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**April 13, 2017**

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**\*Bunzli S, Singh N, Mazza D, Collie A, Kosny A, Ruseckaite R, and Brijnath B. Fear of (re)injury and return to work following compensable injury: qualitative insights from key stakeholders in Victoria, Australia. BMC Public Health. 2017; 17(1):313.**

<http://dx.doi.org/10.1186/s12889-017-4226-7>

Abstract: BACKGROUND: Return to work (RTW) is important for recovery post-injury. Fear of (re)injury is a strong predictor of delayed RTW, and therefore much attention has been given to addressing injured workers' fear beliefs. However, RTW is a socially-negotiated process and it may be important to consider the wider social context of the injured worker, including the beliefs of the key people involved in their RTW journey. METHODS: This paper involves data collected as part of a wider study in which semi-structured interviews explored RTW from the perspectives of 93 key stakeholders: injured workers, GPs, employers and insurance case managers in Victoria, Australia. Inductive analysis of interview transcripts identified fear of (re)injury as a salient theme across all stakeholder groups. This presented an opportunity to analyse how the wider social context of the injured worker may influence fear and avoidance behaviour. Two co-authors performed inductive analysis of the theme 'fear of (re)injury'. Codes identified in the data were grouped into five categories. Between and within category analysis revealed three themes describing the contextual factors that may influence fear avoidance and RTW behaviour. RESULTS: Theme one described how injured workers engaged in a process of weighing up the risk of (re)injury in the workplace against the perceived benefits of RTW. Theme two described how workplace factors could influence an injured workers' perception of the risk of (re)injury in the workplace, including confidence that the source of the injury had been addressed, the availability and suitability of alternative duties. Theme three described other stakeholders' reluctance to

accept injured workers back at work because of the fear that they might reinjure themselves. CONCLUSIONS: Our findings illustrate the need for a contextualised perspective of fear avoidance and RTW behaviour that includes the beliefs of other important people surrounding the injured worker (e.g. employers, family members, GPs). Existing models of health behaviour such as The Health Beliefs Model may provide useful frameworks for interventions targeting the affective, cognitive, social, organisational and policy factors that can influence fear avoidance or facilitate RTW following injury

**Al-Bayati AJ, Abudayyeh O, Fredericks T, and Butt SE. Reducing fatality rates of the Hispanic workforce in the U.S. construction industry: challenges and strategies. Journal of Construction Engineering and Management. 2017; 143(3):04016105. [http://dx.doi.org/10.1061/\(ASCE\)CO.1943-7862.0001269](http://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001269)**

**Albrecht SC, Kecklund G, Rajaleid K, and Leineweber C. The longitudinal relationship between control over working hours and depressive symptoms: results from SLOSH, a population-based cohort study. Journal of Affective Disorders. 2017; 215:143-151. <http://dx.doi.org/10.1016/j.jad.2017.03.010>**

Abstract: BACKGROUND: Psychosocial work factors can affect depressive moods, but research is inconclusive if flexibility to self-determine working hours (work-time control, WTC) is associated with depressive symptoms over time. We investigated if either sub-dimension of WTC, control over daily hours and control over time off, was related to depressive symptoms over time and examined causal, reversed-causal, and reciprocal pathways. METHODS: The study was based on four waves of the Swedish Longitudinal Occupational Survey of Health which is a follow-up of representative samples of the Swedish working population. WTC was measured using a 5-item index. Depressive symptoms were assessed with a brief subscale of the Symptom Checklist. Latent growth curve models and cross-lagged panel models were tested. RESULTS: Best fit was found for a model with correlated intercepts (control over daily hours) and both correlated intercepts and slopes (control over time off) between WTC and depressive symptoms, with stronger associations for control over time off. Causal models estimating impacts from WTC to subsequent depressive symptoms were best fitting, with a standardised coefficient between -0.023 and -0.048. LIMITATIONS: Results were mainly based on self-report data and mean age in the study sample was relatively high. CONCLUSION: Higher WTC was related to fewer depressive symptoms over time albeit small effects. Giving workers control over working hours - especially over taking breaks and vacation - may improve working conditions and buffer against developing depression, potentially by enabling workers to recover more easily and promoting work-life balance

