possibilities and promise of health promotion within the construction industry. The paper aims to discuss these issues.

Design/methodology/approach: This paper explores the views of stakeholders with health-related roles and responsibilities within the UK construction industry. From the 21 semi-structured qualitative interviews, thematic analysis was conducted and two key themes emerged: the construction industry as anti-health promoting and understanding industry-specific health issues.

Findings: The construction industry faces significant constraint in attempting to promote better health and well-being due to its makeup, yet the health and well-being issues of the industry notably stress, and early retirement are major issues for both the industry and individuals.

Practical implications: The authors argue that only through understanding the structural constraints of the industry in this way can the possibilities and potentials for undertaking health promotion work be fully embedded within the industry in order to help create meaningful change for both employees and the industry as a whole.

Originality/value: This paper offers insight into the challenges that exist within construction for promoting positive employee health and well-being and takes an in-depth approach to exploring why health promotion may not be occurring within the industry.

Title **Eating habits of professional firefighters: comparison with national guidelines and impact healthy eating promotion program**

Author/s Bucher Della Torre, S et al

Source *Journal of occupational and environmental medicine* May 2019 61 5 p e183–e190 doi: 10.1097/JOM.0000000000001565

Abstract Objective: Firefighters' eating habits may be an additional risk factor for metabolic diseases. We assessed eating habits of firefighters, compared them with national guidelines, and evaluated the impact of a prevention program.
Methods: Twenty-eight professional firefighters from a Swiss airport benefited from a healthy-eating program. Food intake, eating behavior, and anthropometric data were collected at baseline and 1-year follow-up using an electronic food record, questionnaires, and bio-impedance.
Results: Participants had unbalanced diets with low-quality food choices associated with low intakes of fibers and micronutrients compared with national guidelines. Intervention did not impact eating habits or anthropometrics data at the group level, but changes were measured in sub-groups. Main reported barriers for healthy eating were lack of motivation, prioritization, or time.
Conclusions: Intensive and culturally tailored prevention interventions targeting nutritional behaviors are needed at the individual, group, and organizational levels.

Title **Work engagement interventions can be effective: a systematic review**

Author/s Knight, Caroline Patterson, Malcolm Dawson, Jeremy

Source *European journal of work and organizational psychology* 2019 28 3, 348-372 DOI: 10.1080/1359432X.2019.1588887

Abstract Work engagement is associated with important individual and organisational outcomes (e.g. employee health and well-being, performance). This narrative systematic review aims to synthesise the increasing number of work engagement interventions and inform future research by exploring: (1) the specific intervention foci, delivery methods and content of engagement interventions; (2) intervention effectiveness; and (3) underlying mediators and moderators. A systematic search for interventions employing a validated engagement measure revealed 40 studies. Five were personal resource building, twelve job resource building, three leadership training, eighteen health promotion, and two job and personal resource building. Twenty (50%) studies observed significant positive effects on work engagement, two (5%) had a negative effect, and eighteen (45%) had no effect. Job and personal resources, job demands and well-being were important mediators. Moderators included the specific intervention focus and delivery method, employee participation, manager support, and intervention level (top-down vs bottom-up). Bottom-up interventions, and job crafting and mindfulness interventions particularly, were most successful. Implementation difficulties were common, including poor response and attrition rates, and adverse factors (e.g. organisational restructuring, redundancy, economic downturn). We highlight implications for research and practice and stress the need to test underlying theories to build knowledge around how, why, and when interventions work.

HEALTH PROMOTION

Title **Association between the characteristics of organizations and their profile of performance against quality benchmarks for workplace health promotion**

Author/s Weaver, GL et al

Source *Journal of occupational and environmental medicine* May 2019 61 5 424–430 doi: 10.1097/JOM.0000000000001584

Abstract Objective: This study explored subgroups of performance profiles measured by organizations' Well Workplace Checklist (WWC) benchmark scores and examined company characteristics associated with performance subgroups.
Methods: The sample included 3728 US organizations that completed the WWC in 2008 to 2015. Latent profile analysis (LPA) was used to extract distinct subgroups of organizations based on benchmark performance. Multinomial logistic regression analysis was used to examine associations between the characteristics of organizations and their performance subgroup.
Results: Three distinct subgroups of performance resulted from the LPA. Significant associations were found between subgroup assignment and characteristics such as size, industry, how WHP initiatives were paid for, and reasons for implementing WHP initiatives.
Conclusion: The characteristics associated with subgroups of performance suggest utility for developing specific interventions tailored to different types of organizations to improve their overall quality of WHP initiatives.

Title **A 6-week worksite positivity program leads to greater life satisfaction, decreased inflammation, and a greater number of employees with a1c levels in range**

Author/s Lord, D et al

Source *Journal of occupational and environmental medicine* May 2019 61 5 357–372

Abstract Objective: To determine whether a 6-week Positivity Program could impact employee cardiovascular inflammation, blood sugars, cortisol, dehydroepiandrosterone (DHEA), and/or life satisfaction.
Methods: Pre- and post-study blood draw and life satisfaction questionnaire tracked changes in 10 cardiovascular and inflammatory biomarkers for 63 employees who participated in a 6-week Positivity Program comprised of three interventions: gratitude, HeartMath's Heart Lock-In, and yoga stretches with guided imagery.
Results: Improvements were recorded in life satisfaction as well as in seven of 10 cardiovascular and inflammatory biomarkers, including high sensitivity C-reactive protein (HsCRP) (–27%), hemoglobin A1c (HbA1c) (–1%), glucose (–2%), myeloperoxidase (MPO) (–5%), lipoprotein-associated phospholipase-A2 (Lp-PLA2) (–9%), apolipoprotein B (ApoB) (–6%), and DHEA (1%). No improvements were recorded in cortisol (11%), small-dense LDL (sdLDL) (0%), or oxidized LDL (OxLDL) (7%).
Conclusions: Data suggest that engaging in 6 weeks of a workplace Positivity Program may improve employee life satisfaction, blood sugar levels, and some markers of cardiovascular inflammation.

Title **Walking works wonders: a tailored workplace intervention evaluated over 24 months**

Author/s Haslam, Cheryl Kazi, Aadil Duncan, Myanna Clemes, Twumasi, Stacy

Source *Ergonomics* 2019 62 1 31-41 DOI: 10.1080/00140139.2018.1489982

Abstract This article presents longitudinal data from 1120 participants across 10 worksites enrolled in Walking Works Wonders, a tailored intervention designed to increase physical activity and reduce sedentary behaviour. The intervention was evaluated over 2 years, using a quasi-experimental design comprising 3 conditions: tailored information; standard information and control. This study explored the impact of the intervention on objective measures (BMI, %Fat, waist circumference, blood pressure and heart rate) and self-reported measures of physical activity, sedentary behaviour, physical and psychological health. Interventions tailored to employees' stage of change significantly reduced BMI and waist circumference compared to standard and control conditions. Employees who received either a standard or tailored intervention demonstrated significantly higher work ability, organizational commitment, job motivation, job satisfaction and a reduction in intention to quit the organization. The results suggest that adopting a tailored approach to interventions is particularly effective in terms of improving health in the workplace.

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Practitioner Summary: This study describes Walking Works Wonders, a tailored intervention, which aims to encourage physical activity in the workplace. The study evaluated Walking Works Wonders over a 2 year period and demonstrated that interventions are more effective in improving health outcomes where the information is tailored to employees' stage of change.

MUSCULOSKELETAL ISSUES

Title **Significant decreasing trend in back injuries in a multiemployer environment: a follow-up study**

Author/s Leung, N et al

Source *Journal of occupational and environmental medicine* May 2019 61 5 p e200–e205 doi: 10.1097/JOM.0000000000001568

Abstract Background: A significant decrease in back injury claims was observed in a single employer. Objective: The aim of this study was to validate whether back injury claims are decreasing in a multiemployer environment within a non-monopolistic state and quantify the risk of delayed return-to-work and adverse cost of injured workers with back injuries.

Methods: Thirty-six thousand four hundred sixty-three claims from 1998 to 2015 were analyzed with descriptive statistics and multivariate logistic and Cox-Proportional Hazards models.

Results: Back injury claims decreased three-fold (5.02 to 1.60 per 1000 employees) and were more likely to have claim costs over \$100,000 (odds ratio = 2.41) and delayed return-to-work (hazard ratio = 1.16).

Conclusion: Back injury claims are decreasing in a multiemployer environment within a non-monopolistic state.

