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**April 16, 2021**

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**\*Orchard C, Carnide N, Smith P, and Mustard C. The association between case manager interactions and serious mental illness following a physical workplace injury or illness: a cross-sectional analysis of workers' compensation claimants Ontario. *Journal of Occupational Rehabilitation*. 2021; [pub ahead of print].**

<https://doi.org/10.1007/s10926-021-09974-7>

Abstract: Poor mental health is a common occurrence among workers recovering from a work-related injury or illness. The objective of this cross-sectional study was to estimate the association between adverse interactions with workers' compensation case managers and experiencing a serious mental illness 18-months following a workplace injury or illness. A cohort of 996 workers' compensation claimants in Ontario Canada were interviewed 18 months following a disabling work-related injury or illness. Perceptions of informational and interpersonal justice in case manager interactions were defined as the primary independent variables, and Kessler Psychological Distress (K6) scores greater than 12, indicative of a serious mental illness, was defined as the outcome. Multivariate modified Poisson models estimated the association between perceptions of adverse case manager interactions and a serious mental illness, following



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adjustment for sociodemographic and work characteristics and pre-injury mental health. The prevalence of serious mental illness at 18 months was 16.6%. Low perceptions of informational justice, reported by 14.4% of respondents, were associated with a 2.58 times higher risk of serious mental illness (95% CI 1.30-5.10). Moderate and low perceptions of interpersonal justice, reported by 44.1% and 9.2% of respondents respectively, were associated with a 2.01 and 3.57 times higher risk of serious mental illness (95% CI moderate: 1.18-3.44, 95% CI poor: 1.81-7.06). This study provides further support for the impact of poor interactions with claims case managers on mental health, highlighting the importance of open and fair communication with workers' compensation claimants in ensuring timely recovery and return-to-work

**Al Ali S, Pihl-Thingvad J, and Elklit A. Does acute stress disorder predict posttraumatic stress disorder following workplace violence? A prospective study of psychiatric staff. International Archives of Occupational & Environmental Health. 2021; 94(3):359-366.**

<https://doi.org/10.1007/s00420-020-01586-7>

Abstract: Objectives: Psychiatric staff is at risk of workplace violence (WV) and subsequent posttraumatic symptomatology. The current study assesses the prevalence of acute stress disorder (ASD) and posttraumatic stress disorder (PTSD) in psychiatric staff following WV. This also examines the prospective association between ASD and PTSD. Methods: This is a prospective cohort study of staff from 18 psychiatric wards in Denmark (n = 250), that reported an incident of workplace violence. Results: The prevalence of ASD was 10.8%, while 8% had PTSD 3 months post-assault. Generalized linear mixed models showed a significant predictive power of ASD on PTSD (OR 8.45, p < 0.001) in the fully adjusted model. Conclusions: ASD seems to be a predictor of future PTSD in an occupational context and should be considered a possible instrument in enactment of preventive strategies.

**Andersson M, Blanc PD, Toren K, and Jarvholm B. Smoking, occupational exposures, and idiopathic pulmonary fibrosis among Swedish construction workers. American Journal of Industrial Medicine. 2021; 64(4):251-257.**



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<https://doi.org/10.1002/ajim.23231>

**Abstract:** **BACKGROUND:** Cigarette smoking and occupational exposures each have been reported to increase the risk of idiopathic pulmonary fibrosis (IPF), a disease previously considered of unknown origin. We investigated the risk of IPF mortality associated with combined smoking and occupational exposures. **METHODS:** A registry study of Swedish construction workers (N=389,132), linked baseline smoking and occupational data with registry data on cause of death and hospital care diagnoses. Occupation was classified by the likelihood of exposure to vapors, gases, dusts, or fumes using a job-exposure matrix. Those likely exposed to asbestos or silica were excluded from the analysis. Age-adjusted relative risks [RRs] were calculated using Poisson regression. Follow-up observation began at age 40 and ended at age 89. **RESULTS:** Heavy smokers at baseline who were exposed to inorganic dusts during their working life had an increased risk of IPF mortality (RR 1.70; 95% confidence interval [CI] 1.11-2.60), while there was no statistically increased risk in the other exposure groups. There were dose-response relationships between smoking at baseline and IPF mortality among both unexposed and dust exposed workers, with similar risk for dust exposed and unexposed, except among baseline heavy smokers, where workers exposed to inorganic dust manifested the highest risk (RR 4.22; 95% CI 2.69-6.60). Excluding workers with chronic obstructive pulmonary disease or emphysema did not affect the results substantively. **CONCLUSION:** A clear dose-response relationship was seen between smoking at baseline and IPF, supporting a causal relationship. Occupational exposure to inorganic dusts, excluding silica and asbestos, was associated with increased risk of IPF in baseline heavy current smokers

