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**June 7, 2019**

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**\*Breslin FC, Dollack J, Mahood Q, Maas ET, Laberge M, and Smith PM. Are new workers at elevated risk for work injury? A systematic review. *Occupational & Environmental Medicine*. 2019; [epub ahead of print]. <https://doi.org/10.1136/oemed-2018-105639>**

Abstract: OBJECTIVE: To identify, appraise and synthesise studies that have examined the degree to which new workers are at an elevated risk of work-related acute injuries and musculoskeletal (MSK) injuries. METHOD: We searched three relevant electronic databases for studies published between 1995 and early 2018. Fifty-one studies using multivariate analyses met our relevance and quality appraisal criteria. These studies examined two different work outcomes: acute injuries (eg, cuts, burns and falls) and MSK injuries (eg, repetitive strain). RESULTS: In four of six studies looking at acute work injuries, new workers were found to be at an elevated risk of injury (ie, moderate supportive evidence of new worker risk). In another six studies looking at MSK symptoms, injuries or disorders, evidence of an elevated risk among new workers was insufficient or limited. CONCLUSIONS: Our review has potential implications for the prevention of work injuries, providing policy-makers and workplace parties with supportive evidence about the importance of prevention efforts focused on new workers, such as developing workplace policies that emphasise hazard exposure reduction, hazard awareness, hazard protection and worker empowerment

**\*Kristman VL, Lowey J, Fraser L, Armstrong S, and Sawula S. A multi-faceted community intervention is associated with knowledge and standards of workplace mental health: the Superior Mental Wellness @**

**Work study. BMC Public Health. 2019; 19(1):638-648.**

<https://doi.org/10.1186/s12889-019-6976-x>

**Abstract:** **BACKGROUND:** Poor psychosocial work environments, such as those with low psychological support and high demands, can be harmful to the mental health of workers. In Canada, the National Standard for Psychological Health and Safety in the Workplace (the Standard) provides a comprehensive framework for organizations to identify hazards that may contribute to the psychological harm of employees. This study examines the association between a multi-faceted community intervention, the Superior Mental Wellness @ Work program designed to increase awareness of mental health and the National Standard, and outcomes assessing increased awareness and response to the Standard. These outcomes included the 1) prioritization of workplace mental health; 2) familiarity with the Standard; and 3) knowledge of mental health. **METHODS:** A quasi-experimental design was used to assess the associations of interest. Surveys were sent to two random samples of employer representatives pre-and post-intervention. Intervention participants were also compared to non-participants at the post-intervention stage. T-tests and chi-square tests were used to compare differences between pre- and post-intervention outcomes and also between intervention participants and non-participants identified at the post-intervention survey. **RESULTS:** The multi-faceted community intervention was associated with increased familiarity of the Standard, and increased knowledge of mental health challenges, mental health promotion, and existing resources at a community-level. When comparing those companies who participated in the intervention versus those who did not, participants were more likely to prioritize mental health in the workplace. Participants reported a greater need for support to address workplace mental health, poorer perceived mental health of employees, and greater stigma than non-participants. However, participants were more likely to be familiar with the Standard, have an action plan to implement the Standard, and be prepared to champion mental health in the workplace. Participants also had greater knowledge of workplace mental health in general compared to non-participants. **CONCLUSIONS:** The multi-faceted community intervention, the Superior Mental Wellness @ Work project, was associated with increased familiarity of the Standard, and increased knowledge of mental health challenges, mental health promotion, and existing resources at a community-level. Such a multi-faceted intervention has the capacity to improve mental health literacy and awareness of the Standard

**\*Shafi R, Smith PM, and Colantonio A. Assault predicts time away from work after claims for work-related mild traumatic brain injury. Occupational & Environmental Medicine. 2019; [epub ahead of print].**

