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November 6, 2020

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***Nielsen SM, Uggen Rasmussen M, Boers M, Van Der Windt DA, de Wit M, Woodworth G, Flurey A, Beaton D, et al. Towards consensus in defining and handling contextual factors within rheumatology trials: an initial qualitative study from an OMERACT working group. Annals of the Rheumatic Diseases. 2020; [epub ahead of print].**
https://doi.org/10.1136/annrheumdis-2020-217895
Abstract: OBJECTIVES: The Outcome Measures in Rheumatology Initiative established the Contextual Factors Working Group to guide the understanding, identification and handling of contextual factors for clinical trials. In clinical research, different uses of the term 'contextual factors' exist. This study explores the perspectives of researchers (including clinicians) and patients in defining 'contextual factor' and its related terminology, identifying such factors and accounting for them in trials across rheumatology. METHODS: We conducted individual semistructured interviews with researchers (including clinicians) who have experience within the field of contextual factors in clinical trials or other potentially relevant areas, and small focus group interviews with patients with rheumatic conditions. We transcribed the interviews and applied qualitative

content analysis. RESULTS: We interviewed 12 researchers and 7 patients. Researcher's and patient's descriptions of contextual factors were categorised into two broad themes, each comprising two contextual factors types. The 'treatment effect' theme focused on factors explaining variations in treatment effects (A) among patients and (B) among studies. The 'outcome measurement' theme focused on factors that explain (C) variations in the measurement result itself (apart from actual changes/differences in the outcome) and (D) variations in the outcome itself (beside treatment of interest). Methods for identifying and handling contextual factors differed among these themes and types. CONCLUSIONS: Two main themes for contextual factors with four types of contextual factors were identified based on input from researchers and patients. This will guide operationalisation of contextual factors. Further research should refine our findings and establish consensus among relevant stakeholders

Boustead K, McDowall K, Baker KF, Pareja-Cebrian L, Gibson L, Cunningham M, et al. Establishing a healthcare worker screening programme for COVID-19. Occupational Medicine. 2020; 70(7):456-457.
https://doi.org/10.1093/occmed/kqaa114 [open access]

Dean A, Venkataramani A, and Kimmel S. Mortality rates from COVID-19 are lower in unionized nursing homes. Health Affairs. 2020; 39(11):1993-2001.
https://doi.org/10.1377/hlthaff.2020.01011
Abstract: More than 40percent of all reported coronavirus disease 2019 (COVID-19) deaths in the United States have occurred in nursing homes. As a result, health care workers' access to personal protective equipment (PPE) and infection control policies in nursing homes have received increased attention. However, it is not known whether the presence of health care worker unions in nursing homes is associated with COVID-19 mortality rates. Therefore, we used cross-sectional regression analysis to examine the association between the presence of health care worker unions and COVID-19 mortality rates in 355 nursing homes in New York State. Health care worker unions were associated with a 1.29-percentage-point reduction in mortality, which represents a 30 percent relative

decrease in the COVID-19 mortality rate compared with facilities without these unions. Unions were also associated with greater access to PPE, one mechanism that may link unions to lower COVID-19 mortality rates

