

IWH Research Alert

May 19, 2017

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*Canizares M, Hogg-Johnson S, Gignac MAM, Glazier RH, and Badley EM. Changes in the use practitioner-based complementary and alternative medicine over time in Canada: cohort and period effects. PLoS ONE. 2017; 12(5):e0177307.

[http://dx.doi.org/10.1371/journal.pone.0177307 \[open access\]](http://dx.doi.org/10.1371/journal.pone.0177307)

Abstract: BACKGROUND: The use of complementary and alternative medicine (CAM) is growing. However the factors contributing to changes over time and to birth cohort differences in CAM use are not well understood. SETTING: We used data from 10186 participants, who were aged 20-69 years at the first cycle of data collection in the longitudinal component of the Canadian National Population Health Survey (1994/95-2010/11). We examined chiropractic and other practitioner-based CAM use with a focus on five birth cohorts: pre-World War II (born 1925-1934); World War II (born 1935-1944); older baby boomers (born 1945-1954); younger baby boomers (born 1955-1964); and Gen Xers (born 1965-1974). The survey collected data every two years on predisposing (e.g., sex, education), enabling (e.g., income), behavior-related factors (e.g., obesity), need (e.g., chronic conditions), and use of conventional care (primary care and specialists). RESULTS: The findings suggest that, at corresponding ages, more recent cohorts reported greater CAM (OR = 25.9, 95% CI: 20.0; 33.6 for Gen Xers vs. pre-World War) and chiropractic use than their predecessors (OR = 2.2, 95% CI: 1.7; 2.8 for Gen Xers vs. pre-World War). There was also a secular trend of increasing CAM use, but not chiropractic use, over time (period effect) across all ages. Factors associated with cohort differences were different for CAM and chiropractic use. Cohort differences in CAM use were partially related to a period effect of increasing CAM use over time across all ages while cohort differences in chiropractic use were related to the higher prevalence of chronic conditions among recent cohorts. The use of conventional care was positively related to greater CAM use (OR = 1.8, 95% CI: 1.6; 2.0) and chiropractic

use (OR = 1.2, 95% CI: 1.1; 1.4) but did not contribute to changes over time or to cohort differences in CAM and chiropractic use. CONCLUSION: The higher CAM use over time and in recent cohorts could reflect how recent generations are approaching their healthcare needs by expanding conventional care to include CAM therapies and practice for treatment and health promotion. The findings also underscore the importance of doctors discussing CAM use with their patients

***Furlan AD and Williamson OD. New Canadian guidance on opioid use for chronic pain: necessary but not sufficient [commentary]. CMAJ. 2017; 189(18):E650-E651.**
<http://dx.doi.org/10.1503/cmaj.170431>

Related Article

Busse JW, Craigie S, Juurink DN, Buckley DN, Wang L, Couban RJ, Agoritsas T, Akl EA, Carrasco-Labra A, Cooper L, Cull C, da Costa BR, Frank JW, Grant G, Iorio A, Persaud N, Stern S, Tugwell P, Vandvik PO, and Guyatt GH. Guideline for opioid therapy and chronic noncancer pain. CMAJ. 2017; 189(18):E659-E666.
<http://dx.doi.org/10.1503/cmaj.170363>

Bergstrom G, Lohela-Karlsson M, Kwak L, Bodin L, Jensen I, Torgen M, and Nybergh L. Preventing sickness absenteeism among employees with common mental disorders or stress-related symptoms at work: design of a cluster randomized controlled trial of a problem-solving based intervention versus care-as-usual conducted at the Occupational Health Services. BMC Public Health. 2017; 17(1):436.

