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

***Barracough ML, Diaz-Martinez JP, Knight A, Bingham K, Su J, Kakvan M, Grajales CM, Tartaglia MC, Ruttan L, Wither J, Choi MY, Bonilla D, Anderson N, Appenzeller S, Parker B, Katz P, Beaton D, et al. In-person versus virtual administration of the American College of Radiology gold standard cognitive battery in systemic lupus erythematosus: are they interchangeable? *Lupus*. 2023; [epub ahead of print].**

<https://doi.org/10.1177/09612033231168477> [open access]

Abstract: OBJECTIVE: During the COVID-19 pandemic, many research studies were adapted, including our longitudinal study examining cognitive impairment (CI) in systemic lupus erythematosus (SLE). Cognitive testing was switched from in-person to virtual. This analysis aimed to determine if the administration method (in-person vs. virtual) of the ACR-neuropsychological battery (ACR-NB) affected participant cognitive performance and classification. METHODS: Data from our multi-visit, SLE CI study included demographic, clinical, and psychiatric characteristics, and the modified ACR-NB. Three analyses were undertaken for cognitive performance: (1) all visits, (2) non-CI group visits only and (3) intra-individual comparisons. A retrospective preferences questionnaire was given to participants who completed the ACR-NB both in-person and virtually. RESULTS: We analysed 328 SLE participants who had 801 visits (696 in-person and 105 virtual). Demographic, clinical, and psychiatric characteristics were comparable except for ethnicity, anxiety and disease-related damage. Across all three comparisons, six tests were consistently statistically significantly different. CI classification changed in 11/71 (15%) participants. 45% of participants preferred the virtual administration method and 33% preferred in-person. CONCLUSIONS: Of the 19

tests in the ACR-NB, we identified one or more problems with eight (42%) tests when moving from in-person to virtual administration. As the use of virtual cognitive testing will likely increase, these issues need to be addressed - potentially by validating a virtual version of the ACR-NB. Until then, caution must be taken when directly comparing virtual to in-person test results. If future studies use a mixed administration approach, this should be accounted for during analysis

Alsharif A, Albert A, Awolusi I, and Jaselskis E. Severe injuries among construction workers: insights from OSHA's new severe injury reporting program. Safety Science. 2023; 163:106126.

<https://doi.org/10.1016/j.ssci.2023.106126>

Borge RH, Johannessen HA, Fostervold KI, and Nielsen MB. Office design, telework from home, and self-certified sickness absence: a cross-sectional study of main and moderating effects in a nationally representative sample. Scandinavian Journal of Work, Environment & Health. 2023; 49(3):222-230.

<https://doi.org/10.5271/sjweh.4078> [open access]

Abstract: OBJECTIVES: This study aimed to investigate (i) the main effects of office design and access to telework from home (TWFH) on self-certified sickness absence and (ii) the moderating effects of access to TWFH on the relationship between office design and self-certified sickness absence. METHODS: The study used cross-sectional survey data from a nationally representative sample from Norway (N=4329). Research objectives were investigated with negative binomial hurdle models, adjusting for age, gender, education level, leadership responsibility, and time spent on office work. Moderating effects of TWFH were evaluated with pairwise comparisons and plots of estimated marginal means. RESULTS: In adjusted models, employees in conventional open-plan offices [odds ratio (OR) 1.32, 95% confidence interval (CI) 1.13-1.54] had significantly higher odds of sickness absence than employees in private offices. Employees with access to TWFH (OR 0.86, 95% CI 0.74-0.99) had significantly lower odds of sickness absence than employees with no access. Among employees with access to TWFH, those in conventional open-plan offices had significantly higher predicted probability of self-certified sickness absence than those in private offices (z=4.41, P<0.0001). There were no significant differences between office designs among employees who did not have access to TWFH. There were no significant main or moderating effects on the number of sickness absence episodes in adjusted models. CONCLUSIONS: The current study identifies conventional open-plan offices as a potential risk factor for sickness absence. While access to TWFH may be a protective factor overall, it amplified - rather than attenuated - differences in sickness absence between employees in private offices and conventional open-plan offices

Fenton S, Rydz E, Demers PA, and Peters CE. Prevalence and level of occupational exposure to asbestos in Canada in 2016. Annals of Work Exposures and Health. 2023; 67(4):536-545.