Goorts K, Boets I, Decuman S, Du Bois M, Rusu D, and Godderis L. Psychosocial determinants predicting long-term sickness absence: a register-based cohort study. Journal of Epidemiology & Community Health. 2020; 74(11):913-918. https://doi.org/10.1136/jech-2020-214181 [open access]
Abstract: BACKGROUND: This study assessed the psychosocial determinants as explanatory variables for the length of the work disability period. The aim was to estimate the predictive value of a selected set of psychosocial determinants from the Quickscan questionnaire for the length of the sick leave period. A comparison was also made with the most common biomedical determinant: diagnosis. METHODS: In a cohort study of 4 981 insured Belgian patients, the length of the sick leave was calculated using Kaplan-Meier. Predictive psychosocial determinants were selected using backward conditional selection in Cox regression and using concordance index values (C-index) we compared the predictive value of the biomedical to the psychosocial model in a sample subset. RESULTS: Fourteen psychosocial determinants were significantly ($p<0.10$) related to the length of the sick leave: health perception of the patient, physical workload, social support management, social support colleagues, work-health interference, psychological distress, fear of colleagues' expectations, stressful life-events, autonomy, learning and development opportunities, job satisfaction, workload, work expectations and expectation to return to work. The C-index of this biopsychosocial model including gender, age and labour status was 0.80 (CI: 0.78; 0.81) (n=4 981). In the subset of 2 868 respondents with diagnostic information, the C-index for the same model was .73 (CI: 0.71; 0.76) compared with 0.63 (CI: 0.61; 0.65) for the biomedical model. CONCLUSIONS: A set of 14 psychosocial determinants showed good predictive capacity (C-index: 0.80). Also, in a subset of the sample, the selected determinants performed better compared with diagnostic information to predict long-term sick leave (>6months)

Hakulinen C, Bockerman P, Pulkki-Raback L, Virtanen M, and Elovainio M. Employment and earnings trajectories before and after sickness absence due to major depressive disorder: a nationwide case-control study. Occupational and Environmental Medicine. 2020; [epub ahead of print].
https://doi.org/10.1136/oemed-2020-106660
Abstract: OBJECTIVES: To examine employment and earnings trajectories before and after the first sickness absence period due to major depressive disorder (MDD). METHODS: All individuals (n=158 813) in Finland who had a first sickness absence period (lasting longer than 9 days) due to MDD between 2005 and 2015 were matched with one randomly selected individual of the same age and gender with no history of MDD. Employment status and earnings were measured using register-based data annually from 2005 to 2015. Generalised estimating equations were used to examine the trajectories of employment and earnings before and after MDD diagnosis in men and women separately. RESULTS: Sickness absence due to MDD was associated with increased probability of non-employment during and after the year of the first sickness absence period. In men, but not in women, the probability of being employed was lower 5 years before the sickness absence period due to MDD. When compared with the individuals in the control group, men had around 34% and women 15% lower earnings 1 year, and 40% and 23%, respectively, 5 years, after the first sickness absence period due to MDD. More severe MDD and longer duration of sickness absence period were associated with lower probability of being employed. CONCLUSIONS: Sickness absence due to MDD was associated with considerable reduction in employment and earnings losses. For men and individuals with more severe MDD, this reduction was before the first sickness period. This supports a reciprocal association between employment and earnings with MDD

Landsbergis PA, Shtridler E, Bahruth A, and Alexander D. Job stress and health of elementary and secondary school educators in the United States. New Solutions. 2020; 30(3):192-203.
https://doi.org/10.1177/1048291120956369
Abstract: Elementary and secondary school educators face many work stressors, which appear to be increasing due to economic,

political, and social trends. Therefore, we analyzed data from a 2017 national American Federation of Teachers survey of U.S. education staff, including data from two New York School districts that have adopted collaborative labor-management practices. The national American Federation of Teachers sample of educators reported significantly higher prevalences of several work stressors and poorer physical and mental health compared to the U.S. workers overall, adjusted for age, gender, and race/ethnicity. Compared with educators nationally, educators in districts with collaborative labor-management practices did not have a consistently higher or lower prevalence of work stressors or poorer health. Findings suggest the importance of reducing work stressors among U.S. educators. Results should be interpreted with caution due to the low educator survey response rate

Leineweber C, Marklund S, Gustafsson K, and Helgesson M. Work environment risk factors for the duration of all cause and diagnose-specific sickness absence among healthcare workers in Sweden: a prospective study. Occupational and Environmental Medicine. 2020; 77(11):782-789. https://doi.org/10.1136/oemed-2020-106510

