

The Emerging Evidence Alert

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 Research and Innovation group's five areas of importance to Comcare's strategic direction.

Enabling healthy and safe workplaces

- preventing harm in the workplace
- Health literacy to support prevention, RTW and recovery
- Better practice application of early intervention strategies/ models

Enhancing employer capability

- helping organisations to meet their WHS duties and obligations, and their ability to implement best-practice models to support employees

Guiding and supporting mental health

- building mentally healthy workplaces

Fostering work participation

- maximising prevention, retention, recovery at & RTW

Adapting to the future of work

- responding to future work practices and environments

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) enables direct links to the article and journal pages. By clicking on any topic you can go straight to that subject and then by clicking on *back to the top* it will return to the list of emerging evidence topics. Check with your library to see if you have access to or may request a copy of an article.

Emerging Evidence Topics

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ORGANISATIONAL CHANGE AND ITS IMPACT ON MENTAL HEALTH:

Comcare is approaching a period of change with the retirement of our CEO and our current Minister for Jobs and Industrial Relations. Being able to plan for, manage and embrace change can support the mental health and wellbeing of individuals and organisations.

The November 2018 Comcare Mental Health Community of Practice had a focus on Organisational change and its impact on mental health. Simon Waring gave a very personal account of unlocking your resilient self and provided positive ways that individuals can navigate change. Meanwhile, Dr Kirsten Way from the Centre for Sustainable Human Resource Management and Wellbeing provided an overview of the science behind change, the role of leaders and factors such as job-crafting. The speaker videos are available on the Comcare website. There is also a list of [change management resources](#).

The Harvard Business Review has also produced a range of articles and insight on change management. Their latest article on [How to Embrace Change Using Emotional Intelligence](#) gives an overview of four emotional intelligence strategies that can help you embrace change – from identifying your source of resistance to turning up your positive outlook.

AGEING WORKFORCE

Title	Changes in working life expectancy with disability in the Netherlands, 1992–2016
Author/s	van der Nordt, M et al
Source	<i>Scandinavian journal of work and environmental health</i> 2019 45 1 73-81 doi:10.5271/sjweh.3765
Abstract	<p>Objectives Like other western countries, the Netherlands has abolished early retirement schemes and is currently increasing the statutory retirement age. It is likely that also older workers with disabilities will be required to work longer. We examine the change in working life expectancy (WLE) with disability of older workers by comparing data from three periods: 1992–1996, 2002–2006 and 2012–2016.</p> <p>Methods Data are from the Longitudinal Aging Study Amsterdam (LASA). Respondents aged 55–65 with a paid job at baseline were included (N=1074). Disability was measured using the Global Activity Limitations Indicator (GALI). First, a continuous-time three-state survival model was created. Second, WLE with and without disability were estimated using MSM and ELECT in R. The modifying effects of gender and educational level were examined.</p> <p>Results Among those initially in paid employment, total WLE increased over 20 years. For example at age 58, total WLE increased from 3.7 to 5.5 years. WLE with disability at age 58 increased from 0.8 to 1.5 years. There was no difference in WLE with disability between male and female workers or low- and highly educated workers.</p> <p>Conclusions Between the 1990s and the 2010s, subsequent generations of older workers with disabilities have extended their working lives. The findings emphasize the importance of workplace interventions that facilitate older workers with disabilities to maintain well-being and work ability. In addition, the question arises whether current exit routes out of the workforce are still adequate.</p>
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Title **Daily physical activity patterns among aging workers: the Finnish Retirement and Aging Study (FIREA)**

Author/s Pulakka A, Leskinen T, Koster A, et al

Source *Occupational and environmental medicine* 2019;76:33-39. <http://dx.doi.org/10.1136/oemed-2018-105266>

Abstract Objectives Physical activity is associated with the aging workers' ability to work and predicts working beyond retirement age. To better understand physical activity behaviour in this growing population group, we aimed at characterising 24-hour physical activity patterns among aging workers, and to describe the association between occupational category and total, occupational and leisure-time physical activities.
Methods We included 878 workers (mean age 62.4 years, SD 1.1, 85% women) from the Finnish Retirement and Aging Study, who wore an accelerometer on their non-dominant wrist for 1 week. We plotted mean hourly activity counts per minute (CPM) for working days and days off. We also compared mean daily CPM between genders and occupations between working days and days off, and work and leisure time by using repeated measures analysis of variance.
Results Activity patterns were different between genders, occupations and types of the day. Women (2580, 95% CI 2540 to 2620) had higher daily mean CPM than men (2110, 95% CI 2020 to 2000). Women in manual occupations were more active than women in non-manual occupations during working days. The differences among men were in the same direction but less pronounced than among women. We found no differences in activity levels between occupations during days off and leisure time on working days.

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Title **Distinguishing groups and exploring health differences among multiple job holders aged 45 years and older**

Author/s Bouwhuis, S., Hoekstra, T., Bongers, P.M. et al

Source *International archives of occupational and environmental health* 2019 92 67. <https://doi.org/10.1007/s00420-018-1351-2>

Abstract Purpose: To identify distinct groups of older multiple job holders and to explore health differences between these groups.
Methods: We selected respondents from STREAM, a Dutch cohort study among persons aged 45 years and older, who reported having multiple jobs ($N = 702$). We applied latent class analysis to identify groups of multiple job holders. The association between these groups and health, measured with the SF-12, was studied cross-sectionally and longitudinally (1 year of follow-up), using linear regression analyses.
Results: Four groups of older multiple job holders were identified: (1) a vulnerable group ($N = 145$), who preferred having one job, and had jobs with high demands and low resources; (2) an indifferent group ($N = 134$), who did not experience many benefits or disadvantages of multiple job holding (MJH); (3) a satisfied hybrid group, who were all self-employed in their second job ($N = 310$); and (4) a satisfied combination group, who all had a second job as an employee ($N = 113$). Both the satisfied hybrid and satisfied combination groups preferred MJH and experienced benefits of it. At baseline, the vulnerable group experienced significantly lower physical and mental health than the other groups. We found no significant differences regarding changes in health after 1 year.
Conclusions: Four groups of older multiple job holders could be distinguished. The vulnerable group experienced lower physical and mental health at baseline than the other three groups. Policies and interventions supporting vulnerable multiple job holders may need to be developed. Future research is recommended to take heterogeneity among multiple job holders into account.

Title **Managing employees with dementia: a systematic review**

Author/s Thomson, L et al

Source *Occupational medicine*, online first November 2018 doi: 10.1093/occmed/kqy161

Abstract Background: The experience of developing dementia while in employment has been explored from the point of view of the employee, but less is known about the perspectives, experiences and needs of employers.
Aims: To review systematically literature about the management of employees who develop dementia whilst in employment.
Methods: Databases searched included MEDLINE, EMBASE, PsycINFO, CINAHL, BNI, ABI Inform, ISI Web of Science, Open Grey and dementia journals database; 44 documents were identified for inclusion in the review: 22 journal papers, one PhD thesis and 21 articles, reports and webpages from the grey literature. As all documents were qualitative in nature a thematic synthesis of their content was undertaken.
Results: Three main themes and ten sub-themes were identified. The main themes concerned early presentation and identification in the workplace; reasonable adjustments for people with working age dementia; and the provision of information to raise awareness and facilitate informed choice. The evidence suggested that there is a lack of awareness about working age dementia and that this may impact negatively on employees. Guidance for employers offered suggestions for good practice.
Conclusions: Guidance for employers is increasingly available although it rarely refers to the evidence base. There is a need for future studies that explore the effectiveness of guidance and training initiatives for employers. Examples of good practice where employees with dementia have been well supported in the workplace and who have been able to leave the workforce with dignity, would be helpful.

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ASBESTOSIS AND MESOTHELIOMA

Title **Non-occupational exposure to asbestos is the main cause of malignant mesothelioma in women in North Jutland, Denmark**

Author/s Panou, N et al

Source *Scandinavian journal of work and environmental health* 2019 45 1 82-89
doi:10.5271/sjweh.3756

Abstract Objectives Diffuse malignant mesothelioma (MM) is mainly caused by asbestos inhalation. The malignancy is rare among women and studies of the prevalence and causative role of non-occupational asbestos exposure among women with MM are scarce. This observational study aimed to elucidate the asbestos exposure patterns among women with MM.
Methods All histological and cytological specimens from women diagnosed with MM between 1974–2015 at the Institute of Pathology, Aalborg University Hospital in Denmark, were re-evaluated. Occupational and habitation information were obtained from Danish registries and medical journals based on record linkage via the unique person ID. The number of MM cases in each parish in the region of North Jutland was determined and the incidence density in parishes was used to calculate the spatial relative risk (RR) of MM among women.
Results Diagnosis of MM was confirmed in 91 women. Exposure types were classified as occupational (9%), domestic (10%), environmental (22%), combination of domestic and environmental (34%) and unknown (25%). Twenty continuous parishes formed a MM “hotspot” around the asbestos-consuming industries in the city of Aalborg. Of these, the maximum RR was found in a parish housing an asbestos factory [RR 10.5, 95% confidence interval (CI) 5.5–19.4, environmental exposure in particular RR 2.9, 95% CI 0.7–6.1].

Conclusion Non-occupational asbestos exposure is the main cause of MM and may account for up to 66% of MM cases among women in North Jutland, Denmark

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BULLYING

Title **Resolving workplace “bullying”**

Author/s **Beck, D**

Source *New Zealand journal of employment relations* 2018 43 3

Abstract Introduction: This paper provides a brief definitional overview of the current law on what is popularly known as the problem of workplace bullying, and comments on how to avoid and/or resolve matters from a practising employment lawyer’s perspective confronted with finding an adversarial legal solution to what is often a breakdown in workplace communication. Bullying is a term that, I think, is particularly unhelpful (with its stark connotation of abuser and victim). It is difficult to avoid the term, given its common usage and its evident descriptive force, but the breadth of behaviours it describes often makes the term unnecessarily inflammatory. Although, Dr John Clarke, author of *Working with Monsters*, archly, suggests that bullying is a more helpful definition to calling someone a workplace psychopath: Although it could be deemed spin, when responding to a claim of bullying, framing the issue in less negative terms may produce a better resolution. I recommend a focus on the behaviors in dispute (which are often mutual) and the use of terms such as: you have made an allegation of “unprofessional behavior” or that you have raised an allegation of “negative interaction”. However, for this analysis I will adopt the in-vogue term bullying.

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Title **Witnessing workplace bullying and employee well-being: a two-wave field study**

Author/s Sprigg, CA et al

Source *Journal of occupational health psychology* 2018

Abstract This paper aims to: (a) explore the impact of witnessing workplace bullying on emotional exhaustion, work-related anxiety and work-related depression; and (b) determine whether the resources of trait optimism, co-worker support, and supportive supervisory style buffer the effects of witnessed bullying. In a two-wave study involving 194 employees, we found that witnessing bullying undermined employees’ well-being (work-related depression and anxiety) six months later, but only if the employees were low in optimism (personal resource) and lacked supervisor support (contextual resource). Strong co-worker support weakened the relationship between witnessing bullying and well-being (emotional exhaustion and work-related depression). Our findings demonstrate for the first time some of the factors that protect against the impact of witnessing workplace bullying. Future research should focus on the development of workplace interventions that foster feelings of social support and optimism among employees.

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CHRONIC HEALTH ISSUES

Title **Effect of an opioid management program for Colorado workers' compensation providers on adherence to treatment guidelines for chronic pain**

Author/s Tenney, L et al

Source *American journal of industrial medicine* January 2019 62 1 21-29

Abstract Objective: The aim of this study was to examine adherence of state guidelines for Colorado workers' compensation physicians/providers treating individuals as injured workers with chronic pain after initiation of an opioid management program and provider incentives.
Weblink Methods: A retrospective cohort of chronic, non-cancer pain claims was constructed from the Colorado's workers' compensation database. Adherence to treatment guidelines and opioid prescribing practices were evaluated during implementation of a new billing code to incentivize adherence.
Results: Overall, less than 33% of claims showed evidence of opioid management. Comprehensive opioid management was observed in only 4.4% of claims. In 2010, after implementing the new billing code, the ratio of long acting opioids to short acting opioids decreased from 0.2 to 0.13; returning to 0.2 in one year. Similarly, morphine equivalent doses declined for a short period.
Conclusions: Incentivizing physicians to adhere to chronic pain management guidelines only temporarily improves prescribing practices

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CLAIMS MANAGEMENT

Title **Shifting to value-based principles in sickness insurance: challenges in changing roles and culture**

Author/s Ståhl, C. & Andersson, F

Source *Journal of occupational rehabilitation* December 2018 28 4 730-739
<https://doi.org/10.1007/s10926-018-9759-9>

Abstract Purpose Management principles in insurance agencies influence how benefits are administered, and how return to work processes for clients are managed and supported. This study analyses a change in managerial principles within the Swedish Sickness Insurance Agency, and how this has influenced the role of insurance officials in relation to discretion and accountability, and their relationship to clients.
Methods The study is based on a qualitative approach comprising 57 interviews with officials and managers in four insurance offices.
Results The reforms have led to a change in how public and professional accountability is defined, where the focus is shifted from routines and performance measurements toward professional discretion and the quality of encounters. However, the results show how these changes are interpreted differently across different layers of the organization, where New Public Management principles prevail in how line managers give feedback on and reward the work of officials.
Conclusions The study illustrates how the introduction of new principles to promote officials' discretion does not easily bypass longstanding management strategies, in this case managing accountability through top-down performance measures. The study points out the importance for public organizations to reconcile new organizational principles with the current organizational culture and how this is manifested through managerial styles, which may be resistant to change. Promoting client-oriented and value-driven approaches in client work hence needs to acknowledge the importance of organizational culture, and to secure that changes are reflected in organizational procedures and routines.

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DISABILITY

Title **Labor force characteristics of people with a disability**

Author/s Kang, J-L et al

Source Bureau of Labor Statistics 2018

Abstract Overall, labor market indicators have improved in the years following the end of the recession. This is true for people with and without a disability. However, these groups experienced different degrees of improvement during this time and continue to have different employment patterns. This Spotlight examines the labor force characteristics of people with a disability and puts these characteristics in context by comparing them to those of people with no disability.

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Title **Opportunities for early intervention to avoid prolonged work disability: introduction to the special section**

Author/s Ben-Shalom, Y. & Schimmel Hyde, J.

Source *Journal of occupational rehabilitation* December 2018 28 4 569-573.
<https://doi.org/10.1007/s10926-018-9813-7>

Abstract **Purpose** The articles in this special section examine opportunities for early intervention that is intended to retain the jobs of workers who have medical conditions that could put them at risk of prolonged work disability.
Methods The first three articles examine options for analyzing various types of disability claims data for targeting early intervention; the fourth article provides new information from 50 case studies on how employers decide to invest in the retention of individual workers.
Results Together, the four articles demonstrate that there may be an opportunity to positively affect longer-term outcomes for workers with medical conditions. This would be accomplished by building and expanding on existing systems in order to efficiently identify, and provide timely support to, workers with medical conditions in a critical period during which the decisions and actions of various stakeholders, including the workers themselves, may have a major influence on these outcomes.
Conclusions Forthcoming opportunities to develop, implement, and test evidence-based interventions to promote job retention can provide further insight into the value of the options described in the articles.

Title **Employers' perspectives on accommodating and retaining employees with newly acquired disabilities: an exploratory study**

Author/s Gould-Werth, A., Morrison, K. & Ben-Shalom, Y.

Source *Journal of occupational rehabilitation* December 2018 28 4 611-633
<https://doi.org/10.1007/s10926-018-9806-6>

Abstract **Introduction** Timely and appropriate accommodations can help employees who experience disabilities stay at work instead of exiting the labor force. Employers can play a critical role in connecting such workers with the accommodations they need. This qualitative study seeks to inform policy makers who want to improve workforce retention outcomes by uncovering factors that affect whether employers provide accommodations to, and ultimately retain, employees with disabilities.

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Methods We conducted semistructured interviews with a convenience sample of human resources professionals in 14 Arkansas-based employers, yielding detailed information on 50 cases in which an employee developed or disclosed a disability. We analyzed the interviews using a grounded theory approach and compared cases to identify key themes emerging across subgroups of cases.

Results Two organization-level factors and four employee-level factors influenced employers' efforts to accommodate and retain employees with disabilities: employer resources; employers' communication with the employee and other stakeholders; employee tenure; employee work performance; active/sedentary nature of employee role; and the severity and type of employees' health conditions.

Conclusions Consistent with prior literature, employers with greater access to resources and better ability to communicate generally made greater effort to accommodate and retain employees with disabilities. However, employers in the study did not deploy these resources and processes consistently when making decisions about whether and how to provide accommodations to workers with disabilities; employee-level characteristics affected their actions. Policy makers should consider intervention approaches that reach workers who may be overlooked by employers with scarce resources

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Conclusions Forthcoming opportunities to develop, implement, and test evidence-based interventions to promote job retention can provide further insight into the value of the options described in the articles.

Title **A systematic review of the benefits of hiring people with disabilities**

Author/s Lindsay, S., Cagliostro, E., Albarico, M. et al.