**Awolusi IG and Marks ED. Safety activity analysis framework to evaluate safety performance in construction. Journal of Construction Engineering and Management. 2017; 143(3):05016055. [http://dx.doi.org/10.1061/\(ASCE\)CO.1943-7862.0001265](http://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001265)**

**Boot CR, van Drongelen A, Wolbers I, Hlobil H, van der Beek AJ, and Smid T. Prediction of long-term and frequent sickness absence using company data. Occupational Medicine. 2017; 67:176-181.**

<http://dx.doi.org/10.1093/occmed/kqx014>

**Borup H, Kirkeskov L, Hanskov DJ, and Brauer C. Systematic review: chronic obstructive pulmonary disease and construction workers. Occupational Medicine. 2017; 67:199-204.**

<http://dx.doi.org/10.1093/occmed/kqx007>

**Braeckman L, Verbrugghe M, Janssens H, Verpraet R, and Cobbaut L. Awareness, knowledge, and practices regarding occupational hazards among medical students: a longitudinal study before and after admission as trainees. Journal of Occupational and Environmental Medicine. 2017; 59(4):e41-e45.**

<http://dx.doi.org/10.1097/JOM.0000000000000972>

Abstract: OBJECTIVE: The aim of this study was to evaluate changes in knowledge, attitude, and preventive practices of students regarding occupational hazards before and after entering clinical training. METHODS: A self-administered questionnaire was used to follow up a cohort of Belgian medical students in 2014 and 2015. Inquiries about students' characteristics, awareness, knowledge, and practices of protective measures were included. Descriptive and multivariable analyses were performed. RESULTS: Overall, 249 (94%) students completed the preclinical questionnaire and 147 (56%) responded on both occasions. Our findings revealed that student awareness and knowledge scores were inadequate but increased after admission as trainees. Students with an accidental blood contact (n = 43) showed no better knowledge of postexposure management than those without such an incident. CONCLUSIONS: The observed lack of awareness and knowledge regarding occupational hazards among students provides an opportunity to improve basic education and training environments

**Van den Broeck A, Vander Elst T, Baillien E, Sercu M, Schouteden M, De Witte H, and Godderis L. Job demands, job resources, burnout, work engagement, and their relationships: an analysis across sectors. Journal of Occupational and Environmental Medicine. 2017; 59(4):369-376.**

<http://dx.doi.org/10.1097/JOM.0000000000000964>

Abstract: OBJECTIVE: The aim of this study was to gain insight in the importance of job demands and resources and the validity of the Job Demands Resources Model across sectors. METHODS: We used one-way analyses of variance to examine mean differences, and multi-group Structural Equation Modeling analyses to test the strength of the relationships among job demands, resources, burnout, and work engagement across the health care, industry, service, and public sector. RESULTS: The four sectors differed in the experience of job demands, resources, burnout, and work engagement, but they did not vary in how (strongly) job demands and resources associated with burnout and work engagement. CONCLUSION: More attention is needed to decrease

burnout and increase work engagement, particularly in industry, service, and the public sector. The Job Demands-Resources model may be helpful in this regard, as it is valid across sectors

**Christensen JO, Johansen S, and Knardahl S. Psychological predictors of change in the number of musculoskeletal pain sites among Norwegian employees: a prospective study. BMC Musculoskeletal Disorders. 2017; 18(1):140.**

<http://dx.doi.org/10.1186/s12891-017-1503-7> [open access]

Abstract: BACKGROUND: The pathogenesis of syndromes of widespread musculoskeletal pain remains an enigma. The present study sought to determine if psychological states, job satisfaction, pain intensity, and sleep problems contributed to the spread and decline of the number of musculoskeletal pains. METHODS: A sample of 2989 Norwegian employees completed a questionnaire at baseline and follow-up 2 years later. Data were analyzed with multinomial and ordinal logistic regression analyses to determine effects on direction and degree of change of number of pain sites (NPS). RESULTS: After adjustment for sex, age, skill level, and number of pain sites at baseline, increases in the number of pain sites from baseline to follow-up were predicted by emotional exhaustion, mental distress, having little surplus, feeling down and sad, sleep disturbances, and intensity of headache. Decreases were predicted by low levels of emotional exhaustion, mental distress, sleep disturbances, restlessness, and lower intensity of headache, neck pain, shoulder pain, and back pain. Higher numbers of pain sites at baseline were associated with reduction of number of pain sites and lower likelihood of spread. Some factors that did not predict whether decrease or increase occurred were nevertheless associated with the degree of decrease (depression, anxiety, having surplus, self-efficacy) or increase (anxiety). CONCLUSIONS: Several psychological and physiological factors predicted change in the number of pain sites. There is a need for further investigations to identify possible mechanisms by which psychological and behavioral factors propagate the spread of pain