<https://doi.org/10.1093/annweh/wxac077>

Abstract: **OBJECTIVE:** Asbestos use has decreased over time but occupational exposure still exists today due to the presence of asbestos in older buildings. The objective of this study was to update CAREX Canada's prevalence of exposure estimate from 2006 to 2016, and to assess the level of occupational exposure by industry, occupation, province/territory, and sex. **METHODS:** Estimates by occupation, industry, province/territory, and sex were calculated using labor force data from the 2016 Census of Population and proportions of workers exposed by occupation and industry, which were previously developed for the 2006 estimates and updated here to reflect new knowledge and changes in exposures. Statistics Canada concordance tables were used to account for changes between the 2006 and 2016 job and industry coding systems. Expert assessment was used to qualitatively assign levels of exposure (low, moderate, or high) for each occupation and industry, with consideration of workers' proximity and access to asbestos-containing material, and the condition and content of asbestos. **RESULTS:** Approximately 235 000 workers are exposed to asbestos on the job in Canada. The majority of Canadian workers exposed to asbestos are male (89%). Only 5% of all exposed workers are in the high-exposure category, while most workers are in the low (49%) or moderate (46%) exposure categories. The construction sector and associated jobs (e.g. carpenters, trades helpers and laborers, electricians) accounted for the majority of exposed workers. **CONCLUSIONS:** Occupational exposure to asbestos continues to occur in Canada. Updating the prevalence of exposure estimate and adding exposure levels highlights the shift from high to lower-level exposures associated with asbestos-containing materials remaining in the built environment

Guo W, Hancock J, Cooper D, and Caldas M. Job autonomy and employee burnout: the moderating role of power distance orientation. *European Journal of Work and Organizational Psychology*. 2023; 32(1):79-94.

<https://doi.org/10.1080/1359432X.2022.2101451>

Irvine A and Rose N. How does precarious employment affect mental health? A scoping review and thematic synthesis of qualitative evidence from western economies. *Work, Employment and Society*. 2023; [epub ahead of print].

<https://doi.org/10.1177/09500170221128698> [open access]

Abstract: This article offers a scoping review and thematic synthesis of qualitative research on the relationship between precarious employment and mental health. Systematic searches of primary qualitative research in western economies, focused on insecure contracts and a broad conceptualisation of mental health, identified 32 studies. Thematic synthesis revealed four core experiences of precarious employment: financial instability, temporal uncertainty, marginal status and employment insecurity, each connected with multiple, interrelated experiences/responses at four thematic levels: economic, socio-relational, behavioural and physical, leading to negative mental health effects. Reported mental health outcomes could be predominantly understood as reductions in 'positive mental health'. Findings are

theoretically located in models of work-family conflict and latent deprivation; insecure work constrains access to benefits of time structure, social contacts, social purposes, status and identity, which correlate with psychological wellbeing. Frequently failing also to provide the manifest (financial) benefits of work, insecure employment poses mental health risks on both fronts.

Lewanczyk AM, Langham-Walsh E, Edwards L, Branney P, Walters ER, Mitchell P, et al. Back Onside protocol: a physical activity intervention to improve health outcomes in people who are unemployed or at risk of unemployment. Evaluation and Program Planning. 2023; 97:102204.