<http://dx.doi.org/10.1186/s12889-017-4329-1> [open access]

Abstract: BACKGROUND: Common mental disorders (CMDs) are among the leading causes of sick leave in Sweden and other OECD countries. They result in suffering for the individual and considerable financial costs for the employer and for society at large. The occupational health service (OHS) can offer interventions in which both the individual and the work situation are taken into account. The aim of this paper is to describe the design of a study evaluating the effectiveness of an intervention given at the OHS to employees with CMDs or stress-related symptoms at work. In addition, intervention fidelity and its relation to the outcome will be assessed in a process analysis. METHODS: The study is designed as a cluster randomized trial in which the participating OHS consultants are randomized into either delivering the intervention or performing care as usual. Employees with CMDs or stress-related symptoms at work are recruited consecutively by the OHS consultants. The intervention aims to improve the match between the employee and the job situation. Interviews are held individually with the employee and the nearest supervisor, after which a joint meeting with both the employee and the supervisor takes place. A participatory approach is applied by which the supervisor and the employee are guided by the OHS consultant and encouraged to actively take part in problem solving concerning the work situation. Outcomes will be assessed at baseline and at six and 12 months. A long-term follow-up at 3 years will also be performed. The primary outcome is registered sickness absence during a 1-year period after study inclusion. Secondary outcomes are mental health and work ability.

The intervention's cost effectiveness, compared to treatment as usual, both for society and for the employer will be evaluated. A process evaluation by both the OHS consultants and the employee will be carried out. DISCUSSION: The study includes analyses of the effectiveness of the intervention (clinical and economic) as well as an analysis of its implementation at the participating OHSs. Possible methodological challenges such as selection bias and risk of contamination between OHS consultants delivering the experimental condition and consultants giving usual care are discussed. TRIAL REGISTRATION: ClinicalTrials NCT02563743 Sep 28 2015

Chavez S and Altman CE. Gambling with life: masculinity, risk, and danger in the lives of unauthorized migrant roofers. American Journal of Industrial Medicine. 2017; 60(6):537-547.

<http://dx.doi.org/10.1002/ajim.22721%20%20>

Abstract: BACKGROUND: This paper examines the occupational experiences of unauthorized immigrants employed in one of the most dangerous occupations in the United States: roofing. METHODS: We draw on 40 in-depth interviews with return migrants in Guanajuato, Mexico, to examine how the adoption of masculinity, dangerous working conditions, the labor market structure, and absence of legal status exacerbates injuries for unauthorized roofers. FINDINGS: Undocumented men return to Mexico injured with chronic pain, health complications, and trauma. We find that men "do gender" that is adopt masculine beliefs, when they skirt safety practices, police each other's behaviors, withhold their emotions, experience heightened stress, and engage in poor health behaviors. It is a combination of dangerous working conditions, economic insecurity, and men seeking to fulfill their masculine roles that all combine to create unsafe working conditions and lead to injuries

Huntley SR, Lee DJ, LeBlanc WG, Arheart KL, McClure LA, Fleming LE, and Caban-Martinez AJ. Acute joint pain in the emerging green collar workforce: evidence from the linked National Health Interview Survey and Occupational Information Network (O*NET). American Journal of Industrial Medicine. 2017; 60(6):518-528.

<http://dx.doi.org/10.1002/ajim.22710>

Abstract: BACKGROUND: Green jobs are a rapidly emerging category of very heterogeneous occupations that typically involve engagement with new technologies and changing job demands predisposing them to physical stressors that may contribute to the development of joint pain. METHODS: We estimated and compared the prevalence of self-reported acute (past 30 days) joint pain between green and non-green collar workers using pooled 2004-2012 National Health Interview Survey (NHIS) data linked to the Occupational Information Network Database (O*NET). RESULTS: Green collar workers have a higher prevalence of acute joint pain as compared to non-green collar workers. Green collar workers with pain in the upper extremity joints were significantly greater than in the non-green collar workforce, for example, right shoulder [23.2% vs 21.1%], right elbow [13.7% vs 12.0%], left shoulder [20.1% vs 18.2%], and left elbow [12.0% vs 10.7%]. CONCLUSIONS: Acute joint pain reported by

the emerging green collar workforce can assist in identifying at risk worker subgroups for musculoskeletal pain interventions

Julia M, Vanroelen C, Bosmans K, Van AK, and Benach J. Precarious Employment and Quality of Employment in Relation to Health and Well-being in Europe. International Journal of Health Services. 2017; 0(0):1-21.

