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

Burn I and Martell ME. Gender typicality and sexual minority labour market differentials. *British Journal of Industrial Relations*. 2022; 60(4):784-814.

<https://doi.org/10.1111/bjir.12671>

Chen T, Oviedo-Trespalacios O, Sze NN, and Chen S. Distractions by work-related activities: the impact of ride-hailing app and radio system on male taxi drivers. *Accident Analysis & Prevention*. 2022; 178:106849.

<https://doi.org/10.1016/j.aap.2022.106849>

Abstract: Use of ride-hailing mobile apps has surged and reshaped the taxi industry. These apps allow real-time taxi-customer matching of taxi dispatch system. However, there are also increasing concerns for driver distractions as a result of these ride-hailing systems. This study aims to investigate the effects of distractions by different ride-hailing systems on the driving performance of taxi drivers using the driving simulator experiment. In this investigation, fifty-one male taxi drivers were recruited. During the experiment, the road environment (urban street versus motorway), driving task (free-flow driving versus car-following), and distraction type (no distraction, auditory distraction by radio system, and visual-manual distraction by mobile app) were varied. Repeated measures ANOVA and random parameter generalized linear models were adopted to evaluate the distracted driving performance accounting for correlations among different observations of a same driver. Results indicate that distraction by mobile app impairs driving performance to a larger extent than traditional radio systems, in terms of the lateral control in the free-flow motorway condition and the speed control in

the free-flow urban condition. In addition, for car-following task on urban street, compensatory behaviour (speed reduction) is more prevalent when distracted by mobile app while driving, compared to that of radio system. Additionally, no significant difference in subjective workload between distractions by mobile app and radio system were found. Several driver characteristics such as experience, driving records, and perception variables also influence driving performances. The findings are expected to facilitate the development of safer ride-hailing systems, as well as driver training and road safety policy

D'Oliveira TC and Persico L. Workplace isolation, loneliness and wellbeing at work: the mediating role of task interdependence and supportive behaviours. *Applied Ergonomics*. 2023; 106:103894.

<https://doi.org/10.1016/j.apergo.2022.103894> [open access]

Abstract: Despite the negative impact of social isolation on wellbeing, research has yet to address how organisations may mitigate the effects of workplace isolation and loneliness. The main objective of the study is to explore the mediating role of task interdependence and supportive behaviours of colleagues on the relationship between workplace isolation on workplace wellbeing. A total of 137 volunteers completed a survey assessing workplace isolation, loneliness, task interdependence, supportive behaviours of colleagues and wellbeing at work. SEM analyses supported the negative effects of company isolation on workplace wellbeing. While supportive behaviours had a mediating role, task interdependence did not mediate the relationships between company isolation and loneliness, and wellbeing. The findings show that increased opportunities for interpersonal interactions at work through greater task interdependence are not enough to reverse the negative effects of workplace isolation on wellbeing. In contrast, an investment in a supportive environment may reverse the negative effects of workplace isolation on wellbeing, highlighting the importance of a supportive culture

Fernandez-Esquer ME, Atkinson JS, Hernandez RA, Aguerre CF, Brown LD, Reininger B, et al. Vales+Tú: a cluster-randomized pilot study to reduce workplace injuries among US Latino day laborers. *Health Promotion International*. 2022; 37(6):1-12.

<https://doi.org/10.1093/heapro/daac163>

Abstract: Latino day laborers (LDL) are a vulnerable population of workers facing considerable risk for occupational injury. Under the guidance of our Community Advisory Board, we developed and tested the feasibility, acceptability and preliminary effects of Vales+Tú (You Are Worth More), a workplace injury risk-reduction program implemented by promotores on street-corners where LDL seek employment. The program was informed by theoretical perspectives emphasizing individual and group agency and self-determination. A pilot three-arm cluster-randomized community trial was conducted among 75 LDL. The intervention arms consisted of an individualized Brief Motivational Interview, a Group Problem Solving activity and a standard of care control (OSHA safety cards). We met our study goal of 25 LDL per intervention arm, and contacted 88% of participants post intervention. Participants