<https://doi.org/10.1016/j.evalprogplan.2022.102204> [open access]

Abstract: Given the effects of physical activity on people's mental and physical health, a better understanding is needed of how physical activity interventions may impact the health of people who are unemployed or at risk of unemployment. This has added urgency in the context of rising rates of poverty-related unemployment in the UK in 2022. The current paper details the protocol used in the evaluation of the Back Onside Programme; a community-based programme delivered by the Bradford Bulls Foundation in the Bradford District. The Programme supports people from low socio-economic backgrounds who are unemployed or at risk of unemployment to maintain regular physical activity through a ten-week physical activity intervention. This pilot study evaluates how a physical activity intervention may impact the mental and physical health of people who are unemployed or at risk of unemployment in an uncontrolled pragmatic pilot study. Four cohorts run back-to-back between May 2021 and May 2022, with separate groups for men (N = 100) and women (N = 60). Physical and wellbeing assessment at baseline and post-intervention is conducted. If the intervention works in this context for these individuals, it will be a promising low-cost community-based intervention for people who are unemployed or at risk of unemployment.

McMullin B, Fraser J, Robinson B, French J, and Adisesh A. Work-related injuries and attendance at a Canadian regional emergency department. Occupational Medicine. 2023; 73(3):138-141.

<https://doi.org/10.1093/occmed/kqad012>

Abstract: BACKGROUND: Monitoring trends in the burden of illness and injury attributable to work is key in assessing occupational health hazards; however, New Brunswick does not participate in the Canadian National Ambulatory Care Reporting System which itself does not collect details of occupation and industry. AIMS: We set out to determine the proportion of emergency department attendances that were attributable to a work-related cause. We also wanted to evaluate the recording of occupation in the electronic health record system, and to describe the characteristics of patients with a work-related presentation. METHODS: A retrospective observational study over a 1-year period was conducted using an administrative database obtained from Canadian Emergency Department Information System. Descriptive statistics are used to present the analysis of categorical and continuous

data. RESULTS: A total of 49 365 patients were included for analysis. Two per cent of patients presented with a self-reported work-related condition. Health care and social assistance, construction, retail trade and manufacturing were the most common industries reported by patients. CONCLUSIONS: This study found the rate of work-related medical conditions to be substantially less than expected, and that occupation was not captured for any patients presenting to the emergency department with a work-related condition, despite a field being available in the electronic health record registration system. We were able to analyse the industry sectors for work-related presentations. The recording and coding of occupation and industry would significantly benefit occupational epidemiology in emergency medicine as well as potentially improving patient outcomes and health system efficiencies

O'Neill V, Karanikas N, Sav A, and Murphy P. Medicinal cannabis and implications for workplace health and safety: scoping review of systematic reviews. *Workplace Health & Safety*. 2023; [epub ahead of print].

<https://doi.org/10.1177/21650799231157086> [open access]

Abstract: PURPOSE: Although medicinal cannabis is prescribed for conditions such as pain, epilepsy, nausea and vomiting during cancer treatment, evidence about associated adverse side effects is still evolving. Because adverse events (AEs) might impact the performance of workers, it is important to consider their implications on workplace health and safety (WHS). This study aimed to map the types and prevalence of the AEs associated with medical cannabis and articulate how those events could impact WHS. METHODS: A scoping review of systematic reviews and/or meta-analyses published between 2015 and March 2021 was performed to identify the AEs of medicinal cannabis in adults. Publications in English and full text available online were collected from Embase, MEDLINE, PsychINFO, PubMed, Scopus, and Web of Science. RESULTS: Of 1,326 papers identified from the initial search, 31 met the inclusion criteria and were analyzed. The studies reported various AEs with the most predominant being sedation, nausea/vomiting, dizziness, and euphoria. Acute and chronic pain was the most prevalent disorder under review. CONCLUSIONS: Adverse events associated with the use of medicinal cannabis could increase workplace risks, including decreased alertness and reaction times, increased absenteeism, reduced ability to safely drive or operate machinery and an increased probability of falling. Focused research into the risk to workers and workplaces from the use of medical cannabis and related human performance impairment is urgently warranted

Popova ES, Hahn J, Morris H, Loomis K, Shy E, Andrews J, et al. Exploring well-being: resilience, stress, and self-care in occupational therapy practitioners and students. *OTJR: Occupation, Participation and Health*. 2023; 43(2):159-169.