<https://doi.org/10.1136/oemed-2018-105621>

**Abstract:** **INTRODUCTION:** Workplace violence carries a substantial economic loss burden. Up to 10% of all traumatic brain injury (TBI) admissions result from physical assault. There remains a paucity of research on assault as a mechanism of injury, taking into account sex, and its association with work re-

entry. OBJECTIVES: The aim of this study was to characterise, by sex, the sample of workers who had sustained a work-related mild TBI (wr-mTBI) and to assess the independent influence of assault, as a mechanism of injury, on time away from work. METHODS: A population-based retrospective cohort of workers' compensation claimants in Australia (n=3129) who had sustained a wr-mTBI was used for this study. A multivariable logistic regression analysis assessed whether workers who had sustained wr-mTBI as a result of assault (wr-mTBI-assault) were more likely to claim time off work compared with workers who had sustained a wr-mTBI due to other mechanisms. RESULTS: Among claimants who sustained a wr-mTBI, 9% were as a result of assault. The distribution of demographic and vocational variables differed between the wr-mTBI-assault, and not due to assault, both in the full sample, and separately for men and women. After controlling for potential confounding factors, workers who sustained wr-mTBI-assault, compared with other mechanisms, were more likely to take days off work (OR 2.14, 95% CI 1.53 to 2.99) within a 3-month timeframe. CONCLUSION: The results have policy-related implications. Sex-specific and workplace-specific prevention strategies need to be considered and provisions to support return-to-work and well-being within this vulnerable cohort should be examined

**Boyle E, Cassidy JD, and Cote P. Determining the reliability and convergent validity of a return-to-work status questionnaire. Work. 2019; 63(1):69-80.**

<https://doi.org/10.3233/WOR-192909>

Abstract: BACKGROUND: In occupational rehabilitation programs, return-to-work is a key outcome measure; however, the studies either used different definitions for return-to-work or do not provide their definition. In order to provide a solution to this issue, we developed a self-report return-to-work measure. OBJECTIVE: We investigated the reliability and validity of a self-report return-to-work questionnaire in a cohort of workers with a work-related injury. METHODS: Two research assistants independently administered the baseline questionnaires and a follow-up questionnaire. The questionnaires contained work-related questions (e.g., currently working, if duties changed) that were used to create a four-category work status measure. Pain-related and a recovery questions were also asked. We obtained loss of earnings data from the compensation board. The short-term reliability and convergent validity were assessed. RESULTS: We recruited 75 workers, and 57 completed the test-re-test baseline questionnaire, and 51 completed the follow-up. The mean age was 45.4 years and 57% were female. The participants had a mixture of musculoskeletal injuries. Most were in the acute stage, but 17% of the participants were injured for more than a year. The short-term reliability of current working status had a kappa value of 0.90. Participants who were not working had higher levels of pain-related disability than those who were working. The kappa value for the agreement between self-reported working status and administrative data on receiving any loss of earnings payment was around 0.65. CONCLUSIONS: Our study provides evidence of reliability and validity for a new return-to-work measure

**Cheng WJ, Chung PH, and Cheng Y. Transfer of the health care burden of occupational injuries and diseases from labor insurance to national health insurance in Taiwan. *American Journal of Industrial Medicine*. 2019; 62(6):496-502.**

<https://doi.org/10.1002/ajim.22979>

Abstract: BACKGROUND: Occupational injury and diseases result in substantial national health care burden. However, medical costs are often transferred to injured workers or the health insurance system. This study aims to examine the health care service utilization patterns of injured workers under the National Health Insurance (NHI) program in Taiwan and the barriers to medical benefit claims from labor insurance workers' compensation. METHODS: The total amount spent on medical benefits and national health expenditure from 1980 to 2014 was obtained. Workers who have experienced occupational injuries or diseases were identified in four waves of national surveys, and the types of medical care use were compared. In-depth interviews were conducted with 52 workers who had experienced occupational injuries and diseases. RESULTS: Since the implementation of the NHI program in 1995, medical benefits from workers' compensation have dropped substantially. In total, 75% of the workers who experienced occupational injuries or diseases had their medical costs covered through NHI. The time and effort costs caused by barriers against claiming medical benefits from workers' compensation decreased the incentive for workers from certain socioeconomic groups to make workers' compensation claims. CONCLUSION: Medical costs attributable to occupational injuries or diseases were mainly paid through NHI instead of through labor insurance. The economic burden was partially shifted from employers to workers, taxpayers, and the government

**Dugarova E. Gender, work, and childcare in Kazakhstan, Mongolia, and Russia. *Social Policy & Administration*. 2019; 53(3):385-400.**

<https://doi.org/10.1111/spol.12479>

**Duong P, Sauve-Schenk K, Egan MY, Meyer MJ, and Morrison T. Operational definitions and estimates of return to work poststroke: a systematic review and meta-analysis. *Archives of Physical Medicine and Rehabilitation*. 2019; 100(6):1140-1152.**