Source *Journal of occupational rehabilitation* December 2018 28 4 34-655
<https://doi.org/10.1007/s10926-018-9756-z>

Abstract *Purpose* We reviewed literature on the benefits of hiring people with disabilities. Increasing attention is being paid to the role of people with disabilities in the workplace. Although most research focuses on employers' concerns, many companies are now beginning to share their successes. However, there is no synthesis of the peer-reviewed literature on the benefits of hiring people with disabilities.
Methods Our team conducted a systematic review, completing comprehensive searches of

seven databases from 1997 to May 2017. We selected articles for inclusion that were peer-reviewed publications, had a sample involving people with disabilities, conducted an empirical study with at least one outcome focusing on the benefits of hiring people with disabilities, and focused on competitive employment. Two reviewers independently applied the inclusion criteria, extracted the data, and rated the study quality.

Results Of the 6176 studies identified in our search, 39 articles met our inclusion criteria.

Findings show that benefits of hiring people with disabilities included improvements in profitability (e.g., profits and cost-effectiveness, turnover and retention, reliability and punctuality, employee loyalty, company image), competitive advantage (e.g., diverse customers, customer loyalty and satisfaction, innovation, productivity, work ethic, safety), inclusive work culture, and ability awareness. Secondary benefits for people with disabilities included improved quality of life and income, enhanced self-confidence, expanded social network, and a sense of community.

Conclusions There are several benefits to hiring people with disabilities. Further research is needed to explore how benefits may vary by type of disability, industry, and job type.

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EARLY INTERVENTION

Title **Early identification of potential SSDI Entrants in California: The predictive value of state disability insurance and workers' compensation claims**

Author/s Neuhauser, F., Ben-Shalom, Y. & Stapleton, D. J

Source *Journal of occupational rehabilitation* December 2018 28 4 <https://doi.org/10.1007/s10926-018-9791-9>

Abstract Purpose Examine the potential for using information in short-term disability claims to identify workers at high risk of leaving the workforce and entering Social Security Disability Insurance (SSDI).

Methods We analyze state-wide California data on claimants of State Disability Insurance (SDI) and Workers' Compensation (WC) and present statistics on: (1) characteristics (primary diagnosis, sex, age, geography, wage level) by claim duration (0–3, 4–6, 7–12, 12 + months); and (2) the ability of initial claim characteristics to predict duration of at least 12 months. All data are for claims with disability lasting more than 1 week. Results 22.2% of SDI claims last longer than 6 months and 12.5% last 12 months. More WC claims reach these durations: 33.7 and 18.6%, respectively. Long-term SDI and WC claimants are similar to SSDI awardees, nationwide, but differ in age distribution; they are typically younger. Conclusions Characteristics of SDI and WC claims can help predict claims likely to last 12 months, but more information is needed to effectively target early intervention services. Waiting longer to intervene improves targeting but risks missing opportunities where early intervention could be more effective. Collecting additional information at SDI or WC entry or soon thereafter could improve both the efficiency and timing of interventions.

Title **Using predictive analytics for early identification of short-term disability claimants who exhaust their benefits**

Author/s Contreary, K., Ben-Shalom, Y. & Gifford, B. J

Source *Journal of occupational rehabilitation* December 2018 28 4 584-596
<https://doi.org/10.1007/s10926-018-9815-5>

Abstract Purpose Early interventions can help short-term disability insurance (STD) claimants return to work following onset of an off-the-job medical condition. Accurately targeting such

Weblink interventions involves identifying claimants who would, without intervention, exhaust STDI benefits and transition to longer-term support. We identify factors that predict STDI exhaustion and transfer to long-term disability insurance (LTDI). We also explore whether waiting for some claims to resolve without intervention improves targeting efficiency. Methods We use a large database of STDI claims from private employer-sponsored disability insurance programs in the United States to predict which claims will exhaust STDI or transition to LTDI. We use a split sample approach, conducting logistic regressions on half of our data and generating predictions for the other half. We assess predictive accuracy using ROC curve analysis, repeating on successive subsamples, omitting claims that resolve within 2, 4, and 6 weeks. Results Age, primary diagnosis, and employer industry were associated with the two outcomes. Rapid attrition of short-duration claims from the sample means that waiting can substantially increase the efficiency of targeting efforts. Overall accuracy of classification increases from 63.2% at week 0 to 82.9% at week 6 for exhausting STDI benefits, and from 63.7 to 83.0% for LTDI transfer. Conclusions Waiting even a few weeks can substantially increase the accuracy of early intervention targeting by allowing claims that will resolve without further intervention to do so. Predictive modeling further narrows the target population based on claim characteristics, reducing intervention costs. Before adopting a waiting strategy, however, it is important to consider potential trade-offs involved in delaying the start of any intervention.

EMPLOYMENT AND UNEMPLOYMENT

Title **The two gap challenge- Speech by Thomas J Donohue**

Author/s Donohue, TJ

Source Talent Forward 2018

Abstract There's a lot of work to do and not enough skilled people to do it. There is a skills gap - too many people lack the skills or credentials they need to compete for 21st-century jobs plus there is a people gap – too many businesses can't find the workers they need, when and where they need them. We have the ideas, the innovations, and the incentive to drive change and create solutions. These include improving education, increasing the number of available workers; immigration reform. By closing both the skills and people gaps, opportunity will flourish, the economy will grow, people will prosper.

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ERGONOMICS

Title **Differences in typing forces, muscle activity, wrist posture, typing performance, and self-reported comfort among conventional and ultra-low travel keyboards**

Author/s Kia, K et al

Source *Applied ergonomics* January 2019 74 10-16 <https://doi.org/10.1016/j.apergo.2018.07.014>

Abstract This study investigated the relative impact of ultra-low travel keyboards on typing force, muscle activity, wrist posture, typing performance, and self-reported comfort/preference as compared to a conventional keyboard. In a repeated-measures laboratory-based study, 20 subjects were invited to type for 10 min on each of five keyboards with different travel

distances of 0.5, 0.7, 1.2, 1.6 (ultra-low travel keyboards), and 2.0 mm (a conventional keyboard). During the typing sessions, we measured typing force; muscle activity in extrinsic finger muscles (flexor digitorum superficialis and extensor digitorum communis), shoulder (trapezius) and neck (splenius capitis); wrist posture; typing performance; and self-reported comfort/preference. While using the ultra-low travel keyboards, subjects typed with less force and wrist extension, and had more ulnar deviation (p 's < 0.0001) compared with conventional keyboard. However, these differences in typing forces were less than 0.5 N and less than 4° for both wrist extension and ulnar deviation. The general trend of data did not show any consistent or substantial differences in muscle activity (less than 2 %MVC) and typing performance (< 5 WPM in speed; $< 3\%$ in accuracy), despite the observed statistical difference in the finger flexors and extensors muscle activity (p 's < 0.19) and typing performance ($p < 0.0001$). However, the subjects preferred using conventional keyboards in most of the investigated self-reported comfort and preference criteria (p 's < 0.4). In conclusion, these small differences indicate that using ultra-low travel keyboards may not have substantial differences in biomechanical exposures and typing performance compared to conventional keyboard; however, the subjective responses indicated that the ultra-low keyboards with the shortest key travel tended to be the least preferred.

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Title **The impact of workplace ergonomics and neck-specific exercise versus ergonomics and health promotion interventions on office worker productivity: A cluster-randomized trial**

Author/s Pereira, M et al

Source *Scandinavian journal of work and environmental health* 2019 45 1

Abstract Objectives Using an employer's perspective, this study aimed to compare the immediate and longer-term impact of workplace ergonomics and neck-specific exercise versus ergonomics and health promotion information on health-related productivity among a general population of office workers and those with neck pain.

Methods A prospective one-year cluster randomized trial was conducted. Participants received an individualized workstation ergonomics intervention, combined with 12 weeks of either workplace neck-specific exercises or health promotion information. Health-related productivity at baseline, post-intervention and 12-months was measured with the Health and Work Performance Questionnaire. Intention-to-treat analysis was performed using multilevel mixed models.

Results We recruited 763 office workers from 14 organizations and allocated them to 100 clusters. For the general population of office workers, monetized productivity loss at 12 months [AU\$1464 (standard deviation [SD] 1318) versus AU\$1563 (SD=1039); $P=0.023$]; and presenteeism at 12 months [2.0 (SD 1.2) versus 2.4 (SD 1.4); $P=0.007$] was lower in the exercise group compared to those in the health promotion information group. For office workers with neck pain, exercise participants had lower sickness absenteeism at 12 months compared to health promotion information participants [0.7 days (SD 1.0) versus 1.4 days (SD 3.1); $P=0.012$], despite a short-term increase in sickness absenteeism post-intervention compared to baseline for the exercise group [1.2 days (SD 2.2) versus 0.6 days (SD 0.9); $P<0.001$].

Conclusion A workplace intervention combining ergonomics and neck-specific exercise offers possible benefits for sickness presenteeism and health-related productivity loss among a general population of office workers and sickness absenteeism for office workers with neck pain in the longer-term.

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Title **The office changes leading to sit-to-stand ergonomics**

Author/s Carlson, NG et al

Source *Work* 2018 61 4 501-507 DOI: 10.3233/WOR-182820

Abstract The office ergonomic design from the late 1980s to the present has undergone significant changes during the transition from typewriters to the various human computer interfaces that evolved to the present day. Designs to accommodate various sized monitors and pointing devices have posed a challenge for ergonomist and designers of office workstations. Recent research suggesting adverse health effects associated with sedentary work environments have put additional pressure to incorporate the option to stand while working. This article reviews the current available options and suggests approaches to workplace design to meet the desire for employees to vary their work environment and the concern by management for worker health.

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HEALTH AND WELLBEING

Title **General versus pain-specific cognitions: Pain catastrophizing but not optimism influences conditioned pain modulation**

Author/s Traxier, J et al

Source *European journal of pain* January 2019 23 1 150-159 <https://doi.org/10.1002/ejp.1294>

Abstract Background: Previous studies found evidence that dispositional optimism is related to lower pain sensitivity. Recent findings suggest that temporarily increasing optimism by means of imagining a positive future may also have pain-alleviating effects.
Objectives: The present experiment was designed to investigate conditioned pain modulation (CPM) as a potential underlying mechanism of this pain-alleviating effect of induced optimism.
Methods: For this purpose, 45 healthy participants were randomized into an optimistic or neutral imagery condition. Additionally, participants completed questionnaires on dispositional optimism, pain catastrophizing and pain expectations. CPM was assessed by delivering a series of five heat pain stimuli on the nondominant hand before and during immersion of the dominant hand in water of 5°C for 70 s.
Results: A clear CPM effect was found, that is heat pain reports were lower during simultaneous cold water stimulation. Although the optimism manipulation successfully increased optimism, it did not affect pain ratings or CPM. Post hoc analyses indicated that dispositional optimism was not associated with the magnitude of CPM, but pain catastrophizing and pain expectations did significantly correlate with the CPM effect.
Conclusion: Pain-specific but not general cognitions appear to influence endogenous pain modulation.
Significance: Conditioned pain modulation is not the underlying mechanism of the pain-alleviating effects of induced optimism. However, pain-specific cognitions including pain catastrophizing and pain expectations affect endogenous pain modulation which should be taken into account in treatment and CPM research.

[Weblink](#)

Title **Healthy workers, thriving companies – a practical guide to wellbeing at work: tackling psychosocial risks and musculoskeletal disorders in small business**

Author/s Nielsen, K et al

Source EU-OSHA December 2018

Abstract This guide presents a five-step approach to managing two fairly challenging occupational health issues that are common in workplaces: psychosocial risks — factors that can lead to stress and affect workers' mental and physical health — and musculoskeletal disorders (MSDs). The evidence shows that these issues can be related. As explained in the guide, psychosocial risks are considered one of the factors that can cause MSDs. Conversely, MSDs can contribute to stress and mental overload. Because they are related, a preventive

measure put in place to tackle one type of risk can also help to prevent the other. For example, giving workers more control over their work (the chance to take breaks as needed or the opportunity to switch between different tasks during the working day) can prevent or reduce stress, but it can also help workers to adopt good working postures, work at an optimal pace and recover from taxing tasks — so it can also prevent or help manage MSDs.

[Weblink](#)

Title **International health data comparisons, 2018**

Author/s Australian Institute of Health and Welfare (AIHW)

Source AIHW December 2018

Abstract Comparing health and health care data between countries facilitates international comparative reporting, supports policy planning and decision-making, and enables health-related research and analysis.

The interactive data visualisations across these web pages allow you to compare the most recent data from 36 Organisation for Economic Co-Operation and Development (OECD) member countries across a range of health and health care indicators, with a focus on Australia's international performance.

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Title **It's time to make paternity leave work**

Author/s Gratton,L

Source *MIT SLOAN* January 2019

Abstract Longer life spans are the new normal, and many people alive today will live to be 100 years old. How will we use that time? One option: Rather than working full time for decades and then spending our later years with our grandchildren, we could redistribute some of that projected time from our 60s and 70s into our earlier decades and spend more of it with our children. For fathers in particular, this would be a radical life decision.

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Title **Not just free fruit: wellbeing at work, a literature review**

Author/s Mamujee, Shehzana

Source British Safety Council December 2018

Abstract Examining current literature on occupational health and wellbeing, Not just free fruit: wellbeing at work seeks to define 'wellbeing' in workplace contexts, exploring the term's varying connotations and applications. Calling for the government to "place equal importance on the quality of work as it does on the quantity", last year's *Good Work: The Taylor Review of Modern Working Practices* recognised that the quality of work needs to be more clearly understood, defined and measured.

[Weblink](#)

Title **Regulatory fit at work: gravitational effects and associations with employee well-being**

Author/s Brenninkmeijer, V et al

Source *European journal of work and organizational psychology* 2018 27:6, 809-821 DOI: 10.1080/1359432X.2018.1540467

Abstract Using a task approach, this study examined the extent to which employee regulatory focus would "gravitate" employees towards promotion- versus prevention-oriented tasks within their jobs, and whether a subsequent regulatory fit/misfit would be associated with their well-

being (i.e., mental health and job satisfaction). In a pre-study among 37 employees, we determined the regulatory focus of work tasks from the Netherlands Skill Survey, which are relevant to the general working population, resulting in a selection of 7 promotion and 11 prevention tasks. For our main study, we used the Dutch Longitudinal Internet Studies for the Social Sciences (LISS) panel and collected data from 1,606 respondents. In 2011, we collected respondents' regulatory focus and in 2012, we collected their work tasks and well-being. Promotion-oriented employees considered both promotion and prevention tasks to be highly relevant in their jobs, and this relevance was associated with their mental health. Prevention-oriented employees, however, did not respond to the relevance of promotion or prevention tasks and generally reported lower well-being, irrespective of the regulatory focus of their tasks. We tentatively conclude that promotion focus gravitates employees towards job with a richer task content, containing both promotion and prevention tasks.

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Title **The scientific foundation for the Physical Activity Guidelines for Americans, 2nd Edition**

Author/s Powell, KE et al

Source *Journal of physical activity and health* January 2019 16 1 1-11 doi: 10.1123/jpah.2018-0618

Abstract Background: The 2018 Physical Activity Guidelines Advisory Committee Scientific Report provides the evidence base for the *Physical Activity Guidelines for Americans*, 2nd Edition. Methods: The 2018 Physical Activity Guidelines Advisory Committee addressed 38 questions and 104 subquestions selected for their public health relevance, potential to inform public policies and programs, maturity of the relevant science, and applicability to the general US population. Rigorous systematic literature searches and literature reviews were performed using standardized methods.

Results: Newly described benefits of physical activity include reduced risk of excessive weight gain in children and adults, incidence of 6 types of cancer, and fall-related injuries in older people. Physical activity is associated with enhanced cognitive function and mental health across the life span, plus improved mental health and physical function. There is no threshold that must be exceeded before benefits begin to accrue; the accrual is most rapid for the least active individuals. Sedentary time is directly associated with elevated risk of all-cause and cardiovascular mortality, incident cardiovascular disease and type 2 diabetes, and selected cancer sites. A wide range of intervention strategies have demonstrated success in increasing physical activity.

Conclusion: The 2018 Physical Activity Guidelines Advisory Committee Scientific Report provides compelling new evidence to inform physical activity recommendations, practice, and policy.

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HEALTH BENEFITS OF GOOD WORK

Title **Health benefits of good work eNewsletter December 2018**

Author/s Royal Australasian College of Physician (RACP)

Source Royal Australasian College of Physician (RACP)

Abstract A range of articles on the health benefits of good work. Includes an article from Natalie Bekis, Strategic Research and Innovation, Comcare on the Collaborative Partnership: a new approach to workforce health and productivity.

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Title **Is work just another 4-letter word?- Editorial**

Author/s Dewa, C S

Source *Canadian journal of psychiatry* December 2018 Volume: 63 issue: 12, page(s): 796-797
<https://doi.org/10.1177/0706743718814431>

Abstract If we are in healthy work environments, we can fulfill both basic and higher-order needs. But that is a resounding "if." There seems to be a constant struggle between creating a healthy environment and sacrificing it in the name of efficiency. For example, the Industrial Age exposed workers to physically unsafe environments. This catalyzed labour advocates to rise up to fight for safer physical conditions for workers. Their legacy is the ongoing development of standards to create working conditions that increase the likelihood that workers return from their shifts intact.

