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Journal articles marked with an asterisk indicate an IWH scientist or adjunct scientist is included in the list of authors.

Aagaard TH, Biering K, Vestergaard JM, Willert MV, and Kyndi M. Work participation in patients with carpal tunnel syndrome referred to departments of occupational medicine: a Danish register-based cohort study. *American Journal of Industrial Medicine*. 2025; 68(4):321-330.

<https://doi.org/10.1002/ajim.23716> [open access]

Abstract: BACKGROUND: We describe long-term work participation of patients with carpal tunnel syndrome (CTS) referred to Danish departments of occupational medicine and compare to patients with contact dermatitis. METHODS: One thousand seven hundred and sixty CTS-patients were included in this register-based nationwide longitudinal follow-up study and compared to 3158 contact dermatitis patients. We extracted register data on public benefits 5 years before and after assessment at a department of occupational medicine between 2000 and 2013. We defined a work participation score (WPS) as weeks where the patient was working divided by number of potential work weeks per year, dichotomized into low and high at the 75(th) percentile. We analyzed the risk of low WPS and of receiving permanent health-related public benefits during follow-up. RESULTS: Before assessment, both CTS and contact dermatitis patients had high work participation. In the follow-up period work participation decreased permanently for both patient groups. Comparing women with CTS to women with contact dermatitis, odds ratios (OR) of low WPS were 2.56 (2.11-3.11) and 1.68 (1.38-2.05) one and 5 years after assessment. For men, OR of low WPS were 2.01 (95% CI, 1.67-2.44) and 1.27 (95% CI, 1.04-1.56). ORs of receiving permanent health-related public benefits during follow-up were 2.10 (95% CI, 1.56-2.83) for men and 1.97 (95% CI, 1.54-2.54) for women with CTS compared to those with contact dermatitis. CONCLUSIONS: Patients referred to Danish departments of occupational medicine due to CTS have increased risk of reduced long-term work participation and of receiving permanent health-related public benefits compared to patients referred due to contact dermatitis

Berse S, Capuk H, and Agar A. Development of the quality of life scale for shift-working nurses. *Safety and Health at Work*. 2025; 16(1):46-52.

<https://doi.org/10.1016/j.shaw.2024.11.004> [open access]

Abstract: Background and aim Shift work is known to have a significant impact on the health and well-being of nurses, and there is a need for practical tools to assess this impact. This study introduces the "Quality of Life Scale for Shift-Working Nurses" (QoLS-SWN), which was developed to provide a reliable and valid tool for assessing the effects of shift work on nurses' health and well-being. **Methods** This study employed a methodological research design to develop and validate a new scale for assessing the quality of life of shift-working nurses. Data were collected from two samples of nurses working in various hospitals. The first sample (n = 202) was used for exploratory factor analysis (EFA) to identify the scale's underlying factor structure. The second sample (n = 246) was used for confirmatory factor analysis (CFA) to validate the identified structure. The development process included an extensive literature review, expert consultations, and pilot testing. Factor analysis and reliability tests were conducted to ensure that the scale is highly reliable. **Results** The QoLS-SWN demonstrated excellent reliability, with a Cronbach's alpha of 0.95, and factor loadings ranging from 0.56 to 0.90. The scale comprises three dimensions: physical and mental exhaustion, health risks and job safety, and social and psychological interactions, explaining 71.89% of the total variance. CFA affirmed the structural validity of the scale, with fit indices indicating a good model fit (CMIN/df = 2.33, GFI = 0.86, IFI = 0.95, TLI = 0.94, CFI = 0.95, RMSEA = 0.07). **Conclusion** The QoLS-SWN is a reliable and valid tool for measuring the impact of shift work on nurses' quality of life. By providing insights into the multifaceted consequences of shift work, the scale may guide the development of targeted interventions to enhance nurses' quality of life. This scale can inform nursing practice and policy, ultimately improving nurse well-being and patient care outcomes.

Berube M, Chatigny C, and Laberge M. Gender differences in occupational health and safety perceptions: insights from youth in dual vocational training. *Safety Science*. 2025; 186:106797.