<https://doi.org/10.1016/j.apmr.2018.09.121>

Abstract: OBJECTIVE: To examine operational definitions of return to work (RTW) poststroke and provide more precise estimates of RTW through meta-analysis. DATA SOURCES: A systematic search was conducted using MEDLINE, CINAHL, PsycINFO, and SCOPUS (2005 to March 26, 2018). The search strategy involved expansion of medical subjective headings using terms related to stroke and work. The reference lists of review articles and included studies were checked for additional relevant studies. STUDY SELECTION: Studies were included if they (1) quantitatively analyzed RTW outcomes or factors associated with RTW; (2) reported RTW outcomes for participants

employed prior to stroke; and (3) were written in English or French. Two reviewers independently screened titles and abstracts. Of 7265 articles initially identified, 55 studies were included. DATA EXTRACTION: Data were extracted and study quality was assessed by 1 reviewer and verified by a second reviewer. DATA SYNTHESIS: Explicit and implicit operational definitions of RTW were determined and categorized. Ranges of RTW estimates were presented for study and participant characteristics. Pooled summary estimates were calculated for comparable studies by follow-up time poststroke: 55.7% at 1 year (95% confidence interval [95% CI], 51.3%-60.0%) and 67.4% at 2 years (95% CI, 60.4%-74.4%). Similar summary estimates were noted when only population-based studies were considered: 56.7% at 1 year (95% CI, 48.3%-65.1%) and 66.7% at 2 years (95% CI, 60.2%-73.2%). CONCLUSIONS: Operational definitions varied across studies and were often not explicitly reported. To promote comparability of RTW outcomes in future studies, we recommend working toward a universal operational definition and consistent follow-up times. The more precise estimates calculated in this review could be used as benchmarks for health care and social service providers

**Green DR, Gerberich SG, Kim H, Ryan AD, McGovern PM, Church TR, et al. Knowledge of work-related injury reporting and perceived barriers among janitors. *Journal of Safety Research*. 2019; 69:1-10.**  
<https://doi.org/10.1016/j.jsr.2019.01.003>

**Lutz N, Taeymans J, Ballmer C, Verhaeghe N, Clarys P, and Deliens T. Cost-effectiveness and cost-benefit of worksite health promotion programs in Europe: a systematic review. *European Journal of Public Health*. 2019; 29(3):540-546.**  
<https://doi.org/10.1093/eurpub/cky269>

Abstract: BACKGROUND: The aim of this study was to assess the evidence regarding economic evaluations of worksite health promotion programs in Europe. METHODS: Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines, the literature search, study selection, data extraction and quality appraisal were performed independently by two researchers. Full economic evaluations of worksite health promotion programs carried out in a European workplace were included. RESULTS: From 1728 search results, 39 articles describing 37 studies were included. Regarding methodological quality, 9 studies were rated as strong, 15 as moderate and 15 as weak. Six of the studies fulfilled the minimum standard for health economic evaluations. Worksite health promotion was applied in many different forms for a wide range of settings. Cost-effectiveness, cost-benefit and cost-utility analyses were performed from different perspectives. Effects on health outcomes tended to be small and uncertain. Only 9 out of 21 cost-benefit analyses reported a financial benefit and 10 out of 23 cost-effectiveness analyses concluded that the intervention was cost-effective. Two out of eight cost-utility analyses were found to be cost-effective. Productivity loss accounted for more than 85% of the total

costs and thus, was the main cost driver in the analyses. **CONCLUSIONS:** Due to considerable heterogeneity, no specific type of intervention could be identified to be particularly effective and the economic value of worksite health promotion remains uncertain. Further studies, investigating comprehensive worksite health promotion programs are needed to provide evidence on their efficiency. Guidelines to perform economic evaluations in the field of worksite health promotion, especially for valuation of productivity loss, are required

**Macedo RF, Cerqueira EMFP, Algranti E, Silva D, and De Capitani EM. High frequency and severity of pleural changes in former workers exposed to anthophyllite associated with other contaminating amphibole asbestos in Brazil. American Journal of Industrial Medicine. 2019; 62(6):503-510.**