**Aronsson G, Hagberg J, Bjorklund C, Aboagye E, Marklund S, Leineweber C, et al. Health and motivation as mediators of the effects of job demands, job control, job support, and role conflicts at work and home on sickness presenteeism and absenteeism. International Archives of Occupational & Environmental Health. 2021; 94(3):409-418.**

<https://doi.org/10.1007/s00420-020-01591-w>

**Abstract:** Purpose: The first objective was to contribute to a better understanding of the contrasting and paradoxical results in studies of



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work environment factors and sickness presence and sickness absence. A second objective was to examine if, and under what conditions, employees choose to replace sickness absence with sickness presence, i.e., so-called substitution. Methods: The study utilizes a large body of cross-sectional questionnaire data (n = 130,161) gathered in Sweden from 2002 to 2007 in connection with a comprehensive health promotion initiative. Health and motivation were analyzed as mediators of the effects of five job factors, job control, job support, job demand, role conflict and "work to family conflict" on sickness presence and absence. Results: The results concerning job demands indicate substitution in that increased job demands are associated with increased presenteeism and reduced absenteeism. The direct effect of higher job support was increased absenteeism, but via the health and motivation paths, the total effect of more social support was health-promoting and associated with a reduction in sickness absence and sickness presence. High job control emerged as the most pronounced health-promoting factor, reducing sickness presenteeism as well as absenteeism. More role conflicts and work-to-family conflicts were directly and indirectly associated with decreased health and increased absenteeism as well as presenteeism. earlier research. Conclusion: The mediation analyzes shed light on some of the paradoxes in research on sickness presenteeism and sickness absenteeism, especially regarding job demands and job support. The substitution effect is important for workplace policy and occupational health practice.

**Bahk J, Khang YH, and Lim S. The unequal burden of self-reported musculoskeletal pains among South Korean and European employees based on age, gender, and employment status. *Safety and Health at Work*. 2021; 12(1):57-65.**

<https://doi.org/10.1016/j.shaw.2020.10.007> [open access]

Abstract: BACKGROUND: The objective of this study was to elucidate the relationships musculoskeletal pains with combined vulnerability in terms of age, gender, and employment status. METHODS: The fifth European Working Conditions Survey (EWCS) in 2010 (43,816 participants aged 15 years and over) analyzed for European employees and the third Korean Working Conditions Survey (KWCS) in 2011 (50,032 participants aged 15 years and older) analyzed for Korean employees. In this study, three well known



vulnerable factors to musculoskeletal pains (older age, female gender, and precarious employment status) were combined and defined as combined vulnerability. Associations of musculoskeletal pains with combined vulnerability were assessed with prevalence ratios (PRs) and 95% confidence intervals (CIs) estimated by Poisson regression models with robust estimates of variance. RESULTS: The prevalences of musculoskeletal pains were lower but the absolute and relative differences between combined vulnerabilities were higher among Korean employees compared with the European employees. Furthermore, the increased risk of having musculoskeletal pains according to combined vulnerability was modestly explained by socioeconomic factors and exposure to ergonomic risk factors, especially in Republic of Korea. CONCLUSIONS: The results of this study showed that the labor market may be more unfavorable for female and elderly workers in Republic of Korea. Any prevention strategies to ward off musculoskeletal pains, therefore, should be found and implemented to mitigate or buffer against the most vulnerable work population, older, female, and precarious employment status, in Republic of Korea

**Barone GB, Kline CE, Huber KA, Paley JL, and Perera S. Covid-19 shelter-at-home and work, lifestyle and well-being in desk workers. Occupational Medicine. 2021; 71(2):86-94.**

<https://doi.org/10.1093/occmed/kqab011> [open access]