<http://dx.doi.org/10.1177/0020731417707491>

Abstract: This article presents an overview of the recent work on precarious employment and employment quality in relation to workers' health and well-being. More specifically, the article mainly reviews the work performed in the E.U. 7th Framework project, SOPHIE. First, we present our overarching conceptual framework. Then, we provide a compiled overview of the evidence on the sociodemographic and European cross-country distribution of employment quality and employment precariousness. Subsequently, we provide the current evidence regarding the relations with health and broader worker well-being indicators. A final section summarizes current insights on the pathways relating precarious employment and health and well-being. The article concludes with a plea for further data collection and research into the longitudinal effects of employment precariousness among emerging groups of workers. Based on the evidence compiled in this article, policymakers should be convinced of the harmful health and well-being effects of employment precariousness and (further) labor market flexibilization

Julia M, Vives A, Tarafa G, and Benach J. Changing the way we understand precarious employment and health: Precarisation affects the entire salaried population. Safety Science. 2017; [epub ahead of print].

<http://dx.doi.org/10.1016/j.ssci.2017.01.015>

Abstract: Abstract Employment precariousness (EP) has expanded over recent years. The aim of this study is to test the existence of a general precarisation of the Spanish labour market and its association with mental health for different types of contract. On the subsample of salaried workers from the second Psychosocial Work Environment Survey and using the revised Employment Precariousness Scale (EPRES-2010), we calculated the prevalence of EP and poor mental health for salaried workers. We created six groups of workers according to their levels of EP and types of contract. We used Poisson regressions, stratified by gender, to examine associations between belonging to the different groups of workers and poor mental health. Although temporary workers had a higher prevalence of EP and poorer mental health than permanent workers, we found that the association with poor mental health was unexpectedly stronger in permanent workers with high precariousness (2.97, IC95% 2.25GÇô3.92 in men and 2.50, 1.70GÇô3.67 in women) than in temporary workers (2.17, IC95% 1.59GÇô2.96 in men and 1.81, 1.17GÇô2.78 in women). A gradient of poor mental health existed by EP score for both men and women and permanent and temporary workers. The Spanish labour market is highly affected by employment precarisation. Using the multidimensional EPRES is more informative and a better tool for mental health research than type of contract alone. Creating a surveillance system to

monitor the magnitude and evolution of EP has to be a priority in order to reduce health inequalities and to evaluate the impact of policies and programs

Kausto J, Pentti J, Oksanen T, Virta LJ, Virtanen M, Kivimaki M, and Vahtera J. Length of sickness absence and sustained return-to-work in mental disorders and musculoskeletal diseases: a cohort study of public sector employees. Scandinavian Journal of Work, Environment & Health. 2017; [epub ahead of print].

[http://dx.doi.org/10.5271/sjweh.3643 \[open access\]](http://dx.doi.org/10.5271/sjweh.3643)

Abstract: Objectives The aim of this study was to investigate the association between the length of sickness absence and sustained return to work (SRTW) and the predictors of SRTW in depression, anxiety disorders, intervertebral disc disorders, and back pain in a population-based cohort of employees in the Finnish public sector. Methods We linked data from employers' registers and four national population registers. Cox proportional hazards regression analysis with a cluster option was applied. SRTW was defined as the end of the sickness benefit period not followed by a recurrent sickness benefit period in 30 days. Results For depression, the median time to SRTW was 46 and 38 days among men and women, respectively. For anxiety disorders, the figures were 24 and 22 days, for intervertebral disc disorders, 42 and 41 days, and, for back pain, 21 and 22 days among men and women respectively. Higher age and the persistence of the health problem predicted longer time to SRTW throughout the diagnostic categories. Comorbid conditions predicted longer time to SRTW in depression and back pain among women. Conclusions This large cohort study adds scientific evidence on the length of sickness absence and SRTW in four important diagnostic categories among public sector employees in Finland. Further research taking into account, eg, features of the work environment is suggested. Recommendations on the length of sickness absence at this point should be based on expert opinion and supplemented with research findings

Mallidou AA, Atherton P, Chan L, Frisch N, Glegg S, and Scarrow G. Protocol of a scoping review on knowledge translation competencies. Systematic Reviews. 2017; 6(1):93.