Abstract: OBJECTIVES: Increasing sickness absence (SA) has been reported among healthcare workers in Sweden. Our aim was to analyse the impact of work environment factors on short-term and long-term SA based on musculoskeletal and psychiatric diagnoses among healthcare workers. METHODS: The study sample consisted of healthcare workers (n=12452) drawn from representative samples of workers aged 16 to 64, who participated in the Swedish Work Environment Surveys (SWES) between 1993 and 2013. The outcomes were either short-term (<=28 days) or long-term (>104 days) SA between 1994 and 2016. HRs and 95% CIs were calculated for the impact of physical and psychosocial working conditions on risk of subsequent short-term or long-term SA for 3 years after participation in SWES. RESULTS: Heavy physical work and strenuous work postures showed elevated HRs for short-term and long-term SA compared with those without these work exposures. Similarly, high job demands and low job control each increased the risk for both short-term and long-term SA compared with employees with low job demands and high job control. Low job support increased

the risk for short-term SA compared with those with high job support. Working conditions were strongly related to short-term SA due to musculoskeletal diagnoses but not to short-term SA due to psychiatric diagnoses. None of the work characteristics, except strenuous postures, elevated the risk for long-term SA due to psychiatric diagnosis compared with employees without these characteristics. CONCLUSIONS: Ergonomic improvements and stress reduction among healthcare workers are likely to reduce the prevalence of SA foremost due to musculoskeletal diagnoses

MacLeod D. The rise of shop floor ergonomics: a personal perspective. IISE Transactions on Occupational Ergonomics and Human Factors. 2020; 8(2):99-104.
https://doi.org/10.1080/24725838.2020.1810823
Abstract: OCCUPATIONAL APPLICATIONS Based on a 45-year career as a practitioner in industrial ergonomics, I offer in this paper a personal memoir on how ergonomics came to the shop floor in North America, involving ordinary workers in an early effort to prevent what was at the time an unknown problem - work-related Musculoskeletal Disorders. The actions included the beginning of a low-tech, practical improvement process that is still effective today. In total, the experience can provide encouragement to everybody to be confident in their ability when trying new endeavors and to remember that small initial steps can eventually lead to major change

Mather L, Karkkainen S, Narusyte J, Ropponen A, Mittendorfer-Rutz E, and Svedberg P. Sick leave due to back pain, common mental disorders and disability pension: common genetic liability. European Journal of Pain. 2020; 24:1892–1901(10):1892-1901.
https://doi.org/10.1002/ejp.1635 [open access]
Abstract: BACKGROUND: Back pain and common mental disorders are often comorbid and known risk factors for future disability pension. However, the reason for the covariation is not known. The aim was to investigate the common genetic and environmental influences on the covariation between sick leave due to back pain, sick leave due to common mental disorders and disability pension. METHODS: Register data from the Swedish Social Insurance Agency on sick leave due to back pain, common mental disorders and

disability pension between 2005 and 2018, in a population-based sample of 56,686 working age twins was used to construct biometric twin models to calculate if the covariation between the traits were due to Additive (A) or Dominant (D) genetic factors, Common environmental factors (C) or unique Environmental factors (E), for women and men. RESULTS: The phenotypic correlations ranged between 0.17 and 0.25. A common factor common pathway AE model fitted best for both women and men. The latent underlying common factor, that explained the covariation was mostly explained by genetic factors (87% for women and 90% for men). Each trait was also influenced by its own unique genetic and unique environment factors. A higher heritability was found for disability pension than for sick leave. CONCLUSIONS: The covariation between sick leave due to back pain and common mental disorders, and disability pension were mostly explained by common genetic factors, while the unique variation in each trait was influenced by both genetic and environmental factors not shared within the twin pairs. SIGNIFICANCE: A common genetic liability seems to be of importance in the comorbidity of sick leave due to back pain and common mental disorders and the transition to disability pension, both among women and men. However, the proportion in each trait that was explained by genetic factors was somewhat higher for men than for women in all traits. This may be of importance to consider in intervention or prevention efforts