Title **Structured physiotherapy including a work place intervention for patients with neck and/or back pain in primary care: an economic evaluation**

Author/s Saha, Sanjib; Jarl, Johan; Gerdtham, Ulf-G.; Grahn, Birgitta; Holmberg, Sara; Stigmar, Kjerstin;

Source *European journal of health economics*, March 2019; 20 2 317-327. (11p)

Abstract Abstract: A cluster-randomized controlled trial, WorkUp, was conducted for working-aged patients at risk of sick leave or on short-term sick leave due to acute/subacute neck and/or back pain in Sweden. The purpose of WorkUp was to facilitate participants to stay at work or in case of sick leave, return-to-work. The aim of this study was to study whether the WorkUp trial was cost-effective. Patients in the **intervention** and reference group received structured evidence-based physiotherapy, while patients in the **intervention** group also received a work place dialogue with the employer as an add-on. The participants, 352 in total, were recruited from 20 physiotherapeutic units in primary healthcare in southern Sweden. The economic evaluation was performed both from a healthcare and a societal perspective with a 12-month time frame with extensive univariate sensitivity analyses. Results were presented as incremental cost-effectiveness ratios (ICER) with outcomes measured as quality-adjusted life-years (QALY) and proportion working for at least 4 weeks in a row without reported sick leave at 12-month follow-up. From the healthcare perspective, the ICER was €23,606 (2013 price year) per QALY gain. From the societal perspective the **intervention** was dominating, i.e.. less costly and more effective than reference care. Bootstrap analysis showed that the probability of the **intervention** to be cost-effective at €50,000 willingness-to-pay per QALY was 85% from the societal perspective. Structured evidence-based physiotherapeutic care together with workplace dialogue is a cost-effective alternative from both a societal and a healthcare perspective for acute/subacute neck and/or back pain patients

[OCCUPATIONAL ISSUES](#)

Title **The association between job insecurity and engagement of employees at work**

Author/s Abay Getahun Asfaw, Chia-Chia Chang

Source *Journal of workplace behavioral health* 2019 34 2 96-110, DOI: 10.1080/15555240.2019.1600409

Abstract This study examined the association between employees' perceived job insecurity and employee engagement. Using Gallup-Sharecare Well-Being Index (2008–2014) data, we applied logistic regressions to examine the association between job insecurity and engagement, controlling for covariates. The job insecurity variable was also interacted with the supervisor support variable. We found that perceived job insecurity was associated with reduced engagement and that this may be moderated by supervisor support. This is the first study using nationally representative data to examine the role of supervisor support in mitigating the negative impact of job insecurity on engagement.

Title **“Becoming acquainted”: The process of incorporating assistive technology into occupations**

Author/s Meyer Larsen, S Hounsgaard, Lise Brandt, Åse Kristensen, Hanne Kaae

Source *Journal of occupational science* 2019 26 1 77-86, DOI: 10.1080/14427591.2018.1542337

Abstract Introduction: Previous studies have suggested that, in addition to factors such as sociocultural and physical contexts, the incorporation of assistive technology (AT) into everyday life is influenced by acceptance. Less seems to be known about the actual process by which the AT becomes incorporated. Purpose: To investigate older adults' experiences of the process of incorporating ATs into occupations. Method and material: A qualitative longitudinal approach using ethnographically inspired fieldwork with repeated interviews and participant observations was taken to explore experiences related to eight older adults' incorporation of

an AT into occupations. A phenomenological-hermeneutical approach was used to interpret the data. Findings: Through the analysis, one main theme, "Becoming acquainted" and six related subthemes, "Acquaintance through use", "Drawing on previous experiences", "Engaging in valued occupations", "Encounters with others", "Regaining control over everyday life" and "Challenges in using the AT" were identified. Conclusion: Active use of the AT – or "doing" – was experienced as important to the process of, first, learning the AT's different functions and, later, engaging or re-engaging in valued occupations. Using the AT to engage in occupations had a positive impact on the participants' minds and inner selves, i.e. it influenced their "being" and enabled a connection to people and places and thereby enhanced the feeling of "belonging". All these elements contributed to a successful incorporation of the AT into occupations or to the older adults "becoming" users of AT.

Title **The changing nature of work**

Author/s Ikin, H Carse, T Riley, M

Source *InPsych* April 2019 41 2

Abstract In recent years, too many organisations have faced public scrutiny over questionable workplace practices and the treatment of their workers. Amazon is the latest in a string of global businesses accused of unfair and unsafe working conditions, with suggestions of high work demands, considerable time pressures, unstable work arrangements, abusive supervision styles and excessive monitoring. Rapid advancements in technology, globalisation and consumer demands are some of the factors that have contributed to this and other prominent examples of work intensification. As psychologists, we should be concerned about the psychological health and wellbeing implications of such work practices

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Title **Emerging trends in the UK incidence of occupational asthma: should we be worried? Short report**

Author/s Seed, MJ et al

Source *Occupational & environmental medicine* 2019 76 6 <http://dx.doi.org/10.1136/oemed-2018-105414>

Abstract While 15% of adult-onset asthma is estimated to have an occupational cause, there has been evidence of a downward trend in occupational asthma incidence in several European countries since the start of this millennium. However, recent data from The Health and Occupation Reporting network in the UK have suggested a possible reversal of this downward trend since 2014. We present these data and discuss possible explanations for this observed change in incidence trend. A high index of suspicion of occupational causation in new-onset asthma cases continues to be important, whether or not the recently observed increase in occupational asthma incidence in the UK is real or artefactual.

Title **Exploring links between witnessed and instigated workplace incivility**

Author/s Holm, Kristoffer Torkelson, Eva Bäckström, Martin

Source *International journal of workplace health management* 2019 12 3160-175, <https://doi.org/10.1108/IJWHM-04-2018-0044>

Abstract Purpose: The purpose of this paper is to explore how witnessing workplace incivility from coworkers and supervisors relates to instigating incivility toward others. A further aim was to investigate if witnessed incivility is indirectly related to instigated incivility via perceived stress and low job satisfaction. An additional aim was to study if control, social support and job embeddedness moderate the relationships between witnessed and instigated incivility.
Design/methodology/approach: A total of 978 individuals, sourced from a Swedish trade

union, completed an online questionnaire.

Findings: The results showed that witnessed incivility, mainly from coworkers but also from supervisors, was related to instigated incivility. Although witnessed incivility was related to both perceived stress and low job satisfaction, witnessed incivility was not linked to instigated incivility via perceived stress or low job satisfaction. In addition, the results showed that participants who had witnessed coworker incivility and at the same time perceived high levels of control, social support (from coworkers) or job embeddedness on average reported higher levels of instigated incivility. Similarly, participants who had witnessed supervisor incivility and at the same time perceived high levels of control, social support (from coworkers and supervisors) or job embeddedness on average reported higher levels of instigated incivility.

Originality/value: The findings expand the literature on bystander workplace incivility and highlight the importance of including experienced psychosocial work factors in models of incivility.

Title **GPs' and practice staff's views of a telephone first approach to demand management: a qualitative study in primary care**

Author/s Newbould, j et al

Source *British journal of general practice* 2019 69 (82): e321-e328. DOI: <https://doi.org/10.3399/bjgp19X702401>

Abstract Background To better manage patient demand, some general practices have implemented a 'telephone first' approach in which all patients seeking a face-to-face appointment first have to speak to a GP on the telephone. Previous studies have suggested that there is considerable scope for this new approach, but there remain significant concerns.
Aim To understand the views of GPs and practice staff of the telephone first approach, and to identify enablers and barriers to successful adoption of the approach.
Design and setting A qualitative study of the telephone first approach in 12 general practices that have adopted it, and two general practices that have tried the approach but reverted to their previous system.
Method A total of 53 qualitative interviews with GPs and practice staff were conducted. Transcriptions of the interviews were systematically analysed.
Results Staff in the majority of practices reported that the approach was an improvement on their previous system, but all practices experienced challenges; for example, where practices did not have the capacity to meet the increase in demand for telephone consultations. Staff were also aware that the new system suited some patients better than others. Adoption of the telephone first approach could be very stressful, with a negative impact on morale, especially reported in interviews with the two practices that had tried but stopped the approach. Interviewees identified enablers and barriers to the successful adoption of a telephone first approach in primary care. Enablers to successful adoption were: understanding demand, practice staff as pivotal, making modifications to the approach, and educating patients.
[Weblink](#) Conclusion Practices considering adopting or clinical commissioning groups considering funding a telephone first approach should consider carefully a practice's capacity and capability before launching.