[http://dx.doi.org/10.1186/s13643-017-0481-z \[open access\]](http://dx.doi.org/10.1186/s13643-017-0481-z)

Abstract: BACKGROUND: Knowledge translation (KT) activities can reduce the gap between "what is known" and "what is done". Several factors hinder or facilitate KT activities including individual characteristics and organizational attributes; we will focus on individual healthcare professional modifiable characteristics. The purpose of this scoping review is to summarize knowledge on KT competencies for knowledge users, knowledge brokers, and knowledge producers/researchers to support evidence-based practice (EBP) and inform policy and research in health. Our objectives are to explore the relevant theoretical and empirical literature; map the publications for key themes and research gaps of KT competencies, and interventions for enhancing KT competencies; summarize and disseminate findings; produce an action plan and research agenda; and develop self-assessment tools (the KT Pathways) for professional development for our three target audiences. METHODS: The scoping review method will guide our study by following six stages: formulating the research question; identifying

relevant studies; selecting the literature; charting the data; collating, summarizing, and reporting the results; and developing a KT plan and consulting stakeholders involved in the fields of KT, EBP, evidence-informed policy-making, and/or research. We will include empirical and theoretical/conceptual peer-reviewed and grey literature in health that examine knowledge user, knowledge broker and knowledge producer KT competencies. Publications written in the English language and published after 2003 only will be considered. Our multidisciplinary research team will collaborate using technology (i.e., WebEx for discussions and a Web 2.0 website for storing documents). Our KT plan consists of an Advisory Group and dissemination plan of the findings. DISCUSSION: We expect the identified KT competencies to contribute to the KT science by providing positive outcomes in practice, policy, education, and future research. Incorporation of the core KT competencies may enhance safety, effectiveness of clinical care, and quality of health outcomes; contribute to and facilitate collaboration among practitioners, knowledge users, knowledge brokers, researchers, employers, and educators; improve education of healthcare professionals and inform policy-making process; benefit practitioners by guiding their KT professional development to become effective at moving evidence into practice and policy; guide suitable interventions and strategies to enhance KT activities in the health sector; and direct future research

Marin LS, Lipscomb H, Cifuentes M, and Punnett L. Associations between safety climate and safety management practices in the construction industry. American Journal of Industrial Medicine. 2017; 60(6):557-568.

<http://dx.doi.org/10.1002/ajim.22723>

Abstract: BACKGROUND: Safety climate, a group-level measure of workers' perceptions regarding management's safety priorities, has been suggested as a key predictor of safety outcomes. However, its relationship with actual injury rates is inconsistent. We posit that safety climate may instead be a parallel outcome of workplace safety practices, rather than a determinant of workers' safety behaviors or outcomes.

METHODS: Using a sample of 25 commercial construction companies in Colombia, selected by injury rate stratum (high, medium, low), we examined the relationship between workers' safety climate perceptions and safety management practices (SMPs) reported by safety officers. RESULTS: Workers' perceptions of safety climate were independent of their own company's implementation of SMPs, as measured here, and its injury rates. However, injury rates were negatively related to the implementation of SMPs. CONCLUSIONS: Safety management practices may be more important than workers' perceptions of safety climate as direct predictors of injury rates

McAllister A, Hackett ML, and Leeder SR. Disability income support design and mental illnesses: a review of Australia and Ontario. Public Health Research & Practice. 2017; 27(2):1-8.

<http://dx.doi.org/10.17061/phrp2721715>

Abstract: AIM: Mental illnesses have many distinctive features that make determining eligibility for disability income support challenging - for example, their fluctuating nature, invisibility and lack of diagnostic clarity. How do policy makers deal with these