<https://doi.org/10.1016/j.ssci.2025.106797> [open access]

Abstract: Introduction While occupational health and safety (OHS) education is important for all new workers, it appears critical for youth in dual vocational training programs. To develop prevention tools adapted to their situation, the first stage of an action-research study was to question their perceptions and experiences of OHS. **Objective** This study examines the perceptions of OHS among young students with disabilities enrolled in the Work-Oriented Training Path (WOTP) in Québec. **Method** A mixed-methods study based on questionnaires given to 131 (38 women, 93 men) WOTP students and Ministry documents. Descriptive and comparative quantitative analyses were conducted with a qualitative analysis of open-ended questions and documents. A gender-sensitive analysis was carried out since it is a recognized influencing factor to consider in OHS. **Results** Men and women worked in different environments (p = 0.002). Men seem to be more aware of the presence of hazards (yes = 79.6 %) than women (yes = 50 %) (p = 0.001), and collectively named 15 risk categories, compared to 9 for women. A modest proportion of men (yes = 44.1 %) and women (yes = 31.6 %) reported having received OHS training in their traineeship. Men had a slightly less marked interest in OHS (p = 0.047). A large proportion of students reported having experienced an occupational injury (43.5 %). **Conclusions** Targeted interventions are needed to ensure safe learning environments and

equitable OHS training for youth with disabilities. Women might be confronted with unrecognized or invisible hazards, and all could benefit from a training that addresses those.

Cuervo I, Baron SL, Flores D, Gonzalez A, and Harari H. A qualitative analysis of immigrant Latinx housecleaners' experiences of how power relations with "employers" influence working conditions in New York City: the safe and just cleaners study. *American Journal of Industrial Medicine*. 2025; 68(4):368-378.

<https://doi.org/10.1002/ajim.23705>

Abstract: BACKGROUND: Housecleaning work has been characterized as precarious employment with unstable work hours, arbitrary and low pay and benefits, and exposures to chemical, physical, and psychosocial stressors. Understanding how interpersonal power dynamics between workers and clients, a component of precarious work, contributes to work exposures can inform and improve prevention programs. METHODS: We used reflexive thematic analysis of data from seven focus groups with Latinx immigrant housecleaners in New York City to explore workers' experience of interpersonal power dynamics with their clients-whom they referred to as their "employers"-and its influences on working conditions. RESULTS: Employer direction and monitoring varied and mostly reduced workers' autonomy to choose products, sometimes leading workers to complete tasks in more hazardous ways. Housecleaners reported using larger quantities of products, products with stronger scents, and more physical exertion to increase the efficiency of their cleaning, to complete tasks quickly, and to please their clients. Allotted time, tasks, and pay were interconnected, often resulting in negative reports about health and well-being. As immigrants, they also experienced discrimination and intimidation, which compounded their anxiety due to their employment insecurity. Nevertheless, participants learned and navigated high variance in employers' cleaning preferences and attempted to take control over the conduct of their work, when possible, and sometimes expressed self-advocacy. CONCLUSIONS: Housecleaners' precarious employment arrangements affect how they navigate interpersonal relationships with employers, which impairs their working conditions and occupational exposures. Improvements in labor and social protections, such as designing supportive policies and training for workers and employers, are needed to improve working conditions

Derscheid DJ and Arnetz JE. Staff and work environment factors associated with workplace violence in hospitals: comparison of units with high versus low rates of violence. *Journal of Occupational and Environmental Medicine*. 2025; 67(3):191-196.

<https://doi.org/10.1097/JOM.0000000000003290>

Abstract: OBJECTIVE: This study examined healthcare worker perceptions of physical environment and safety climate contributors to workplace violence. METHODS: Inpatient hospital employee (2015) convenience sample survey (n = 327) comparisons were via Mann-Whitney, Wilcoxon rank sum, or chi-squared to determine response differences by workplace violence experience (yes/no) and hospital units (higher/lower) violence rates. RESULTS: Employees with workplace violence experience and units with higher violence rates identified a higher number of contributing physical environment factors. Safety climate ratings were higher among employees without workplace violence experience but did not differ between hospital units with higher and lower violence rates. CONCLUSIONS: Prioritization of staff perceived climate safety and physical environment contributors can support organizational efforts to mitigate specific workplace violence hazards on hospital units

Harty B, Gustafsson JA, Thoren M, Moller A, and Bjorkdahl A. Development of a gratitude intervention model and investigation of the effects of such a program on employee well-being, engagement, job satisfaction and psychological capital. *Work*. 2025; 80(1):233-246.