Abstract: BACKGROUND: Emerging cross-sectional reports find that the COVID-19 pandemic and related social restrictions negatively affect lifestyle behaviours and mental health in general populations. AIMS: To study the longitudinal impact of COVID-19 on work practices, lifestyle and well-being among desk workers during shelter-at-home restrictions. METHODS: We added follow-up after completion of a clinical trial among desk workers to longitudinally measure sedentary behaviour, physical activity, sleep, diet, mood, quality of life and work-related health using validated questionnaires and surveys. We compared outcomes assessed before and during COVID-19 shelter-at-home restrictions. We assessed whether changes in outcomes differed by remote working status (always, changed to or never remote) using analysis of covariance (ANCOVA). RESULTS: Participants (N = 112; 69% female; mean (SD) age = 45.4 (12.3) years; follow-up = 13.5 (6.8) months) had substantial changes





to work practices, including 72% changing to remote work. Deleterious changes from before to during shelter-at-home included: 1.3 (3.5)-h increase in non-workday sedentary behaviour; 0.7 (2.8)-point worsening of sleep quality; 8.5 (21.2)-point increase in mood disturbance; reductions in five of eight quality of life subscales; 0.5 (1.1)-point decrease in work-related health ( $P < 0.05$ ). Other outcomes, including diet, physical activity and workday sedentary behaviour, remained stable ( $P \geq 0.05$ ). Workers who were remote before and during the pandemic had greater increases in non-workday sedentary behaviour and stress, with greater declines in physical functioning. Wake time was delayed overall by 41 (61) min, and more so in workers who changed to remote. **CONCLUSIONS:** Employers should consider supporting healthy lifestyle and well-being among desk workers during pandemic-related social restrictions, regardless of remote working status

**Davis ME. Health effects of night and irregular shiftwork: a longitudinal cohort study of US workers. Journal of Occupational & Environmental Medicine. 2021; 63(4):265-269. <https://doi.org/10.1097/JOM.0000000000002084>**

**Abstract:** Objectives: Evidence suggests that shiftwork results in adverse occupational health outcomes. This paper contributes to the literature by estimating the separate health effects of night and irregular shiftwork on a longitudinal panel of US workers. Methods: Data from a 20-year panel of worker surveys from the 1979 National Longitudinal Survey of Youth were used to predict self-reported health limitations related to night and irregular shiftwork using a series of random effects logit models. Results: Separate and combined specifications of shiftwork as night and irregular effort significantly increase the odds of health limitations compared with working a regular daytime schedule, with more pronounced effects for irregular work (odds ratio [OR] = 1.09 to 1.52) over night shift (OR = 1.03 to 1.14). Conclusions: The results suggest that both night and irregular shiftwork may have important negative implications on occupational health, with the deleterious effects particularly pronounced for irregularly scheduled work effort.

**de Haan M, van Eijk-Hustings Y, and Vrijhoef HJ. Using mixed methods in health services research: a review of the literature**



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**and case study. Journal of Health Services & Research Policy. 2021; 26(2):141-147.**

<https://doi.org/10.1177/1355819620955223>

Abstract: OBJECTIVE: To provide an overview of the challenges of conducting mixed methods research (MMR) in the context of health services research (HSR) and to discuss a case study example of the triangulation procedures used in a MMR study on task-shifting in the Netherlands. METHOD: A narrative literature review of publications between January 2000 and February 2020 on the use of mixed methods in the context of HSR and a description of the triangulation procedures in an HSR study with a MMR design on task shifting in the Netherlands. RESULTS: The narrative review identified eight challenges. Those related to publishing and appraisal of MMR within HSR were most frequently reported (e.g. 'lack of MMR examples', 'lack of recognition' and 'triangulation issues'). Also, practical problems for conducting MMR within HSR were identified (e.g. 'lack of resources', 'teamwork' and 'lack of quality criteria'). Methodological challenges (e.g. 'sampling' and 'paradigm wars') were less frequently reported as a challenge. CONCLUSION: While increasing in popularity, there remain a range of challenges for the design, conduct and reporting of MMR designs in HSR. Using a triangulation protocol can potentially help address some of these challenges

**Hawkins D, Davis L, and Kriebel D. COVID-19 deaths by occupation, Massachusetts, March 1-July 31, 2020. American Journal of Industrial Medicine. 2021; 64(4):238-244.**

<https://doi.org/10.1002/ajim.23227> [open access]