Title **Goal setting dynamics that facilitate or impede a client-centered approach**

Author/s Kessler, Dorothy Walker, Ian Sauvé-Schenk, Katrine Egan, Mary

Source *Scandinavian journal of occupational therapy* 2019 265, 315-324, DOI: [10.1080/11038128.2018.1465119](https://doi.org/10.1080/11038128.2018.1465119)

Abstract Background: Client-centred goal setting is central to the process of enabling occupation. Yet, there are multiple barriers to incorporating client-centred goal setting in practice. We sought to determine what might facilitate or impede the formation of client-centred goals in a context

highly supportive of client-centred goal setting

Methods: We used conversational analysis to examine goal-setting conversations that took place during a pilot trial of Occupational Performance Coaching for stroke survivors. Twelve goal-setting sessions were purposively selected, transcribed, and analyzed according to conventions for conversation analysis.

Results: Two main types of interactions were observed: introductory actions and goal selection actions. Introductory actions set the context for goal setting and involved sharing information and seeking clarification related to goal requirements and clients' occupational performance competencies. Goal selection actions were a series of interactions whereby the goals were explored, endorsed or dropped.

Conclusion: Client-centred occupational performance goals may be facilitated through placing goal-setting in the context of life changes and lifelong development of goals, and through listening to clients' stories. Therapists may improve consistency in adoption of client-suggested goals through clarifying meaning attached to goals and being attuned to power dynamics and underlying values and beliefs around risk and goal attainability.

Title **Harmonizing work history data in epidemiologic studies with overlapping employment records**

Author/s Stenenhjem, J Steinson et al

Source *American journal of industrial medicine* May 2019 62 5 422-429
<https://doi.org/10.1002/ajim.22965>

Abstract Background: Work history data often require major data management including handling of overlapping jobs to avoid overestimating exposure before linkage to job-exposure matrices (JEMs) is possible.

Methods: In a case-cohort study of 1825 male Norwegian offshore petroleum workers, 3979 jobs were reported (mean duration 2417 days/job; maximum 8 jobs/worker). Each job was assigned to one of 27 occupation categories. Overlapping jobs of the same category (1142 jobs) were collapsed and overlapping jobs of different categories (1013 jobs) were split. The resulting durations were weighted by a factor accounting for the number of overlapping jobs.

Results: Collapsing overlapping jobs within the same category resulted in 3295 jobs (mean 2629 days/job). Splitting overlapping jobs of different categories increased the number to 4239 jobs (mean 2043 days/job), while the total duration in days dropped by 10%.

[Weblink](#)

Conclusions: We demonstrated that overlapping employment data structures can be harmonized in a systematic and unbiased way, preparing work history data for linkage to several JEMs.

Title **Manifesto for the future of work and organizational psychology**

Author/s Bal, P. Matthijs et al

Source *European journal of work and organizational psychology* 2019 28 3 289-299, DOI: 10.1080/1359432X.2019.1602041

Abstract This manifesto presents 10 recommendations for a sustainable future for the field of Work and Organizational Psychology. The manifesto is the result of an emerging movement around the Future of WOP (see www.futureofwop.com), which aims to bring together WOP-scholars committed to actively contribute to building a better future for our field. Our recommendations are intended to support both individuals and collectives to become actively engaged in co-creating the future of WOP together with us. Therefore, this manifesto is open and never "finished." It should continuously evolve, based on an ongoing debate around our professional values and behavior. This manifesto is meant, first of all, for ourselves as an academic community. Furthermore, it is also important for managers, decision makers, and other stakeholders and interested parties, such as students, governments and organizations, as we envision what the future of WOP could look like, and it is only through our collective efforts that we will be able to realize a sustainable future for all of us.

Title **Physiotherapist as an alternative to a GP for musculoskeletal conditions: a 2-year service evaluation of UK primary care data**

Author/s Downie, F et al

Source *British journal of general practice* 2019 69 682 e314-e320. DOI: <https://doi.org/10.3399/bjgp19X702245>

Abstract Background Physiotherapists are currently working in primary care as first contact practitioners (FCP), assessing and managing patients with musculoskeletal conditions instead of GPs. There are no published data on these types of services.
Aim To evaluate a new service presenting the first 2 years of data.
Design and setting Analysis of 2 years' data of patient outcomes and a patient experience questionnaire from two GP practices in Forth Valley NHS, UK. The service was launched in November 2015 in response to GP shortages.
Method Data were collected from every patient contact in the first 2 years. This included outcomes of appointments, GP support, capacity of the service, referral rates to physiotherapy and orthopaedics, numbers of steroid injections, and outcomes from orthopaedic referrals. A patient experience questionnaire was also conducted.
Results A total of 8417 patient contacts were made, with the majority managed within primary care ($n = 7348$; 87.3%) and 60.4% ($n = 5083$) requiring self-management alone. Referrals to orthopaedics were substantially reduced in both practices. Practice A from 1.1 to 0.7 per 1000 patients; practice B from 2.4 to 0.8 per 1000 patients. Of referrals to orthopaedics, 86% were considered 'appropriate'. Extended scope physiotherapists (ESPs) asked for a GP review in 1% of patients.
Conclusion The results suggest that patients with musculoskeletal conditions may be assessed and managed independently and effectively by physiotherapists instead of GPs. This has the potential to significantly reduce workload for GPs as the service requires minimal GP support. The majority of patients were managed within primary care, with low referral rates and highly appropriate referrals to orthopaedics. Patients reported positive views regarding the service.

Title **Policies in activity-based flexible offices - 'I am sloppy with clean-desking. We don't really know the rules.'**

Author/s Babapour Chafi, Maral Rolfö, & Linda

Source *Ergonomic* 2019 62 1 1-20, DOI: 10.1080/00140139.2018.1516805

Abstract Activity-based Flexible Offices (A-FOs) are offices with unassigned desks that provide a variety of workspaces. This paper presents desk-sharing and speech rules identified in A-FOs in four Swedish organisations, the emergence of and compliance with these rules, and their consequences for work conditions. Data collection involved 105 semi-structured interviews, document analyses, and observations. The identified rules were: (1) to remove belongings, (2) temporal restrictions on using the same workstations, (3) temporal restrictions on using scarce zones, (4) restrictions on verbal interactions, and (5) restrictions on phone conversations. The cases with extensive user involvement in their planning process had explicit unambiguous rules. A better compliance with rules occurred when (i) the employees were well-prepared and had a unified understanding regarding how and why to follow the rules, (ii) the rules were explicitly communicated and were regarded as easy to follow, and (iii) following the rules facilitated work and improved work conditions.

[Weblink](#) Practitioner summary: Five rules were identified for applying desk-sharing and speech policies in A-FOs. Extensive user involvement resulted in having well-defined and explicitly communicated rules, and prepared employees for how to use the A-FO. Implicit and ambiguous rules led to conflicting interpretations, disregarding rules, and were associated with more negative work conditions.

Title **The role of age in the relationship between work social characteristics and job attitudes**

Author/s Fazi, Luca Zaniboni, Sara Estreder, Yolanda Truxillo, Donald Fraccaroli Franco

Source *Journal of workplace behavioral health* 2019 34 2 77-95 DOI: 10.1080/15555240.2019.1597632

Abstract Despite the amount of research on the link between work social characteristics and job attitudes, there is a lack of work on moderators of this relationship. In the present study, we examine the role of age as a moderating effect of this relationship using life-span development theory. The aim of this paper is to study the moderator effect of age in the relationship between two work social characteristics (interaction outside the organization and interdependence) and job attitudes (i.e., general job satisfaction and work engagement). Participants were 258 workers from private organizations. Data were collected at two time points (2 to 4 weeks between T₁ and T₂). Results showed that the relationship between interdependence and work engagement was stronger for older workers than for younger workers. In addition, the relationship between interaction outside the organization and general job satisfaction was stronger for younger than for older workers. Because increased engagement and satisfaction in an age-diverse workforce is important, organizations may benefit by challenging older workers with interdependent tasks, and younger workers with interaction with stakeholders outside the organization.