evaluated the interventions favorably. At post-test, the Brief Motivational Interview group reported significant reductions in exposure to workplace hazards and increases in risk-reduction practices. The Group Problem Solving participants showed significant reductions in exposure to hazards (t-test -4.16, $p < 0.001$). Both intervention groups increased their reliance on corner peers, a measure of social support. Standard of care participants increased in self-efficacy to work safely. Overall, the only significant difference between the three study conditions was in self-efficacy. These findings provide evidence of the feasibility and acceptability of Vales+Tú and show preliminary program efficacy. A large-scale replication trial will permit a more formal modeling of the study findings. Clinical Trial Registration (ClinicalTrials.gov): NCT04378348.

Hajek A and Konig HH. Personality-related and psychosocial correlates of sick leave days in Germany during the COVID-19 pandemic: findings of a representative survey. Archives of Public Health. 2022; 80(1):227.

<https://doi.org/10.1186/s13690-022-00980-6> [open access]

Abstract: Background: The aim of our study was to assess the personality-related and psychosocial correlates of sick leave days in Germany during the COVID-19 pandemic. **Methods:** We used data from a representative online-survey covering the general German adult population (data collection: mid-March 2022). We restricted our sample to full-time employed individuals aged 18 to 64 years ($n = 1,342$ individuals). Sick leave days in the preceding 12 months served as outcome measure. Validated and established tools were used to quantify personality characteristics and psychosocial factors (such as the Coronavirus Anxiety Scale or the De Jong Gierveld Loneliness tool). Negative binomial regression models were used. **Results:** After adjusting for various sociodemographic and health-related factors, regressions showed that a higher number of sick leave days was associated with lower levels of conscientiousness (IRR: 0.84, 95% CI: 0.73-0.97), higher levels of openness to experience (IRR: 1.19, 1.04-1.35), less coronavirus anxiety (IRR: 0.90, 95% CI: 0.86-0.93), and more depressive symptoms (IRR: 1.06, 1.02-1.11). **Conclusion:** After adjusting for various sociodemographic and health-related factors, our study showed an association between personality-related and psychosocial factors with sick leave days. More research is required to clarify the underlying pathways.

Keefe A. Canadian women's experiences with personal protective equipment in the workplace. Toronto, ON: Canadian Standards Association; 2022.

<https://www.csagroup.org/article/research/canadian-womens-experiences-with-personal-protective-equipment-in-the-workplace/>

Kolu P, Raitanen J, Sievanen H, Tokola K, Vaha-Ypya H, Nieminen E, et al. Cardiorespiratory fitness is associated with sickness absence and work ability. Occupational Medicine. 2022; 72(7):478-485.

<https://doi.org/10.1093/occmed/kqac070> [open access]

Abstract: **BACKGROUND:** Physical activity may sustain the physical aspect of work ability despite health problems such as musculoskeletal disorders and anxiety, which are the most prevalent work-related health problem in Europe. **AIMS:** To evaluate the association of Finnish municipal workers' accelerometer-measured physical activity, sedentary behaviour, and cardiorespiratory and muscular fitness with their sickness absence levels, perceived work ability and health-related quality of life. **METHODS:** In connection with a randomized controlled trial recruiting 185 municipal workers, the authors performed baseline data analysis utilizing quantile regression to examine relationships between the outcome variables (all-cause sickness absence for 6 months, perceived work ability and health-related quality of life) and cardiorespiratory fitness, muscular fitness, and physical activity, and sedentary behaviour. All results were adjusted for age, sex and education level. **RESULTS:** The median duration of all-cause sickness absence over the preceding 6 months was lowest among participants with high cardiorespiratory fitness relative to the lowest tertile (2.0 versus 6.0 days; $P < 0.05$), and the highest perceived work ability was found among those with high or moderate cardiorespiratory fitness as compared to the lowest tertile (8.0 versus 7.0; $P < 0.001$). Moderate-to-vigorous physical activity correlated positively with the physical component of health-related quality of life ($P < 0.01$) and with a high cardiorespiratory-fitness level ($P < 0.05$). **CONCLUSIONS:** High cardiorespiratory fitness was associated with decreased all-cause sickness absence days and improved work ability among municipal workers

Kone A, Horter L, Rose C, Rao CY, Orquiola D, Thomas I, et al. The impact of traumatic experiences, coping mechanisms, and workplace benefits on the mental health of U.S. public health workers during the COVID-19 pandemic. *Annals of Epidemiology*. 2022; 74:66-74.