Murayama H, Nonaka K, Hasebe M, and Fujiwara Y. Workplace and community social capital and burnout among professionals of health and welfare services for the seniors: a multilevel analysis in Japan. Journal of Occupational Health. 2020; 62(1):e12177.
https://doi.org/10.1002/1348-9585.12177 [open access]
Abstract: OBJECTIVE: Despite the potential of the social capital approach in preventing burnout, there is sparse evidence of its contextual effect. This study aimed to reveal the contextual association of workplace and community social capital on burnout among professionals of health and welfare services for seniors in Japan. METHODS: We collected data from a cross-sectional questionnaire survey for all health and welfare professionals working in Community Comprehensive Support Centers (CCSCs) in the

central Tokyo area in 2015. We assessed burnout using the Japanese version of the Maslach Burnout Inventory, which consists of three subscales: emotional exhaustion, depersonalization, and reduced personal accomplishment. We prepared social capital items regarding workplace (the CCSC the participants belonged to) and community (the current catchment area of the CCSC). We aggregated individual responses of workplace and community social capital within each CCSC to create group-level workplace and community social capital indicators. RESULTS: Among the 1771 questionnaires distributed, we analyzed 1110 from 211 CCSCs. Multilevel analysis showed that higher group-level workplace social capital was significantly associated with lower scores of all three subscales after adjusting for covariates. Moreover, we found a significant association between greater group-level community social capital and lower scores of depersonalization and reduced personal accomplishment. CONCLUSION: Working in workplaces and communities with higher social capital is related to lower burnout. The findings suggest that strategies to enhance the social capital of their workplace and community would be beneficial in the prevention of burnout among professionals in the field of health and social welfare

Nabe-Nielsen K, Nilsson CJ, Juul-Madsen M, Bredal C, Hansen LOP, and Hansen AM. COVID-19 risk management at the workplace, fear of infection and fear of transmission of infection among frontline employees. Occupational and Environmental Medicine. 2020; [epub ahead of print].
https://doi.org/10.1136/oemed-2020-106831
Abstract: OBJECTIVES: We compared COVID-19 risk management, fear of infection and fear of transmission of infection among frontline employees working within eldercare, hospital/rehabilitation, psychiatry, childcare and ambulance service and explored if group differences in fear of infection and transmission could be explained by differences in risk management. We also investigated the association of risk management with fear of infection and fear of transmission of infection among eldercare personnel. METHODS: We used cross-sectional questionnaire data collected by the Danish labour union, FOA . Data were collected 5Â½ weeks after the first case of COVID-19 was registered in Denmark. Data for the first aim included 2623 participants. Data for the second aim included 1680 participants. All

independent variables were mutually adjusted and also adjusted for sex, age, job title and region. RESULTS: Fear of infection (49%) and fear of transmitting infection from work to the private sphere (68%) was most frequent in ambulance service. Fear of transmitting infection during work was most frequent in the eldercare (55%). Not all differences in fear of infection and transmission between the five areas of work were explained by differences in risk management. Among eldercare personnel, self-reported exposure to infection and lack of access to test was most consistently associated with fear of infection and fear of transmission, whereas lack of access to personal protective equipment was solely associated with fear of transmission. CONCLUSION: We have illustrated differences and similarities in COVID-19 risk management within five areas of work and provide new insights into factors associated with eldercare workers' fear of infection and fear of transmission of infection

Ng K, Niven K, and Hoel H. 'I could help, but . . .': a dynamic sensemaking model of workplace bullying bystanders. Human Relations. 2020; 73(12):1718-1746.
https://doi.org/10.1177/0018726719884617