Title **Sedentary behaviour and health at work: an investigation of industrial sector, job role, gender and geographical differences**

Author/s Kazi, Aadil Haslam, Cheryl Duncan, Myanna Clemes Stacy Twumasi Ricardo

Source *Ergonomics* 2019 62 1 21-30, DOI: 10.1080/00140139.2018.1489981

Abstract This article presents baseline data from 1120 employees across 10 worksites enrolled in a workplace physical activity intervention. The study provides new data on physical activity, sedentary behaviour, and health and highlights gender, geographical, job type and industrial sector differences. Sitting at work accounted for more than 60% of participants' total daily sitting time on work days. Weekly and monthly hours worked, body mass index (BMI) and waist circumference were significantly higher for workers in the private sector compared to the public sector. Employees in sales and customer services had significantly higher BMI scores and significantly lower scores for workability index (WAI), job satisfaction, organisational commitment and job motivation, compared to other groups. This study provides further evidence that work is a major contributor to sedentary behaviour and supports the pressing need for interventions particularly targeting private sector industries and sales and customer service sectors.

[Weblink](#) Practitioner Summary: Work accounts for more than 60% of the daily sitting time. Private sector employees had higher BMIs than those in the public sector and employees in sales and customer services had higher BMIs and poorer health compared to other occupations, suggesting that these groups should be targeted in workplace interventions.

Title **The value of job crafting for work engagement, task performance, and career satisfaction: longitudinal and quasi-experimental evidence**

Author/s Dubbelt, Lonneke Demerouti, Evangelia Rispens, Sonja

Source *European journal of work and organizational psychology* 2019 28 3,300-314, DOI: 10.1080/1359432X.2019.1576632

Abstract We examine how job crafting (i.e. seeking resources, seeking challenges, decreasing demands) increases the person-job fit of employees. In Study 1, we studied job crafting's effects over time. 111 employees filled out a questionnaire at two time points with 6 months in between. We found that seeking resources behavior at Time 1 positively affected work engagement, task performance, and career satisfaction at Time 2. Decreasing demands at Time 1 negatively affected work engagement, task performance, and career satisfaction at Time 2. In Study 2, we tested a job crafting intervention using a quasi-experimental design (i.e., intervention group, N = 60, and a control group, N = 59). The intervention was successful, as participants in the intervention group increased seeking resources and decreasing demands behaviors. Furthermore, seeking resources behavior was the main driver of increased participants' work engagement, task performance, and career satisfaction.

Title **Who is engaged at work? a large-scale study in 30 European countries**

Author/s Hakanen, JJ et al

Source *Journal of occupational and environmental medicine*: May 2019 61 5 373–381 doi: 10.1097/JOM.0000000000001528

Abstract **Objective:** The aim was to investigate differences in the levels of work engagement across demographic and work- and organization-related factors, and their relative importance for work engagement.
Methods: The study was on the basis of a sample of 17,498 male and 17,897 female employees from the sixth European Working Conditions Survey collected in 2015. Linear regression models and dominance analysis were used.
Results: Several significant differences were observed between the levels of work engagement in different demographic and work- and organization-related groups. Employees working in human service occupations reported higher levels of work engagement than employees in other industries. Relatively, occupational group (68%) and industry (17%) contributed most to work engagement.
Conclusion: It is important to focus on enhancing work engagement, particularly among less educated employees, among those with nonpermanent contracts, and in certain occupations.

PSYCHOSOCIAL ISSUES

Title **Dissecting the effect of workplace exposures on workers' rating of psychological health and safety**

Author/s Ramkissoon, A Smith, P Oudyk, J

Source *American journal of industrial medicine* May 2019 62 5 412-421
<https://doi.org/10.1002/ajim.22964>

Abstract **Objectives:** To validate the factor structure of the Copenhagen Psychosocial Questionnaire (COPSOQ) in a North American population and dissect the associations between psychosocial factors and workplace psychological health and safety.
Methods: Confirmatory factor analysis and multivariate linear regression were used to determine the associations between COPSOQ dimensions and a global rating of workplace psychological health and safety. Models were stratified by sex, gender roles, and age.
Results: The COPSOQ factor structure was verified among Canadian workers. Three factors were found to significantly contribute to the global rating of the psychological health and safety for all workers. Few differences were observed across sex, gender roles, and age.
Conclusions: This study identified dimensions of the psychosocial work environment that are strongly associated with the global rating of workplace psychological health and safety. Using

[Weblink](#) a standardized questionnaire like the COPSOQ allows for comparisons over time, between different industries, and worker populations.

RETURN TO WORK

Title **A machine learning-based predictive model of return to work after sick leave**

Author/s Na, Kyoung-Sae, Kim, Eunkyong

Source *Journal of occupational and environmental medicine* May 2019 61 5 p e191–e199 doi: 10.1097/JOM.0000000000001567

Abstract Objective: This study aims to build a predictive model for “return to work” (RTW) after sick leave by using a machine-learning algorithm.
Methods: Panel data of 2000 participants (1686 males and 314 females) from the Labor Welfare Research Institute of the Korea Workers’ Compensation & Welfare Service were used. A gradient boosting machine (GBM) was used to build the predictive model.
Results: The GBM showed excellent performance in a binary classification (returned to work vs not working). However, the model of the three-group classification showed suboptimal performance.
Conclusions: Although machine-learning algorithms using common predictive factors can accurately predict whether one can work after sick leave, they cannot differentiate the form of returning to work. Future research with detailed information based on the injury or disease is warranted.

Title **Returns to work after retirement: a prospective study of unretirement in the United Kingdom**

Author/s Platts, Loretta G.; Corna, Laurie M.; Worts, Diana; Mcdonough, Peggy; Price, Debora; Glaser, Karen

Source *Ageing & society*. March 2019 39 3 439-464. 26p DOI: 10.1017/S0144686X17000885

Abstract Despite the complexity of the retirement process, most research treats it as an abrupt and one-way transition. Our study takes a different approach by examining retirement reversals (unretirement) and their predictors. Using the British Household Panel Survey (1991–2008), and following participants into Understanding Society (2010–2015), we undertake a survival analysis to investigate retirement reversals among Britons aged 50–69 years who were born in 1920–1959 (N = 2,046). Unretirement was defined as: (a) reporting being retired and subsequently recommencing paid employment, or (b) beginning full-time work following partial retirement (the latter defined here as reporting being retired and working fewer than 30 hours per week). A cumulative proportion of around 25 per cent of participants experienced a retirement reversal after reporting being retired; about half of these reversals occurred within the first five years of retirement. Unretirement was more common for participants who were male, more educated, in better health, owned a house with a mortgage (compared to owning it outright) and whose partner was in paid work. However, unretirement rates were not higher for participants in greater financial need, whether measured as subjective assessment of finances or household income quintiles. These results suggest that unretirement is a strategy more often used by those who are already advantaged and that it has the potential to exacerbate income inequalities in later life.

Title **Return-to-work success despite conflicts: an exploration of decision-making during a work rehabilitation program**

Author/s Gouin, Marie-Michelle; Coutu, Marie-France; Durand, Marie-José

Source *Disability & rehabilitation*. March 2019 41 5 523-533. 11p. DOI: 10.1080/09638288.2017.1400592

Abstract Purpose: Collective decision-making by stakeholders appears important to return-to-work success, yet few studies have explored the processes involved. This study aims to explore the influence of decision-making on return-to-work for workers with musculoskeletal or common mental disorders.
Method: This study is a secondary analysis using data from three earlier multiple-case studies that documented decision-making during similar and comparable work rehabilitation programs. Individual interviews were conducted at the end of the program with stakeholders, namely, the disabled workers and representatives of health care professionals, employers, unions and insurers. Verbatims were analysed inductively.
Results: The 28 decision-making processes (cases) led to 115 different decisions-making instances and included the following components: subjects of the decisions, stakeholders' concerns and powers, and types of decision-making. No differences were found in decision-making processes relative to the workers' diagnoses or return-to-work status. However, overall analysis of decision-making revealed that stakeholder agreement on a return-to-work goal and acceptance of an intervention plan in which the task demands aligned with the worker's capacities were essential for return-to-work success.
Conclusion: These results support the possibility of return-to-work success despite conflictual decision-making processes. In addition to facilitating consensual decisions, future studies should be aimed at facilitating negotiated decisions. Implications for rehabilitation: Facilitating decision-making, with the aim of obtaining agreement from all stakeholders on a return-to-work goal and their acceptance of an intervention plan that respects the worker's capacities, is important for return-to-work success. Rehabilitation professionals should constantly be on the lookout for potential conflicts, which may either complicate the reach of an agreement between the stakeholders or constrain return-to-work possibilities. Rehabilitation professionals should also be constantly watching for workers' and employers' return-to-work concerns, as they may change during work rehabilitation, potentially challenging a reached agreement.