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HEALTH PROMOTION

Title **Attendance barriers experienced by female health care workers voluntarily participating in a multi-component health promotion programme at the workplace.**

Author/s Ilvig, Pia Maria et al

Source *BMC Public Health* December 2018 doi: 10.1186/s12889-018-6254-3

Abstract Background: Studies have shown that Workplace Health Promoting Programmes (WHPP) can facilitate healthier behaviour. Despite the benefits achieved from participating in a WHPP, a systematic review showed that only 10-50% of the employees participated and a challenge was lack of participation. Previous studies stress that understanding the barriers that prevent participants from attending WHPPs are important for designing highly effective interventions. To exploit the potential of a WHPP, it requires a deep insight into the attendance barriers experienced by the participants who voluntarily sign-up for a WHPP; and particularly those who want to stay in the programme but are prevented from participating in it regularly. Thus, the aim of this study was to identify and explore attendance barriers experienced by female Health Care Workers (HCWs) who voluntarily participated in a weekly one-hour multi-component training session, within a WHPP, over a one-year period.
Methods: This study was carried out within a RCT named FRIDOM (FRamed Intervention to Decrease Occupational Muscle pain) and was designed as a single-case study with an inductive approach for analysing the content of in-depth semi-structured qualitative interviews. Data was collected at two home care workplaces and two retirement homes in Denmark. Nine HCWs from the intervention group were selected as participants in the present study.
Results: The attendance barriers identified, consisted of three main themes and six related sub-themes: 1) organizational factors (work inflexibility, lack of support from team leaders), 2) intervention factors (training sessions organized outside normal work hours, incongruence between information received and reality, content and intensity of the program) and 3) individual factors (personal factors).
Conclusion: Organizational and intervention factors are the two most important attendance barriers in future WHPPs. To overcome these barriers; training sessions should be organized within or in connection with work hours, support should be secured from team management and work shifts should be planned to enable attendance for all participants. Furthermore, the attendance barriers may be minimized by including participants in the decision-making process. This relates to both the content and intensity of the intervention, not only in the planning stage but throughout the intervention process.

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MANAGEMENT AND LEADERSHIP

Title **Identity leadership going global: Validation of the Identity Leadership Inventory across 20 countries**

Author/s van Dick, R et al

Source *Journal of occupational and organization psychology* December 2018 91_4 697-728
<https://doi.org/10.1111/joop.12223>

Abstract Recent theorizing applying the social identity approach to leadership proposes a four-dimensional model of identity leadership that centres on leaders' management of a shared sense of 'we' and 'us'. This research validates a scale assessing this model – the Identity Leadership Inventory (ILI). We present results from an international project with data from all six continents and from more than 20 countries/regions with 5,290 participants. The ILI was translated (using back-translation methods) into 13 different languages (available in the Appendix S1) and used along with measures of other leadership constructs (i.e., leader–member exchange [LMX], transformational leadership, and authentic leadership) as well as employee attitudes and (self-reported) behaviours – namely identification, trust in the leader, job satisfaction, innovative work behaviour, organizational citizenship behaviour, and burnout. Results provide consistent support for the construct, discriminant, and criterion validity of the ILI across countries. We show that the four dimensions of identity leadership are distinguishable and that they relate to important work-related attitudes and behaviours above and beyond other leadership constructs. Finally, we also validate a short form of the ILI, noting that is likely to have particular utility in applied contexts.

Practitioner points:

- The Identity Leadership Inventory (ILI) has a consistent factor structure and high predictive value across 20 countries and can thus be used to assess a leader's ability to manage (team and organizational) identities in a range of national and cultural contexts.
- Identity leadership as perceived by employees is uniquely related to important indicators of leadership effectiveness including employees' relationship to their team (identification and perceived team support), well-being (job satisfaction and reduced burnout), and performance (citizenship and innovative behaviour at work).
- The ILI can be used in practical settings to assess and develop leadership, for instance, in 360-degree feedback systems.
- The short form of the ILI is also a valid assessment of identity leadership, and this is likely to be useful in a range of applied contexts (e.g., those where there is a premium on cost and time or when comparing multiple leaders or multiple time points).

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Title **The temporal pattern of creativity and implementation in teams**

Author/s Rosing, K et al

Source *Journal of occupational and organizational psychology* December 2018 91 4 798-822
<https://doi.org/10.1111/joop.12226>

Abstract Two broad sets of activities underlie team innovation: the creation and the implementation of new ideas. Despite the prevalence of this distinction, the temporal dynamics of creativity and implementation in teams and their relation to successful team innovation are not well understood. Building on and integrating linear phase models and complexity perspectives on the innovation process, we propose a temporal pattern of creativity and implementation that is linked to team innovation. We examine this temporal pattern in a longitudinal study of 76 project teams. Results show that teams engage in creativity throughout the entire life cycle of team projects; however, innovative teams refrain from focusing on implementation in early time frames and increase their focus on implementation over the course of the project. Episodes of unconstrained creativity in early time frames of a project appear to be a critical factor for team innovation. Our research provides a foundation for future research on team innovation that explicitly considers the temporal interplay of creativity and implementation.

Practitioner points

- Creativity is a critical factor for team innovation that is relevant not only in the beginning of a team project but throughout its entire life cycle.
- Teams achieve innovative outcomes if they refrain from focusing on implementation early on and instead allow for prolonged episodes of unconstrained creativity.
- Innovative teams pay attention to the timing of implementation activities and increase their focus on implementation around the mid-point of a project.

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MUSCULOSKELETAL ISSUES

Title **Drivers of international variation in prevalence of disabling low back pain: findings from the cultural and psychosocial influences on disability study**

Author/s Coggon, D et al

Source *European journal of pain* January 2019 23 1 35-45

Abstract Background: Wide international variation in the prevalence of disabling low back pain (LBP) among working populations is not explained by known risk factors. It would be useful to know whether the drivers of this variation are specific to the spine or factors that predispose to musculoskeletal pain more generally.

Methods: Baseline information about musculoskeletal pain and risk factors was elicited from 11 710 participants aged 20–59 years, who were sampled from 45 occupational groups in 18 countries. Wider propensity to pain was characterized by the number of anatomical sites outside the low back that had been painful in the 12 months before baseline ('pain propensity index'). After a mean interval of 14 months, 9055 participants (77.3%) provided follow-up data on disabling LBP in the past month. Baseline risk factors for disabling LBP at follow-up were assessed by random intercept Poisson regression.

Results: After allowance for other known and suspected risk factors, pain propensity showed the strongest association with disabling LBP (prevalence rate ratios up to 2.6, 95% CI: 2.2–3.1; population attributable fraction 39.8%). Across the 45 occupational groups, the prevalence of disabling LBP varied sevenfold (much more than within-country differences between nurses and office workers), and correlated with mean pain propensity index ($r = 0.58$).

Conclusions: Within our study, major international variation in the prevalence of disabling LBP appeared to be driven largely by factors predisposing to musculoskeletal pain at multiple anatomical sites rather than by risk factors specific to the spine.

Weblink [Significance: Our findings indicate that differences in general propensity to musculoskeletal pain are a major driver of large international variation in the prevalence of disabling low back pain among people of working age.](#)

Title **Effects of work surface and task difficulty on neck–shoulder posture and trapezius activity during a simulated mouse task**

Author/s Gonçalves, Josiane Sotrate et al

Source *International journal of occupational safety and ergonomics* 2019 25:1, 86-90, DOI: 10.1080/10803548.2018.1438960

Abstract Objectives. The purpose of this study is to evaluate the influence of the work surface and task difficulty on the head, upper back and upper arm postures and activity of the descending trapezius during a simulated mouse task.

Methods. Healthy female university students ($N = 15$) were evaluated. The work surface was

positioned at elbow height (EH) and above elbow height (AEH) and the task difficulty was set at low (LD) and high (HD) levels. The postures were recorded by inclinometers. Trapezius activity was normalized by the maximum voluntary isometric contraction (MVIC).

Results. Significantly higher head flexion was found at EH compared to the AEH condition, with an average difference of 2°–5° at the same difficulty level. The HD task significantly increased head (3°–6°) and upper back flexion (6°–7°) at the same table height. For upper arm elevation and trapezius activation, the AEH condition presented higher upper arm elevation (about 6°–8°) and trapezius activity (0.8–1.4% of MVIC), regardless of the difficulty level of the task.

Conclusions. Head posture was influenced by the table height and task difficulty; the upper back posture by high difficulty; and upper arm posture and trapezius activity were only influenced by table height

Title **The office work and stretch training (OST) study: an individualized and standardized approach for reducing musculoskeletal disorders in office workers**

Author/s Holzgreve, F et al

Source *Journal of occupational medicine and toxicology* 2018**13**:37 <https://doi.org/10.1186/s12995-018-0220-y>

Abstract Background: Musculoskeletal disorders (MSD) are a common health problem in office workers. In Germany, MSD (mainly back pain related) are the main cause of workdays lost to incapacity. This is not only bothersome for the employees, but also causes higher costs for the health system and employers. Workplace health promotion programmes (WHPP) can help to reduce this as they reach large target groups and are easily accessible. In this context, stretch training exercises have already proven to be effective. In the present study, a new approach focusing on trunk extension is to be investigated.

Methods: To evaluate the training device “five-Business”, 250 office workers will train two times a week for 3 months. The control group will consist of 100 office employees. The device “five-Business” enables five different full body exercises. The intervention will be evaluated before week one and after week twelve via three assessments: a) the Short Form-36 (SF-36) to record the general health status and health-related quality of life, taking into account physical, psychological and social factors, b) the Nordic Questionnaire to evaluate complaints of the musculoskeletal system, c) Range of Motion (ROM) measurements using a digital inclinometer and a measuring tape respectively.

Conclusion: The “five-Business” combines elements of yoga and the McKenzie fundamentals, taking into account the Myers myofascial pathways in a highly torso-oriented, standardized stretching program. Due to the given exercise execution on the device and the individual adjustment possibilities of the stretching position (body size and range of motion) by the abutment, all exercises are individualized and standardized at the same time. In comparison to existing stretching interventions, this is a new approach in the framework of reducing musculoskeletal disorders and improving the quality of life in workplace health promotion.

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Title **Interprofessional communication concerning work-related musculoskeletal disorders: a qualitative study**

Author/s Beyer, S., Gouyet, T., Letourneux, V.D. et al.

Source *Journal of occupational rehabilitation* December 2018 28 4 721-729
<https://doi.org/10.1007/s10926-018-9755-0>

Abstract Purpose Understanding and treating musculoskeletal disorders (MSDs) requires coordination between the numerous healthcare professionals involved, including occupational physicians (OPs), general practitioners (GPs) and social insurance physicians (SIPs). The main objective of this study was to assess communication between OPs, GPs

and SIPs in the management of MSDs.

Methods This is a qualitative study in the form of semi-structured interviews with OPs in the French region of Brittany. The interviews were conducted until data saturation was achieved. The interviews were fully coded and analysed thematically using NVivo® software.

Results The interviews were carried out among 17 OPs from companies and external occupational healthcare services who treated employees from various activity sectors. Different communication channels were used depending on the interlocutor, though they were mainly contacted by mail or phone. Most of the communication passed through the patient, either verbally or in writing. No major failure was detected in communication between the various types of practitioners, but instances of communication were influenced by various factors such as differences in perception, representation and objectives, as well as by how well the physicians knew each other. A number of instances of non-communication were found.

Conclusion This study showed that patients play a key role in the interactions between different practitioners. It also revealed that different types of professional relationships depend on the objectives of the various interlocutors, which in turn vary according to their roles and competences

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[OCCUPATIONAL ISSUES](#)

Title **Injury scoring: Then, now, and into the 21st century**

Author/s Osler, TurnerGlance, Laurent G.Buzas, Jeffrey S. et al.

Source *Injury* 50 1 2 - 3 DOI: <https://doi.org/10.1016/j.injury.2018.11.002>

Abstract Accurately predicting the outcomes of injury is an important aspect of the clinical and administrative management of injured patients. But are we close to defining the perfect predictor? Is a perfect predictor even possible?

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Title **A look at contingent workers**

Author/s Kosanovich, K

Source Bureau of Labor Statistics 2018

Abstract Contingent workers are people who do not expect their jobs to last or who report that their jobs are temporary. They do not have an implicit or explicit contract for continuing employment. People who do not expect their jobs to continue for personal reasons, such as retirement or returning to school, are not considered contingent workers. An example might help clarify the concept of contingent work: Kaya was hired by a local company to make decorations to celebrate her town's centennial. The celebration will occur in 2 months, and then she will no longer be needed. Kaya is a contingent worker because she does not expect her job to last once the event is over. This Spotlight on Statistics looks at contingent workers in 2017.

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Title **The no. 1 employee benefit that no one's talking about**

Author/s Smith, J

Source Gallup

Abstract One in two employees have left a job to get away from a manager and improve their overall life at some point in their career, according to Gallup's State of the American Manager report: analytics and advice for leaders.

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Title **Working from the other office: trialling co-working spaces for public servants**

Author/s Houghton, K R Foth, M Hearn, G

Source *Australian journal for public administration* December 2018 774 757-778

Abstract The proliferation of digital connectivity and mobility is having a profound impact on nomadic and collaborative work practices in our cities. In the past few years, we have witnessed a shift in the way that organisational entities in both the private and public sector put emphasis on the allocation and use of office space. In this paper, we report on our evaluation of a trial of co-working spaces also referred to as Flexible Work Centres (FWC) led by the Queensland State Government. The trial provides insights into such changes towards new work practices. The trial tested how FWCs can be used by Queensland Government employees, and its impact on productivity, staff retention and work-life balance of employees. The 47 trial participants from 10 different government departments completed a series of four surveys and were invited to keep diaries of their impressions and experiences. Supervisors were involved in a series of focus groups to reflect on the trial at the end of the 12-month period. The benefits of the flexible work arrangement and specifically the provision of an alternative work venue was highly praised and appreciated by participants and supervisors. There were noted key qualities of staff and work types that this arrangement works best for, and trust in employees was paramount. The positive results of the trial saw a continuation of the provision of the flexible workspace arrangement and investigations into further extensions of the program.

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Title **Promoting health and physical capacity during productive work: the Goldilocks Principle**

Author/s Holtermann, A Mathiassen, SE Straker, L

Source *Scandinavian journal of work and environmental health* 2019 45 1 90-97; doi:10.5271/sjweh.3754

Abstract Objectives In spite of preventive efforts, organizations and employees face several challenges related to working life and occupational health, such as a substantial prevalence of musculoskeletal disorders, social inequality in health and physical capacity, multi-morbidity, an obesity epidemic and an aging workforce. We argue that a new approach to occupational ergonomics and health is required, going beyond prevention of harm caused by work. We propose the "Goldilocks Principle" for how productive work can be designed to promote health and physical capacity.
Methods Physical (in)activity profoundly influences health and physical capacity, with effects depending on the extent and temporal structure of the (in)activity. Like the porridge, chair and bed that needed to be "just right" for Goldilocks in the The Three Bears fairytale, physical activity during productive work needs to be "just right" for promoting rather than deteriorating health and capacity. In many jobs, physical activity is, however, either too much/high/frequent or too little/low/infrequent to give positive biomechanical and cardiometabolic stimuli.
Results This paper presents the rationale, concept, development, application and prospects of the Goldilocks Principle for how productive work can be designed to promote health and physical capacity.
Conclusions We envision a great potential to promote health and physical capacity by designing productive work according to the Goldilocks Principle, thus leading to benefits with respect to the current challenges related to working life and occupational health for society, organizations and employees.

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Title **A quantitative evaluation of electric sit-stand desk usage: 3-month in-situ workplace study**

Author/s Pankaj Parag Sharma

Source *IJSE transactions on occupational ergonomics and human factors* 2018 6 2, 76-83 DOI: 10.1080/24725838.2018.1521351

Abstract Sit-stand desk interventions are deployed to reduce sedentary time and improve ergonomic adjustability in modern workplaces, with ultimate goals of improving health and productivity. Sit-stand desks, however, require workers to take an active role in changing the desk position, and usage compliance of the sit-stand function has been a challenge. This study used computer software to objectively record continuous data on electric sit-stand desk usage during computer use, to understand current desk usage behaviors in a large office environment involving ~300 workers for 3 months. We found that workers completed roughly one desk position change per work day, and one-fourth of the workers always had the desk in a seated position (during computer use). The methods used here demonstrate a novel approach to record sit-stand desk usage continuously during active computer use.

Technical Abstract

Background: Office workers are an ideal target population to reduce sedentary time for desk-based jobs. Sit-stand desks can decrease occupational sitting time, but few methods of measurement exist, aside from self-report, when trying to determine desk usage patterns in naturalistic work environments or with a large sample size.

Purpose: The purpose of this study was to use a novel approach to determine current electric sit-stand desk usage among office workers who had an electric sit-stand desk for at least one year. Methods: The study integrated electric sit-stand desks with computer software to measure continuous data on the time desks were in a sitting or standing position during active computer use. Data were obtained from 364 workers in a government office, and the primary outcome measure was the frequency of desk position changes. A secondary measure was the duration that desks were in a sitting or standing position during active computer use.

Results: Workers completed a mean (SD) of 1.29 (1.91) desk position change per work day. Overall, 43% of the workers either changed their desk position once or twice a week, once a month, or never. In a given workday, workers had their desks in a seated position for a majority of the time (~89%) and in a standing position for the remaining time (~11%).

Conclusions: Most workers used the sit-stand function of the desk rarely, if at all, and the desk was in the seated position for majority of the time during computer use. The methods and outcomes described here can serve as a reference for future studies to measure sit-stand desk usage and to determine if interventions to increase usage are successful.