**Craig M, Hill W, Englehart K, and Adisesh A. Return to work after occupational injury and upper limb amputation. Occupational Medicine. 2017; 67:227-229.**

<http://dx.doi.org/10.1093/occmed/kqx012>

**Dong XS, Largay JA, Choi SD, Wang X, Cain CT, and Romano N. Fatal falls and PFAS use in the construction industry: findings from the NIOSH FACE reports. Accident Analysis and Prevention. 2017; 102:136-143.**

<http://dx.doi.org/10.1016/j.aap.2017.02.028>

Abstract: This study analyzed the Construction FACE Database (CFD), a quantitative database developed from reports of the Fatality Assessment and Control Evaluation (FACE) program conducted by the National Institute for Occupational Safety and Health (NIOSH). The CFD contains detailed data on 768 fatalities in the construction industry reported by NIOSH and individual states from 1982 through June 30, 2015. The results show that falls accounted for 42% (325) of the 768 fatalities included in the CFD.

Personal fall arrest systems (PFAS) were not available to more than half of the fall decedents (54%); nearly one in four fall decedents (23%) had access to PFAS, but were not using it at the time of the fall. Lack of access to PFAS was particularly high among residential building contractors as well as roofing, siding, and sheet metal industry sectors (approximately 70%). Although the findings may not represent the entire construction industry today, they do provide strong evidence in favor of fall protection requirements by the Occupational Safety and Health Administration (OSHA). In addition to stronger enforcement, educating employers and workers about the importance and effectiveness of fall protection is crucial for compliance and fall prevention

**Gao R, Chan APC, tama WP, and ahoor H. Workers' perceptions of safety climate in international construction projects: effects of nationality, religious belief, and employment mode. Journal of Construction Engineering and Management. 2017; 143(4):04016117.**

[http://dx.doi.org/10.1061/\(ASCE\)CO.1943-7862.0001226](http://dx.doi.org/10.1061/(ASCE)CO.1943-7862.0001226)

**Harber P, Ha J, and Roach M. Arizona hospital discharge and emergency department database: implications for occupational health surveillance. Journal of Occupational and Environmental Medicine. 2017; 59(4):417-423.**

<http://dx.doi.org/10.1097/JOM.0000000000000971>

**Ikeda H, Kubo T, Izawa S, Takahashi M, Tsuchiya M, Hayashi N, and Kitagawa Y. Impact of daily rest period on resting blood pressure and fatigue: a one-month observational study of daytime employees. Journal of Occupational and Environmental Medicine. 2017; 59(4):397-401.**

<http://dx.doi.org/10.1097/JOM.0000000000000968>

**Lowe DB, Taylor MJ, and Hill SJ. Associations between multimorbidity and additional burden for working-age adults with specific forms of musculoskeletal conditions: a cross-sectional study. BMC Musculoskeletal Disorders. 2017; 18(1):135.**

<http://dx.doi.org/10.1186/s12891-017-1496-2> [open access]

Abstract: BACKGROUND: Multiple health conditions are increasingly a problem for adults with musculoskeletal conditions. However, multimorbidity research has focused primarily on the elderly and those with a limited subset of musculoskeletal disorders. We sought to determine whether associations between multimorbidity and additional burden differ with specific forms of musculoskeletal conditions among working-age adults. METHODS: Data were sourced from a nationally representative Australian survey. Specific musculoskeletal conditions examined were osteoarthritis; inflammatory arthritis; other forms of arthritis or arthropathies; musculoskeletal conditions not elsewhere specified; gout; back pain; soft tissue disorders; or osteoporosis.