Title **Return-to-work success despite conflicts: an exploration of decision-making during a work rehabilitation program**

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Title **Enabling the return-to-work process among people with affective disorders: A multiple-case study.**

Author/s Johanson, Suzanne; Markström, Urban; Bejerholm, Ulrika

Source *Scandinavian journal of occupational therapy*. April 2019 26 3 205-218. 14p. DOI: 10.1080/11038128.2017.1396356

Abstract Abstract: Background: The Individual Enabling and Support (IES) model is an adapted, supported employment program developed to meet motivational, cognitive and time-use needs of people with affective disorders. Vocational programs for this target group have been developed but more knowledge is needed about the important characteristics and perceived usefulness of the programs. The aim of this study was to illustrate the IES model and process from multiple perspectives.

Methods: Five participants were included in this multiple-case study. The material comprised interviews with participants, intervention documents, memos and interviews with employment specialists. Within and cross-case analyzes and an analytical generalization were performed. Results: The cases illustrated different IES processes, and the theme; Enabling engagement in return to work (RTW) was formulated. Continuous support from the employment specialist and a focus on personal resources and motivation were essential to overcome low self-confidence regarding RTW. Motivational, cognitive and time-use strategies gave an opportunity to learn new behavior and coping strategies for job seeking, getting employed and working.

Conclusion: Providing a combination of these strategies integrated with supported employment could promote self-efficacy and engagement in the RTW process among people on sick leave due to an affective disorder.

SHIFT WORK

Title **Night and rotational work exposure within the last 12 months and risk of incident hypertension**

Author/s Ferguson JM, Costello S, Neophytou AM, Balmes JR, Bradshaw PT, Cullen MR, Eisen EA

Source *Scandinavian journal of work environment & health* [2019 45 3](#) doi:10.5271/sjweh.3788

Abstract Objectives Shift work, such as alternating day and nights, causes chronobiologic disruptions which may cause an increase in hypertension risk. However, the relative contributions of the components of shift work – such as shift type (eg, night work) and rotations (ie, switching of shift times; day to night) – on this association are not clear. To address this question, we constructed novel definitions of night work and rotational work and assessed their associations with risk of incident hypertension.

Methods A cohort of 2151 workers at eight aluminum manufacturing facilities previously studied for cardiovascular disease was followed from 2003 through 2013 for incident hypertension, as defined by ICD-9 insurance claims codes. Detailed time-registry data was

used to classify each worker's history of rotational and night work. The associations between recent rotational work and night work in the last 12 months and incident hypertension were estimated using adjusted Cox proportional hazards models.

Results Elevated hazard ratios (HR) were observed for all levels of recent night work (>0–5, >5–50, >50–95, >95–100%) compared with non-night workers, and among all levels of rotational work (<1, 1–10, >10–20, >20–30, and >30%) compared with those working <1% rotational work. In models for considering the combination of night and rotational work, workers with mostly night work and frequent rotations (≥50% night and ≥10% rotation) had the highest risk of hypertension compared to non-night workers [HR 4.00, 95% confidence interval (CI) 1.69–9.52].

Conclusions Our results suggest recent night and rotational work may both be associated with higher rates of incident hypertension.

[Weblink](#)

Title **Shiftwork and biomarkers of subclinical cardiovascular disease: The BCOPS study**

Author/s Holst, M et al

Source *Journal of occupational and environmental medicine*: May 2019 61 5 391–396 doi: 10.1097/JOM.0000000000001541

Abstract

Objective: To assess the association of shiftwork with biomarkers of subclinical cardiovascular disease and examine the moderating role of body mass index (BMI) in a police cohort.]

Methods: A cross-sectional analysis was conducted among officers who were categorized as working the day, evening, or night shift. Comparisons with inflammatory biomarkers were performed among shifts using analysis of variance/covariance and further stratified by BMI to assess potential effect modification.

Results: Associations were observed between day and night shiftworkers for leukocytes, tumor necrosis factor alpha, and homocysteine. After BMI stratification, higher c-reactive protein (CRP) levels were observed among evening shiftworkers with a BMI more than or equal to 30 kg/m² versus the day shift.

Conclusions: Future studies examining prospective changes in these markers will allow for more comprehensive evaluation of their association with shiftwork

[WORK ABILITY](#)

Title **Work ability and work functioning: measuring change in individuals recently returned to work.**

Author/s van Schaaik, A.; Nieuwenhuijsen, K.; Frings-Dresen, M. H. W.; Sluiter, J. K.

Source *Archives of occupational & environmental health*. April 2019 92 3 423-433. 11p. DOI: 10.1007/s00420-019-01400-z.

Abstract

Purpose: To assess: (1) whether work ability and work-functioning instruments can detect relevant changes in their respective parameters following a return to work (RTW) and (2) what proportion of those returning to work show changes in their work ability and work functioning.

Methods: A total of 1073 workers who returned to work after at least 2 weeks of sick leave were invited to fill out three questionnaires in the first 8 weeks after RTW. These consisted of an appraisal of general, physical, and mental/emotional work ability (scores 0-10) and a work-functioning questionnaire (scores 0-100). Minimal Important Change (MIC) was defined to determine the proportion of people, whose scores had changed at weeks 5 and 8 following RTW. The Smallest Detectable Change (SDC) was determined to put the MIC in perspective

of measurement error.

Results: Of all participants, 235 were eligible for the analysis. All MIC values were below the SDC and thus not suitable for use. The SDC for work ability was 2.2 and 19.9 for work functioning. In the first 5 weeks after RTW, 10-15% showed a relevant, measurable improvement in work ability, and work functioning based on the SDC margins.

Conclusions: Both instruments were unable to identify change after RTW adequately. We can conclude that 10-15% of individuals showed improvement in work ability and work functioning in the first 5 weeks after RTW when SDC is used.

Title **Fair or square? Experiences of introducing a new method for assessing general work ability in a sickness insurance context.**

Author/s Ståhl, Christian; Seing, Ida; Gerdle, Björn; Sandqvist, Jan.

Source *Disability & rehabilitation*. March 2019 41 6 656-665. 10p. DOI: 10.1080/09638288.2017.1401675

Abstract Purpose: To study social validity and perceived fairness of a new method for assessing general work ability in a sickness insurance context. Assessments are based on self-reports, combined with examinations by physicians, and, if needed, occupational therapists, physiotherapists and/or psychologists.
Materials and methods: Interviews with 36 insurance officials, 10 physicians, and 36 sick-listed persons, which were analysed through a qualitative content analysis.
Results: Insurance officials and physicians considered the method useful and that it facilitated benefit decisions. The experiences of persons who had undergone the assessment differed, where the dialog with insurance officials seemed to have had an influence on experiences of the assessment and the decisions it led to.
Conclusions: The perceived fairness and social validity of the assessment depended on how it was carried out; organisational conditions and priorities; communication skills; and decision outcomes. Professionals have an important pedagogical task in explaining the purpose and procedure of the assessment in order for the sick-listed to perceive it as fair rather than square, i.e., too standardised and not considering individual conditions. If the assessment could be used also for rehabilitative purposes, it could possibly be perceived as more acceptable also in cases where it leads to denied benefits. Implications for rehabilitation: The perceived fairness of work ability assessments is dependent on procedures for the assessment, communication with the person, and the outcome. What is considered fair differs between assessing professionals and persons being assessed. Professionals may influence the perceptions of fairness through their way of communication. Assessments need to be coupled with rehabilitation measures in order to be perceived as relevant and acceptable.

WORK DISABILITY

Title **Interventions developed with the intervention mapping protocol in work disability prevention: a systematic review of the literature**

Author/s Fassier, J. B.; Sarnin, P.; Rouat, S.; Péron, J.; Kok, G.; Letrilliart, L.; Lamort-Bouché, M.;

Source *Journal of occupational rehabilitation* March 2019 29 1 11-24. 14p

Abstract Purposes Intervention mapping (IM) is a protocol for developing effective behavior change interventions. It has been used for 10 years to develop work disability prevention (WDP) interventions, but it is not known to what extent and with what success. The main objective of this study was to review the effectiveness of these interventions. Secondary objectives were to review their fidelity to the IM protocol, their theoretical frameworks and their content.
Methods A search strategy was conducted in MEDLINE, Web of Science, PsycINFO, Pascal, Francis, and BDSP. All titles and abstracts were reviewed. A standardized extraction form was developed. All included studies were reviewed by two reviewers blinded to each other.
Results Eight WDP interventions were identified aimed at return to work (RTW; n = 6) and

self-management at work (n = 2). RTW interventions targeted workers with stress-related mental disorders (n = 1), low back pain (n = 1), musculoskeletal disorders (n = 1), cancer (n = 2) and gynecological surgery (n = 1). The fidelity to the IM protocol was weaker for the participatory planning group. Matrices of change, change methods, and applications were systematically reported. The main theoretical frameworks used were the attitude-social influence-self efficacy model (n = 4) and the theory of planned behavior (n = 2). Half of the interventions included a workplace component (n = 4). Two interventions were reported as effective, and one partially effective.