<https://doi.org/10.3233/WOR-220604>

Abstract: **BACKGROUND:** In a demanding working life, it is important to determine how individuals can thrive at work. In a previous study we investigated whether a program of gratitude interventions can increase psychological wellbeing, engagement, job satisfaction, and psychological capital showing promising results. **OBJECTIVE:** The present study aimed to present the development of a manager coached group intervention program related to gratitude at workplaces and investigate the effects of such a program on the same variables. **METHODS:** The intervention included five group sessions of gratitude dialogue between employees, supervised by their first line managers. Participants were assigned to an intervention or control group. Assessments were made before and after the intervention program and followed-up at 6 months post-intervention. Both quantitative and qualitative analyses were performed. Both groups completed instruments measuring positive psychological capital (PCQ), work engagement (UWES), psychological wellbeing (PGWB-S), and job satisfaction (aJDI). All managers were interviewed after the intervention. **RESULTS:** Compared with the control group the gratitude dialogue intervention was found to significantly enhance psychological wellbeing, engagement, and job satisfaction. The results were supported by the interviews with managers. **CONCLUSION:** The results suggest that gratitude dialogues at work may be an effective way of improving employee wellbeing. Suggestions on how to improve the results from this kind of gratitude intervention further are presented

Iwundu CN, Yin C, Coleman AL, Hansen J, Kwon J, and Heck JE. Occupational exposures and age-related cataract: a review. *Archives of Environmental & Occupational Health*. 2024; 79(9-10):283-292.

<https://doi.org/10.1080/19338244.2025.2451907>

Abstract: Occupational exposures comprise of a broad range of factors in constant and direct contact with the ocular surface. Cataract, a leading cause of visual impairment globally, has been associated with various occupational exposures. This review critically examines existing literature on the relationship between occupational exposures and cataract development. We aim to synthesize findings from studies exploring the impact of occupational factors such as ultraviolet (UV) radiation, ionizing radiation, welding fumes, polyaromatic hydrocarbons, tobacco dust, and other elements on the prevalence and incidence of cataract among exposed populations. In our review, certain exposures, such as UV radiation, demonstrated strong evidence regarding their association with cataract development, while others presented suggestive evidence. Hence, further studies are needed to better understand exposures of greatest concern, which can subsequently inform regulations pertaining to occupational exposures in work environments

Kelly M, Liu B, Minsky H, Nestadt P, and Gallo JJ. "We are a forgotten people!": the experience of stress among New York City yellow taxi drivers. *Journal of Transport & Health*. 2025; 41:10190.

<https://doi.org/10.1016/j.jth.2025.10190>

LaMontagne AD, Lockwood C, Mackinnon A, Henry D, Cox L, Hall NR, et al. MATES in manufacturing: a cluster RCT evaluation of a workplace suicide prevention program. *American Journal of Industrial Medicine*. 2025; 68(4):331-343.

<https://doi.org/10.1002/ajim.23698> [open access]

Abstract: BACKGROUND: The MATES in Construction suicide prevention program was adapted to the manufacturing sector and evaluated in a pilot of the program. METHODS: Ten manufacturing worksites were randomly assigned to intervention (5 sites) and wait-list control (5 sites) conditions in a two-arm cluster randomized design. 1245 workers responded at baseline (87% response rate) and 648 at final (35% response rate). Literacy of Suicide Scale (LOSS) was assessed as a process outcome, and help-seeking intentions as the primary outcome (General Help-Seeking Questionnaire [GHSQ] score). Secondary outcomes included help sought, suicidal thoughts and likelihood of suicide attempt scores, and Kessler-6 scores. Linear mixed models for repeated measures were used in intention-to-treat (ITT) and completer analyses. RESULTS: All sites finished the trial, with intervention periods ranging from 8 to 11 months; however, none of the five intervention sites fully implemented the intervention as planned. ITT analyses showed an improvement in LOSS scores within the intervention group (0.49, 95% CI 0.13-0.49), but the mean difference in change between intervention and control included the null (0.34, 95% CI -0.10 to 0.80). The primary outcome of GHSQ scores also improved within the intervention group, but the difference in change included the null (mean difference 1.52, 95% CI -0.69 to 3.74). No secondary outcomes improved relative to control in ITT or completers analyses. Exploratory analysis of disaggregated GHSQ help sources showed greater improvement in mean difference in change for the main MATES message of seeking help from MATES Connectors. CONCLUSION: The intervention, as implemented, was not effective at achieving the primary or secondary outcomes. TRIAL REGISTRATION: Australian and New Zealand Clinical Trial Registry: ACTRN 12622000122752