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Title **Revisiting the relationship between safety and security engineering**

Author/s Karanikas, N

Source *International journal of security engineering* DOI: [10.2495/SAFE-V8-N4-547-551](https://doi.org/10.2495/SAFE-V8-N4-547-551)

Abstract Safety and Security (S&S) have the same goal, that is to maintain the integrity of human, infrastructure, hardware, software, capital and intangible assets of a system. However, literature and practice indicate that the relationship between S&S has not yet been clearly defined and their boundaries remain blurry. The current paper presents a short review of academic and professional literature about the relationship between S&S. This relationship is examined by looking at the S&S dependencies, their similarities and differences, and the role of the human element in achieving and maintaining the desired S&S levels. The review of literature showed that (1) there is a tendency to emphasize on the effects of security on safety and underestimate the opposite, (2) human factors are not part of security training to the extent are addressed in safety training, (3) security and safety problems can be the result of both internal and external disturbances and agents, (4) the intentionality or not of outcomes, and not of the action, can stand as a valid criterion to classify an event as a security or a safety one correspondingly, (5) S&S issues can result in negative implications internally and externally to the system, and (6) the synergy between S&S is of paramount importance for

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achieving the optimum levels of system protection. The positions of this paper might comprise a basis for enriching educational programmes around S&S and igniting relevant research

Title **Study on experimental measurement of behavioral characteristics of the workers in nonstationary work**

Author/s Hotta, G

Source *International journal of safety and security engineering* 2018 8 1 150-158 DOI: [10.2495/SAFE-V8-N1-150-158](https://doi.org/10.2495/SAFE-V8-N1-150-158)

Abstract More than 50% of industrial accidents in the manufacturing industry are caused in nonstationary work. In nonstationary work, the worker's behavior characteristics appear most easily. If the behavioral characteristics are classified into some types and the feature and the danger of the type are recognized, they can be put in the safety management item, and the prevention of the disaster in nonstationary work becomes possible. Worker's action characteristics can be modeled as a combination in order of preference of three elements: risk prediction, risk avoidance and risk transmission. The behavioral characteristics of workers can also be modeled as the combination in order of preference with the aforementioned three elements. In previous research, it has been found that the models were classified as 14 kinds of behavior patterns. In this study, we report on the following research results. We have developed a testing apparatus to measure the consciousness level about risk prediction, avoidance and propagation, and the presence of 14 kinds of patterns of behavioral characteristics was verified. The relationships between the behavior type and the dangerousness, the behavior type and the mistake occurrence were examined experimentally.

Title **Who are the high achievers at work? Perceived motivational climate, goal orientation profiles, and work performance**

Author/s Nerstad, CGL et al

Source *Scandinavian journal of psychology* December 2018 59 6 661-677
<https://doi.org/10.1111/sjop.12490>

Abstract The purpose of this study was to respond to the call for research on goal orientation (mastery and performance orientation) profiles in work contexts. Among 8,282 engineers and technologists, Latent profile analyses indicated that four different goal orientation profiles existed – primarily mastery oriented, indifferent, moderate multiple goals, and success oriented. Both success oriented employees and employees who are primarily mastery oriented indicated the highest individual work performance. Further, mastery and performance climates were found to be relevant antecedents of employees' goal orientation profiles. Supplementary analyses suggested that a primarily mastery oriented profile seems to be more beneficial for the facilitation of employee well-being. The practical implications of these findings and directions for future research are presented.

Title **Workplace health beliefs concerning physical activity and sedentary behaviour**

Author/s B Sudholz, J Salmon, A J Mussap;

Source *Occupational medicine* December 2018 68 9 26 631–634
<https://doi.org/10.1093/occmed/kqy143>

Abstract Background: Sedentary behaviour (SB) in the form of uninterrupted sitting constitutes a risk factor for chronic disease that is independent of the risks associated with insufficient physical activity (PA). However, little is known about employee and manager health beliefs concerning SB and PA.
Aims: We assess health beliefs of desk-based workers concerning PA and SB accrued at work versus during leisure. We ask whether recreational PA attenuates the perceived ill-health effects of prolonged occupational SB, and compare attitudes of employees and managers to interventions aimed at reducing/interrupting workplace sitting.
Methods: Two hundred and twenty-two desk-based employees and 121 managers located in Melbourne, Australia, rated the healthiness of vignettes describing combinations of uninterrupted sitting, sitting with breaks, light PA and moderate-to-vigorous PA accumulated at work and during leisure time. Participants also responded to open-ended questions concerning the implications of reducing workplace sitting.
Results: Mixed-model ANOVA revealed that the presence of leisure-time PA greatly diminished the perceived detrimental effects to health of workplace sitting. Subsequent thematic analysis of qualitative data further revealed that participants' concerns with SB were primarily musculoskeletal and workplace performance rather than chronic health.
Conclusions: Employees and their managers do not rate uninterrupted sitting as being unhealthy when it is presented to them in the form of an 'active couch potato' lifestyle (a person who meets minimum PA recommendations but spends much of their work time and non-PA time sitting). We recommend that interventions targeting workplace SB take into account the contextual nature of health beliefs

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PSYCHOSOCIAL ISSUES

Title **Associations between hyperacusis and psychosocial work factors in the general population**

Author/s Paulin, J., Nordin, M., Nyback, MH. et al

Source *International archives of occupational and environmental health* 2019 92: 59.
<https://doi.org/10.1007/s00420-018-1356-x>

Abstract Purpose: We investigated the association between hyperacusis and aspects of psychosocial work environment in a general population. The objectives were to investigate (1) prevalence and characteristics (among age, sex, access to social support at home, education, smoking, physical exercise, and perceived general health) of hyperacusis in a general working population and (2) associations between hyperacusis and psychosocial factors in the work environment. The psychosocial work aspects included effort, reward, overcommitment, worry, and social and emotional support.
Methods: Using data from a sample stratified for age and sex from the Österbotten Environmental Health Study in Finland, currently employed participants with self-reported hyperacusis and referents were compared on questionnaire instruments quantifying six aspects of their psychosocial work environment.
Results: Among 856 currently employed participants, 47 constituted a hyperacusis group and 809 a reference group. The hyperacusis group scored significantly higher than the referents on worry at work, social support at work, and reward at work, but not on emotional support at work, work overcommitment, or effort at work. About 40% of the hyperacusis group scored on the upper quartile of the three former work environment factors, with odds ratios ranging from 1.91 to 2.56.

[Weblink](#) Conclusions: The results suggest that worrying about aspects at work, perceiving low social support, and not perceiving being rewarded at work are associated with hyperacusis.

Title	Awareness into action: a holistic approach to cultivation mentally healthy workplaces in Australia
Author/s	Allianz
Source	Allianz January 2019
Abstract	In this report, we seek to show that a mentally healthy workplace can only be achieved when it is a business priority. We do this by bringing together key research findings and other expert resources to put forward a holistic approach to help employers transform awareness into action that promotes positive mental health in Australia's workplaces.
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Title **A battle for hearts and minds: New Zealand's legal response to work-stress related depression and cardiovascular disease**

Author/s Duncan D

Source *New Zealand journal of employment relations* 2018 43 3

Abstract As patterns of work change, so do the resulting patterns of work-related ill health. While medical thinking on stress-related illnesses has shifted enormously in the past decades, the law has not. This paper will explore New Zealand's legal response to work-stress-related illnesses, especially depression and cardiovascular disease. It will outline the current interaction of the Health and Safety at Work Act 2015, the Accident Compensation Act 2001 and the personal grievances regime in cases of work-related depression and cardiovascular disease, and highlight key areas of reform needed. The law, as it stands, is failing to provide either adequate protection from, or compensation for work-stress-related illness. With heart disease as New Zealand's leading cause of death, and rates of mental illness on the rise, addressing the more complex relationships between work and health becomes an urgent task for the future of New Zealand labour law.

[Weblink](#)

Title **A cross-sectional study of the awareness and implementation of the *National Standard of Canada for Psychological Health and Safety in the Workplace* in Canadian employers**

Author/s Sheikh, MS et al

Source *Canadian journal of psychiatry* January 63 12, page(s): 842-850
<https://doi.org/10.1177/0706743718772524>

Abstract The *National Standard of Canada for Psychological Health and Safety in the Workplace* (the Standard) was released in 2013. The objectives of this study were to 1) estimate the proportion of Canadian employers who were aware of the Standard, 2) examine the extent to which the Standard has been implemented, and 3) describe perceived barriers to implementing the Standard in Canadian organizations.
 Methods: A cross-sectional survey in Canadian employers was conducted between February 2015 and January 2017. A random sample of Canadian employers was selected, and the individuals who were knowledgeable about the occupational health policies of the organizations were interviewed by telephone. The participants answered questions about the awareness, implementation, perceived effects, and barriers to implementation. Descriptive statistics and chi-square tests were used to characterize the results.
 Results:
 A total of 1010 companies participated in the study. Overall, 17.0% reported that they were aware of the Standard; 1.7% and 20.3% reported that their organizations had implemented the entirety or elements of the Standard, respectively; and 71.4% of participants believed that elements of the Standard would be implemented within the next year. The perceived effects associated with implementation of the Standard included increased job satisfaction and

employee retention while the greatest barrier to implementing the Standard was the belief that psychological health and safety are irrelevant in the workplace.

Conclusions:

Many Canadian employers are still unaware of the Standard's existence; however, most Canadian employers are positively inclined toward the Standard in its potential to help employee productivity and job satisfaction.

Title **Does paid vacation leave protect against depression among working Americans? A national longitudinal fixed effects analysis**

Author/s Kim, D

Source *Scandinavian journal of work and environmental health* 2019 45 1 22-32
doi:10.5271/sjweh.3751

Abstract Objectives The United States is the only advanced economy globally that does not guarantee its workers paid vacation leave. Although empirical studies have linked paid vacation leave to happiness and stress, no study has investigated the association between paid vacation leave and depression. Using a nationally-representative longitudinal sample of 3380 working men and women aged 45–52 years from the National Longitudinal Survey of Youth 1979, this study explored whether paid vacation leave may protect against depression.
Methods Multivariate linear and logistic regression models were employed to estimate the impacts of the number of annual paid vacation days of leave measured at age 40 on depression measured using the 7-item Center for Epidemiologic Studies Depression Scale short form (CES-D-SF) scale at age 50. Models were adjusted for demographic and socioeconomic factors, physical health, weekly hours, and individual fixed effects.
Results For every ten additional days of paid vacation leave, the odds of depression in women was 29% lower [odds ratio (OR) 0.71, 95% confidence interval (CI) 0.55–0.92, P=0.01]; there was no association in men. Linear regression models showed no association in either men or women. For every 10 days of paid leave, the odds of depression were 36% lower in White women and 38% lower in women with ≥2 children.
Conclusions This study provides the first evidence on the linkage between paid vacation leave and depression, and supports a protective effect in White women with ≥2 children. Should this association be truly causal, and assuming a uniform effect across all ages in working adult women, the results from this study would suggest that a hypothetical increase in the average number of days of paid vacation leave of 10 days could avoid an estimated 568 442 cases of depression in women each year and lead to a cost savings of US\$2.94 billion annually. Policies that mandate paid vacation leave may have marked positive impacts on the population health and economic burden of depression among working women in the USA.

[Weblink](#)

Title **Exploring the role of mental health first aid officers in workplaces: A qualitative study using case study methodology**

Author/s Bovopoulos, N et al

Source *International journal of workplace health management.* 2018 11 6 .366-381
<https://doi.org/10.1108/IJWHM-06-2018-0082>

Abstract Purpose: An emerging trend in Australian workplaces is to appoint staff trained in mental health first aid as mental health first aid officers (MHFAOs), similar to physical first aid officers (PFAOs) focused on physical health emergencies. The purpose of this paper is to better understand the nature of MHFAO roles in workplaces and develop recommendations for other workplaces.
Design/methodology/approach: A case study methodology was used, with semi-structured qualitative interviews conducted with multiple individuals within five diverse

organisations.

Findings: The results indicated that organisations tended to differ in their approach to implementation, based on their level of experience. There was a strong agreement across organisations on the benefits and challenges they have experienced with the role.

Practical implications: Organisational representatives highlighted some important differences between PFAO and MHFAO roles. Respondents across all organisations agreed that MHFA training should ideally be offered to all staff if feasible, not only MHFAOs. The greatest challenge experienced by respondents was inadequate support to, and internal resourcing for, MHFAO roles. Respondents suggested that workplaces provide more support and training to MHFAOs.

Originality/value: This is the first study to explore and describe the experiences of workplaces with MHFAOs. Recommendations are made to assist interested organisations in these efforts.

Title **How managers experience situations involving employee mental ill-health**

Author/s Martin, A Woods, M Dawkins, S

Source *International journal of workplace health management* 2018 11 6 442-463
<https://doi.org/10.1108/IJWHM-09-2017-0069>

Abstract Purpose: Mental health conditions such as depression are prevalent in working adults, costly to employers, and have implications for legal liability and corporate social responsibility. Managers play an important role in determining how employees' and organizations' interests are reconciled in situations involving employee mental ill-health issues. The purpose of this paper is to explore these situations from the perspective of managers in order to develop theory and inform practice in workplace mental health promotion.

Weblink Design/methodology/approach: Semi-structured interviews were conducted with 24 Australian managers who had supervised an employee with a mental health issue. Interview transcripts were content analyzed to explore themes in managers' experiences. Findings: Managing an employee with a mental health issue involves becoming aware of the issue, taking action to understand the situation and develop an action response, implementing the response and managing the ongoing situation. Each of these tasks had a range of positive and negative aspects to them, e.g., managing the situation can be experienced as both a source of stress for the manager but also as an opportunity to develop greater management skills.

Practical implications: Understanding line managers' experiences is critical to successful implementation of HR policies regarding employee health and well-being. HR strategies for dealing with employee mental health issues need to consider implementation support for managers, including promotion of guiding policies, training, emotional support and creating a psychosocial safety climate in their work units or teams.

Originality/value: The insights gained from this study contribute to the body of knowledge regarding psychosocial safety climate, an emergent theoretical framework concerned with values, attitudes and philosophy regarding worker psychological health. The findings also have important implications for strategic human resource management approaches to managing mental health in the workplace.

Title **Longitudinal associations between organizational change, work-unit social capital, and employee exit from the work unit among public healthcare workers: a mediation analysis**

Author/s Jensen, JH et al

Source *Scandinavian journal of work and environmental health* 2019 45 1 53-62
doi:10.5271/sjweh.3766

Abstract Objectives Organizational changes are associated with higher rates of subsequent employee exit from the workplace, but the mediating role of social capital is unknown. We examined the associations between organizational changes and subsequent employee exit from the work unit and mediation through social capital.

Methods Throughout 2013, 14 059 healthcare employees worked in the Capital Region of Denmark. Data on work-unit changes (yes/no) from July–December 2013 were collected via a survey distributed to all managers (merger, split-up, relocation, change of management, employee layoff, budget cuts). Eight employee-reported items assessing social capital were aggregated into work-unit measures (quartiles: low-high). Data on employee exit from the work unit in 2014 were obtained from company registries.

Results We found a somewhat higher rate of employee exit from the work unit after changes versus no changes [hazard ratio (HR) 1.10, 95% confidence interval (CI) 1.01–1.19] and an inverse dose–response relationship between social capital and employee-exit rates (low versus high: HR 1.65, 95% CI 1.46–1.86). We also showed a higher risk of low social capital in work units exposed to changes [low versus high: odds ratio (OR) 2.04, 95% CI 1.86–2.23]. Accounting for potential mediation through social capital seemed slightly to reduce the association between changes and employee-exit rates (HR 1.07, 95% CI 0.98–1.16 versus HR 1.10).

[Weblink](#) Conclusions Work-unit organizational changes prospectively predict lower work-unit social capital, and lower social capital is associated with higher employee-exit rates. Detection of weak indications of mediation through social capital, if any, were limited by inconsistent associations between changes and employee exit from the work unit

Title **Return to work after long-term sick leave: stories of employed women with common mental disorders**

Author/s Wall, E Selander, J

Source [International journal of disability management](#)
doi: 10.1017/idm.2018.67 Published Online on 3 December 2018

Abstract The aim of this study is to investigate the perceptions of female employees on long-term sickness absence due to common mental disorders (CMDs), in relation to what they perceive would best help them to return to work. Data were collected through a survey answered by employees at a municipality in Sweden on long-term sick leave. Results of the current study are based on a part of that material, namely from 56 women with CMDs who responded to the final open question. The analysis involves two steps. Initially, we explored themes that form the accounts in the findings. Secondly, based on the themes, collective narratives, storylines were identified. Three different storylines were found to be prominent in the findings. The storylines describe how the participants collectively expressed themselves in relation to the possibilities for return to work, and the following storylines were derived: It feels like too much, Things are moving too fast, and I have to get out of here!. The findings are related to perceived demands, control and support. From a disability management perspective, we have learned the importance of restoring the balance between demands, control and support — not only to prevent absence from work, but also to facilitate return to work after a period of long-term sickness.

[Weblink](#)

Title **Toward effective work accommodations for depression: examining the relationship between different combinations of depression symptoms and work productivity losses**

Author/s Dewa, C S et al

Source *Journal of occupational and environmental medicine* [January 2019 61 1 75–80](#) doi: 10.1097/JOM.0000000000001486

Abstract Objective: Heterogeneity of depression experiences has led to suggestions that interventions focus on depression symptom combinations rather than depression severity alone. Our analyses explore the question, “What is the relationship between different combinations of depression symptoms and work productivity losses?”