Multimorbidity was defined as the additional presence of one or more of the Australian National Health Priority Area conditions. Burden was assessed by self-reported measures of: (i) self-rated health (ii) musculoskeletal-related healthcare and medicines

utilisation and, (iii) general healthcare utilisation. Associations between multimorbidity and additional health or healthcare utilisation burden among working-age adults (aged 18 - 64 years of age) with specific musculoskeletal conditions were estimated using logistic regression, adjusting for confounders. Interaction terms were fitted to identify whether there were specific musculoskeletal conditions where multimorbidity was more strongly associated with poorer health or greater healthcare utilisation than in the remaining musculoskeletal group. RESULTS: Among working-age adults, for each of the specified musculoskeletal conditions, multimorbidity was associated with similar, increased likelihood of additional self-rated health burden and certain types of healthcare utilisation. While there were differences in the relationships between multimorbidity and burden for each of the specific musculoskeletal conditions, no one specific musculoskeletal condition appeared to be consistently associated with greater additional health burden in the presence of multimorbidity across the majority of self-rated health burden and healthcare use measures. CONCLUSIONS: For working-age people with any musculoskeletal conditions examined here, multimorbidity increases self-reported health and healthcare utilisation burden. As no one musculoskeletal condition appears consistently worse off in the presence of multimorbidity, there is a need to better understand and identify strategies that acknowledge and address the additional burden of concomitant conditions for working-age adults with a range of musculoskeletal conditions

**Mackenzie K, Till S, and Basu S. Sedentary behaviour in NHS staff: implications for organizations. Occupational Medicine. 2017; 67:188-193.**

<http://dx.doi.org/10.1093/occmed/kqx010>

**Moshe S, Cinamon T, Zack O, Segal N, Chodick G, Krakov A, and Tal M. The need for social work services in occupational medicine. Occupational Medicine. 2017; 67:194-198.**

<http://dx.doi.org/10.1093/occmed/kqx009>

**Ojala B, Nygard CH, Huhtala H, and Nikkari ST. Does perceived work ability improve after a cognitive behavioral intervention program? Occupational Medicine. 2017; 67:230-232.**

<http://dx.doi.org/10.1093/occmed/kqx008>

**Phillips TD and Shoemaker MJ. Early access to physical therapy and specialty care management for American workers with musculoskeletal injuries. Journal of Occupational and Environmental Medicine. 2017; 59(4):402-411.**

<http://dx.doi.org/10.1097/JOM.0000000000000969>

**Ridenour ML, Hendricks S, Hartley D, and Blando JD. Workplace violence and training required by new legislation among NJ nurses. Journal of Occupational and**

**Environmental Medicine. 2017; 59(4):e35-e40.**

<http://dx.doi.org/10.1097/JOM.0000000000000973>

**Vogel N, Schandelmaier S, Zumbrunn T, Ebrahim S, de Boer WE, Busse JW, and Kunz R. Return-to-work coordination programmes for improving return to work in workers on sick leave. Cochrane Database of Systematic Reviews. 2017; 3:CD011618.**