<https://doi.org/10.1002/ajim.22977>

Abstract: **OBJECTIVE:** To evaluate the frequency and severity of pleuropulmonary alterations in anthophyllite-exposed former workers in Itapira, Sao Paulo, Brazil. The amphibole anthophyllite, a magnesium-iron silicate, had its mining, marketing, and use forbidden in Brazil in 1995. **METHODS:** Former workers were followed from 1999 to 2011. All completed chest X-ray interpreted using the International Labour Office (ILO) classification. High-resolution computed tomography was used at the final evaluation. Spirometry assessed forced vital capacity (FVC), forced expiratory volume in the first second (FEV1), and FEV1/FVC throughout the follow-up period. Samples from the mined ore were analyzed by X-ray diffraction (XRD) and scanning electron microscopy coupled to energy dispersive spectroscopy (SEM-EDS). **RESULTS:** XRD and SEM-EDS confirmed the presence in ore of anthophyllite at a concentration of 75%, in addition to tremolite and other amphiboles in lower concentrations. Twenty-eight subjects were evaluated. Median time of exposure was 3 years (minimum = 1; maximum = 18; interquartile interval = 1-4). Twenty cases of pleural abnormalities were diagnosed in 26 evaluated (77%). The average latency time was 25.6 +/- 7.4 years. Two individuals (7.7%) showed progressive worsening of diffuse pleural thickening (DPT) and exhibited an annual FVC decrease of 85 mL and 150 mL, respectively. **CONCLUSION:** This small sample showed a very high index of nonmalignant pleural abnormalities in anthophyllite-exposed workers compared with workers exposed to other kinds of fibers. Rapidly progressive DPT, defined by the severity of pleural compromise, was possibly secondary to the presence of other amphibole types in the inhaled dust. No significant loss of FVC was found in the studied group as a whole. No cases of asbestosis, lung carcinoma, and mesothelioma were diagnosed in this cohort

**Mathieu M, Eschleman KJ, and Cheng D. Meta-analytic and multiwave comparison of emotional support and instrumental support in the workplace. Journal of Occupational Health Psychology. 2019; 24(3):387-409.**

<https://doi.org/10.1037/ocp0000135>

Abstract: Two complementary studies were conducted to compare emotional

support and instrumental support in the workplace. Study 1 included meta-analyses with 142 independent samples containing 68,354 participants and tested the moderation effects of source of support (supervisor vs. coworker) and support scale type (received vs. availability). Study 2 incorporated a two-wave survey design and objective ratings of participant job demands. Overall, emotional support and instrumental support were strongly correlated and demonstrated a similar pattern of effects with work criteria. However, the emotional support-instrumental support relationship is stronger within occupations higher in emotional labor demands. Moderation effects of support on stressor-criteria relationships were also reviewed among the primary studies in the meta-analysis. For both emotional support and instrumental support, buffering effects and reverse buffering effects were commonly found, which indicates that contextual factors need to be considered to determine when support mitigates or exacerbates the effect of stressors on work criteria. Moderation effects of source of support (supervisor vs. coworker) and support scale type (received vs. availability) were also tested. In general, support was more strongly correlated with criteria when the source of support was the supervisor and the scale included items about the availability of support. The findings from the two studies provide researchers and practitioners a guide for when emotional support and instrumental support converge or diverge. (PsycINFO Database Record (c) 2019 APA, all rights reserved)

**Puerto Valencia LM, Weber A, Spegel H, Bogle R, Selmani A, Heinze S, et al. Yoga in the workplace and health outcomes: a systematic review.**

**Occupational Medicine (London). 2019; 69(3):195-203.**

<https://doi.org/10.1093/occmed/kqz033>

Abstract: BACKGROUND: Health promotion in the workplace is intended to enhance employee health and well-being. Yoga programmes are easy to implement and have been effective in the management of various health conditions. AIMS: To assess the evidence regarding the effectiveness of yoga programmes at work. METHODS: A search of electronic databases of published studies up until the 1st of April 2017. Inclusion criteria for the systematic review were randomized controlled trials of adult employees and yoga in the workplace. Quality appraisal was carried out using the Cochrane Collaboration's tool for assessing risk of bias in randomized trials. RESULTS: Of 1343 papers identified, 13 studies met the inclusion criteria. Nine out of 13 trials were classified as having an unclear risk of bias. The overall effects of yoga on mental health outcomes were beneficial, mainly on stress. Most of the cardiovascular endpoints showed no differences between yoga and controls. Other outcomes reported positive effects of yoga or no change. CONCLUSIONS: The findings of this study suggest that yoga has a positive effect on health in the workplace, particularly in reducing stress, and no negative effects were reported in any of the randomized controlled trials. Further larger studies are required to confirm this