Abstract: BACKGROUND: Exposure to COVID-19 is more likely among certain occupations compared with others. This descriptive study seeks to explore occupational differences in mortality due to COVID-19 among workers in Massachusetts. METHODS: Death certificates of those who died from COVID-19 in Massachusetts between March 1 and July 31, 2020 were collected. Occupational information was coded and age-adjusted mortality rates were calculated according to occupation. RESULTS: There were 555 deaths among MA residents of age 16-64, with usable occupation information, resulting in an age-adjusted mortality rate of 16.4 per 100,000 workers. Workers in 11 occupational groups including healthcare support and transportation and material moving had



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mortality rates higher than that for workers overall. Hispanic and Black workers had age-adjusted mortality rates more than four times higher than that for White workers overall and also had higher rates than Whites within high-risk occupation groups. **CONCLUSION:** Efforts should be made to protect workers in high-risk occupations identified in this report from COVID-19 exposure

**Iwanaga K, Chan F, Tansey TN, Hoyt WT, and Berven NL. Evaluation of constructs based on self-determination theory and self-efficacy theory as predictors of vocational rehabilitation engagement for people with physical and sensory disabilities. Rehabilitation Counseling Bulletin. 2020; 64(3):131-144. <https://doi.org/10.1177/0034355220942301>**

**Kim JY, Kim JH, Yoon S, Lee JT, and Kim SS. Rejection of workers' compensation claims may increase depressive symptoms among firefighters with occupational injury: a nationwide study in South Korea. International Archives of Occupational & Environmental Health. 2021; [pub ahead of print].**

**<https://doi.org/10.1007/s00420-021-01688-w>**

Abstract: **OBJECTIVES:** This study sought to examine whether the experience of occupational injuries was associated with depressive symptoms and whether the rejection of workers' compensation claims was associated with depressive symptoms among Korean firefighters. **METHODS:** We conducted a nationwide survey of 6793 Korean firefighters in 2015. Based on the experience of occupational injuries and workers' compensation claims over the past year, respondents were classified into four groups: "Not injured", "Injured, not applied", "Injured, applied, but rejected" and "Injured, applied, and accepted." Depressive symptoms over the preceding week were assessed using the 11-item version of the Centers for Epidemiologic Studies Depression Scale. **RESULTS:** Compared to firefighters who did not get injured, injured firefighters had a higher prevalence of depressive symptoms (PR 2.01, 95% CI 1.83, 2.22) after controlling for confounders including job assignment. Also, when we restricted the analysis to injured firefighters, a higher prevalence of depressive symptoms was observed among "Injured, applied, but rejected" (PR 1.70, 95% CI 1.11, 2.59) group, compared to "Injured, applied, and





accepted" group. CONCLUSIONS: This finding suggests that rejection of workers' compensation claims, as well as the experience of occupational injuries, may increase the risk of depressive symptoms among Korean firefighters

**Lidwall U. Gender composition in occupations and branches and medically certified sick leave: a prospective population study. International Archives of Occupational & Environmental Health. 2021; [pub ahead of print].**

<https://doi.org/10.1007/s00420-021-01672-4>

Abstract: Objective: To investigate whether gender-segregated occupations and branches are associated with future medically certified sick leave for women and men. Methods: All gainfully employed residents in Sweden in December 31st 2014 aged 16-69 years (n = 4 473 964) were identified in national registers. Subjects working in segregated (61-90%) and extremely segregated (> 90%) occupations and branches were evaluated v/s subjects in gender-integrated occupations and branches (40-60%). Combinations of segregation by occupation and branch were also investigated. Two-year prospective medically certified sick leaves (> 14 days) were evaluated using logistic regression with odds ratios recalculated to relative risks (RR), adjusted for work, demographic and health related factors. Results: The sick leave risk was higher for those working in extremely female-dominated occupations (women RR 1.06 and men RR 1.13), and in extremely female-dominated branches (women RR 1.09 and men RR 1.12), and for men in extremely male-dominated branches (RR 1.04). The sick leave risk was also higher for both women and men in female-dominated occupations regardless of the gender segregation in the branch they were working in. However, the differences in sick leave risks associated with gender segregation were considerably smaller than the differences between occupations and branches in general. Conclusions: Gender segregation in occupations and branches play a role for sick leave among women and men, especially within extremely female-dominated occupations and branches. However, gender segregation appears to be subordinate to particular occupational hazards faced in diverse occupations and branches.