Conclusion The IM protocol is used in WDP since 2007. The participative dimension appears underused. Few theoretical frameworks were used. Implications are to better consider the stakeholders involvement, and mobilize theoretical frameworks with greater attempts to intervene on the work environment

Title Relationship between early prescription dispensing patterns and work disability in a cohort of low back pain workers' compensation claimants: a historical cohort study.

Author/s Nancy Carnide, et al

Source *Occupational and environmental medicine* online first May 2019 doi: 10.1136/oemed-2018-105626.

Abstract Objectives To examine and compare whether dispensing of prescription opioids, non-steroidal anti-inflammatory drugs (NSAIDs) and skeletal muscle relaxants (SMRs) within 8 weeks after a work-related low back pain (LBP) injury is associated with work disability. Methods A historical cohort study of 55 571 workers' compensation claimants with LBP claims in British Columbia from 1998 to 2009 was conducted using linked compensation, dispensing and healthcare data. Four exposures were constructed to estimate the effect on receipt of benefits and days on benefits 1 year after injury: drug class(es) dispensed, days' supply, strength of opioids dispensed and average daily morphine-equivalent dose. Results Compared with claimants receiving NSAIDs and/or SMRs, the incidence rate ratio (IRR) of days on benefits was 1.09 (95% CI 1.04 to 1.14) for claimants dispensed opioids only and 1.26 (95% CI 1.22 to 1.30) for claimants dispensed opioids with NSAIDs and/or SMRs. Compared with weak opioids only, the IRR for claimants dispensed strong opioids only or strong and weak opioids combined was 1.21 (95% CI 1.12 to 1.30) and 1.29 (95% CI 1.20 to 1.39), respectively. The incident rate of days on benefits associated with each 7-day increase in days supplied of opioids, NSAIDs and SMRs was 10%, 4% and 3%, respectively. Similar results were seen for receipt of benefits, though effect sizes were larger. Conclusions Findings suggest provision of early opioids leads to prolonged work disability compared with NSAIDs and SMRs, though longer supplies of all drug classes are also associated with work disability. Residual confounding likely partially explains the findings. Research is needed that accounts for prescriber, system and workplace factors.

WORK HEALTH AND SAFETY

Title Associations between musculoskeletal conditions risk, sedentary behavior, sleep, and markers of mental health: a cross-sectional observational study in heavy goods vehicle drivers. musculoskeletal conditions risk in HGV drivers

Author/s Varelo-Vet al

Source *Journal of occupational and environmental medicine*: May 2019 61 5 437–443 doi: 10.1097/JOM.0000000000001587

Abstract Objective: To explore the risk of having musculoskeletal conditions (MSKs) associated with sitting and sleeping time during workdays, presenteeism, work engagement anxiety, and depression in a sample of UK heavy goods vehicle drivers.
Methods: Eighty-eight male drivers participated in this cross-sectional study. Binary logistic regression analyses were performed to explore the associations between two-or-more MSKs and common health risk factors.
Results: Possessing two or more MSKs is associated with prolonged sitting time (odds ratio [OR] 4.34) and working hours per day (OR 3.10) and per week (OR 3.12), severe sleep deprivation (OR 33.19), presenteeism (OR 4.22), and borderline or abnormal scores of depression (OR 11.69) and anxiety (OR 4.44), compared with the reference categories.
Conclusion: Workplace policies and health promotion interventions to improve heavy goods vehicle drivers working environment are required to minimize the risk of MSK's across this sector.

Title **Awareness of musculoskeletal disorders hazards and controls in micro and small businesses in Ontario, Canada**

Author/s Yazdani, Amin Sawicki, Ben Schwenck, Grace Wells, Richard

Source *IJSE transactions on occupational ergonomics and human factors* 2019 7 1 12-21, DOI: 10.1080/24725838.2019.1565870

Abstract Background: Small businesses do not typically have either the human or financial resources necessary to develop health and safety programs. The traditional cycle of identify, assess, control, and check is challenging for these businesses in terms of general workplace hazards, but is more problematic for musculoskeletal disorder (MSD) related hazards. Purpose: To determine the level of awareness of MSD prevention methods and explore prevention strategies and approaches used by micro and small businesses.
Methods: A total of 146 micro and small businesses in the Kitchener-Waterloo area in Ontario, Canada participated in this study. Surveys of owners and managers were completed to assess their knowledge and awareness of MSD, hazard identification, and controls.
Results: Over 40% of respondents did not know or were unsure how to identify physical demands in their workplace that might need reduction. Less than 10% of small business respondents suggested that using weights lifted, dimensions, or posture is important in MSD hazard identification. Most respondents (79%) believed they knew how to reduce injury risk; however, administrative controls dominated (57%) the workplace control strategies described, especially "proper lifting," while engineering controls comprised only 18%. Most approaches to prevent MSD were reactive. There was a preference for traditional forms of information presentation on MSD prevention, such as posters or brochures.
Conclusion: There is a lack of awareness among micro and small business regarding MSD hazards and control solutions. Our results suggest that education and support programs for micro and small businesses need to focus on awareness using simple and direct messages, and that prevention activities need to focus on easy, step-by-step guidelines tailored for such businesses.

Title **The CONSTANCES job exposure matrix based on self-reported exposure to physical risk factors: development and evaluation**

Author/s Evanoff, BA et al

Source *Occupational & environmental medicine* 2019 76 6 <http://dx.doi.org/10.1136/oemed-2018-105287>

Abstract Objectives Job exposure matrices (JEMs) can be constructed from expert-rated assessments, direct measurement and self-reports. This paper describes the construction of a general population JEM based on self-reported physical exposures, its ability to create homogeneous exposure groups (HEG) and the use of different exposure metrics to express job-level estimates.

Methods The JEM was constructed from physical exposure data obtained from the Cohorte des consultants des Centres d'examens de santé (CONSTANCES). Using data from 35 526 eligible participants, the JEM consisted of 27 physical risk factors from 407 job codes. We determined whether the JEM created HEG by performing non-parametric multivariate analysis of variance (NPMANOVA). We compared three exposure metrics (mean, bias-corrected mean, median) by calculating within-job and between-job variances, and by residual plots between each metric and individual reported exposure.

Results NPMANOVA showed significantly higher between-job than within-job variance among the 27 risk factors ($F(253,21964)=61.33$, $p<0.0001$, $r^2=41.1\%$). The bias-corrected mean produced more favourable HEG as we observed higher between-job variance and more explained variance than either means or medians. When compared with individual reported exposures, the bias-corrected mean led to near-zero mean differences and lower variance than other exposure metrics.

Conclusions CONSTANCES JEM using self-reported data yielded HEGs, and can thus classify individual participants based on job title. The bias-corrected mean metric may better reflect the shape of the underlying exposure distribution. This JEM opens new possibilities for using unbiased exposure estimates to study the effects of workplace physical exposures on a variety of health conditions within a large general population study.

Title **Current state of knowledge on the health effects of engineered nanomaterials in workers: a systematic review of human studies and epidemiological investigations**

Author/s Schulte PA, Leso V, Niang M, Iavicoli I

Source *Scandinavian journal of work environment & health* [2019 45 3](#) 217-238 doi:10.5271/sjweh.3800

Abstract **Objectives** The widespread application of nano-enabled products and the increasing likelihood for workplace exposures make understanding engineered nanomaterial (ENM) effects in exposed workers a public and occupational health priority. The aim of this study was to report on the current state of knowledge on possible adverse effects induced by ENM in humans to determine the toxicological profile of each type of ENM and potential biomarkers for early detection of such effects in workers.

Methods A systematic review of human studies and epidemiological investigations of exposed workers relative to the possible adverse effects for the most widely used ENM was performed through searches of major scientific databases including Web of Science, Scopus, and PubMed.