<http://dx.doi.org/10.1002/14651858.CD011618.pub2>

**Abstract:** BACKGROUND: To limit long-term sick leave and associated consequences, insurers, healthcare providers and employers provide programmes to facilitate disabled people's return to work. These programmes include a variety of coordinated and individualised interventions. Despite the increasing popularity of such programmes, their benefits remain uncertain. We conducted a systematic review to determine the long-term effectiveness of return-to-work coordination programmes compared to usual practice in workers at risk for long-term disability. OBJECTIVES: To assess the effects of return-to-work coordination programmes versus usual practice for workers on sick leave or disability. SEARCH METHODS: We searched the Cochrane Central Register of Controlled Trials (CENTRAL; 2016, Issue 11), MEDLINE, Embase, CINAHL and PsycINFO up to 1 November 2016. SELECTION CRITERIA: We included randomised controlled trials (RCTs) that enrolled workers absent from work for at least four weeks and randomly assigned them to return-to-work coordination programmes or usual practice. DATA COLLECTION AND ANALYSIS: Two review authors independently screened titles, abstracts and full-text articles for study eligibility; extracted data; and assessed risk of bias from eligible trials. We contacted authors for additional data where required. We conducted random-effects meta-analyses and used the GRADE approach to rate the quality of the evidence. MAIN RESULTS: We identified 14 studies from nine countries that enrolled 12,568 workers. Eleven studies focused on musculoskeletal problems, two on mental health and one on both. Most studies (11 of 14) followed workers 12 months or longer. Risk of bias was low in 10 and high in 4 studies, but findings were not sensitive to their exclusion. We found no benefits for return-to-work coordination programmes on return-to-work outcomes. For short-term follow-up of six months, we found no effect on time to return to work (hazard ratio (HR) 1.32, 95% confidence interval (CI) 0.93 to 1.88, low-quality evidence), cumulative sickness absence (mean difference (MD) -16.18 work days per year, 95% CI -32.42 to 0.06, moderate-quality evidence), the proportion of participants at work at end of the follow-up (risk ratio (RR) 1.06, 95% CI 0.86 to 1.30, low-quality evidence) or on the proportion of participants who had ever returned to work, that is, regardless of whether they had remained at work until last follow-up (RR 0.87, 95% CI 0.63 to 1.19, very low-quality evidence). For long-term follow-up of 12 months, we found no effect on time to return to work (HR 1.25, 95% CI 0.95 to 1.66, low-quality evidence), cumulative sickness absence (MD -14.84 work days per year, 95% CI -38.56 to 8.88, low-quality evidence), the proportion of participants at work at end of the follow-up (RR 1.06, 95% CI 0.99 to 1.15, low-quality evidence) or on the proportion of participants who had ever returned to work (RR 1.03, 95% CI 0.97 to 1.09, moderate-quality evidence). For very long-term follow-up of longer than 12 months, we found no

effect on time to return to work (HR 0.93, 95% CI 0.74 to 1.17, low-quality evidence), cumulative sickness absence (MD 7.00 work days per year, 95% CI -15.17 to 29.17, moderate-quality evidence), the proportion of participants at work at end of the follow-up (RR 0.94, 95% CI 0.82 to 1.07, low-quality evidence) or on the proportion of participants who had ever returned to work (RR 0.95, 95% CI 0.88 to 1.02, low-quality evidence). We found only small benefits for return-to-work coordination programmes on patient-reported outcomes. All differences were below the minimal clinically important difference (MID). **AUTHORS' CONCLUSIONS:** Offering return-to-work coordination programmes for workers on sick leave for at least four weeks results in no benefits when compared to usual practice. We found no significant differences for the outcomes time to return to work, cumulative sickness absence, the proportion of participants at work at end of the follow-up or the proportion of participants who had ever returned to work at short-term, long-term or very long-term follow-up. For patient-reported outcomes, we found only marginal effects below the MID. The quality of the evidence ranged from very low to moderate across all outcomes

**Wang X, Dong XS, Choi SD, and Dement J. Work-related musculoskeletal disorders among construction workers in the United States from 1992 to 2014. Occupational and Environmental Medicine. 2017; 74(5):374-380.**

<http://dx.doi.org/10.1136/oemed-2016-103943>

**Abstract:** **OBJECTIVES:** Examine trends and patterns of work-related musculoskeletal disorders (WMSDs) among construction workers in the USA, with an emphasis on older workers. **METHODS:** WMSDs were identified from the 1992-2014 Survey of Occupational Injuries and Illnesses (SOII), and employment was estimated from the Current Population Survey (CPS). Risk of WMSDs was measured by number of WMSDs per 10 000 full-time equivalent workers and stratified by major demographic and employment subgroups. Time series analysis was performed to examine the trend of WMSDs in construction. **RESULTS:** The number of WMSDs significantly dropped in the US construction industry, following the overall injury trends. However, the rate of WMSDs in construction remained higher than in all industries combined; the median days away from work increased from 8 days in 1992 to 13 days in 2014, and the proportion of WMSDs for construction workers aged 55 to 64 years almost doubled. By occupation, construction labourers had the largest number of WMSD cases, while helpers, heating and air-conditioning mechanics, cement masons and sheet metal workers had the highest rates of WMSDs. The major cause of WMSDs in construction was overexertion, and back injuries accounted for more than 40% of WMSDs among construction workers. The estimated wage loss for private wage-and-salary construction workers was \$46 million in 2014. **CONCLUSIONS:** Construction workers continue to face a higher risk of WMSDs. Ergonomic solutions that reduce overexertion-the primary exposure for WMSDs-should be adopted extensively at construction sites, particularly for workers with a higher risk of WMSDs



\*IWH authored publication.