<https://doi.org/10.1016/j.annepidem.2022.07.001> [open access]

Abstract: **PURPOSE:** To evaluate the association between risk factors, mitigating factors, and adverse mental health outcomes among United States public health workers. **METHODS:** Cross-sectional online survey data were collected March to April 2021. The survey was distributed to public health workers who worked in a state, tribal, local, or territorial public health department since March 2020. **RESULTS:** In total, 26,174 United States state and local public health workers completed the survey. Feeling isolated was a risk factor for anxiety (PR, 1.84; 95% CI, 1.74-1.95), depression (PR, 1.84; 95% CI, 1.75-1.94), post-traumatic stress disorder (PR, 1.50; 95% CI, 1.43-1.57), and suicidal ideation (PR, 3.23; 95% CI, 2.82-3.69). The ability to take time off was linked to fewer reported symptoms of anxiety (PR, 0.87; 95% CI, 0.83-0.90), depression (PR, 0.86; 95% CI, 0.83-0.89), post-traumatic stress disorder (PR, 0.84; 95% CI, 0.81-0.88), and suicidal ideation (PR, 0.84; 95% CI, 0.77-0.92). **CONCLUSIONS:** Since COVID-19 was declared a pandemic, respondents who felt isolated and alone were at an increased risk for adverse mental health outcomes. Findings from this study call for public health organizations to provide their workforce with services and resources to mitigate adverse mental health outcomes

Laberge M, Chadoin M, Inigo M, Messing K, Lefrancois M, Sultan-Taieb H, et al. Integration of sex and gender in interventions by students in ergonomics. *Ergonomics*. 2022; 65(11):1578-1591.

<https://doi.org/10.1080/00140139.2022.2048898>

Abstract: This article aims to analyse the integration of sex and gender (s/g) by ergonomics students during their internship at the master's degree level, following training sessions on s/g issues in the workplace. This exploratory research used a descriptive mixed-methods design, encompassing evaluation of students' intention to use the content from the training (n = 13 students), and a multiple case study (n = 5 ergonomics interventions). The results show that while students found the training relevant, they only minimally integrated s/g in their interventions and when they did, it was primarily from an anthropometric and physiological perspective. In addition to discussing the training format limitations, the article discusses barriers to this integration: combining learning about s/g issues with learning about activity analysis is challenging; employers' and workers' organisations may be reluctant to approach s/g issues; and it is difficult for an ergonomist to integrate these issues when the employer's request does not specify it. **Practitioner summary:** This article aims to analyse the integration of s/g by ergonomics students during their internships. Findings show that they only minimally considered s/g. The discussion examines s/g training, organisational obstacles to inclusion of s/g during interventions, and how ergonomists can consider s/g in their practice.

Laskaris Z, Hirschtick JL, Xie Y, McKane P, and Fleischer NL. COVID-19 in the workplace: self-reported source of exposure and availability of personal protective equipment by industry and occupation in Michigan. *American Journal of Industrial Medicine*. 2022; 65(12):994-1005.