**Louwerse I, Huysmans MA, van Rijssen HJ, Gielen CLI, van der Beek AJ, and Anema JR. Use of a decision support tool on prognosis of work ability in work disability assessments: an experimental study among insurance physicians. Journal of Occupational Rehabilitation. 2021; 31(1):185-196.**

<https://doi.org/10.1007/s10926-020-09907-w> [open access]

**Abstract:** Purpose Assessment of prognosis of work disability is a challenging task for occupational health professionals. An evidence-based decision support tool, based on a prediction model, could aid professionals in the decision-making process. This study aimed to evaluate the efficacy of such a tool on Dutch insurance physicians' (IPs) prognosis of work ability and their prognostic confidence, and assess IPs' attitudes towards use of the tool. Methods We conducted an experimental study including six case vignettes among 29 IPs. For each vignette, IPs first specified their own prognosis of future work ability and prognostic confidence. Next, IPs were informed about the outcome of the prediction model and asked whether this changed their initial prognosis and prognostic confidence. Finally, respondents reported their attitude towards use of the tool in real practice. Results The concordance between IPs' prognosis and the outcome of the prediction model was low: IPs' prognosis was more positive in 72 (41%) and more negative in 20 (11%) cases. Using the decision support tool, IPs changed their prognosis in only 13% of the cases. IPs prognostic confidence decreased when prognosis was discordant, and remained unchanged when it was concordant. Concerning attitudes towards use, the wish to know more about the tool was considered as the main barrier. Conclusion The efficacy of the tool on IPs' prognosis of work ability and their prognostic confidence was low. Although the perceived barriers were overall limited, only a minority of the IPs indicated that they would be willing to use the tool in practice

**Mac VV, Elon L, Smith DJ, Tovar-Aguilar A, Economos E, Flocks J, et al. A modified physiological strain index for workplace-based assessment of heat strain experienced by agricultural workers. American Journal of Industrial Medicine. 2021; 64(4):258-265.**

<https://doi.org/10.1002/ajim.23230>

**Abstract:** Background: As global temperatures rise, increasing



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numbers of individuals will work in hot environments. Interventions to protect their health are critical, as are reliable methods to measure the physiological strain experienced from heat exposure. The physiological strain index (PSI) is a measure of heat strain that relies on heart rate and core temperature but is challenging to calculate in a real-world occupational setting. Methods: We modified the PSI for use in field settings where resting temperature and heart rate are not available and used the modified physiological strain index (mPSI) to describe risk factors for high heat strain (mPSI = 7) experienced by agricultural workers in Florida during the summers of 2015 through 2017. mPSI was calculated for 221 workers, yielding 465 days of data. Results: A higher heat index ( $\beta = 0.185$ ; 95% CI: 0.064, 0.307) and higher levels of physical activity at work (0.033; 95% CI: 0.017, 0.050) were associated with a higher maximum mPSI. More years worked in US agriculture (-0.041; 95% CI: -0.061, -0.020) were protective against a higher maximum mPSI. Out of 23 workdays that a participant experienced a maximum mPSI = 7, 22 were also classified as strained by at least one other measure of high heat strain (core temperature [T<sub>c</sub>] >38.5°C, sustained heart rate >(180 - age), and mean heart rate > 115 bpm). Conclusions: This study provides critical information on risk factors for elevated heat strain for agricultural workers and suggests a practical approach for using PSI in field-based settings.

**Palazon-Bru A, Moscardo-Descalzo A, Morales-Gabriel S, Folgado-de la Rosa DM, Mares-Garcia E, Carbonell-Torregrosa MLA, et al. Clinical relevance of an intervention assessed by a meta-analysis of randomized clinical trials. Journal of Clinical Epidemiology. 2021; 132:46-50.**

<https://doi.org/10.1016/j.jclinepi.2020.12.010>

Abstract: OBJECTIVES: Many meta-analyses usually omit the number needed to treat, or perform the calculation incorrectly, despite its importance in clinical decision-making. Accordingly, we will explain in an easily understandable way how to perform this procedure to assess the clinical relevance of the intervention. STUDY DESIGN AND SETTING: The expressions of the Cochrane Library and the concepts of clinical relevance and evidence-based medicine were applied. Simple cutoff points were also established to facilitate the task of interpreting results. The method was applied to two published