Marjerrison N, Grimsrud TK, Hansen J, Martinsen JI, Nordby KC, Olsen R, et al. Occupational exposures of firefighting and prostate cancer risk in the Norwegian Fire Departments Cohort. *Scandinavian Journal of Work, Environment & Health*. 2025; 51(2):100-110.

<https://doi.org/10.5271/sjweh.4202> [open access]

Abstract: OBJECTIVES: Excess incidence of prostate cancer (PC) is frequently observed among firefighters; however, the association with specific occupational exposures of firefighting, as well as the influence of a medical surveillance bias, remains unclear. Our aim was to study PC risk within a firefighter cohort, applying indicators of exposures. METHODS: We used indicators of various firefighting exposures to examine PC risk among men in the Norwegian Fire Departments Cohort (N=4251). Incident PC cases, including clinical characteristics, were obtained from the Cancer Registry of Norway (1960-2021). Cox regression was used to estimate hazard ratios (HR) by cumulative exposure in tertiles (reference: lowest) for all, aggressive, and indolent PC, with adjustment for age and birth cohort. The cumulative incidence of PC across birth cohorts and diagnostic periods was examined. RESULTS: No clear associations emerged for any of the exposure indicators, although we observed an HR of 1.31 [95% confidence interval (CI) 0.63-2.72] for aggressive PC in the highest tertile of fire exposure score and 1.31 (95% CI 0.60-2.89) for indolent PC in the highest tertile of inhalation score. Assessment of cumulative incidence demonstrated a greater number of diagnoses at younger ages after 1990, particularly for indolent and unclassifiable PC. CONCLUSIONS: We found little support for an association between firefighting exposures and PC risk. However, our study had few cases in

analyses by clinical stage. Challenges in studies of firefighters' PC risk remain, including difficulties in exposure characterization and the unclear magnitude of a medical surveillance bias

Oakman J, Clune S, and Weale VP. Financial evaluation of interventions to reduce musculoskeletal disorder risk: a scoping review. *Safety Science*. 2025; 186:106816.

<https://doi.org/10.1016/j.ssci.2025.106816> [open access]

Abstract: Many interventions have aimed to reduce the incidence of work-related musculoskeletal disorders (WMSDs) which are a costly occupational health problem. However, information on the return on investment of these interventions is limited. This scoping review mapped published evidence of types of financial tools used to assess the return on investment on interventions to reduce WMSDs. The level within the organisation at which the intervention was targeted was also examined. Method PsycINFO, CINAHL, Web of Science and Embase were searched from 2000 to August 2023. Studies with financial evaluations of workplaces intervention/s to reduce WMSDs were included. Coding of financial tools, cost and benefit factors, and the level at which interventions were targeted was undertaken. Two review authors independently screened studies for inclusion. One author extracted data with review by a second author. Results Thirty-five articles met the inclusion criteria. Included studies were mostly from the US (n = 9), Canada (n = 8) and the Netherlands (n = 6). Cost-benefit, cost-effectiveness, cost-utility and return on investment approaches were used. Most commonly used cost factors included personnel, equipment, intervention costs, training, and consultant fees, and for economic benefits, productivity, absenteeism, and compensation. Conclusions Current tools and approaches to economic evaluation do not take into account the likely efficacy of interventions and need to include a broader suite of cost and impact factors, based on known contributory factors such as exposure to psychosocial hazards and lead indicators such as reporting of musculoskeletal pain.