Stirling PHC, Jenkins PJ, Clement ND, Duckworth AD, and McEachan JE. Occupation classification predicts return to work after carpal tunnel decompression. Occupational Medicine. 2020; 70(6):415-420.
https://doi.org/10.1093/occmed/kqaa061
Abstract: BACKGROUND: The relationship between hand function, employment status and return to work (RTW) after carpal tunnel decompression (CTD) is unclear. AIMS: To investigate predictors of RTW following CTD. METHODS: We prospectively collected pre-operative and 1-year post-operative outcomes and RTW data for all patients undergoing CTD at one centre between 29 May 2014 and 29 May 2017. We used the Standard Occupation Classification 2010. RESULTS: Pre- and post-operative results were available for 469 (79%) of the 597 patients who had CTD surgery. Pre-operatively, 219 (47%) were employed, 216 (46%) were retired, 26 (6%) were not working due to long-term illness and eight (2%) were unemployed. Complete data sets were available for 178 (81%) of the 219 employed patients, of whom 161 (90%) were able to RTW. Of the

rest, five (3%) had changed jobs and 12 (7%) were unable to work. Median RTW time was 4 weeks (interquartile range [IQR] 2-6 weeks). Significantly more patients undertaking manual labour were unable to RTW (15% versus 5%; P < 0.05). There was no significant difference in mean number of weeks absent between manual (5.7; 95% confidence interval [CI] 4.9-6.5) and non-manual workers (6.2; 95% CI 4.8-7.6) (P > 0.05). Median pre-operative (difference 15.9; 95% CI 4.5-25) and post-operative (difference 43.2; 95% CI 13.6-43.2) hand function scores were significantly worse in patients who did not RTW (P < 0.05). CONCLUSIONS: Most patients can RTW within 1 year of CTD. Failure to RTW is more likely in manual workers and patients with poorer pre-operative hand function

Vinstrup J, Jakobsen MD, Madeleine P, and Andersen LL. Physical exposure during patient transfer and risk of back injury & low-back pain: prospective cohort study. BMC Musculoskeletal Disorders. 2020; 21(1):715.
https://doi.org/10.1186/s12891-020-03731-2 [open access]
Abstract: BACKGROUND: Work-related musculoskeletal disorders (MSDs) are common among healthcare workers. Because frequent patient transfer has been associated with increased risk of MSDs, we aim to quantify the physical load associated with commonly-used assistive devices and to investigate associations between accumulated physical exposure and risk of MSDs. METHODS: By applying an exposure matrix based on objective measurements of electromyography and trunk flexion on a large (n=1285) prospective cohort, intensity of low-back pain (LBP) and odds of back injury at 1-year follow-up were modelled using linear models and logistic regressions, respectively. The cohort was divided into groups according to physical exposure; i.e. low (1st quartile), moderate (2nd and 3rd quartiles) and high (4th quartile) exposure. RESULTS: Exposure profiles are provided for 9 groups of assistive devices, with ceiling lifts and intelligent beds eliciting the lowest physical exposure. In the fully-adjusted model, we report differences in LBP intensity at follow-up between the low and moderate exposure groups (p=0.0085). No difference was found between the moderate and high exposure groups (p=0.2967). Likewise, we find no associations between physical exposure and odds of back injury at 1-year follow-up, with a prevalence of 11, 13 and 11% for the three groups,

respectively. CONCLUSIONS: Low physical exposure during patient transfer was prospectively associated with lower intensity of LBP. Consistent use of assistive devices associated with low physical exposure, namely ceiling-lifts and intelligent beds, may play a role in reducing the incidence of MSDs among healthcare workers

Woolley M, Goode N, Salmon P, and Read G. Who is responsible for construction safety in Australia? A STAMP analysis. Safety Science. 2020; 132:104984.
https://doi.org/10.1016/j.ssci.2020.104984

Yaris C, Ditchburn G, Curtis GJ, and Brook L. Combining physical and psychosocial safety: a comprehensive workplace safety model. Safety Science. 2020; 132:104949.
https://doi.org/10.1016/j.ssci.2020.104949

***IWH authored publication.**