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meta-analyses to illustrate its application to real cases (treatment nonadherence). RESULTS: In the first example, with a risk in the control group ranging from 0.22 to 0.70, sending mobile phone messages to remind chronic patients to take their medication is clinically relevant with a high degree of evidence. For the second example (single-pill regimen in patients suffering from hypertension and/or dyslipidemia after 6months), the range of the assumed control risk was between 0.28 and 0.57. CONCLUSION: The constructed algorithm could be applied to published meta-analyses or incorporated systematically in all meta-analyses with these characteristics

**Pedersen JE, Strandberg-Larsen K, Andersson M, and Hansen J. Occupational exposure to solar ultraviolet B radiation and risk of subtypes of breast cancer in Danish women. Occupational & Environmental Medicine. 2021; 78(4):286-292.**

<https://doi.org/10.1136/oemed-2020-107125>

Abstract: Objectives: Previous epidemiological studies have indicated that solar ultraviolet B radiation (UVR) may have a protective effect on breast cancer. However, the evidence remains inconclusive. Despite the fact that outdoor work history may be considered a reliable measure of long-term UVR exposure, objective information on lifetime employment has not been included in previous investigations focusing on breast cancer. To address this issue, we explored the association between occupational UVR exposure and female breast cancer, including subtypes. Methods: A total of 38 375 women under the age of 70 years were identified with primary breast cancer using the Danish Cancer Registry. Five female controls born on the same year, alive and free of breast cancer at the time of diagnosis of the index case, were randomly selected from the Danish Civil Registration System. The Danish Supplementary Pension Fund Register was used to retrieve full employment history, and a job exposure matrix was used to assess occupational UVR exposure. Conditional logistic regression with adjustment for important confounders was used to estimate the OR. Results: We observed no overall association between occupational UVR exposure and breast cancer. After the age of 50 years, longer duration of UVR exposure (=20 years: OR=0.83, 95% CI 0.75 to 0.92) and highest cumulative exposure (OR=0.89, 95% CI 0.83 to 0.95) were inversely associated



with risk. Our results did not reflect any notable risk difference by oestrogen receptor status. Conclusions: This study indicates an inverse association between long-term occupational UVR exposure and late-onset breast cancer. This finding needs further attention in future occupational studies.

**Quandt SA, LaMonto NJ, Mora DC, Talton JW, Laurienti PJ, and Arcury TA. COVID-19 pandemic among immigrant Latinx farmworker and non-farmworker families: a rural-urban comparison of economic, educational, healthcare, and immigration concerns. *New Solutions*. 2021; 31(1):30-47.**

<https://doi.org/10.1177/1048291121992468>

Abstract: COVID-19 has revealed social and health inequities in the United States. Structural inequalities have increased the likelihood of immigrants contracting COVID-19, by being essential workers and through poverty that forces this population to continue working. Rural and urban immigrant families may face different concerns. Using a telephone survey in May 2020 of 105 Latinx families in an existing study, quantitative and qualitative data were gathered on work and household economics, childcare and education, healthcare, and community climate. Analyses show that, although rural and urban groups experienced substantial economic effects, impacts were more acute for urban families. Rural workers reported fewer workplace protective measures for COVID-19. For both groups, fear and worry, particularly about finances and children, dominated reports of their situations with numerous reports of experiencing stress and anxiety. The experience of the pandemic is interpreted as an example of contextual vulnerability of a population already experiencing structural violence through social injustice. Policy implications are highlighted

**Ricci F, Bravo G, Modenese A, Pasquale F, Ferrari D, and Gobba F. Risk perception in the construction industry: differences between Italian and migrant workers before and after a targeted training intervention. *New Solutions*. 2021; 31(1):65-71.**

<https://doi.org/10.1177/1048291121998364>

Abstract: We developed a visual tool to assess risk perception for a sample of male construction workers (forty Italian and twenty-eight immigrant workers), just before and after a sixteen-hour training course. The questionnaire included photographs of real construction





sites, and workers were instructed to select pictograms representing the occupational risks present in each photograph. Points were awarded for correctly identifying any risks that were present, and points were deducted for failing to identify risks that were present or identifying risks that were not present. We found: (1) Before the course, risk perception was significantly lower in immigrants compared to Italians ( $p < .001$ ); (2) risk perception improved significantly ( $p < .001$ ) among all workers tested; and (3) after the training, the difference in risk perception between Italians and immigrants was no longer statistically significant ( $p = .1086$ ). Although the sample size was relatively small, the results suggest that the training is effective and may reduce the degree to which cultural and linguistic barriers hinder risk perception. Moreover, the use of images and pictograms instead of words to evaluate risk perception could also be applied to nonconstruction workplaces