Pap Z, Virga D, and Notelaers G. From workaholism to exhaustion: the weekly manifestation of a personal demand in a supportive organizational context. *International Journal of Stress Management*. 2025; 32(1):64-75.

<https://doi.org/10.1037/str0000343>

Romao ME, Setti I, Alfano G, and Barello S. Exploring risk and protective factors for burnout in professionals working in death-related settings: a scoping review. *Public Health*. 2025; 241:1-11.

<https://doi.org/10.1016/j.puhe.2025.01.038> [open access]

Abstract: OBJECTIVES: This study aimed to explore the published literature on risk and protective factors associated with burnout among professionals working in death-related settings. STUDY DESIGN: Scoping Review. METHODS: This review adopted the JBI guidelines for Scoping Reviews and followed the PRISMA-ScR guidelines. A comprehensive search strategy has been implemented across PubMed, CINAHL, PsycINFO, Web of Science, and Scopus databases. Grey literature was not included in this review. Eligible studies encompassed descriptions of risk or protective factors associated with burnout in professionals working in death scenarios. Two independent researchers screened titles and abstracts and subsequently conducted full-text assessments based on predefined inclusion criteria. Relevant data have been systematically extracted and tabulated. The findings were thematically organized and qualitatively summarized, with potential visual aids such as graphs and tables. RESULTS: The studies highlighted risk and protective factors for burnout among death-related professions, such as demographic and personal factors, work-related factors, and psychological and

social factors. CONCLUSIONS: This study summarizes the current knowledge about burnout among professionals working in death scenarios. Further research is necessary for the development of prevention programs destined for this population

Shao Y, Ramachandran G, Mandel JH, MacLehose RF, and Alexander BH. Mesothelioma risks and cumulative exposure to elongate mineral particles of various sizes in Minnesota taconite mining industry. Occupational and Environmental Medicine. 2025; 82(1):7-13.

<https://doi.org/10.1136/oemed-2024-109647>

Abstract: Objectives: An excess of mesothelioma has been previously observed in iron ore miners in Northeastern Minnesota. This study explored the potential association between mesothelioma and elongate mineral particle (EMP) exposures in the Minnesota taconite mining industry, examining both regulated and non-regulated EMP dimensions. Methods: A nested case-control study design within the Mineral Resources Health Assessment Programme cohort analysed 104 mesothelioma cases and 410 controls. Cumulative EMP exposures were assessed across various dimensional definitions, including regulated (National Institute for Occupational Safety and Health, NIOSH) and non-regulated EMPs. Conditional logistic regression models were applied to estimate mesothelioma risk linked to employment duration and cumulative EMP exposure while adjusting for potential confounding variables. Results: Consistent with earlier assessments, mesothelioma was associated with the number of years employed in the taconite industry (rate ratio (RR) 1.02, 95% CI 1.00 to 1.05) and cumulative NIOSH EMP exposure ((EMP/cc)×years) in taconite mining and processing (RR 1.20, 95% CI 0.99 to 1.46). Positive associations were also observed with mesothelioma and cumulative exposure to non-regulated EMPs. Conclusions: This study supported the main conclusions in the previous study that the data were consistent with an association between mesothelioma and employment duration and with NIOSH EMP exposure in taconite mining and processing. However, the 95% CI indicates the data are also compatible with a null effect. Given the limitations we cite in the manuscript, additional study is needed to clarify the effect. Additionally, this study found possible evidence of a positive association between mesothelioma and cumulative exposure to Chatfield EMP, Suzuki EMP and Cleavage Fragments in the Minnesota taconite worker population.

Tefera YG, Gray S, Nielsen S, Di Donato M, and Collie A. Early high-risk opioid prescribing and persistent opioid use in Australian workers with workers' compensation claims for back and neck musculoskeletal disorders or injuries: a retrospective cohort study. CNS Drugs. 2025; [epub ahead of print].