Methods: These analyses use a population-based sample of 2219 working adults. Using the PHQ-8 items, cluster analysis methods were used to identify depression symptom clusters. The Work Limitations Questionnaire's four work productivity loss dimensions were regressed on the identified depression symptoms clusters.

Results: The symptoms clusters of workers with mild to moderate depression had significant but similar work productivity losses. However, the symptom combinations within these clusters of workers varied.

[Weblink](#) Conclusion: To create effective work accommodations, attention should focus on the combinations of depression symptoms and specific job characteristics rather than severity alone.

Title **Trajectories of return to work among people on sick leave with mood or anxiety disorders: secondary analysis from a randomized controlled trial**

Author/s Hellström, L., Madsen, T., Nordentoft, M. et al

Source *Journal of occupational rehabilitation* December 2018 28 4 666-677 <https://doi.org/10.1007/s10926-017-9750-x>

Abstract Purpose The return to work (RTW) of people with mood and anxiety disorders is a heterogeneous process. We aimed to identify prototypical trajectories of RTW over a two-year period in people on sick leave with mood and anxiety disorders, and investigate if socio-demographic or clinical factors predicted trajectory membership.

Methods We used data from the randomized IPS-MA trial (n = 283), evaluating a supported employment intervention for participants with recently diagnosed mood or anxiety disorders. Information on “weeks in employment in the past 6 months” was measured after 1/2, 1, 1 ½ and 2 years, using data from a nationwide Danish register (DREAM). Latent growth mixture modelling analysis was carried out to identify trajectories of RTW and logistic regression analyses were used to estimate predictors for trajectory membership.

Results Four trajectory classes of RTW were identified; non-RTW [70% (196/283)] (practically no return to work); delayed-RTW [19% (56/283)] (6 months delay before full RTW); rapid-unstable-RTW [7% (19/283)] (members rapidly returned to work, but only worked half the time); and the smallest class, rapid-RTW [4% (12/283)] (members rapidly reached full employment, but later experienced a decrease in weeks of employment). Self-reported disability score according to the SDS, not living with a partner, and readiness to change on the CQ scale were found to be significantly associated with RTW.

Conclusion The trajectories identified support that many do not benefit from vocational rehabilitation, or experience difficulties sustaining employment; enhanced support of this patient group is still warranted.

Title **Models of first responder coping: Police officers as a unique population**

Author/s Arble, E Daugherty, AM Arnetz, BB

Source *Stress & health* December 2018 612-621

Abstract The term “first responders” refers to a range of professional occupations, including police officers, fire fighters, search and rescue personnel, ambulance personnel, and military personnel. Research by the present authors has developed empirical models of first responder coping, identifying 2 coping pathways with differential outcomes: approach and

avoidance coping. The present investigation considers police officers as a unique group and measures the extent to which police officers differ from other first responders in coping behaviours following trauma, based upon a nationally representative survey of 917 Swedish police officers. Although the model of coping behaviours following trauma and the effects on well-being displayed several similarities between police officers and other first responders, there was compelling evidence to suggest that there are professionally bound aspects of psychological coping, resilience, and well-being that merit further exploration. Among police officers, for example, avoidant coping was related to worse well-being, and police officers reported greater consequence to well-being related to substance use than other first responders. The unique aspects of police officer coping in comparison with other first responder groups are explored.

[Weblink](#)

Title **What is a psychosocial work environment? Editorial**

Author/s Rugulies, R

Source *Scandinavian journal of work and environmental health* 2019 45 1 1-6 doi: 10.5271/sjweh.3792

Abstract The term “psychosocial work environment” appears frequently in research articles, including those published in the *Scandinavian Journal of Work, Environment and Health* (1–8). Recently, the first international handbook on the emerging field of “psychosocial epidemiology” extensively addressed the contribution of psychosocial working conditions to health and illness (9).

There is, however, also a controversial debate pertaining to the meaning of the word “psychosocial” and whether it might enhance a focus on psychological phenomena and draw attention away from the work environment (10). Such concerns recently motivated the Swedish Work Environment Authority to remove the term psychosocial work environment when they published their new provision on the organizational and social work environment:

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Title **Work disability trajectories among individuals with a sick-leave spell due to depressive episode ≥ 21 days: a prospective cohort study with 13-month follow up**

Author/s Farrants, K., Friberg, E., Sjölund, S. et al.

Source [Journal of occupational rehabilitation](#) December 2018 28 4 678-690 <https://doi.org/10.1007/s10926-017-9751-9>

Abstract **Background** Despite the increasing pattern of sick leave associated with depression in western countries, little is known about future work disability patterns among such sickness absentees. **Aim** To identify work disability (sick leave and disability pension) trajectories after the 21st day of a sick-leave spell due to depressive episode, and to investigate sociodemographic and morbidity characteristics of individuals in different trajectory groups. **Methods** This is a prospective cohort study using Swedish nationwide register data. We studied future work disability days (mean net days of sick leave and disability pension per month) among all individuals with a new sick-leave spell due to depressive episode (ICD-10 F32) ≥ 21 days during the first 6 months of 2010 ($n = 10,327$). Using group-based trajectory modeling, we identified work disability trajectories for the following 13 months. BIC value, group sizes, and average group probability were used to determine number of trajectories. Sociodemographic and morbidity characteristics were compared by χ^2 tests. **Results** We identified six trajectories of work disability: “decrease to 0 after 4 months” (43% of the cohort); “decrease to 0 after 9 months” (22%); “constant high” (11%); “decrease, then high increase” (9%); “slow decrease” (9%); and “decrease, then low increase” (6%). Those in the groups “constant high” and “decrease then high increase” were older and had the highest proportion with sick leave the year before. **Conclusion** A majority of the cohort (65%) had no work disability by the end of follow up.

[Weblink](#) Sociodemographic and morbidity characteristics differed between trajectory groups among people on sick leave due to a depressive episode.

Title **Workplace mental health training in healthcare: key ingredients of implementation**

Author/s Moil, SE et al

Source *Canadian journal of psychiatry* December 2018 63 12, 834-841

Abstract Despite growing awareness of the importance of workplace mental health training and an increasing number of educational resources, there is a gap in knowledge regarding what shapes training effectiveness. The purpose of this study was to compare and describe the active ingredients of 2 workplace mental health education programs for health care workers. **Methods:** Within the context of a randomized clinical trial, a multimethod process evaluation was conducted to explore key process elements shaping implementation outcomes: the innovation, service recipients, service providers, and the organizational context. Data collection included descriptive statistics regarding program participation, postprogram interviews with a purposive sample of 18 service recipients, 182 responses to open-ended questions on postgroup and follow-up surveys, and field journal reflections on the process of implementation. Data analysis was informed by an interpretive description approach, using a process evaluation framework to categorize responses from all data sources, followed by within and cross-case comparison of data from both programs. **Results:** Five key forces shaped the implementation and perceived outcomes of both programs: a contact-based education approach, information tailored to the workplace context, varied stakeholder perspectives, sufficient time to integrate and apply learning, and organizational support. The Beyond Silence program provided more opportunity for contact-based education, health care-specific content, and in-depth discussion of diverse perspectives. **Conclusions:** To increase mental health literacy and reduce stigma, workplace training should be based on best practice principles of contact-based education, with contextually relevant examples and support from all levels of the organization.

Title **How managers experience situations involving employee mental ill-health**

Author/s [Martin,A](#) [Woods,M](#) [Dawkins,S](#)

Source *International journal of workplace health management* 2018 11 6 442-463
<https://doi.org/10.1108/IJWHM-09-2017-0069>

Abstract Purpose: Mental health conditions such as depression are prevalent in working adults, costly to employers, and have implications for legal liability and corporate social responsibility. Managers play an important role in determining how employees' and organizations' interests are reconciled in situations involving employee mental ill-health issues. The purpose of this paper is to explore these situations from the perspective of managers in order to develop theory and inform practice in workplace mental health promotion.

[Weblink](#) Design/methodology/approach: Semi-structured interviews were conducted with 24 Australian managers who had supervised an employee with a mental health issue. Interview transcripts were content analyzed to explore themes in managers' experiences. Findings: Managing an employee with a mental health issue involves becoming aware of the issue, taking action to understand the situation and develop an action response, implementing the response and managing the ongoing situation. Each of these tasks had a range of positive and negative aspects to them, e.g., managing the situation can be experienced as both a source of stress for the manager but also as an opportunity to develop greater management skills.

Practical implications: Understanding line managers' experiences is critical to successful implementation of HR policies regarding employee health and well-being. HR strategies for dealing with employee mental health issues need to consider implementation support for managers, including promotion of guiding policies, training, emotional support and creating a psychosocial safety climate in their work units or teams.

Originality/value: The insights gained from this study contribute to the body of knowledge regarding psychosocial safety climate, an emergent theoretical framework concerned with values, attitudes and philosophy regarding worker psychological health. The findings also have important implications for strategic human resource management approaches to managing mental health in the workplace.

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PUBLIC SECTOR

Title **A Commonwealth Integrity Commission – proposed reforms**

Author/s Attorney- General's Department

Source Attorney- General's Department

Abstract The Australian Government proposes to establish a Commonwealth Integrity Commission (CIC) to detect, deter and investigate suspected corruption and to work with agencies to build their resilience to corruption and their capability to deal with corrupt misconduct. People, projections, and payments: modern government service delivery

[Weblink](#)

Title **Actuaries digital**

Author/s Miller, H

Source Actuaries digital January 2019

Abstract An outline of the benefits of improved data linkage and outcome collection, and transparency in how government uses data, to the effective spending of \$300bn per year on welfare services.

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Title **State of the Service Report 2017-18**

Author/s

Source [2017–18 State of the Service Report](#) (SOSR)

Abstract The 2017–18 SOSR has been structured around the themes of culture, capability and leadership. It is informed by data from the annual Australian Public Service (APS) agency survey and APS employee census, as well as the APS employment database.

[Weblink](#) The report highlights the changing APS context and the need to adapt to ensure fitness-for-purpose into the future.

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REHABILITATION

Title **Analysis of time in rehabilitation and incidence of successful rehabilitation within individuals with disabilities receiving occupational/vocational training**

Author/s Langi, F.L.F.G., Balcazar, F.E. & Suarez-Balcazar, Y.

Source [*Journal of occupational rehabilitation*](#) December 2018 28 4 701-710
<https://doi.org/10.1007/s10926-017-9753-7>

Abstract Objective To investigate the incidence of successful rehabilitation, defined as 90 successive days in employment, within individuals with disabilities receiving occupational/vocational training (OVT) service.
Method The follow-up records between January 1, 2004 and December 31, 2012 of 5313 individuals aged 15–55 who obtained OVT in the vocational rehabilitation (VR) program of the State of Illinois were examined. Cox regression models were used to analyze the effect of study factors on VR outcomes.
Results After controlling for the other factors, males (incidence ratio [IR] 1.11, 95% CI 1.03–1.20), individuals with learning disability (IR 1.14, 95% CI 1.03–1.26), had existing employment (IR 1.40, 95% CI 1.26–1.56), and persons who were referred from educational institutions (IR 1.17, 95% CI 1.01–1.36) or community agencies (IR 1.30, 95% CI 1.14–1.48) appeared to have a relatively high incidence of successful rehabilitation. In contrast, those who lived in densely populated areas (IR ranged from 0.56 to 0.89), had physical disability (IR 0.77, 95% CI 0.68–0.88), had disability of most significant degree (IR 0.85, 95% CI 0.79–0.93), and persons with Supplemental Security Income/Social Security Disability Insurance supports (IR 0.84, 95% CI 0.76–0.94), tended to have a lower incidence of rehabilitation than their counterparts.
Conclusion The incidence of successful rehabilitation seems to be related to the demographic, disability, and pre-service characteristics, but not necessarily the provider factors.

Title **Is there really a “golden hour” for work disability interventions? A narrative review**

Author/s Aasdahl, L Fimland, MS

Source *Disability rehabilitation* January 2019 1-8 doi: 10.1080/09638288.2018.1503735. [Epub ahead of print]

Abstract The subacute phase of low back pain has been termed as the "golden hour" to intervene to prevent work disability. This notion is based on the literature up to 2001 and is limited to back pain. In this narrative review, we examined whether the current literature indicate an optimal time for return to work (RTW) interventions. We considered randomized controlled trials published from 1997 to April 2018 assessing effects of occupational rehabilitation interventions for musculoskeletal complaints (15 included), mental health disorders (9 included) or a combination of the two (1 included). We examined participants' sick leave duration at inclusion and the interventions' effects on RTW. Most studies reporting an effect on RTW included participants with musculoskeletal complaints in the subacute phase, supporting that this phase could be a beneficial time to start RTW-interventions. However, recent studies suggest that RTW-interventions also can be effective for workers with longer sick leave durations. Our interpretation is that there might not be a limited time window or "golden hour" for work disability interventions, but rather a question about what type of intervention is right at what time and for whom. However, more research is needed. Particularly, we need more high-quality studies on the effects of RTW-interventions for sick listed individuals with mental health disorders. Implications for rehabilitation The subacute phase of low back pain has been termed the "golden hour" for work disability prevention. Recent evidence suggests there is a wider time-window for effective interventions, both for musculoskeletal- and common mental disorders. A stepped-care approach, starting with simpler low-cost interventions (e.g., brief reassuring interventions), before considering more

[Weblink](#) comprehensive interventions (e.g., multimodal rehabilitation), could facilitate return to work and avoid excessive treatment.

Title **Australian general practitioners' perspective on the role of the workplace Return-to-Work Coordinator**

Author/s Bohatko-Naismith, J et al

Source *Australian journal of primary health* 24 6 502-509 <https://doi.org/10.1071/PY17084>

Abstract General practitioners (GPs) play a key role in the return-to-work process, and yet their experiences working with workplace Return-to-Work Coordinators (RTWCs) have rarely been studied. The aim of this paper is to provide insights from the GP perspective about their experiences with workplace RTWCs and their preparedness for the role. GPs from Australian states and territories where legislation mandates workplaces employ a RTWC were requested to complete a questionnaire on their experiences with workplace RTWCs. Fifty GPs completed a questionnaire on the preparedness of RTWCs in relation to their role, with 58% ($n = 29$) indicating RTWCs require more training. A total of 78% ($n = 39$) of respondents considered RTWCs were important in assisting injured workers return to work, with 98% ($n = 49$) ranking trustworthiness, respectfulness and ethicalness as the most important or an important trait for a RTWC to possess. Interestingly, 40% ($n = 20$) of respondents themselves reported having no training in the return-to-work process. GPs acknowledge the importance of the workplace RTWC in the return-to-work process, and the results highlight the need for RTWCs to possess specific traits and undergo appropriate training for the facilitation of a successful return to work for injured workers.

Title **Psychometric evaluation of the improved work-disability functional assessment battery.**

Author/s Meterko, M et al

Source *Australian journal of primary health* 24 6 502-509 <https://doi.org/10.1071/PY17084>

Abstract General practitioners (GPs) play a key role in the return-to-work process, and yet their experiences working with workplace Return-to-Work Coordinators (RTWCs) have rarely been studied. The aim of this paper is to provide insights from the GP perspective about their experiences with workplace RTWCs and their preparedness for the role. GPs from Australian states and territories where legislation mandates workplaces employ a RTWC were requested to complete a questionnaire on their experiences with workplace RTWCs. Fifty GPs completed a questionnaire on the preparedness of RTWCs in relation to their role, with 58% ($n = 29$) indicating RTWCs require more training. A total of 78% ($n = 39$) of respondents considered RTWCs were important in assisting injured workers return to work, with 98% ($n = 49$) ranking trustworthiness, respectfulness and ethicalness as the most important or an important trait for a RTWC to possess. Interestingly, 40% ($n = 20$) of respondents themselves reported having no training in the return-to-work process. GPs acknowledge the importance of the workplace RTWC in the return-to-work process, and the results highlight the need for RTWCs to possess specific traits and undergo appropriate training for the facilitation of a successful return to work for injured workers.

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Author/s Meterko, M et al

Source *Archives of physical medicine and rehabilitation*. 2018 Dec 19. pii: S0003-9993(18)31526-0. doi: 10.1016/j.apmr.2018.09.125

Abstract Objective: To assess psychometric properties of the improved Work Disability Functional Assessment Battery (WD-FAB 2.0).
Design: Longitudinal study SETTING: Community PARTICIPANTS: Three samples of working-age (21-66) adults: (1) unable to work because of a physical condition (n=375); (2) unable to work because of a mental health condition (n=296); (3) general US working age sample (n=335)
Intervention: NA main outcome measures: All samples completed the WD-FAB 2.0; the second administration came 5 days after the first. Construct validity was examined by convergent and divergent correlational analysis using legacy measures. Test-retest reliability was assessed by intraclass correlation coefficients (ICC3,1). Standard error of measurement (SEM) and minimal detectable change (MDC90) were calculated to measure scale precision and sensitivity.
Results: Physical function ICCs ranged from 0.69 to 0.77 in the general sample, and 0.66 to 0.86 in the disability sample. Mental health function scales ICCs ranged from 0.62 to 0.73 in the general sample, and 0.74 to 0.76 in the disability sample. SEMs for all scales indicated good discrimination; those for the physical function scales were generally lower than those for the mental health scales. MDC90 values ranged from 3.41 to 10.55. Correlations between all WD-FAB 2.0 scales and legacy measures were in the expected direction.
Conclusions: The study provides substantial support for the reliability and construct validity of the WD-FAB 2.0 among three diverse samples. Although initially developed for use within the Social Security Administration, these results suggest that the WD-FAB 2.0 could be used for assessment and measurement of work-related physical and mental health function in other contexts as well.