<https://doi.org/10.1177/15394492221091271>

Abstract: Burnout is increasingly documented in occupational therapy (OT); however, practitioner and student well-being have not been examined to date. The research aim was to explore the relationship between well-being, resilience, stress, and self-care in OT. For this

purpose, a cross-sectional survey of practitioners and students was done, including a background survey, World Health Organization-5 Well-Being Index (WHO-5), Brief Resilience Scale (BRS), Perceived Stress Scale (PSS), and Mindful Self-Care Scale (MSCS). Open-ended questions and Visual Analog Scales were used to gather satisfaction and service access. Practitioners (n = 235) and students (n = 200) reported well-being "less than half of the time" on the WHO-5, "moderate" stress on the PSS, and "normal" resilience on the BRS. The BRS, PSS, and MSCS explained a significant proportion of variance on the WHO-5 for practitioners and students. Most participants used at least one self-care strategy and desired additional organizational services. The findings of elevated stress and decreased well-being underscore the importance of reimagining wellness initiatives in OT

Rydstrom K, Jackson J, Johansson K, and Mathiassen SE. A systematic review of work organization, work environment, and employment conditions in warehousing in relation to gender and race/ethnicity. *Annals of Work Exposures and Health*. 2023; 67(4):430-447.

<https://doi.org/10.1093/annweh/wxac098> [open access]

Abstract: OBJECTIVES: Studies in the goods supply chain in areas outside of warehousing show evidence of gender and racial/ethnic inequalities in working conditions (i.e. in work organization, work environment, and employment conditions). This review aimed to identify, summarize, and discuss research focused on inequality in warehousing and its effects on warehouse working conditions. In the review, racial/ethnic inequality includes inequality related to country of birth and (im)migration status. METHODS: We performed a systematic search in the Scopus and Web of Science databases to identify warehouse studies that addressed working conditions and (in)equality at a workplace level. Screening of records was performed using the Rayyan systematic review tool. Risk of bias was assessed according to established methods and checklists. RESULTS: Database searches yielded 4910 articles. After title-abstract-keyword and full-text screenings, 21 articles were included. Results showed inequality based on gender and race/ethnicity in both work organization (different tasks were performed by different groups of employees), work environment conditions (physical and psychosocial aspects differed), and employment conditions (disparate employment types and incomes between groups of employees). Health differences, as a possible result of unequal working conditions, were evident between different racial/ethnic groups of employees. A hierarchy that included both gender and race/ethnicity was found, with (im)migrant and racialized women positioned at the bottom. CONCLUSIONS: We found evidence that gender and race/ethnicity influenced work organization, work environment conditions, and employment conditions. Evidence was found for an intersection between gender and race/ethnicity. To improve working conditions, and subsequently occupational health, we encourage researchers to simultaneously consider gender and race/ethnicity factors at work, and to consider both why inequality is present and how it impacts working conditions in future studies of warehousing, particularly in online retailing

Shin S, Yang EH, Lee HC, Moon SH, and Ryoo JH. The relationship between visual display terminal usage at work and symptoms related to computer vision syndrome. *Annals of Occupational and Environmental Medicine*. 2023; 35:e1.

<https://doi.org/10.35371/aoem.2023.35.e1> [open access]