<https://doi.org/10.1007/s40263-025-01169-5>

Abstract: Background: Opioid prescribing to injured workers has increased despite evidence demonstrating that risks often outweigh the benefits. High-risk prescribing and persistent opioid use are often associated with harm. However, there are limited data on what predicts early high-risk and persistent opioid prescribing in Australian workers with back and neck-related injuries or disorders. Objective: The purpose of this study was to determine the prevalence and identify determinants of early high-risk and persistent opioid prescribing in Australian workers with back and neck conditions. Methods: A retrospective cohort study was carried out with injured workers with workers' compensation claims for back and neck conditions who filled at least one opioid prescription within the first 90 days after injury from 1 January 2010 to 31 December 2019. High-risk opioid prescribing practices in the first 90 days were measured using one of four indicators of risk (high-total opioid

volume on first dispensing occasion-exceeding 350 mg oral morphine equivalent in the first week, average high-dose over 90 days-higher than 50 mg oral morphine equivalent, early supply with long-acting opioids, and concurrent psychotropic prescriptions). Persistent opioid use was determined using group-based trajectory modeling over the subsequent 1-year. Multivariable logistic regression was used to identify predictors of high-risk opioid prescribing in the first 90 days and persistent opioid use in the subsequent year. Results: A total of 6278 injured workers prescribed opioids were included. At least one indicator of high-risk opioid prescribing was identified in 67.1% of the sample in the first 3 months. Persistent opioid use was identified in 22.8% of the sample over the subsequent year. Early high-risk opioid prescribing was associated with double the odds of persistent use (aOR 2.19, 95% CI 1.89-2.53). Injured workers residing in rural areas (inner regional and outer regional/remote Australia) had higher odds of high-risk prescribing (aOR 1.26, 95% CI 1.11-1.44) and (aOR 1.43, 95% CI 1.10-1.87), respectively, compared with those in major cities. Similarly, workers residing in areas with most disadvantaged and advantaged socioeconomic quintile had higher (aOR 1.18, 95% CI 1.01-1.39) and lower (aOR 0.68, 95% CI 0.56-0.82) odds of persistent opioid use, respectively, compared with those in the middle socioeconomic quintiles. Conclusions: A total of two-thirds of injured workers receiving opioids in the first 90 days show evidence of high-risk prescribing, with nearly one-quarter exhibiting persistent opioid use over the subsequent year. Early high-risk opioid prescribing doubles the odds of opioid persistence. There is a need for further research and careful scrutiny of opioid prescribing in this population.

Zeb A, Verbrugge J, Neven A, Burtin C, Janssens L, Meus T, et al. Effects of physical activity and exercise interventions on health outcomes in occupational drivers: a systematic review. *Workplace Health & Safety*. 2025; 73(2):95-108.

<https://doi.org/10.1177/21650799241291903>

Abstract: BACKGROUND: Occupational drivers are exposed to a wide range of risk factors, including sedentary behavior and physical inactivity, which can contribute to various chronic diseases. However, exercise interventions are likely to alleviate the negative associations and reduce chronic disease risks. This systematic review aimed to inventorize research studies investigating the effects of physical activity and exercise interventions on health outcomes in occupational drivers, and to assess interventions that have demonstrated effectiveness on health outcomes in occupational drivers. METHODS: The electronic databases "Web of Science," "Scopus," and "PubMed" were searched using keywords related to "occupational drivers," "exercise," and "health outcomes." Studies were included if they examined the effects of physical activity and exercise among occupational drivers on the following health outcomes: pain, disability, lifestyle factors (sleep, weight, physical activity, nutrition), fatigue, stress, and cardiometabolic risk factors. The methodological quality of the studies was assessed by the Cochrane Risk of Bias tools for randomized and non-randomized studies. RESULTS: Fourteen articles were included (three randomized and 11 non-randomized controlled trials). All studies were judged to have an overall risk of bias as "some concerns, low, moderate or serious." Evidence suggests that stretching and isometric exercises have significantly improved pain, disability, and fatigue. In contrast, multicomponent lifestyle interventions have enhanced physical activity levels, cardiometabolic risk factors, anthropometrics (body mass index, weight, waist circumference), sleep, and dietary intake among occupational drivers. CONCLUSION: The available evidence indicates the potential benefits of exercise interventions and physical activity for health outcomes in

occupational drivers. However, high-quality studies are needed in the future to establish stronger evidence supporting the effect of the exercise intervention

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