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**May 12, 2017**

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**\*Bielecky A, Ibrahim S, Mustard CA, Brisson C, and Smith PM. An analysis of measurement invariance in work stress by sex: are we comparing apples to apples? *Journal of Articles in Support of the Null Hypothesis*. 2017; 13(2):38.**

<http://www.jasnh.com/pdf/Vol13-No2-article1.pdf>

**\*Mustard CA. Work disability prevention: should we focus on high body weights or heavy physical workload? *Occupational & Environmental Medicine*. 2017; [epub ahead of print].**

<http://dx.doi.org/oemed-2017-104394;10.1136/oemed-2017-104394>

**Casey R and Ballantyne PJ. Diagnosed chronic health conditions among injured workers with permanent impairments and the general population. *Journal of Occupational and Environmental Medicine*. 2017; 59(5):486-496.**

<http://dx.doi.org/10.1097/JOM.0000000000000998>

Abstract: OBJECTIVE: To profile chronic health conditions of an injured worker sample before and after workplace injury and compare injured workers to a matched community sample. METHODS: Logistic regression analyses compared risk of certain chronic health conditions for permanently disabled injured workers in the pre- and post-injury periods to comparator subsamples from the Canadian Community Health Surveys 2003 and 2009/2010. RESULTS: There were notable health differences between the injured worker and comparator samples for the post-injury period. Injured men and women were more likely to report arthritis, hypertension, ulcers, depression, and back problems than the comparator sample. Injured women were also more likely to report migraine headaches and asthma. CONCLUSIONS: The observed differences suggest that

permanently impaired injured workers experience more rapidly accelerated health declines than other aging workers, and this outcome is gendered

**Chaimani A, Caldwell DM, Li T, Higgins JPT, and Salanti G. Additional considerations are required when preparing a protocol for a systematic review with multiple interventions. Journal of Clinical Epidemiology. 2017; 83:65-74.**

<http://dx.doi.org/10.1016/j.jclinepi.2016.11.015>

Abstract: OBJECTIVES: The number of systematic reviews that aim to compare multiple interventions using network meta-analysis is increasing. In this study, we highlight aspects of a standard systematic review protocol that may need modification when multiple interventions are to be compared. STUDY DESIGN AND SETTING: We take the protocol format suggested by Cochrane for a standard systematic review as our reference and compare the considerations for a pairwise review with those required for a valid comparison of multiple interventions. We suggest new sections for protocols of systematic reviews including network meta-analyses with a focus on how to evaluate their assumptions. We provide example text from published protocols to exemplify the considerations. CONCLUSION: Standard systematic review protocols for pairwise meta-analyses need extensions to accommodate the increased complexity of network meta-analysis. Our suggested modifications are widely applicable to both Cochrane and non-Cochrane systematic reviews involving network meta-analyses

**Choe S and Leite F. Assessing safety risk among different construction trades: quantitative approach. Journal of Construction Engineering and Management. 2017; 143(5):1-**

[http://dx.doi.org/10.1061/\(ASCE\)CO.1943-7862.0001237](http://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001237)

**Choi B, Ahn S, and Lee S. Role of social norms and social identifications in safety behavior of construction workers I: theoretical model of safety behavior under social influence. Journal of Construction Engineering and Management. 2017; 143(5):1-**

[http://dx.doi.org/10.1061/\(ASCE\)CO.1943-7862.0001271](http://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001271)

**Choi B and Lee S. Role of social norms and social identifications in safety behavior of construction workers II: group analyses for the effects of cultural backgrounds and organizational structures on social influence process. Journal of Construction**

[http://dx.doi.org/10.1061/\(ASCE\)CO.1943-7862.0001254](http://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001254)

**De Cocker K, De Bourdeaudhuij I, Cardon G, and Vandelanotte C. What are the working mechanisms of a web-based workplace sitting intervention targeting psychosocial factors and action planning? BMC Public Health. 2017; 17(1):382-**

<http://dx.doi.org/10.1186/s12889-017-4325-5>

Abstract: BACKGROUND: Office workers demonstrate high levels of sitting on workdays. As sitting is positively associated with adverse health risks in adults, a theory-driven web-based computer-tailored intervention to influence workplace sitting, named 'Start to Stand,' was developed. The intervention was found to be effective in reducing