**Stevenson K, Sarigiannis P, Finney AG, Cottrell E, Lewis R, Edwards JJ, et al. Development, spread and impact of primary care and musculoskeletal communities of practice to assist rapid translation of evidence into practice. Musculoskeletal Care. 2021; [pub ahead of print].**

<https://doi.org/10.1002/msc.1552>

Abstract: BACKGROUND: Embedding research into practice is challenging. Barriers include: a shortage of time, lack of understanding of the evidence and a poor support in the clinical setting. A community of practice (CoP) model has been used to address these issues. Three 'Evidence into Practice' groups use a CoP model to assist the rapid translation of evidence into practice in primary and secondary care settings. We describe how a CoP model supports the functions, operations and outputs of three 'Evidence into Practice Groups'. METHOD: A CoP model is used to engage a broad range of clinicians, researchers, managers, patients and librarians in the complex process of acquiring research knowledge and then translating knowledge into practice. The CoP principles of Domain, Community and Practice are used to describe three 'Evidence into Practice Groups' who cater for different elements of the care and academic sector and engage a range of professional groups. This includes primary and secondary care engaging professionals such as general practitioners (GP), practice nurses, allied health



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professionals, researchers and librarians. All groups are clinically led, academically supported and follow similar processes to identify the best evidence and translate it into practice. As the groups reflect the context in which they work they have different operational arrangements for example frequency and time of meetings.

**RESULTS:** The CoP model enabled three 'Evidence into Practice Groups' over time to: engage over 180 clinical and academic staff; answer 130 clinical questions; improve clinical care, gain funding for two randomised controlled trials (enrolled over n = 7000 participants) and identify areas for further research, quality improvement audit and training. **CONCLUSION:** The CoP model encourages the rapid translation of evidence into practice by engaging staff to identify areas of clinical concern in their own context, thereby stimulating their interest and involvement. This creates a meaningful link between research and practice. Clinical leadership and the CoP model ensure that practice change is quick and efficient. This model can be replicated at scale. Consideration needs to be given to the key ingredients to achieve impact

**Trillos-Chacon MC, Castillo M, Tolosa-Guzman I, Sanchez Medina AF, and Ballesteros SM. Strategies for the prevention of carpal tunnel syndrome in the workplace: a systematic review. Applied Ergonomics. 2021; 93:103353.**

<https://doi.org/10.1016/j.apergo.2020.103353>

Abstract: Carpal Tunnel Syndrome (CTS) is one of the most frequently occurring musculoskeletal disorders of the upper limbs. Strategies for preventing CTS in the workplace include interventions such as ergonomics, education, exercise, physical therapy, and occupational health. The purpose of this study was to provide a general overview based on the review of scientific literature regarding strategies used for preventing CTS in working populations. From September to October 2018, the MEDLINE, PUBMED, EMBASE and SCOPUS (1990 to December 2017) databases were searched for evidence. The risk of bias assessment in the selected papers was evaluated using the criteria recommended by The Cochrane Handbook and the methodological quality of the included studies was evaluated using Standard Quality Assessment Criteria for Evaluating Primary Research Papers from a Variety of Fields. A total of 11 studies were included in the present review. A total of 1,061 subjects



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participated in the studies. The quality of the included studies was limited in three studies, appropriate in three studies, good in three studies, and strong in two studies. The overall results suggest a mixed level of evidence of the effect of applying strategies for preventing CTS in the workplace. The bias assessment was primarily due to incomplete result data, selective reporting of results, and blinding. In this review, interventions focused on the modification or change of accessories (keyboard, mouse, wrist rest, and the overall workstation), education in ergonomics, exercise, and physical therapies, among others, were analyzed. The findings of this review show different possibilities when choosing an intervention strategy for the workplace. However, it was challenging to analyze each of the papers owing to the heterogeneity of the studies included

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