Results Twenty-seven studies were identified. Most of the epidemiological investigations were cross-sectional. The review found limited evidence of adverse effects in workers exposed to the most commonly used ENM. However, some biological alterations are suggestive for possible adverse impacts. The primary targets of some ENM exposures were the respiratory and cardiovascular systems. Changes in biomarker levels compared with controls were also observed; however, limited exposure data and the relatively short period since the first exposure may have influenced the incidence of adverse effects found in epidemiological studies.

[Weblink](#) **Conclusions** There is a need for longitudinal epidemiologic investigations with clear exposure characterizations for various ENM to discover potential adverse health effects and identify possible indicators of early biological alterations. In this state of uncertainty, precautionary controls for each ENM are warranted while further study of potential health effects continues.

Title **Ergonomics 2019 62 Special issue Ergonomics and human factors in aviation**

Source *Ergonomics* 2019 62 Special issue Ergonomics and human factors in aviation

Abstract Special issue provides researchers and practitioners with the latest research trends. This edition covers safety and efficiency plus well-being of passengers. Air traffic control and management, maintenance and regulatory bodies and policy makers are considered. Themes

include system approaches, crew resource management, helicopter operations, design of input/output devices and passenger comfort.

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Title **Health effects from unintentional occupational exposure to opioids among law enforcement officers: Two case investigations**

Author/s Chiu, SK et al

Source *American journal of industrial medicine* May 2019 62 5 439-447
<https://doi.org/10.1002/ajim.22967>

Abstract Recent increases in the rate of drug overdose-related deaths, the emergence of potent opioids such as carfentanil, and media reports of incidents have raised concerns about the potential for work-related exposure to a variety of illicit drugs among law enforcement officers (LEOs), other emergency responders, and other workers in the United States. To characterize the risk associated with unintentional occupational exposure to drugs, we retrospectively investigated two incidents that occurred in 2017 and 2018 where LEOs were exposed to opioid and stimulant drugs and experienced health effects. We interviewed five affected LEOs and others. We reviewed records, including emergency department documentation, incident reports, forensic laboratory results, and when available, body camera footage. Multiple drug types, including opioids and nonopioids, were present at each incident. Potential routes of exposure varied among LEOs and were difficult to characterize with certainty. Health effects were not consistent with severe, life-threatening opioid toxicity, but temporarily precluded affected LEOs from performing their essential job duties. While health risks from occupational exposure to drugs during law enforcement activities cannot currently be fully characterized with certainty, steps to prevent such exposures should be implemented now. The creation and implementation of appropriate controls plus education and training are both important to protecting first responders from these hazardous agents. To more fully characterize potential exposures, timely prospective toxicological evaluation of affected responders is recommended.

Title **Occupational and leisure-time physical activity differentially predict 6-year incidence of stroke and transient ischemic attack in women**

Author/s Hall C, Heck JE, Sandler DP, Ritz B, Chen H, Krause N

Source *Scandinavian journal of work environment & health* [2019 45 3](#) doi 267-279 doi:10.5271/sjweh.3787

Abstract Objectives Recent meta-analyses suggest a physical activity health paradox: high levels of occupational physical activity (OPA) increase cardiovascular disease (CVD) risk, while leisure-time physical activity (LTPA) decreases risk. However, studies of women and cerebrovascular disease are limited. This report examines physical activity effects on stroke and transient ischemic attack (TIA) among working women in the United States. Methods OPA history, health status, and lifestyle were assessed by baseline interviews of 31 270 employed Sister Study participants aged 35–74 years. OPA was assessed at six intensity levels (lowest: “mostly sitting”); the highest three were combined as “high intensity work.” Independent OPA and LTPA effects on 6-year cerebrovascular disease incidence were estimated in adjusted Cox proportional hazard models. Results Stroke (N=441) and TIA (N=274) risk increased with more standing and higher intensity work at current and longest held job. Compared with mostly sitting, high intensity work at the current job increased TIA risk by 57% [hazard ratio (HR) 1.57, 95% confidence interval (CI) 1.04–2.38]. High intensity OPA at the longest held job increased risk for stroke by 44% (HR 1.44; 95% CI 1.08–1.93). Among women with CVD, sitting and standing equally, especially at the current job, increased risks up to two-fold (TIA HR 1.98, 95% CI 1.10–3.55) compared with mostly sitting at work. LTPA showed inverse associations.

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Conclusions Higher intensity levels of OPA increased stroke and TIA risks, while LTPA decreased risks; results corroborate the physical activity health paradox for women and

cerebrovascular disease. More standing at work increased cerebrovascular disease risks, especially for women with CVD.

Title **Occupational exposure and airflow obstruction and self-reported COPD among ever-employed US adults using a COPD-job exposure matrix**

Author/s Doney, B et al

Source *American journal of industrial medicine* May 2019 62 5 393-403

Abstract Introduction: This study examined the association of spirometry-defined airflow obstruction and self-reported COPD defined as self-reported doctor diagnosed chronic bronchitis or emphysema, with occupational exposure among ever-employed US adults.
Methods: Data were obtained from the National Health and Nutrition Examination Survey (NHANES) 2007-2008 to 2011-2012, a nationally representative study of the non-institutionalized civilian US population. Reported current and/or longest held job were used to create prevalence estimates and prevalence odds ratios (PORs) (adjusted for age, gender, race, and smoking status) for airflow obstruction and self-reported COPD by occupational exposure, determined using both NHANES participants' self-reported exposures and eight categories of COPD job exposure matrix (JEM) assigned exposures.
Results: Significant PORs for airflow obstruction and self-reported COPD respectively were observed with self-reported exposure for ≥ 20 years to mineral dust (POR = 1.44; 95% confidence interval (CI) 1.13-1.85; POR = 1.69; 95% CI 1.17-2.43) and exhaust fumes (POR = 1.65; 95% CI 1.27-2.15; POR = 2.22; 95% CI 1.37-3.58). Airflow obstruction or self-reported COPD were also associated with COPD-JEM assigned high exposure to mineral dust, combined dust, diesel exhaust, vapor-gas, sensitizers, and overall exposure.
Conclusion: Airflow obstruction and self-reported COPD are associated with both self-reported and JEM-assigned exposures.

Title **An occupational-specific VO₂max protocol for structural firefighters**

Author/s Dicks, N et al

Source *Journal of occupational and environmental medicine*: May 2019 61 5 405–409 doi: 10.1097/JOM.0000000000001570

Abstract Objective: To validate a VO₂max protocol designed specifically for the occupational demands of firefighters by incorporating the use of personal protective equipment (PPE).
Methods: Career firefighters completed a stage-graded exercise test (GXT) with submaximal square-wave verification bout while wearing PPE (pants and boots) to determine VO₂max. Using the self-reported Physical Activity-Rating (PA-R) scale and an estimated non-exercise regression equation VO₂max for comparison to measured.
Results: Twenty-eight male, career firefighters performed the GXT and square-wave bout. VO₂ values (mean \pm SD) from the GXT and the square-wave verification bout were 41.04 \pm 6.98 and 39.74 \pm 6.42 mlkgmin, respectively (ICC=0.98, typical error=0.96 mlkgmin, CV=2.4%).
Conclusions: Our data suggest an incremental treadmill protocol that incorporates PPE and square-wave verification as an occupational specific tool to measure cardiovascular fitness in firefighters.

Title **Proceed with caution: using verbal protocol analysis to measure situation awareness**

Author/s Rose, Janette Bearman, Chris Naweed , Anjum Dorrian, Jillian
Source *Ergonomics* 2019 62 1 115-127 DOI 10.1080/00140139.2018.1527951

Abstract

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Verbal protocol analysis (VPA) is often used to elicit information about the cognitive processes of operators as it provides rich data and can be used in naturalistic settings. Recently VPA has been used to investigate the acquisition and maintenance of situation awareness (SA), and to make comparisons between groups despite a lack of research regarding the efficacy of using VPA for this purpose. This train simulator experiment investigated whether VPA can effectively measure SA. Novice and expert participants were recorded on an audio device while talking aloud throughout the trials and their verbalisations were transcribed verbatim. A coding scheme developed from the transcripts was used to code the verbalisations. Results did not support the use of VPA as a measure of SA but did show that VPA detected differences in SA errors. Potential reasons for the conflicting findings between this experiment and those conducted by other researchers are discussed.

Practitioner summary: This paper examined the validity of verbal protocol analysis (VPA) as a situation awareness (SA) measure. A repeated measures experiment was conducted using a train simulator. Normal VPA did not detect changes in SA but a measure of errors did. Caution should be used when using VPA to measure SA.