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RESILIENCE

Title **The emergence of team resilience: A multilevel conceptual model of facilitating factors**

Author/s Gucciardi, DF et al

Source *Journal of occupational and organization psychology* December 2018 91 _4
Pages 729-768 <https://doi.org/10.1111/joop.12237>

Abstract With empirical research on team resilience on the rise, there is a need for an integrative conceptual model that delineates the essential elements of this concept and offers a heuristic for the integration of findings across studies. To address this need, we propose a multilevel model of team resilience that originates in the resources of individual team members and emerges as a team-level construct through dynamic person–situation interactions that are triggered by adverse events. In so doing, we define team resilience as an emergent outcome characterized by the trajectory of a team's functioning, following adversity exposure, as one that is largely unaffected or returns to normal levels after some degree of deterioration in functioning. This conceptual model offers a departure point for future work on team resilience and reinforces the need to incorporate inputs and process mechanisms inherent within dynamic interactions among individual members of a team. Of particular importance is the examination of these inputs, process mechanisms and emergent states, and outcomes over time, and in the context of task demands, objectives, and adverse events.
Practitioner points:
Team resilience as a dynamic, multilevel phenomenon requires clarity on the individual- and team-level factors that foster its emergence within occupational and organizational settings. An understanding of the nature (e.g., timing, chronicity) of adverse events is key to studying and intervening to foster team resilience within occupational and organizational settings.

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RETURN TO WORK

- Title** **Benefit duration and return to work outcomes in short term disability insurance programs: evidence from temporary disability insurance program**
- Author/s** Bourbonniere, A.M. & Mann, D.R.
- Source** [Journal of occupational rehabilitation](#) December 2018 28 4 597-609 <https://doi.org/10.1007/s10926-018-9779-5>
- Abstract** Purpose The Workforce Innovation and Opportunity Act strengthens the vocational rehabilitation program's focus on providing early intervention services to keep workers with disabilities in the workforce. At the same time, some have suggested that short-term disability insurance (STDI) programs may hold promise as an early intervention service, helping people with disabilities stay in the labor force and avoid needing longer-term benefits. Rhode Island is one of five states with a mandatory STDI program. We examine the extent to which Rhode Island STDI claimant characteristics are correlated with partial return-to-work (PRTW) benefit receipt and certain STDI benefit receipt duration measures. Methods Our study used administrative data from 2011 to 2014 to explore Rhode Island's STDI program—called the Temporary Disability Insurance program—and regression analysis to estimate the correlations of interest. Results Regression adjusted estimates revealed that claimants opting to receive PRTW benefits earned more and received benefits for fewer weeks than claimants opting to not receive PRTW benefits. We also observed significant correlations between duration of benefit receipt and claimant characteristics such as diagnosis and treating healthcare provider specialty. Conclusions Findings suggest that STDI claimants with certain characteristics are more likely to receive benefits for a long duration or not receive PRTW benefits, signaling that they might benefit from early Vocational Rehabilitation supports and services that would allow them to remain productive members of the workforce and avoid long term benefit receipt.
- [Weblink](#)

- Title** **Expectations for return to work after workplace injuries: the relationship between estimated time to return to work and estimate accuracy**
- Author/s** Young, A.E., Besen, E. & Willetts, J.
- Source** [Journal of occupational rehabilitation](#) December 2018 28 4 711-720 <https://doi.org/10.1007/s10926-018-9754-1>
- Abstract** Purpose Worker's expectations for return to working have been found to relate to return-to-work (RTW) outcomes; however, it is unclear if this varies depending upon the expected time to RTW. To advance the understanding of the relationship between expectations and RTW, we set out to answer the following research questions: Are shorter estimated times to RTW more accurate than estimates that are longer of duration? In addition, we sought to determine if there was a point in time that coincides with RTW estimates no longer being reliably related to time to RTW. Methods We utilized workers' compensation data from a large, United States-based insurance company. Injured workers' (N = 15,221) expectations for returning to work were compared with the termination of their total temporary indemnity payments. A linear regression model was used to determine if shorter lengths of expected time to RTW were more accurate. Quantile regression modelling was used to determine if there was point at which the expected time to RTW no longer reliably relates to the actual time to RTW. Results Findings indicated a positive relationship such that as the number of expected days to RTW increased, the number of days of difference (estimate error) between the actual time

to RTW and the expected time to RTW also increased ($\beta = 0.34$, $P < .001$). The results of the quantile regression modelling indicated that for all quantiles estimated, with the exception of the quantile for estimates of 360 days, the relationship between the actual time to RTW and the expected time to RTW were statistically significant ($P < .05$). However, for RTW estimates of more than 14 days the relationship began decreasing in strength. Conclusion Results indicate that injured workers' expectations for RTW can be used for RTW forecasting purposes. However, it is the case that RTW events in the near future can be forecasted with higher accuracy than those that are more distant, and that in general, injured workers will underestimate how long it will take them to RTW.

Title **The experiences of workers who do not successfully return to work following a work-related injury**

Author/s Gewurtz, RE et al

Source *Work* 2018 61 4 537-549 DOI: 10.3233/WOR-182824

Abstract Background: A minority of workers with work-related injuries experience challenges returning to work. While factors that hinder return-to-work (RTW) are well-documented, the consequences of failing to successfully return to work on the lives of workers who have experienced a workplace injury remain poorly understood.
Objective: The purpose of this study is to explore the experiences of workers who do not successfully return to work following a work-related injury.
Methods: Using an interpretive approach to qualitative research and maximal variability sampling, 11 workers who have sustained work-related injuries without a successful RTW and four service providers were recruited through community organizations. Participants were interviewed using a semi-structured interview guide. A constant comparative approach was used to identify key themes across the worker and service provider experiences.
Results: The findings that emerged from the analysis capture the challenging RTW experiences of workers and describe wide ranging impacts on their lives when their workers' compensation claims are denied or discontinued, including ongoing financial strain, family tensions, subsequent health concerns, and negative employment experiences. The findings also highlight the negative consequences of existing cost-cutting frameworks that can restrict entitlement and benefits for many people with disabilities.
Conclusions: The findings from this study highlight the experiences of workers who might need additional supports throughout the RTW process, and begin to shed light on the impact on their lives when RTW is not successful

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Title **Integrating return-to-work**

Author/s Institute of Work and Health

Source Institute of Work and Health 2018

Abstract The principles defined in the guide have influenced a range of workplace practices and professional standards around the world. This case study illustrates the influence of findings of the original systematic reviews and the companion guide on the introduction of innovative practices in an occupational medicine service in the Canadian province of Ontario. Two of the seven principles are clearly expressed in these program reforms: the designation of an individual responsible for the coordination of return to work (RTW), and strengthened practices to enable communication among healthcare providers, the employer, the worker and the disability insurer concerning opportunities to return to work.
More than a decade ago, a research team at the Institute for Work & Health (IWH) completed a series of systematic literature reviews of research evidence concerning the most effective workplace approaches to support return to work for injured and ill workers. These reviews—extensively shared in the scientific community and cited more than 500 times—led to the development of the popular and widely used [Seven “Principles” for Successful Return to Work](#)

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Title **Patterns and predictors of failed and sustained return-to-work in transport injury insurance claimants**

Author/s Gray, S.E., Hassani-Mahmoei, B., Cameron, I.D. et al.

Source [Journal of occupational rehabilitation](#) December 2018 28 4 740-748
<https://doi.org/10.1007/s10926-018-9761-2>

Abstract Purpose To determine the incidence of employed people who try and fail to return-to-work (RTW) following a transport crash. To identify predictors of RTW failure.
Methods: A historical cohort study was conducted in the state of Victoria, Australia. People insured through the state-based compulsory third party transport accident compensation scheme were included. Inclusion criteria included date of crash between 2003 and 2012 (inclusive), age 15–70 years at the time of crash, sustained a non-catastrophic injury and received at least 1 day of income replacement. A matrix was created from an administrative payments dataset that mapped their RTW pattern for each day up to 3 years' post-crash. A gap of 7 days of no payment followed by resumption of a payment was considered a RTW failure and was flagged. These event flags were then entered into a regression analysis to determine the odds of having a failed RTW attempt.
Results: 17% of individuals had a RTW fail, with males having 20% lower odds of experiencing RTW failure. Those who were younger, had minor injuries (sprains, strains, contusions, abrasions, non-limb fractures), or were from more advantaged socio-economic group, were less likely to experience a RTW failure. Most likely to experience a RTW failure were individuals with whiplash, dislocations or particularly those admitted to hospital.
Conclusions: Understanding the causes and predictors of failed RTW can help insurers, employers and health systems identify at-risk individuals. This can enable earlier and more targeted support and more effective employment outcomes.

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Title **Factors influencing functional outcomes and return-to-work after amputation: a review of the literature**

Author/s Darter, B.J., Hawley, C.E., Armstrong, A.J. et al

Source [Journal of occupational rehabilitation](#) December 2018 28 4 656-665
<https://doi.org/10.1007/s10926-018-9757-y>

Abstract Purpose Amputation is a life changing event that can significantly impact an individual's physical and mental well-being. Our objective was to review literature exploring the impact of amputation upon a person's functioning and inclusion in the workplace.
Methods Medline, CINAHL, and PsycINFO were searched using keywords related to amputation, employment and community reintegration. Eligible studies were published since 2000 and one of the following study designs: randomized controlled trial, non-randomized controlled trial, retrospective study, prospective study, concurrent cohort study, or cross sectional study. Studies for civilians with amputation as well as service members and Veterans with amputation were considered for inclusion.
Results The search identified 995 articles, 25 of which met inclusion/exclusion criteria and were included in the review. While strong evidence for correlations and predictors of outcomes after amputation were limited, multiple factors were identified as contributing to physical functioning and employment after amputation.
Conclusions Outcomes after amputation can vary widely with many potentially inter-related factors contributing. The factors identified may also serve to inform the development of interventions aiming to improve functional performance and reintegration after amputation. Furthermore, the review highlights the need for more high quality prospective studies.

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SHIFT WORK

Title **The effect of shift work on eating habits: a systematic review**

Author/s Souza, RV et al

Source *Scandinavian journal of work environment and health* 2019 45 1 7-21
doi:10.5271/sjweh.3759

Abstract Objective This systematic review aimed to evaluate the association between shift work and eating habits.
Methods The protocol was registered in PROSPERO (number 42015024680). PubMed, EMBASE, Scopus, and Web of Science were searched for published reports. Of 2432 identified articles, 33 observational studies met the inclusion criteria. Their methodological approaches were assessed using the Newcastle-Ottawa Scale. Data were extracted using a standardized form. Studies were considered to have a low or a high risk of bias according to a percentage score of quality.
Results: The majority of the studies presented a quality score of <70% and a high risk of bias for comparability, sample selection and non-respondents. Shift workers show changes in meal patterns, skipping more meals and consuming more food at unconventional times. They also show higher consumption of unhealthy foods, such as saturated fats and soft drinks.
Conclusions This review suggests that shift work can affect the quality of workers' diets, but new studies, especially longitudinal studies, which examine the time of exposure to shift work, the duration of the workday and sleep patterns, are necessary to confirm this association.

Title **Expert system application for prioritizing preventive actions for shift work: shift expert**

Author/s Esen, Hatice et al

Source *International journal of occupational safety and ergonomics* 2019 25:1, 123-137, DOI: 10.1080/10803548.2017.1350392

Abstract Introduction. Shift patterns, work hours, work arrangements and worker motivations have increasingly become key factors for job performance. The main objective of this article is to design an expert system that identifies the negative effects of shift work and prioritizes mitigation efforts according to their importance in preventing these negative effects. The proposed expert system will be referred to as the shift expert.
Methods. A thorough literature review is conducted to determine the effects of shift work on workers. Our work indicates that shift work is linked to demographic variables, sleepiness and fatigue, health and well-being, and social and domestic conditions. These parameters constitute the sections of a questionnaire designed to focus on 26 important issues related to shift work. The shift expert is then constructed to provide prevention advice at the individual and organizational levels, and it prioritizes this advice using a fuzzy analytic hierarchy process model, which considers comparison matrices provided by users during the prioritization process. An empirical study of 61 workers working on three rotating shifts is performed. After administering the questionnaires, the collected data are analyzed statistically, and then the shift expert produces individual and organizational recommendations for these workers.

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Title **Diet, physical activity, and daylight exposure patterns in night-shift workers and day workers**

Author/s Lagenberg, et al

Source *Annals of work exposures and health* January 2019 63 1 9-21
<https://doi.org/10.1093/annweh/wxy097>

Abstract Background: Night-shift work has been reported to have an impact on nutrition, daylight exposure, and physical activity, which might play a role in observed health effects. Because these exposures show diurnal variation, and shift work has been related with disturbances in the circadian rhythm, the timing of assessment of these factors requires careful consideration. Our aim was to describe the changes in patterns of diet, physical activity, and daylight exposure associated with night-shift work.

Methods: We conducted an observational study among female healthcare workers either regularly working night shifts or not working night shifts. We assessed physical activity and daylight exposure using continuous monitoring devices for 48 h. We logged dietary patterns (24 h) and other health- and work-associated characteristics. Two measurement sessions were conducted when participants did 'not' work night shifts, and one session was conducted during a night-shift period.

Results: Our study included 69 night-shift workers and 21 day workers. On days in which they conduct work but no night work, night-shift workers had similar physical activity and 24-h caloric intake, yet higher overall daylight exposures than day workers and were more often exposed around noon instead of mainly around 1800h. Night-shift workers were less exposed to daylight during the night-shift session compared to the non-night-shift session. Total caloric intakes did not significantly differ between sessions, but we did observe a shorter maximum fasting interval, more eating moments, and a higher percentage of fat intake during the night-shift session.

Conclusion: Observed differences in diet, physical activity, and exposure to daylight primarily manifested themselves through changes in exposure patterns, highlighting the importance of time-resolved measurements in night-shift-work research. Patterns in daylight exposure were primarily related to time of waking up and working schedule, whereas timing of dinner seemed primarily governed by social conventions.

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Title **Shift work – change from semi-continuous to continuous system**

Author/s [Soares Silva, I](#) [Bastos, R](#)

Source Journal of Organizational Change Management, 2018 Vol. 31 Issue: 7, pp.1461-1470, <https://doi.org/10.1108/JOCM-11-2017-0431>

Abstract Purpose: The purpose of this paper is to understand workers' resistance toward change from a semi-continuous (SCW) to a continuous shift work system (CW), especially focusing the perspective of change and its impact on workers' personal lives.

Design/methodology/approach: A case study was conducted at a Portuguese steel plant. A questionnaire was administered to 98 shift workers of the two systems, three focus groups (FG) each with ten CW workers, and three interviews with their managers.

Findings: The results of the FG and the interviews indicate the loss of days off during weekends as the main drawback of this change, leading to work schedule dissatisfaction. The consequences of the change focused on social and family life. For the CW workers, the conciliation between working hours and life outside the company were the only predictors of satisfaction with work schedule.

Research limitations/implications: The cross-sectional design is one of the main limitations, as well the use of only one organization in the study suggests future replication. Organizations need to consider the aspects of family and social life in the management of working hours.

Originality/value: Globally, this case study highlights the importance of family and social aspects in the adjustment process to working hours, especially when these involve performing work on the weekends, such as shift work.

Title **Shift worker health and safety: experts say collaboration and innovation key to stemming risks**

Author/s Druley, K

Source *Safety + health* January 2019 199 1

Abstract The ongoing demand for round-the-clock services fuels many industries. Enter shift work, which is a way of life for nearly 15 million Americans, data from the Bureau of Labor Statistics shows. The prevalence of shift work has spurred multiple studies on its potential adverse effects on employee health and safety.

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TECHNOLOGY

Title **Definition, symptoms and risk of techno-stress: a systematic review**

Author/s La Torre, G., Esposito, A., Sciarra, I. et al.

Source *International archives of occupational and environmental health* 2019 92: 13.
<https://doi.org/10.1007/s00420-018-1352-1>

Abstract Purpose: Techno-stress (TS) is an emergent phenomenon closely related to the pervasive use of information and communication technologies in modern society. Despite numerous studies existing in the literature, only few comprehensive reviews have been performed, which has led to fragmented information about TS. This systematic review aimed to clarify the definition, the symptoms, and the risk factors of TS, focusing on the differences between work-related and non-work-related sources of TS.

Methods: A comprehensive literature review of three electronic databases was performed according to the PRISMA statement. 'Technostress' was used as the only keyword.

Results: In the qualitative synthesis, 105 studies were included: 84 cross-sectional studies, 8 experimental studies and 13 reviews (11 narrative and 2 systematic reviews). 70 studies (67%) addressed work-related TS, 26 (25%) addressed non-work-related TS, while 8 (8%) did not differentiate between work and non-work fields. The presence and level of TS among individuals was described in 38 studies (29%), whilst the techno-stressors, and the consequences of TS, were described in 53 studies (51%). The antecedents of TS were reported in 47 studies (45%), its moderators in 40 studies (38%), whilst its symptoms in only 11 studies (10%).

Conclusions: TS affects both professional and private life. It can determine a reduction in job and life satisfaction and in productivity, and is often associated to the occurrence of psychological and behavioral disorders. Efforts should be made to recognize situations with a high risk of causing TS, to prevent its progressive development in a prospective way using mainly cohort studies.