Abstract: BACKGROUND: Although it is well known that the usage of visual display terminal (VDT) at the workplace causes computer vision syndrome (CVS), previous studies mainly focused on computer use and the health of white-collar workers. In this study, we explored the relationship between the usage of VDT including various devices, and symptoms related to CVS in a large population including pink-collar workers and blue-collar workers. METHODS: 21,304 wage workers over the age of 20 years were analyzed from the 6th Korean Working Conditions Survey. To investigate the association between VDT use at work and symptoms related to CVS among wage workers, odds ratios (ORs) and 95% confidence interval (CI) were calculated by multivariate logistic regression models. RESULTS: In the group with the highest VDT usage at work, the OR of headache/eyestrain was 2.16 (95% CI: 1.86-2.52). The OR of suspected CVS patients was significantly increased in the highest group of usage of VDT at work (OR: 1.69; 95% CI, 1.39-2.06). Compare with the reference group, the OR for headache/eyestrain in the highest group of VDT usage was 2.81 (95% CI: 2.13-3.70) in white-collar workers, 1.78 (95% CI: 1.32-2.40) in pink-collar workers, and 1.59 (95% CI: 1.18-2.15) in blue-collar workers. CONCLUSIONS: We observed a relationship in which the use of VDT in the workplace increases the risk of headache/eyestrain regardless of occupational classification. Our findings emphasize the importance of paying attention to the health of VDT workers and making plans to improve their working conditions

Stratton E, Glozier N, Woolard A, Gibbs V, Demetriou EA, Boulton KA, et al. Understanding the vocational functioning of autistic employees: the role of disability and mental health. *Disability and Rehabilitation*. 2023; 45(9):1508-1516.

<https://doi.org/10.1080/09638288.2022.2066207>

Abstract: Purpose: Employment rates for autistic people are low, despite increasing employment-focused programmes. Given the reported complexities for autistic people in finding and keeping work and flourishing there, further exploration is needed to understand how best to help employers accommodate autistic employees. Material and methods: We assessed 88 employed autistic adults, without comorbid intellectual disability and examined whether self-reported disability and mental health symptoms were associated with two measures of vocational functioning: disability days off work and vocational disability. Results: Nearly half (47%) reported at least one disability day absence in the previous month. Autism severity and IQ were not associated with either measure of vocational functioning. Greater disability and higher mental health symptoms were associated with both types of vocational functioning. However, the associations of anxiety and stress with both vocational outcomes were attenuated to null in a multivariable model. Disability ($B = 6.74, p = 0.009$; $B = 1.18, p < 0.001$) and depression ($B = 4.46, p = 0.035$; $B = 1.01, p = 0.049$) remained independently associated with both outcomes. Conclusions: Clinicians and vocational support programmes

addressing modifiable factors may need to focus on addressing mental health comorbidities, specifically depression rather than anxiety, or core features of autism to improve vocational outcomes for autistic people. Implications for Rehabilitation Individual-level interventions that reduce disablement, particularly in social areas, and depressive symptoms as a way of reducing days off work and improving workplace activities in autistic employees are recommended. Organisations can accommodate autistic employees by encouraging use of mental health programmes or looking at how the workplace environment can be adapted to limit social disability.

de Vries L and Steinmetz S. Sexual orientation, workplace authority and occupational segregation: evidence from Germany. *Work, Employment and Society*. 2023; [epub ahead of print].

<https://doi.org/10.1177/09500170231158513>

Wilkinson K, Mumford C, and Carroll M. Assisted reproductive technologies and work, employment and society: extending the debate on organisational involvement in/responsibilities around fertility and reproduction. *Work, Employment and Society*. 2023; [epub ahead of print].

<https://doi.org/10.1177/09500170231155752> [open access]

Abstract: A relatively recent development in the field of work and employment is organisational provisions around employee fertility – notably policies and benefits related to assisted reproductive technologies, also known as fertility treatment. Work, employment and organisation scholars have only scratched the surface of this issue. This Debates and Controversies article takes an intersectional political economy approach to explore the opportunities, challenges and dilemmas at the interface between assisted reproductive technologies, society, employment and work. We consider how 'stratified reproduction' may be affected by employer interest in assisted reproductive technologies; what employers may gain, risk or lose by developing provisions; how assisted reproductive technologies-related 'reproductive work' intersects with paid employment; and the possible consequences, including occupational stratification due to assisted reproductive technologies-related career penalty. We call for further research, especially focusing on the most disadvantaged in society and employment, and approaches to workplace support led by compassion over cost-benefit calculation.

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