features when designing disability income support? More specifically, how do mental illnesses come to be considered eligible disabilities, what tools are used to assess mental illnesses for eligibility, what challenges exist in this process, and what approaches are used to address these challenges? We aimed to determine what evidence is available to policy makers in Australia and Ontario, Canada, to answer these questions. METHODS: Ten electronic databases and grey literature in both jurisdictions were searched using key words, including disability income support, disability pension, mental illness, mental disability, addiction, depression and schizophrenia, for articles published between 1991 and June 2013. This yielded 1341 articles, of which 20 met the inclusion criteria and were critically appraised. RESULTS: Limited evidence is available on disability income support design and mental illnesses in the Australian and Ontarian settings. Most of the evidence is from the grey literature and draws on case law. Many documents reviewed argued that current policy in Australia and Ontario is frequently based on negative assumptions about mental illnesses rather than evidence (either peer reviewed or in the grey literature). Problems relating to mental illnesses largely relate to interpretation of the definition of mental illness rather than the definition itself. CONCLUSIONS: The review confirmed that mental illnesses present many challenges when designing disability income support and that academic as well as grey literature, especially case law, provides insight into these challenges. More research is needed to address these challenges, and more evidence could lead to policies for those with mental illnesses that are well informed and do not reinforce societal prejudices

Mierswa T and Kellmann M. Psychological detachment as moderator between psychosocial work conditions and low back pain development. International Journal of Occupational Medicine and Environmental Health. 2017; 30(2):313-327.

<http://dx.doi.org/10.13075/ijomeh.1896.00861> [open access]

Abstract: OBJECTIVES: Recovery processes in leisure time influence the effect of psychosocial work factors on health issues. However, this function of recovery has been neglected in research regarding the influence of work-related risk factors on low back pain (LBP) development. The aim of this prospective study was to examine the function of psychological detachment - a relevant recovery experience - concerning the influence of psychosocial work factors on LBP development. A moderating function of detachment for the interplay of work factors and LBP was assumed. MATERIAL AND METHODS: Sixty pain-free administrative employees of German universities completed an online survey 3 times during a 6-month period. Generalized estimating equations were used to estimate risk-factors of LBP. RESULTS: Analyses revealed an increased chance of LBP development for smokers and a decreasing chance when work resources were high. Detachment had no direct influence on LBP development, although it moderated the influence of work stressors and work resources on LBP. On the one hand, high detachment values seem to protect against an increased chance of LBP development when employees were confronted with high work stressors, while on the other hand high detachment values enhance the protective effect of high work resources.

CONCLUSIONS: The results indicated a moderating role of detachment concerning the influence of psychosocial work factors on LBP development. Therefore, it is necessary to

include recovery processes in future research regarding LBP development and consequently in LBP prevention concepts. *Int J Occup Med Environ Health* 2017;30(2):313-327

Nagata T, Nakata A, Mori K, Maruyama T, Kawashita F, and Nagata M. Occupational safety and health aspects of corporate social responsibility reporting in Japan from 2004 to 2012. BMC Public Health. 2017; 17(1):381.

<http://dx.doi.org/10.1186/s12889-017-4356-y> [open access]

Abstract: BACKGROUND: A number of companies publish corporate social responsibility (CSR) reporting in booklets and other publicly available formats. The purpose of this paper is to clarify the nine-year (2004-2012) trend of occupational safety and health (OSH) activities as described in CSR reporting (by industry sector and company size). METHODS: We investigated CSR reporting on the website in all Japanese companies listed on the first section of the Tokyo Stock Exchange. The data were extracted from CSR reporting of each company every year from 2004 to 2012. We counted the pages dedicated to information on OSH activities by industry sector and company size and calculated the rate of OSH divided by total CSR-related activities. RESULTS: The number of companies publishing CSR reports increased in all industry sectors, although the rate of inclusion of OSH activity within CSR reports increased only among sectors such as construction, manufacturing, transportation, and commerce. Among all company size, CSR reporting increased constantly throughout all observed years. The proportion of companies that had described OSH in CSR reporting increased from 2004 to 2012, and 76.5% companies had described OSH activities in 2012. The average number of pages of CSR-related report was 34.2 in 2004, increasing to 43.1 in 2012. The proportion of described pages of OSH activities in total CSR reporting increased gradually, and 2.7% in 2012. The focus of CSR reporting gradually shifted from 'environment' to 'social activity including OSH'. CONCLUSIONS: Majority of companies are putting more emphasis on OSH in CSR reporting in Japan

Opsommer E, Rivier G, Crombez G, and Hilfiker R. The predictive value of subsets of the Orebro Musculoskeletal Pain Screening Questionnaire for return to work in chronic low back pain. European Journal of Physical & Rehabilitation Medicine. 2017; [epub ahead of print](