Title **Australia's tech future: delivering strong, safe and inclusive digital economy**

Author/s Department of Industry

Source Department of Industry

Abstract Digital technologies will deliver benefits across the economy and society The opportunities afforded by digital technologies are not constrained to technology-based companies and start-ups – they can add value across all parts of the economy. For businesses, these technologies have the potential to help develop new products, access new markets, work more efficiently and improve the bottom-line, better target consumer preferences through use of data, and deliver safer working environments

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Title **Digital health: creating a new growth industry for Australia : strengths, opportunities, constraints and barriers to the commercialisation of evidence based digital health technologies in Australia**

Author/s ANDHealth

Source ANDHealth

Abstract This whitepaper represents the views of a diverse group of senior executives from across the Australian healthcare industry who were brought together in a series of roundtable consultations conducted in late 2017. These meetings were held to discuss the strengths, opportunities, constraints and barriers in Australia with respect to creating an integrated ecosystem for the development, commercialisation and implementation of digital health technologies, as the foundation of a thriving, international digital health industry. Four roundtables were convened to explore interrelated but diverse areas relevant to creating an ecosystem within which both digital health innovation and commercialisation can prosper. The four key areas explored were: · Technology development · Regulation · Investment · Market entry / Implementation Following the roundtables, interviews were conducted through the first half of 2018 with thought leaders from a variety of industry subsectors, from organisations both large and small including venture capital, life sciences, pharmaceuticals, health IT, software, technology, legal, government, policy and regulation.

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Title **2019 AI predictions: six priorities you can't afford to ignore.**

Author/s PwC

Source PwC 2018

Abstract This report surveyed 1000 executives at US companies that are currently investigating or implementing artificial intelligence initiatives. Of these AI leaders, one-fifth plan to take the technology organisation-wide in the coming year.

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Title **AI introduction**

Author/s Forbes

Source Forbes insights 03

Abstract Forbes Insights and Intel are spending a year, across six issues, probing the dynamic world of artificial intelligence. Issue 03 takes a deep dive on AI in the workplace

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Title **Smart buildings**

Author/s Wellener, P et al

Source Deloitte insights December 2018

Abstract The confluence of the Internet of Things (IoT) with building operations and the future of the workplace is creating a significant opportunity for building owners, operators, and occupants to create smart, digitally connected spaces that support the people at their center. Business leaders are increasingly interested in creating a strategy for managing their buildings that reflects the digital transformation taking place throughout their business. Those that do may outpace their competitors in key areas such as employee attraction and retention, operating cost savings, and operational risk mitigation.

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VOCATIONAL REHABILITATION

Title **Strengthened general self-efficacy with multidisciplinary vocational rehabilitation in women on long-term sick leave: a randomised controlled trial**

Author/s Andersén, Å., Larsson, K., Lytsy, P. et al.

Source [Journal of occupational rehabilitation](#) December 2018 28 4 691-700
<https://doi.org/10.1007/s10926-017-9752-8>

Abstract Purpose To investigate the effects of two vocational rehabilitation interventions on self-efficacy, for women on long-term sick leave \geq 1 year due to chronic pain and/or mental illness.
Methods This study uses data from a randomised controlled trial consisting of two phases and comprising 401 women on long-term sick leave. They were allocated to either (1) a multidisciplinary team assessment and multimodal intervention (TEAM), (2) acceptance and commitment therapy (ACT), or (3) control group. Data were collected through repeated measurements from self-reported questionnaires before intervention, 6 and 12 months later and registry data. Data from measurements of general self-efficacy, sociodemographics, anxiety and depression were analysed with linear regression analyses.
Results During the intervention period, the women in the TEAM group's self-efficacy mean increased from 2.29 to 2.74. The adjusted linear regression model, which included group allocation, sociodemographics, self-efficacy pre-treatment, anxiety and depression showed increased self-efficacy for those in the TEAM intervention at 12 months ($B = 0.25$, 95% CI 0.10–0.41). ACT intervention had no effect on self-efficacy at 12 months ($B = 0.02$, 95% CI – 0.16 to 0.19). The results in the adjusted model also showed that higher self-efficacy at pre-treatment was associated with a higher level of self-efficacy at 12 months ($B = 0.68$, 95% CI 0.54–0.81).
Conclusion A multidisciplinary team assessment and multimodal intervention increased self-efficacy in women on sick leave for an extremely long time (mean 7.8 years) who had a low mean level of self-efficacy prior to inclusion. Thus, self-efficacy needs to be addressed in vocational rehabilitation.

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WORK HEALTH AND SAFETY

Title **Assessment of confined space entry and rescue training for aircraft rescue and firefighting (ARFF) members in the United States**

Author/s Smith, Todd D et al

Source *Journal of safety research* December 2018 67 77-82

Abstract Within ARFF organizations, gaps exist between current confined space training practices and standards and best practices.
AARFF organizations should bolster aspects of their confined space training programs to enhance confined space safety.
ARFF organizations should standardize confined space training and practice rescues to bolster training effectiveness.
Introduction: Fire and emergency service workers, including Aircraft Rescue and Fire Fighting members, may be called on to perform confined space entry and rescue operations. The purpose of the present study was to develop a comprehensive and valid understanding of the

present state of confined space entry and rescue training effectiveness and resultant compliance or use of **best practices** among trained Aircraft Rescue and Fire Fighting personnel.

Method: The study used a convergent, parallel mixed-methods approach. Qualitative data (n = 20) were collected via **semi-structured interviews** at four locations. Data were coded, analyzed and super-ordinate and sub-ordinate themes were derived. Quantitative data (n = 158) from Aircraft Rescue and Fire Fighting members were analyzed.

Results: **Interviewees** believed there is a lack of standardization in training, but believed training should not be completed in the same format every time. Several participants (50%) desired more realistic training. Other concerns were associated with staffing, personal **readiness**, and **resource adequacy**. With regard to survey outcomes, most respondents reported that their organizations completed confined space training (69.8%), but only 55.3% indicated this training was conducted as a **full-scale** exercise and nearly 40% indicated that rescue practice was not performed despite standards mandating annual rescue practice. Following training, 55.4% indicated training evaluation information was not presented.

Conclusions: Participants mostly agreed their training effectively addressed OSHA requirements, such as how to test the atmosphere, the need for and use of **personal protective equipment**, how to identify pertinent permit information and methods to retrieve victims in limited space. Some gaps exist between current training practices and established training requirements and standards.

Practical applications: Aircraft Rescue and Fire Fighting organizations need to bolster aspects of their training, particularly with regard to standardizing training efforts, practicing rescues, providing **evaluation feedback** and written materials and providing adequate resources.

Title **Census of fatal occupational injuries Summary, 2017**

Author/s Bureau of Labor Statistics December 2018

Source U.S. Bureau of Labor Statistics, Current Population Survey, Local Area Unemployment Statistics, Census of Fatal Occupational Injuries

Abstract The Census of Fatal Occupational Injuries (CFOI), part of the Bureau of Labor Statistics (BLS) Occupational Safety and Health Statistics (OSHS) program, compiles a count of all fatal work injuries occurring in the U.S. during the calendar year. The CFOI program uses diverse state, federal, and independent data sources to identify, verify, and describe fatal work injuries. This ensures counts are as complete and accurate as possible. For the 2017 data, over 23,400 unique source documents were reviewed as part of the data collection process.

Fatal injury rates are subject to sampling errors as they are calculated using employment data from the Current Population Survey (CPS), a sample of households, and the BLS Local Area Unemployment Statistics (LAUS) program. The Survey of Occupational Injuries and Illnesses (SOII), another component of the OSHS program, presents frequency counts and incidence rates by industry and also by detailed case circumstances and worker characteristics for nonfatal workplace injuries and illnesses for cases that result in days away from work.

[Weblink](#) Incidence rates by industry and case type and information on case circumstances and worker characteristics for 2017 were published in November 2018

Title **Characterization of occupational exposures to respirable silica and dust in demolition, crushing, and chipping activities**

Author/s Bello, A et al

Source *Annals of work exposures and health* January 2019 63 1, 7 34–44,
<https://doi.org/10.1093/annweh/wxy089>

Abstract Objectives: Exposures to respirable crystalline silica (RCS) and respirable dust (RD) were investigated during demolition, crushing, and chipping at several Massachusetts construction sites.

Methods: Personal breathing zone samples (n = 51) were collected on operating engineers

working at demolition and crushing sites, laborers performing miscellaneous tasks at demolition sites, crushing machine tenders at crushing sites, and chipping workers at substructure bridge repair sites. Area samples ($n = 33$) were collected at the perimeter of demolition and crushing sites to assess potential bystanders' exposures. Exposures 'with' and 'without' the use of dust suppression methods were compared when possible. RD samples were analyzed for crystalline silica content with Fourier Transform Infrared Spectrophotometry (FT-IR) according to the National Institute for Occupational Safety and Health (NIOSH) Method 7602. Statistical analyses of the exposure data were performed in SAS version 9.4. Results: Chipping workers had the highest exposure levels [the geometric mean (GM) time-weighted average (TWA) for RCS was $527 \mu\text{g}/\text{m}^3$ and the GM for RD was $4750 \mu\text{g}/\text{m}^3$]. The next highest exposures were among crushing machine tenders (RCS GM of $93.3 \mu\text{g}/\text{m}^3$ and RD GM of $737.6 \mu\text{g}/\text{m}^3$), while laborers and operating engineers had the lowest exposures (RCS GM of 17.0 and $6.2 \mu\text{g}/\text{m}^3$, respectively). Personal 8-h TWA RCS exposures were higher than the new OSHA permissible exposure limit (PEL) of $50 \mu\text{g}/\text{m}^3$ for 80% of samples collected on chipping workers ($n = 31$) and 50% of samples collected on crushing machine tenders ($n = 8$). Operating engineers ($n = 9$) and laborers ($n = 3$) had RCS exposures lower than OSHA PEL. The highest concentrations measured would have exceeded the PEL within 15 min chipping and within 2 h of crushing with no further exposure. Chipping workers' RCS exposures were higher than OSHA PEL even when they were adjusted to account for the assigned protection factor of the half-face N95 cartridge respirators used during chipping. Exposures of crushing tenders were reduced to levels under the OSHA PEL when a water spraying system in crushing machines was utilized, but not when a water cannon machine was used. Area samples at demolition and crushing sites indicate overall lower exposures than the PEL, however, bystander workers at crushing sites could be exposed to higher levels compared to demolition sites. Real-time dust monitoring during demolition indicate very high short-term peak exposures.

Conclusions: Controlling or reducing crystalline silica exposures to levels under the new OSHA PEL of $50 \mu\text{g}/\text{m}^3$ remains challenging for chipping workers and crushing machine tenders. Even with the use of dust suppression controls, respiratory protection may be required for various tasks.

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Title **Cross-task cue utilisation and situational awareness in simulated air traffic control**

Author/s Falkland, EC Wiggins, MW

Source [Applied ergonomics](#) January 2019 74 24-30 <https://doi.org/10.1016/j.apergo.2018.07.015>

Abstract Objective: To examine the role of cross-task cue utilisation in the acquisition of situational awareness during the initial stages of learning to operate an air traffic control simulation. Background: Cue-based associations are an important component of situational awareness, a construct that is necessary for skilled process control, where the location, movement, and direction of multiple targets needs to be managed. However, the potential for high levels of situational awareness is difficult to assess in the absence of exposure. Previous research suggests that cross-task cue utilisation predicts the acquisition of feature-event associations that form the basis of situational awareness. Method :Sixty university students undertook an assessment of cue utilisation in the context of motor vehicle driving and subsequently engaged in an air traffic control simulation task. During the air traffic control simulation task, situational awareness queries were introduced based on the Situation Awareness Global Assessment Test (SAGAT). Results: The analyses revealed that participants who demonstrated relatively higher levels of cross-task cue utilisation also demonstrated greater performance on the SAGAT and achieved greater performance during the simulated air traffic control task. Conclusion: The outcomes suggest a relationship between cross-task cue utilisation and situational awareness, particularly at the initial stages of skill acquisition.

Title **Epidemiology of silicosis: reports from the SWORD scheme in the UK from 1996 to 2017**

Author/s Barber CM, Fishwick D, Carder M, et al

Source Occupational and environmental medicine 2019;76:17-21. <http://dx.doi.org/10.1136/oemed-2018-105337>

Abstract Objective To document the demographic risk factors of workers reported to have silicosis in the UK.
Methods All cases of silicosis reported to the Surveillance of Work-related and Occupational Respiratory Disease (SWORD) scheme between January 1996 and December 2017 were classified into one of eight industry categories, and one of five age groups. In addition, to investigate whether there had been any temporal change, mean age and range at diagnosis was plotted for each year. From 2006, data were also available relating to the date of onset of symptoms, allowing a comparison between workers with and without respiratory symptoms.
Results For the period between 1996 and 2017, there were 216 cases of silicosis reported. The mean (range) age of those reported was 61 years (23–89), with the majority (98%) being male. Across all industries, 65% of cases were diagnosed in individuals of working age (<65 for men and <60 for women). Silicosis was reported in young workers across all industry groups, with around one in six of all silicosis cases affecting workers under the age of 46 years. There was no clear trend in age of diagnosis with time. Between 2006 and 2017, 81% of 108 workers with silicosis were reported to be symptomatic.

[Weblink](#) Conclusions Silicosis remains an important health problem in the UK affecting workers of all ages across a wide range of industries traditionally associated with silica exposure.

Title **How to improve the assessment of the impact of occupational diseases at a national level? The Netherlands as an example**

Author/s van der Molen HF, Hulshof CT, Kuijjer PPF

Source Occupational and environmental medicine 2019 76 30-32 <http://dx.doi.org/10.1136/oemed-2018-105387>

Abstract Objective To explore the impact of occupational diseases (ODs) through estimations of population attributable fractions (PAFs) in a national context.
Methods PAFs were calculated for eight prevalent ODs using existing data on the prevalence of exposure to risk factors at work and the strength of their association with diseases based on systematic reviews. Six systematic reviews with meta-analyses and two overview papers were selected. All addressed the relationship between occupational exposure to work-related risk factors for these eight prevalent ODs. Prevalence figures for exposure to work-related risk factors were retrieved from the Dutch National Working Conditions Survey (NWCS) based on self-reports by approximately 40 000 workers. The specific risk factors retrieved from the reviews were matched with the available and dichotomised self-reported exposure items from the NWCS by two authors.

[Weblink](#) Results The eight frequently reported ODs among the Dutch working population revealed PAFs varying between 3% and 25%. Lateral epicondylitis and distress/burnout had the highest attributable fractions, with percentages of 25% and 18%, respectively. For knee osteoarthritis (13%), shoulder soft tissue disorders (10%) and non-specific low back pain (10%) approximately 1 in 10 cases were attributable to work. PAFs for irritant contact dermatitis, noise-induced hearing loss and chronic obstructive pulmonary disease were 15%, 6% and 3%, respectively.

Conclusion Data from systematic reviews and self-reported data on exposure provide opportunities to estimate the impact of ODs. For the Netherlands, they revealed substantial and varying attributions of work for prevalent diseases

Title **Macular degeneration and occupational risk factors: a systematic review**

Author/s Modenese, A. & Gobba, F.

Abstract

Purpose: Macular degeneration is a multi-factorial disease, leading cause of blindness for people over 50 years old in developed countries. To date, the knowledge on possible occupational factors involved in the development of the disease is scant.

Method: We performed a systematic scientific literature search on the association between macular degeneration and occupational risk factors searching the MedLine and Scopus databases.

Results: We examined 158 articles and, according to the inclusion criteria, 13 peer-reviewed studies evaluating occupational risk factors for macular degeneration or reporting the frequency of the disease in specific groups of workers were included in the review. Ten on thirteen articles evaluated the presence of macular degeneration in workers exposed to solar radiation. Only one study found that non-specific history of occupational chemical exposure was associated with the disease. Two studies showed an association between macular degeneration and the general category of “blue-collar” workers, but they did not identify the specific risk factors involved.

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Conclusions: To date few studies have examined occupational risk factors for macular degeneration. Nevertheless, available data indicate that long-term occupational solar radiation exposure, in particular for its blue-light component, is associated with macular degeneration in outdoor workers.

Title **Modeling workers' behavior: A human factors taxonomy and a fuzzy analysis in the case of industrial accidents**

Author/s Longo, F et al

Source *International journal of industrial ergonomics* January 2019 69 29-47
<https://doi.org/10.1016/j.ergon.2018.09.002>

Abstract

While 'Industry 4.0' drives for greater automation, human factors are still essential in certain domains, especially in industrial disaster management. Despite human factors are frequently cause of individual biases and errors, a systematic quantitative analysis of the correlation between them and the workers' response performance in case of an industrial disaster has never been conducted.

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The aim of the present study is twofold: to design an original human factors taxonomy, which encompasses all the industrial worker's cognitive capabilities, physical skills, and psychological attitudes; to establish a correlation between each factor and the workers' response performance in case of an industrial emergency. A Fuzzy Analytic Hierarchy Process (FAHP) analysis has been conducted in collaboration with 44 subject matter experts by using an ad-hoc developed tool to investigate, in particular, two types of workers, the role of emergency manager and the emergency team member. Results reveal that the factors have not the same weight in determining the human response performance: cognitive and psychological aspects have a substantial influence on the emergency manager's response performance, while the emergency team member's response performance is more influenced by psychological and physical aspects.