self-reported workplace sitting among Flemish employees. The aim of this study was to investigate through which mechanisms the web-based computer-tailored intervention influenced self-reported workplace sitting. METHODS: Employees (n = 155) participated in a clustered randomised controlled trial and reported socio-demographics (age, gender, education), work-related (hours at work, employment duration), health-related (weight and height, workplace sitting and physical activity) and psychosocial (knowledge, attitudes, self-efficacy, social support, intention regarding (changing) sitting behaviours) variables at baseline and 1-month follow-up. The product-of-coefficients test of MacKinnon based on multiple linear regression analyses was conducted to examine the mediating role of five psychosocial factors (knowledge, attitudes, self-efficacy, social support, intention). The influence of one self-regulation skill (action planning) in the association between the intervention and self-reported workplace sitting time was investigated via moderation analyses. RESULTS: The intervention had a positive influence on knowledge ( $p = 0.040$ ), but none of the psychosocial variables did mediate the intervention effect on self-reported workplace sitting. Action planning was found to be a significant moderator ( $p < 0.001$ ) as the decrease in self-reported workplace sitting only occurred in the group completing an action plan. CONCLUSIONS: Future interventions aimed at reducing employees' workplace sitting are suggested to focus on self-regulatory skills and promote action planning when using web-based computer-tailored advice. TRIAL REGISTRATION: Clinicaltrials.gov NCT02672215 ; (Archived by WebCite at <https://clinicaltrials.gov/ct2/show/NCT02672215> )

**Fouad AM, Waheed A, Gamal A, Amer SA, Abdellah RF, and Shebl FM. Effect of Chronic Diseases on Work Productivity: A Propensity Score Analysis. Journal of Occupational & Environmental Medicine. 2017; 59(5):480-485.**

<http://dx.doi.org/10.1097/JOM.0000000000000981>

Abstract: OBJECTIVE: The aim of this study was to evaluate the effect of chronic disease(s) on work productivity. METHODS: Using the Health & Work Performance Questionnaire, information was collected from 516 workers on chronic disease status and work productivity. Propensity-score matching was performed to identify matched-pairs of workers. RESULTS: In the propensity-score matched sample, workers with chronic diseases were more likely to have increased absenteeism and presenteeism rates, 6.34 and 2.36 times the rates if no chronic diseases, respectively. In addition, they had greater odds for getting negative critical work incidents and less odds for positive incidents than none or balanced status. Multimorbidity showed more significant increase in absenteeism and presenteeism rates, as well as increased odds for excess negative critical work incidents. CONCLUSION: Chronic disease(s) can significantly reduce work productivity by increasing absenteeism, presenteeism, and net negative critical incidents

**Liukko J and Kuuva N. Cooperation of return-to-work professionals: the challenges of multi-actor work disability management. Disability & Rehabilitation. 2017; 39(15):1466-1473.**

<http://dx.doi.org/10.1080/09638288.2016.1198428>

Abstract: PURPOSE: This article explores which concrete factors hinder or facilitate the cooperation of return-to-work (RTW) professionals in a complex system of multiple stakeholders. METHOD: The empirical material consists of in-depth interviews with 24 RTW professionals from various organizations involved in work disability management in Finland. The interviews were analyzed using thematic content analysis. RESULTS: The study revealed several kinds of challenges in the cooperation of the professionals. These were related to two partly interrelated themes: communication and distribution of responsibility. The most difficult problems were connected to the cooperation between public employment offices and other stakeholders. However, the study distinguished notable regional differences depending primarily on the scale of the local network. The main areas of improvement proposed by the interviewees were related to better networking of case managers and expansion of expertise. CONCLUSIONS: The article argues for the importance of systematic networking and stresses the role of public employment services in the multi-actor management of work disabilities. The article contributes to existing work disability case management models by suggesting the employment administration system as an important component in addition to health care, workplace and insurance systems. The study also highlights the need for expansion of expertise in the field. Implications for Rehabilitation Cooperation between RTW professionals in public employment offices and other organizations involved in work disability management was considered inadequate. In order to improve the cooperation of RTW professionals, the stakeholders need to create more systematic ways of communication and networking with professionals in other organizations. There is a need to expand the expertise in work disability management and rehabilitation, partly by increasing the role of other professionals than physicians

**McClure LA, LeBlanc WG, Fernandez CA, Fleming LE, Lee DJ, Moore KJ, and Caban-Martinez AJ. Green Collar Workers: An Emerging Workforce in the Environmental Sector. Journal of Occupational & Environmental Medicine. 2017; 59(5):440-445.**

<http://dx.doi.org/10.1097/JOM.0000000000000986>

Abstract: OBJECTIVE: We describe the socio-demographic, occupational, and health characteristics of "green collar" workers, a vital and emerging workforce in energy-efficiency and sustainability. METHODS: We linked data from the 2004 to 2012 National Health Interview Surveys (NHIS) and US Occupational Information Network (O\*NET). Descriptive and logistic regression analyses were conducted using green collar worker status as the outcome (n = 143,346). RESULTS: Green collar workers are more likely than non-green workers to be men, age 25 to 64 years, obese, and with less than or equal to high school (HS) education. They are less likely to be racial/ethnic minorities and employed in small companies or government jobs. CONCLUSIONS: Green collar workers have a distinct socio-demographic and occupational profile, and this workforce deserves active surveillance to protect its workers' safety. The NHIS-O\*NET linkage represents a valuable resource to further identify the unique exposures and characteristics of this occupational sector