<http://dx.doi.org/10.23736/S1973-9087.17.04398-2>

Abstract: BACKGROUND: Studies have shown that positive recovery expectations are associated with positive health outcomes in patients with chronic low back pain (CLBP) such as return to work (RTW) and the time to RTW. AIM: To compare the predictive value for RTW in CLBP using different subsets of the Orebro Musculoskeletal Pain Screening Questionnaire (OMPSQ). DESIGN: Longitudinal cohort study. SETTING: Rehabilitation center. POPULATION: 98 inpatients with CLBP (> 3 months). METHODS: The OMPSQ at baseline was used to predict RTW three months after discharge from the rehabilitation clinic. The area under the ROC-curve was calculated based on a logistic regression model. Cox-regression was used to analyze time to RTW with C statistics for the original full (25-items) version of the OMPSQ, the 10-item version as well as for the

two items about self-expected RTW and self-expected recovery. RESULTS: The area under the curve (AUC) for the overall score of the full version OMPSQ was 0.82 (95% CI 0.73 to 0.90), the AUC for the short version was 0.79 (95% CI 0.70 to 0.88), the AUC for the item about self-expected recovery (#15) was 0.67 (95% CI 0.57 to 0.78), and the AUC for the item about self-expected RTW (#16) was 0.76 (95% CI 0.66 to 0.85). Harrell's C for the full version was 0.74 (95% CI 0.66 to 0.81), for the short version the C was 0.71 (95% CI 0.64 to 0.79), for the item #15 the C was 0.62 (95% CI 0.53 to 0.72), and for the item #16 the C was 0.71 (95% CI 0.64 to 0.78). CONCLUSIONS: Two items about expectations from the OMPSQ showed similar predictive value for RTW compared to the short and full original versions, and could be used as first screening questions. CLINICAL REHABILITATION IMPACT: Clinicians may make an informed choice whether they use the full or the short version of the OMPSQ for screening of psychosocial problems, or whether they use the two single items about expectations. Knowledge about patient's expectations provides a base for discussion between health professionals and the patient

Stahl C, Andersen A, Anderzen I, and Larsson K. Process evaluation of an interorganizational cooperation initiative in vocational rehabilitation: the Dirigo project. BMC Public Health. 2017; 17(1):431.

<http://dx.doi.org/10.1186/s12889-017-4357-x> [open access]

Abstract: BACKGROUND: This study analyzes the process of establishing and developing a cooperative vocational rehabilitation project with special focus on organizational and professional aspects. In the project, officials from the Swedish Social Insurance Agency and the Swedish Public Employment Service worked cooperatively with participants on long-term sick leave, youths with disability benefits, and people receiving social allowances. The officials used Motivational Interviewing (MI) as a method when meeting participants, and were able to offer flexible and tailored case management. The goal was to improve work ability and promote self-sufficiency. METHODS: The process evaluation was carried out through continuous data collection throughout the project (2012-2014), resulting in a total of 28 individual interviews and 17 focus groups with officials and managers. The material was categorized through an inductive content analysis, and analyzed using social capital as a theoretical frame. RESULTS: The evaluation points to how issues related to design, organization and management contributed to the project not reaching its goals, e.g. problems with recruitment of participants, the funding structure, and staffing problems on the managerial level. Still, officials reported positive effects of close cooperation, which was perceived as facilitating the case management by fostering a mutual understanding and access to resources and rehabilitation measures from more than one authority. CONCLUSIONS: Cooperative work combined with the use of MI and flexible case management seem to promote an increased trust between officials from different authorities and participants, which in the study is conceptualized as bonding and bridging social capital (between officials) and linking social capital (between officials and participants). The organizational problems combined with the relatively large differences in approaches between the project and regular practice obstructed implementation, where the

authorities involved did not appear to be ready for implementing methodologies that require organizational restructuring

Stieb DM, Boot CR, and Turner MC. Promise and pitfalls in the application of big data to occupational and environmental health. BMC Public Health. 2017; 17(1):372.

<http://dx.doi.org/10.1186/s12889-017-4286-8> [open access]

***IWH authored publication**