Title **Shortened recovery period between firefighting work bouts increases cardiac response disproportionately with metabolic rate**

Author/s Gendron, P et al

Source *Journal of occupational and environmental medicine* May 2019 61 5 p e217–e225 doi: 10.1097/JOM.0000000000001579

Abstract

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Objective: To compare physiological responses between two firefighting simulations with different recovery periods, one having work bouts intercalated by a shortened recovery period.

Methods: Thirteen male firefighters participated in two different simulations, which comprised two identical 25-minute effort bouts (E_1 and E_2) intercalated by a recovery period of either 20 (T20) or 5 (T5) minutes.

Results: From E_1 to E_2 , the increase of mean heart rate (HR) (26 ± 5 vs 14 ± 5 bpm, $P < 0.001$) and mean VO_2 (1.8 ± 0.4 vs 1.3 ± 0.4 mL kg⁻¹ min⁻¹, $P < 0.001$) was higher in T5 than in T20.

Conclusion: Results indicate that a shortened recovery time between firefighting work bouts intensifies cardiac strain disproportionately with metabolic rate, since mean HR increased by 19.3% and 10.8% while mean VO_2 increased by only 7.2% and 5.0% in T5 and T20, respectively.

WORK STRESS

Title **Assessment of the healthy worker survivor effect in the relationship between psychosocial work-related factors and hypertension**

Author/s Massamba VK, Talbot D, Milot A, et al

Source *Occupational and environmental medicine* 2019 76 414-421 <http://dx.doi.org/10.1136/oemed-2018-105460>

Abstract

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Objectives The healthy worker survivor effect (HWSE) usually leads to underestimation of the effects of harmful occupational exposures. HWSE is characterised by the concomitance of three associations: (1) job status–subsequent exposure, (2) job status–disease and (3) previous exposure–job status. No study has reported the coexistence of these associations in

the relationship between psychosocial work-related factors and health. We assessed if HWSE is present when measuring the effects of cumulative exposure to psychosocial work-related factors on the prevalence of hypertension in white-collar workers.

Methods Data were obtained from two timepoints (1991–1993 at baseline and 1999–2001 at follow-up) of a prospective cohort study. At baseline, the population was composed of 9188 white-collar employees (women: 49.9%) in Quebec City. Job strain as psychosocial work-related factor and blood pressure were measured using validated methods. Job status (retirees vs employees) at follow-up was self-reported. Multiple multilevel robust Poisson regressions were used to estimate prevalence ratios of hypertension and risk ratios of retirement separately by gender. We performed multiple imputations to control selection bias due to missing values.

Results Retirement eliminated the subsequent exposure to job strain de facto and was associated with the reduction in the prevalence of hypertension in younger (–33%) and older (–11%) men and in older women (–39%). Job strain was associated with job status in younger men and in women of any age.

Conclusion Data showed the presence of HWSE in younger men and older women given the coexistence of the three structural associations.

Title **Being well at work: the impact of organizational climate and social identity on employee stress and self-esteem over time**

Author/s Willis, Loren Reynolds, Katherine J. Lee, Eunro

Source *European journal of work and organizational psychology* 28 3 399-413 DOI: 10.1080/1359432X.2019.1587409

Abstract In organizational psychology, staff perceptions of organizational climate have been found to be an important predictor of employee outcomes, such as employee stress. However, only a small pool of research has investigated the psychological mechanism that underpins the relationship, and no past literature has explored how the relationship persists over time. This paper uses the social identity approach to investigate whether social identification predicts and mediates the relationship between staff perceptions of organizational climate and their levels of stress and self-esteem over time. Employing a sample of public school teachers, the study was conducted over two years (N = 281, 65 schools). The results indicated that social identification fully mediated the relationship between organizational climate and self-esteem longitudinally but showed no significant relationship with stress. The implications of these findings are discussed, with recommendations for future research.

Title **Emotion-regulation knowledge predicts perceived stress early but not later in soldiers' careers**

Author/s Marina Schall & Astrid Schütz

Source *Journal of workplace behavioral health*, 2019 34:1, 62-73, DOI: 10.1080/15555240.2019.1573688

Abstract Although emotion-regulation competencies have been found to help people overcome negative experiences, such benefits may depend on the context. In the present study, the authors examined whether knowledge about effective emotion regulation would be associated with lower perceived stress in a population with extremely high job demands. The authors studied 492 German soldiers. Results showed that soldiers with higher emotion-regulation knowledge reported lower levels of perceived stress, which was partly due to a greater tendency to use effective emotion-regulation strategies such as reappraisal instead of suppression. When the authors distinguished career stages, however, the authors found that emotion-regulation knowledge was a significant predictor of perceived stress for soldiers in early but not in later career stages. The authors interpret this finding in terms of the context-dependency of emotion-regulation effectiveness. Especially young soldiers can benefit from higher emotion-regulation knowledge possibly due to the fact that they have fewer job resources overall than their senior colleagues.

Title **Frequency of job stressors, difficulty unwinding after work, and sleep problems among urban transit operators**

Author/s Cunradi, Carol B. Moore, Roland S. Battle, Robynn S.

Source *Journal of workplace behavioral health* 2019 34 1 3-19, DOI: 10.1080/15555240.2018.1550650

Abstract Poor sleep quality is associated with numerous physical and mental health problems. The purpose of this study is to analyze the occupational and demographic factors associated with sleep problems among a sample of urban transit operators. The sample consists of 676 workers (44% female, 67% African American) at a Northern California public transit agency who participated in a cross-sectional worksite tobacco survey. Approximately 27% of the sample reported that they often had trouble going to sleep or staying asleep in the past 12 months. Results of multivariate logistic regression analysis showed that frequency of job stressors (e.g., equipment problems, road or traffic problems, poor access to bathrooms) and amount of time needed to unwind and relax after work were significantly associated with often experiencing insomnia symptoms (odds ratio [OR] = 1.76 and 2.44, respectively). Younger workers, females, and nicotine-dependent smokers were more likely to report often experiencing sleep problems than older workers, males, and nonsmokers. Employment length and work shift were not associated with the outcome. The findings indicate that transit operators experience elevated prevalence of past-year sleep problems, and occupational factors play a role in their occurrence. Future research should explore if policies that help reduce frequency of job stressors can mitigate poor sleep quality among this occupational group.

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Title **Relationships between psychological contract violation, stress and well-being in firefighters**

Author/s Duran, Fazeelat Bishopp, Darren Woodhams, Jessica

Source *Journal of workplace behavioral health* 2019 34 1 3-19, DOI: doi.org/10.1108/IJWHM-09-2018-0114

Abstract Purpose: Negative emotions resulting from the broken promises by the organisation or employers, as perceived by an employee are called psychological contract (PC) violation. The purpose of this paper is to examine the relationships between perceived feelings of violation, work-related stress, anxiety and depression. Fairness and self-efficacy are used as mediators to understand the underlying mechanism of associations. Design/methodology/approach In total, 97 firefighters completed an online-survey and structural equation modelling was used to examine the multiple mediation models. Findings PC violation was positively associated with occupational stress and job-related well-being. Together, fairness and self-efficacy mediated the relationship between feelings of violation and job-related depression. Therefore, the results partially supported the hypotheses.

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Originality/value As the first quantitative study of its kind, this study makes an important contribution to the firefighters literature by investigating the potential influence of PC violation on their work-related stress and well-being. Also, previous studies have failed to identify fairness and self-efficacy as potential mediators of the PC violation.

[WORKERS' COMPENSATION](#)

Title Association of opioid, anti-depressant, and benzodiazepines with workers' compensation cost: a cohort study

Author/s Hunt, DL et al

Source *Journal of occupational and environmental medicine*: May 2019 61 5 p e206–e211 doi: 10.1097/JOM.0000000000001585

Abstract Background: Antidepressants, benzodiazepines, and opioid medications are used to manage the pain, anxiety, or depression associated with workplace injuries.
Objective: To evaluate the impact of these medications on workers' compensation costs and time lost from work.
Methods: A cohort of 22,383 indemnity claims from 2008 to 2013 were evaluated for the association of prescribed medications on claim cost and delayed claim closure controlling for confounders.
Results: Claims with anti-depressant, opioid, or benzodiazepine prescriptions were 2.24 (95% CI: 2.00 to 2.51), 1.14 (95% CI: 1.02 to 1.27), and 1.38 (95% CI: 1.23 to 1.54) times more likely to remain open at the end of the study.
[Weblink](#) Conclusion: The concurrent treatment of pain, depression or anxiety, and occupational injuries are associated with large increases in claim cost and delayed return to work.