<https://doi.org/10.1002/ajim.23430> [open access]

Abstract: Objectives: Fragmented industry and occupation surveillance data throughout the COVID-19 pandemic has left public health practitioners and organizations with an insufficient understanding of high-risk worker groups and the role of work in SARS-CoV-2 transmission. **Methods:** We drew sequential probability samples of noninstitutionalized adults (18+) in the Michigan Disease Surveillance System with COVID-19 onset before November 16, 2020 (N = 237,468). Among the 6000 selected, 1839 completed a survey between June 23, 2020, and April 23, 2021. We compared in-person work status, source of self-reported SARS-CoV-2 exposure, and availability of adequate personal protective equipment (PPE) by industry and occupation using weighted descriptive statistics and Rao-Scott χ^2 tests. We identified industries with a disproportionate share of COVID-19 infections by comparing our sample with the total share of employment by industry in Michigan using 2020 data from the US Bureau of Labor Statistics. **Results:** Employed respondents (n = 1244) were predominantly female (53.1%), aged 44 and under (54.4%), and non-Hispanic White (64.0%). 30.4% of all employed respondents reported work as the source of their SARS-CoV-2 exposure and 78.8% were in-person workers. Work-related exposure was prevalent in Nursing and Residential

Care Facilities (65.2%); Justice, Public Order, and Safety Activities (63.3%); and Food Manufacturing (57.5%). By occupation, work-related exposure was highest among Protective Services (57.9%), Healthcare Support (56.5%), and Healthcare Practitioners (51.9%). Food Manufacturing; Nursing and Residential Care; and Justice, Public Order, and Safety Activities were most likely to report having adequate PPE "never" or "rarely" (36.4%, 27.9%, and 26.7%, respectively). Conclusions: Workplaces were a key source of self-reported SARS-CoV-2 exposure among employed Michigan residents during the first year of the pandemic. To prevent transmission, there is an urgent need in public health surveillance for the collection of industry and occupation data of people infected with COVID-19, as well as for future airborne infectious diseases for which we have little understanding of risk factors.

Mokhtarinia HR, Parsons D, Bain CR, and Gabel CP. Independent risk factors of carpal tunnel syndrome: assessment of body mass index, hand, wrist and finger anthropometric measurements. *Work*. 2022; 73(1):157-164.

<https://doi.org/10.3233/WOR-210910>

Abstract: Background: The most prevalent neuropathy in the upper extremity is carpal tunnel syndrome (CTS). A variety of related risk factors such as biomechanical exposures, body mass index (BMI), sex and hand shape are reported to be related to CTS. Objective: We aimed to identify the role of BMI, hand, wrist and finger anthropometric dimensions in the development of CTS, and to compare these measured variables between control and CTS participants. Methods: A cross-sectional, case control study (n = 240, CTS = 120, controls = 120) with participants recruited from a convenience sample diagnosed with CTS and referred for anthropometric measurements. The control participants were matched by age and sex. The body height, weight, hand width, hand length, wrist depth, wrist width, wrist circumference, and finger length were measured. Hand, wrist and finger indices, hand to height ratio, and BMI were calculated. Mean values of all dimensions were compared between cases and controls, and the role of independent risk factors were determined by logistic regression analysis. Results: The mean BMI, age, weight, sex and height were not significant between the two groups. Among the measured dimensions and calculated indices the significantly different variables between two groups were the wrist width, wrist depth, wrist circumference, hand index, hand to height index, and wrist index. Regression analysis showed that the wrist index ($\beta=-1.7$, $p = 0.0001$), wrist depth ($\beta=0.25$, $p = 0.0001$) and wrist width ($\beta=0.21$, $p = 0.0001$) were the strongest factors in CTS development in the sample. Conclusion: Wrist parameters have a strong role in predicting the development of CTS, while BMI was not confirmed as an independent risk factor.

Oberti I and Plantamura F. Office workspace for an ageing workforce: a systematic review. *Work*. 2022; 73(2):453-469.