**Rothmore P, Aylward P, Gray J, and Karnon J. A long-term evaluation of the stage of change approach and compensable injury outcomes - a cluster-randomised trial. *Ergonomics*. 2017; 60(5):628-635.**

<http://dx.doi.org/10.1080/00140139.2016.1199816>

Abstract: This study investigated the long-term injury outcomes for workers in companies from a range of industries which had been randomly allocated to receive ergonomics interventions tailored according to the stage of change (SOC) approach or standard ergonomics advice. Differences in compensable injury outcomes between the groups were analysed using logistic regression models. Questionnaire results from face-to-face interviews to assess musculoskeletal pain and discomfort (MSPD), job satisfaction and other factors were also analysed. Although not significant at the 0.05 level, after adjusting for workgroup clustering, workers in receipt of tailored advice were 55% (OR = 0.45, 95% CI = 0.19-1.08) less likely to report a compensable injury than those in receipt of standard ergonomics advice. Workload, job satisfaction and MSPD were significantly correlated with injury outcomes. The observed outcomes support the potential value of the SOC approach, as well as highlighting the need to consider workload, job satisfaction and MSPD when planning injury prevention programmes.

Practitioner Summary: This study investigated compensable injury outcomes for workers who had received ergonomics advice tailored according to the stage of change (SOC) approach compared with standard ergonomics advice. The results support the potential value of the SOC approach and highlight the need to consider workload, job satisfaction and musculoskeletal pain and discomfort when planning injury prevention interventions

**Schoenfisch A, Dement J, Stankevitz K, and Ostbye T. The Relationship Between BMI and Work-Related Musculoskeletal (MSK) Injury Rates is Modified by Job-Associated Level of MSK Injury Risk. *Journal of Occupational & Environmental Medicine*. 2017; 59(5):425-433.**

<http://dx.doi.org/10.1097/JOM.0000000000000982>

Abstract: OBJECTIVE: The aim of this study was to examine the relationship between body mass index (BMI) and occupational musculoskeletal (MSK) injury rates, and the statistical interaction between BMI and occupational exposure to MSK hazards (measured by level of MSK injury risk based on job category). METHODS: Using 17 years of data from 38,214 university and health system employees, multivariate Poisson regression modeled the interaction between BMI and MSK injury risk on injury rates. RESULTS: A significant interaction between BMI and MSK injury risk was observed. Although the effect of BMI was strongest for 'low' MSK injury risk occupations, absolute MSK injury rates for 'mid'/'high' MSK injury risk occupations remained larger. CONCLUSIONS: To address the occupational MSK injury burden, initiatives focused on optimal measures of workers' BMI are important but should not be prioritized over (or used in lieu of) interventions targeting job-specific MSK injury hazards

**Soltysik BK, Kroc L, Piglowska M, Guligowska A, Smigielski J, and Kostka T. An Evaluation of the Work and Life Conditions and the Quality of Life in 60 to 65 Year-Old**

**White-Collar Employees, Manual Workers, and Unemployed Controls. Journal of Occupational & Environmental Medicine. 2017; 59(5):461-466.**

<http://dx.doi.org/10.1097/JOM.0000000000001029>

Abstract: OBJECTIVES: Assessment of the work and life conditions of 60 to 65-year-old seniors with regard to type of work and quality of life (QoL). METHODS: The European Foundation for Improvement of Living and Working Conditions Questionnaire and the EuroQol 5D were used to evaluate work and life conditions and QoL in the three age- and sex-matched 60 to 65-year-old groups (white-collar, manual workers, and unemployed subjects, 100 each group, 50% of women). RESULTS: Manual workers and unemployed subjects had lower QoL score (0 to 100 point scale) than white-collar workers (accordingly 72.2; 71.2; 76.2;  $P < 0.05$ ). In working subjects ( $n = 200$ ), QoL was inversely associated with reported health problems ( $P < 0.01$ ) and directly related to quality of work ( $P < 0.001$ ). In the group of manual workers ( $n = 100$ ), QoL indices were influenced by health factors and quality of work, while in the intellectual group ( $n = 100$ ) mainly by health factors. CONCLUSIONS: Quality of work and health assessment are the main domains that influence older workers' QoL and may contribute to the shortening of the work period and accelerated transfer to retirement. Quality of work assessment seems especially important in older manual workers

\*IWH Authored Publications