Relevance to industry: Given the crucial role of cognitive, physical and psychological factors in modern human-centred industrial systems and especially in the field of industrial safety and security, this study represents a meticulous guide for safety specialists in the design of disaster management strategies, for recruiters and practitioners in the development of competency-based job descriptions and for new research works for the development of personality-gifted intelligent agents in industrial applications.

Title **Occupation and risk of kidney cancer in Nordic countries**

Author/s Michalek, IM et al

Source *Journal of occupational and environmental medicine* [January 2019 61 1 41–46](#)
doi: 10.1097/JOM.0000000000001468

Abstract

Objective: The aim of this study was to describe the occupational variation in the incidence of kidney cancer in the Nordic population. Methods: The population comprised of 14.9 million individuals included in censuses between 1960 and 1990. Standardized incidence ratios (SIRs) were calculated for each occupational group.

Results: Significantly increased SIRs were observed in welders [1.24, 95% confidence interval (95% CI) 1.14 to 1.35], public safety workers (1.16, 95% CI 1.08 to 1.25), and seamen (1.16, 95% CI 1.07 to 1.26). Significantly decreased SIRs were found in laboratory assistants (0.76, 95% CI 0.60 to 0.94) and forestry workers (0.77, 95% CI 0.72 to 0.83).

Conclusion: A relatively small variation in the incidence of malignancies of the kidney between occupational groups was found in the cohort. There is abundant room for further progress in determining the effect of smoking in particular occupational groups.

Title **Reducing workplace accidents through the use of leadership interventions: A quasi-experimental field study**

Author/s Clarke, S

Source *Accident analysis & prevention* December 2018 121 314-320
<https://doi.org/10.1016/j.aap.2018.05.010>

Abstract

There is increasing evidence to suggest that leaders need to use a combination of leader behaviors to successfully improve safety, including both transformational and transactional styles, but there has been limited testing of this idea. We developed a leadership intervention, based on supervisor training in both transformational and active transactional behaviors, and implemented it with supervisors at a UK-based chemical processing company. The study found that the supervisory training intervention led to significant improvements in perceived employee safety climate, over an eight-week period, relative to the comparison group. Although we found no change in the frequency of leader behaviors, the intervention was effective in helping supervisors to apply active transactional leader behaviors in a safety-critical context. The results indicated that transformational leader behaviors were already at a high level and effectively linked to safety. Our findings suggest not only that employees may be receptive to safety-related active transactional behaviors within high-risk situations, but furthermore, leaders can be trained to adjust their behaviors to focus more on active transactional behaviors in safety-critical contexts.

Title **The relative impact of smartwatch and smartphone use while driving on workload, attention, and driving performance**

Author/s Perlmann, D et al

Source *Applied ergonomics* 2019 75 8-16 DOI: [10.1016/j.apergo.2018.09.001](https://doi.org/10.1016/j.apergo.2018.09.001)

Abstract

The impact of using a smartwatch to initiate phone calls on driver workload, attention, and performance was compared to smartphone visual-manual (VM) and auditory-vocal (AV) interfaces. In a driving simulator, 36 participants placed calls using each method. While task time and number of glances were greater for AV calling on the smartwatch vs. smartphone, remote detection task (R-DRT) responsiveness, mean single glance duration, percentage of long duration off-road glances, total off-road glance time, and percent time looking off-road were similar; the later metrics were all significantly higher for the VM interface vs. AV methods. Heart rate and skin conductance were higher during phone calling tasks than "just driving", but did not consistently differentiate calling method. Participants exhibited more erratic driving behavior (lane position and major steering wheel reversals) for smartphone VM calling compared to both AV methods. Workload ratings were lower for AV calling on both devices vs. VM calling.

Title **The ROI of safety : What to consider when analysing the economic benefits of safety**

Author/s Druley, K

Source *Health + safety* January 2019

Abstract Safety professionals whose employers are reluctant to invest in occupational safety may face an additional challenge when building their case: multifaceted math. Although calculating a return on investment in safety lacks a universal formula, many experts agree that the exercise is worth the effort to support an investment that yields positive results. "When improving safety for the merit of just having a safer workplace is not enough, it's often a very powerful argument with leadership to help explain the cost of safety by showing the economic benefits of safety," said Ken Kolosh, manager of statistics at the National Safety Council.

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Title **Workplace injuries and illnesses resulting in job transfer or restriction in 2017**

Author/s Bureau of Labor Statistics, U.S. Department of Labor

Source *The economics daily* January 03 2019

Abstract Workers who suffer severe injuries or illnesses on the job may take days away from work to recover, or they may return to work immediately in a different job or with restricted tasks. The type and severity of the injury affect whether a worker takes time away to recover, returns to work on light or restricted duty, or transfers to another job while they recover. In 2017, sprains, strains, and tears were the most frequently occurring injuries resulting in lost worktime, transfer, or restriction in five of six industries studied. More of these cases resulted in days of job transfer or restriction than days away from work in crop production; transportation equipment manufacturing; and amusement, gambling, and recreation. In truck transportation, however, more of these injuries resulted in days away from work than job transfer or restriction.

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Title **Analysis of penalties imposed on organisations for breaching safety and health Regulations in the United Kingdom**

Author/s Arewa, AO et al

Source *Safety and health at work* December 2018 9 4 388-397
<https://doi.org/10.1016/j.shaw.2018.01.004>

Abstract Highlights: The paper examined recent trend in penalties concerning safety and health at work. Safety and health at work penalties' data covering 10 years were analysed Z test, correspondence and principal coordinate analysis were conducted. Findings reveal an upward trend in health and safety fines. Background: The study analyzes penalties imposed on organizations for breaching safety and health regulations. The research questions are as follows: what are the commonly breached safety and health regulations? How proportional are penalties imposed on organizations for breaching health and safety regulations in the United Kingdom? Methods: The study employed sequential explanatory mixed research strategies for better understanding of health and safety penalties imposed on organizations. Actual health and safety convictions and penalties data for 10 years (2006 to 2016) were obtained through the United Kingdom Health and Safety Executive (HSE) public register for convictions. Overall, 2,217 health and safety cases were analyzed amounting to total fines of £37,179,916, in

addition to other wide-ranging penalties. For thorough understanding, eight interviews were conducted with industry practitioners, lawyers, and HSE officials as part of the study qualitative data.

Results: Findings show that the Health and Safety at Work (HSW) Act accounted for 46% of all HSE prosecution cases in the last decade. This is nearly half of the total safety and health at work prosecutions. Moreover, there is widespread desire for organizations to comply with the HSW Act, but route fines are seen as burdensome and inimical to business growth.

Conclusion: A key deduction from the study reveal significant **disproportionality** concerning penalties imposed on organizations for breaching safety and health regulations. On aggregate, small companies tend to pay more for health and safety offenses in a ratio of 1:2 compared to large companies. The study also reveals that the HSW Act accounted for nearly half of the total safety and health at work prosecutions in the last decade

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Title **OSHA report: underreporting of injuries remains obstacle for OSHA, MSHA**

Author/s Ferguson, A

Source *Safety + health* January 2019

Abstract Washington — OSHA's efforts to require employers to report occupational fatalities and certain injuries in a timely manner lack "sufficient guidance on how to detect and prevent underreporting," the Department of Labor Office of Inspector General states in its **semiannual report** to Congress. OIG also points out inconsistencies in agency citations for late reporting. The report, released Nov. 30, contains many of the same recommendations included in **another OIG report** – also issued in November – on DOL's top management and performance challenges.

"OSHA must strive to target the most egregious and persistent violators and protect the most vulnerable worker populations," the semiannual report states. "For this targeting to be effective, OSHA needs to address issues related to the underreporting of injuries by employers."

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OIG also is concerned about the agency's ability to measure the impact of its policies and programs, as well as those of the 28 OSHA-approved State Plans, and notes that some employers are not correcting cited hazards.

Title **Training leaders to apply behavioral concepts to improve safety**

Author/s Gravina, NE et al

Source *Safety science* 2019 112 66-90 DOI: [10.1016/j.ssci.2018.10.013](https://doi.org/10.1016/j.ssci.2018.10.013)

Abstract Behavior-based safety (BBS) interventions have yielded positive results for safety, but recurring challenges, including lack of leadership support and perceptions of the approach blaming the worker, have been observed. A failure to properly educate leaders about the basic principles of behavior may be responsible for these challenges. A consultant workshop model has been shown to be a successful method for teaching leaders behavioral influence skills to positively impact performance in the workplace, but it has yet to be evaluated in a safety context. In this case study, a consultant workshop model was used to teach leaders at a chemical manufacturing plant basic concepts in behavioral science and project management as it relates to safety. Leaders each completed at least one project aimed at improving safety related behaviors or results while being coached. Prior to the onset of the intervention, the average number of injuries per year was 5.0 and the average total recordable rate per year was 2.0 per 100 full-time workers. After the intervention was implemented (fourth quarter of 2012-2017) the average number of injuries per year was 1.2 with an average yearly recordable rate of 0.53 per 100 full-time workers. Information about the workshop program, leader-led projects, and subsequent safety related results are discussed.

WORK STRESS

Title **Associations between job-strain, physical activity, health status and sleep quality among Swedish municipality workers**

Author/s Naimi Leitaru, et al

Source *Journal of occupational and environmental medicine*, online first December 2018 doi: 10.1097/JOM.0000000000001516.

Abstract Objective: To examine the associations between work-stress and physical activity (PA) with sleep quality while controlling for covariates, including social support.
Methods: A cross-sectional study among employees of a municipality (n = 2765). Data from respondents (n = 1973) with good/poor sleep quality were included. Prevalence ratios (PR) were estimated using modified Poisson Regression analyses.
Results: A significant interaction was observed between job-strain and self-reported health in the explanation of sleep quality. Consequently, interaction (job strain * self-rated health) adjusted PRs were calculated. The PRs for high job strain were 1.986 (95% CI 1.58-2.49) and 1.220 (95% CI 1.04-1.44) compared to the reference groups.
Conclusions: Findings show that high job strain and low PA levels are associated with poor sleep quality, and that self-rated health plays an important moderating role in the association between job strain and sleep quality.

Title **Job strain and cognitive change: the Baltimore Epidemiologic Catchment Area follow-up study**

Author/s Dong, L et al

Source *Occupational and environmental medicine*, December 2018 75 12 December 2018

Abstract Objectives: To investigate the association between job strain and subsequent cognitive change over approximately 11 years, using data from the population-based Baltimore Epidemiologic Catchment Area follow-up study.
Methods: The sample ranged from 555 to 563 participants, depending on the outcome, who reported psychosocial characteristics corresponding to the full-time job they held at baseline (1993-1996). Overall cognitive performance was measured by the Mini-Mental State Examination (MMSE), and verbal memory was measured by the ImmediateWord Recall Task and Delayed Word Recall Task at baseline and follow-up (2004-2005). Multiple linear regression was used to examine the association between job strain and cognitive change, and inverse probability weighting was used to account for differential attrition.
Results: Participants with high job demands (psychological or physical demands) and/or low job control had greater decrease in the MMSE and memory scores than those with low job demands and high job control. After adjustment for baseline outcome scores, age and sex, the greatest decrease was observed in participants with high job demands and low job control (MMSE: -0.24, 95% CI -0.36 to -0.11; verbal memory scores: -0.26, 95% CI -0.44 to -0.07). The differences were partially explained by sociodemographic characteristics, occupational prestige and health factors.
Conclusions: Findings from this prospective study suggest that job strain is associated with and may be a potential modifiable risk factor for adverse cognitive outcomes.

Title **Stress among on-duty firefighters: an ambulatory assessment study**

Author/s Rodrigues S, Paiva JS, Dias D, Cunha JPS.

Source [PeerJ](#) 2018; 6: e5967 DOI: [10.7717/peerj.5967](#)

Abstract Background: Stress at work has been broadly acknowledged as a worldwide problem and has been the focus of concern for many researchers. Firefighting, in particular, is frequently reported as a highly stressful occupation. In order to investigate firefighters' occupational health in terms of stress events, perceptions, symptoms, and physiological reactions under real-world conditions, an ambulatory assessment protocol was developed.
Methods: Seventeen firefighters' cardiac signal was continuously monitored during an average of three shifts within a working week with medical clinically certified equipment (VitalJacket®), which allows for continuous electrocardiogram (ECG) and actigraphy measurement. Psychological data were collected with a software application running on smartphones, collecting potential stressful events, stress symptoms, and stress appraisal. Results: A total of 450.56 h of medical-quality ECG were collected, and heart rate variability (HRV) analysis was performed.
Findings suggest that although 'fire' situations are more common, 'accidents' are more stressful. Additionally, firefighters showed high levels of physiological stress (based on AVNN and LF/HF HRV metrics) when compared to normative healthy population values that may not be diagnosed using merely self-reports.
Discussion: The proposed ambulatory study seems to be useful for the monitoring of stress levels and its potential impact on health of first responders. Additionally, it could also be an important tool for the design and implementation of efficient interventions and informed management resolutions in real time. Potential applications of this research include the development of quantified occupational health (qOHealth) devices for real life monitoring of emergency personnel stress reactions.

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WORKERS' COMPENSATION

Title **Access to medical treatment for injured workers in California: Year 2 Annual Report. California**

Author/s Kapinos, Kandice A.

Source RAND

Abstract The California's Workers' Compensation (WC) program provides medical care and indemnity (e.g., wage-replacement) benefits to workers who suffer on-the-job injuries and illnesses. The Division of Workers' Compensation (DWC) is mandated by California's Labor Code Section 5307.2 to assess whether injured workers have adequate access to quality care on an annual basis and authorizes the administrative director (AD) of DWC to make appropriate adjustments in fee schedule amounts if the AD determines there is inadequate access to care.

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Title **Implementation of questionnaire-based risk profiling for clients in a workers' compensation environment: an example in Australian physiotherapy practice**

Author/s Beales, D et al

Source *Journal of occupational rehabilitation* January 2019 doi: 10.1007/s10926-018-9822-6. [Epub ahead of print]

Abstract Purpose This study investigated the implementation of a risk profiling process for physiotherapy clients with a compensable musculoskeletal problem. Implementation targeted personal (clinician) and external (organisational) factors to facilitate behavioural change with regard to the use of formal, questionnaire-based risk profiling. Methods A theoretical construct was developed for formal questionnaire-based screening to be implemented across 12 private, metropolitan physiotherapy clinics. To target personal (clinician) factors, a multimodal educational procedure was developed focused on use of the ten-item Orebro Musculoskeletal Pain Screening Questionnaire (OMPSQ-10). To target external (organisational) factors, an administrative process was enacted to ensure routine completion of the OMPSQ-10 by compensable clients. Global practice behaviour with regard to the use of formal risk profiling was complete pre- and post-implementation. Results Pre-implementation physiotherapists understood the potential usefulness of formal risk profiling, but the large majority did not routinely have clients complete these types of questionnaires. Post-implementation there was a significant positive shift in behaviour to more frequent use the OMPSQ-10 for new compensable clients. Conclusions The results provide initial support for the use of a framework to develop an implementation strategy to increase physiotherapist adherence to the use of guideline recommended risk profiling questionnaires in clinical practice.

Title **Wage loss monitoring for injured workers in California's workers' compensation system: 2014–2015 Injury Year Findings (Second Interim Report).**

Author/s Dworsky, Michael, Stephanie Rennane, Broten, Nicholas

Source RAND California Department of Industrial Relations, 2018.

Abstract This report presents new estimates of wage loss for workers in California who suffered a workplace injury or illness in 2014–2015 and compares these estimates with trends before, during, and after the Great Recession. The authors matched injured workers with control workers in the same firm at the time of injury with similar characteristics and analyzed the impact of injury on labor market outcomes, including earnings and employment.

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WORKPLACE VIOLENCE

Title **Gender differences in injuries attributed to workplace violence in Ontario 2002–2015**

Author/s Chen, C et al

Source Occupational & environmental medicine 2019 76 1 3-9 <http://dx.doi.org/10.1136/oemed-2018-105152>

Abstract Objectives The aim of the study is to compare trends in the incidence of injury resulting from workplace violence for men and women at the population level over the period 2002–2015 among working-age adults in Ontario, Canada. Methods Administrative records of injury resulting from workplace violence were obtained from two population-based data sources in Ontario: 21 228 lost-time workers' compensation claims (2002–2015) and 13 245 records of non-scheduled emergency department visits (2004–2014), where the main problem was attributed to a workplace violence event. Denominator counts were estimated from labour force surveys conducted by Statistics Canada, stratified by age and sex. Age-standardised rates were calculated using the direct method.

Results Over the observation period, workplace violence incidence rates were in the range of 0.2–0.5 per 1000 full-time equivalent workers. Incidence rates of injury due to workplace violence among women increased over the observation period, with an average annual per cent change (APC) of 2.8% (95% CI 1.7% to 3.9%) in compensation claims and 2.7% (95% CI 1.0% to 4.4%) in emergency department visits. In contrast, there was no change in workplace violence injury rates among men in compensation claims (APC: –0.2% (95% CI –1.2% to 0.9%)) or in emergency department visits (APC: –0.5% (95% CI –1.6% to 0.6%)). A pronounced increase in workplace violence injury rates was observed in the education sector with an APC=7.0% (95% CI 5.6% to 8.5%) for women and an APC=4.1% (95% CI 0.9% to 7.4%) for men.

Conclusions Differences in the risk of injury resulting from workplace violence for women relative to men in Ontario between 2002 and 2015 were verified by two data sources. The relative risk of violence for men and women also differed across industries.

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