<https://doi.org/10.3233/WOR-210758>

Abstract: BACKGROUND: With the ageing of the working population, it is becoming crucial empowering staff of all ages to perform at its best. To this end, organizations can act on the

built environment, adapting the workspace to the changing characteristics of workers and using it as a tool for health promotion. **OBJECTIVE:** To provide an overview of office workspace requirements to optimise the wellbeing and productivity of older workers. **METHODS:** The search, by Scopus, Web of Science core collection and Medline, produced 290 records. The screening process, according to the Prisma method, reduced the records to 13 included in the review. **RESULTS:** The results show the needs and preferences of the ageing workforce, such as personal control over the environment in terms of both comfort and use of space, as well as negative opinions on specific solutions, such as the extensive use of open offices and the introduction of shared workstations. The included studies report mainly subjective data, derived from interviews and questionnaires. **CONCLUSIONS:** The review provides a first framework for acting on the office workspace to improve wellbeing and productivity of older workers. However, further studies, evidence-based and with subjective and objective measurements of specific solutions, are needed to develop guidelines for an inclusive workspace for all ages

Parnell KJ, Pope KA, Hart S, Sturgess E, Hayward R, Leonard P, et al. 'It's a man's world': a gender-equitable scoping review of gender, transportation, and work. *Ergonomics*. 2022; 65(11):1537-1553.

<https://doi.org/10.1080/00140139.2022.2070662>

Abstract: The deeply embedded inequalities in gender which mark most contemporary societies have led to a world shaped by male perspectives. This world fails to accommodate adequately the needs and experiences of women: no more evident than in the transport sector, where a 'default male' perspective dominates the planning and policies that shape our roads, railways, airlines, and shipping. This paper argues that the ways in which masculinity infuses transport systems mean they are integral to debates on gender and work. They impact both the way women experience travel and their access to places of work. A multi-transport domain scoping study has been conducted to review the literature for key gender factors that influence the use of road, rail, aviation, and maritime transport modes. A multi-disciplinary approach is proposed which incorporates perspectives and methods from the social sciences that can help to foster Gender-Equitable Human Factors (GE-HF). **Practitioner summary:** This paper seeks to identify the gender issues related to transport and work. A scoping review provides key factors that detail how women are disadvantaged by current transport systems. It presents gaps in knowledge that future research needs to fill. Women must be included in key decisions within the transport sector

Schonfeld IS and Bianchi R. Distress in the workplace: characterizing the relationship of burnout measures to the Occupational Depression Inventory. *International Journal of Stress Management*. 2022; 29:253-259.

<https://doi.org/10.1037/str0000261;10.1037/str0000261>

Van Deynse H, Ilunga KC, Kimpe E, Hubloue I, Moens M, and Putman K. Predictors of return to work after moderate-to-severe traumatic brain injury: a systematic review of current literature and recommendations for future research. Disability & Rehabilitation. 2022; 44(20):5750-5757.

<https://doi.org/10.1080/09638288.2021.1954247>

Abstract: PURPOSE: To identify factors associated with employment between six months and five years after traumatic brain injury (TBI). METHODS: Using a predefined search algorithm, four electronic databases were searched for literature published between 2014 and the first half of April 2021 containing predictors of employment outcome. Data were selected in accordance with the PRISMA flow and the whole process was conducted by two reviewers who had to attain a consensus. The study results were discussed with an expert panel, in order to provide guidance for future research on this topic. RESULTS: This review found clear evidence for employment status at time of injury, occupation at time of injury, Glasgow Coma Scale, length of stay, disability level and primary payer to be predictors of return to work after TBI. CONCLUSIONS: More literature investigating in depth the functioning and environmental factors is required for further improvement of predictions, rehabilitation and policy. Implications for rehabilitation This study identifies predictors of return to work in TBI patients, which can be used to identify patients with high risk early in the recovery process. Current literature shows difficulties with general functioning are a barrier for return to work, but gives no indication about effective therapeutic interventions. More knowledge about modifiable factors is desirable to improve rehabilitation and, thereby, employment outcomes after TBI

Wang J, Wicks D, and Zhang C. Job-related well-being of sexual minorities: evidence from the British workplace employment relations study. British Journal of Industrial Relations. 2022; 60(4):841-863.

<https://doi.org/10.1111/bjir.12707>

Williams MS and Liu C. Workplace ostracism among immigrant workers: the moderating effect of cultural identity salience and interpersonal harmony value. International Journal of Stress Management. 2022; 29:260-270.

<https://doi.org/10.1037/str0000256;10.1037/str0000256>

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