**Smith P, Rhodes P, Pavlidis L, Alexander J, and Mcvilly K. Transitioning Australian disability enterprises to open employment community hubs using the Australian legislative framework. Journal of Vocational Rehabilitation. 2019; 50(3):263-271.**  
<https://doi.org/10.3233/JVR-191006>

**Streibelt M and Bethge M. Prognostic accuracy of the SIMBO regarding future return-to-work problems in patients with mental and musculoskeletal disorders. Disability and Rehabilitation. 2019; 41(13):1571-1577.**  
<https://doi.org/10.1080/09638288.2018.1432703>

Abstract: PURPOSE: A screening instrument (0-100 points) to predict return-to-work (RTW) problems was developed. We tested the predictive validity in patients with mental diseases (MD) and musculoskeletal diseases (MSD). MATERIALS AND METHODS: A prospective multicenter study with questionnaires at admission and 3 months after rehabilitation was conducted. Patients with MD and MSD were included. The outcome was occurrence of RTW problems during the follow-up. Receiver operating characteristic analyses were performed. Sensitivity, specificity, and predictive values were calculated for each disease group using the threshold of 27 points. RESULTS: There were 401 patients with MD (n = 250) and MSD (n = 151) included in the study, and 31.8% and 46.4% reported RTW problems during the follow-up, respectively. The area under curve was 0.885 (0.838-0.920) and 0.899 (0.841-0.943). The sensitivity rates were 87.1% and 87.5% and the specificity rates were 79.9% and 88.4% for MD and MSD, respectively. The post-test probability of experiencing RTW problems was 78.9% for MD and 77.8% for MSD. Analyses including only employed patients showed similar results. CONCLUSIONS: The screening predicts short-term RTW problems after rehabilitation in patients with mental or MSD regardless of employment. The threshold of 27 points was confirmed as reasonable, but alternatives in the range of 20-30 points can also be recommended. Implications for Rehabilitation The SIMBO is a short and economic screening predicting future problems during the return to work (RTW) in patients with mental or musculoskeletal diseases. The SIMBO can be recommended to detect the initial RTW chance at the beginning of the rehabilitation process. This paper implied that there are mainly generic factors predicting the success of an RTW. Based on this it is possible to use one screening for different disease groups

**Sylvain C, Durand MJ, Velasquez SA, Lessard N, and Maillette P. Development and implementation of a mental health work rehabilitation program: results of a developmental evaluation. Journal of Occupational Rehabilitation. 2019; 29(2):303-314.**  
<https://doi.org/10.1007/s10926-018-9783-9>

Abstract: Purpose Long-term work disability due to common mental disorders (CMDs) is a growing problem. Yet optimal interventions remain unclear and little is known about implementation challenges in everyday practice. This study



aimed to support and evaluate, in real time, the development and implementation of a work rehabilitation program (WRP) designed to promote post-CMD return-to-work (RTW). Methods A 2-year developmental evaluation was performed using a participatory approach. At program outset, the researchers held five work meetings to revise the program's logic model and discuss its underlying change theory with clinicians. Data collection tools used throughout the study period were structured charts of activities conducted with workers (n = 41); in-depth interviews with program clinicians and managers (n = 9); and participant observation during work meetings. Quantitative data were analyzed using descriptive statistics. Qualitative data underwent thematic analysis using a processual approach. Results Three types of activity were developed and implemented: individual and group interventions targeting workers, and joint activities targeting partners (physicians, employers, others). While worker-targeted activities were generally implemented as planned, joint activities were sporadic. Analysis of the implementation process revealed five challenges faced by clinicians. Determinants included clinicians, host organization, sociopolitical context and resources provided by the evaluation. Conclusion The program studied is original in that it is based on the best available scientific knowledge, yet adapted to contextual particularities. The identified implementation challenges highlight the need for greater importance to be placed on the external, non-program context to ensure sustainable implementation in everyday practice

**Wu AY and Schimmel Hyde J. The postretirement well-being of workers with disabilities. *Journal of Disability Policy Studies*. 2018; 30(1):46-55. <https://doi.org/10.1177/1044207318793161>**

\*IWH authored publications.