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

Aryal A, Janssen B, Casteel C, Fethke NB, Buikema B, Cho H, et al. Applying the worker well-being framework to identify factors that impact turnover among long-haul truck drivers. *Workplace Health & Safety*. 2023; 71(9):419-428.

<https://doi.org/10.1177/21650799231178636>

Abstract: **BACKGROUND:** Drivers in the long-haul trucking industry have chronic health conditions, engage in unhealthy behaviors, and leave the industry at high rates. Previous work has not considered the health and safety outcomes resulting from the conditions of work in the trucking industry and their role in turnover. The goal of this study was to understand the expectations of an incoming workforce, explore how work conditions impact their well-being, and identify strategies for retention. **METHODS:** Semi-structured interviews were conducted among current long-haul drivers and supervisors at trucking companies, and students and instructors at trucking schools (n = 33). Participants were asked about why they decided to enter the industry, their health challenges related to being in the trucking industry and whether these challenges were related to turnover, and strategies for retention. **FINDINGS:** Health conditions, differences in job expectations, and work demands were associated with leaving the industry. Workplace policies and culture (e.g., lack of supervisor support, schedules that limited home time, company size, and lack of benefits) were associated with workers' intention to leave an organization. Strategies identified to improve retention included integrating health and wellness into onboarding, creating realistic job expectations for those entering the industry, establishing relationships with drivers and dispatchers, and developing policies to limit time away from family.

CONCLUSION/APPLICATION TO PRACTICE: Turnover in the trucking industry is a persistent problem and leads to a shortage of skilled workers, increases the workload, and reduces productivity. Understanding the relationship between the conditions of work and well-being provides a more holistic approach to address the health, safety, and well-being of long-haul truck drivers. Health conditions, differences in job expectations, and work demands were associated with leaving the industry. Workplace policies and culture (e.g., supervisor support, schedules that limited home time, lack of benefits) were associated with workers' intention to leave an organization. These conditions provide an opportunity for occupational health interventions to promote the physical as well as psychological health of long-haul truck drivers

Blindow KJ, Thern E, Hernando-Rodriguez JC, Nyberg A, and Magnusson Hanson LL. Gender-based harassment in Swedish workplaces and alcohol-related morbidity and mortality: a prospective cohort study. *Scandinavian Journal of Work, Environment & Health*. 2023; 49(6):395-404.

<https://doi.org/10.5271/sjweh.4101> [open access]

Abstract: **OBJECTIVE:** The study investigated experiences of different types of work-related gender-based harassment (GBH), specifically sexual and gender harassment, as risk factors for alcohol-related morbidity and mortality (ARMM). **METHODS:** Information about experiences of (i) sexual harassment (SH-I) and (ii) gender harassment (GH-I) from inside the organization and (iii) sexual harassment from a person external to the organization (SH-E) were obtained from the Swedish Work Environment Survey 1995-2013, a biannual cross-sectional survey, administered to a representative sample of the Swedish working population. The survey responses from 86 033 individuals were connected to multiple registers containing information about alcohol-related diagnoses, treatment, or cause of death. Cox proportional hazard models were fitted to assess hazard ratios (HR) of incident ARMM during a mean follow-up of eight (SH-I and GH-I) and ten (SH-E) years. **RESULTS:** A higher prospective risk estimate of ARMM was found among participants who reported experiences of SH-E [HR 2.01, 95% confidence interval (CI) 1.61-2.52], GH-I (HR 1.33, CI 1.03-1.70), or SH-I (HR 2.37, CI 1.42-3.00). Additional analyses, distinguishing one-time from reoccurring harassment experiences, indicated a dose-response relationship for all three harassment types. Gender did not modify the associations. Under the assumption of causality, 9.3% (95% CI 5.4-13.1) of the risk of ARMM among Swedish women and 2.1% (95% CI 0.6-3.6) among Swedish men would be attributable to any of the three types of GBH included in this study. **CONCLUSIONS:** Experiences of GBH in the work context may be a highly relevant factor in the etiology of ARMM

Dai T, Wang J, Gan G, Zhang C, Dong X, Yang P, et al. The moderating role of physical activity on the relationship between work intensity and depressive symptoms among the employees. *SSM - Population Health*. 2023; 23:101435.

<https://doi.org/10.1016/j.ssmph.2023.101435> [open access]

Abstract: Our aim was to examine the associations between work intensity and depressive symptoms among the working population, as well as to identify the impact of physical activity (PA) on these relationships. Spearman correlation analysis was conducted to analyze the correlations among work intensity, PA, and depressive symptoms. Working hours and working days were positively correlated with depressive symptoms ($r = 0.108, 0.063$; all p values were <0.001). Regular PA, exercise time, exercise frequency, and exercise years were negatively correlated with depressive symptoms ($r = -0.121, -0.124, -0.152, -0.149$; all p values were <0.001) and working days ($r = -0.066, -0.050, -0.069, -0.044$; all p values were <0.001), working hours ($r = -0.113, -0.106, -0.161, -0.123$; all p values were <0.001). Working days was positively correlated with working hours ($r = 0.512, p < 0.001$). Different levels of PA alleviated the effect of working hours or working days on depressive symptoms. Working hours seemed to be more correlated with depressive symptoms than working days. The results suggest that PA at any level could buffer against the effects of work intensity and might prove a helpful strategy for improving mental health issues among employees.

Farley S, Mokhtar D, Ng K, and Niven K. What influences the relationship between workplace bullying and employee well-being? A systematic review of moderators. *Work and Stress*. 2023; 37(3):345-372.

<https://doi.org/10.1080/02678373.2023.2169968> [open access]

Abstract: Researchers have consistently shown the detrimental effects that workplace bullying has on employee well-being. While there have been many studies examining moderating factors that worsen or mitigate bullying's effects, the field lacks a common theoretical framework to integrate and explain these diverse moderators. The aim of this systematic review is to identify, categorise, and evaluate variables that have been tested as moderators of the relationship between workplace bullying and well-being using the job demands resources model. Searches of the literature were carried out in the PsycINFO, Web of Science and Scopus databases. Sixty-eight studies met the inclusion criteria, which reported on 209 tests of moderation. Using an established taxonomy, the moderators were categorised into home demands/resources ($n = 2$), personal demands/resources ($n = 136$), job demands/resources ($n = 4$), social demands/resources ($n = 24$), and organisational demands/resources ($n = 43$). Analysis revealed that social resources, such as co-worker support, and organisational resources, such as supportive organisational climates, consistently buffered the harmful effects of bullying. In contrast, personal resources had little influence as moderators. Further cross-cultural and longitudinal research is needed to understand whether the influence of these moderators extends across time and different cultural contexts.

Garras L, Ducamp S, Houot MT, and Pilorget C. Wood dust in France. Trends in the population of exposed workers between 1982 and 2017 based on a job-exposure matrix assessment. *Annals of Work Exposures and Health*. 2023; 67(7):805-815.

<https://doi.org/10.1093/annweh/wxad030> [open access]

Abstract: Objective: Many occupations and industries use wood as a raw material and wood dust is a well-known carcinogen. This study presents trends in occupational exposure to wood dust for all workers (employees and self-employed workers) in France between 1982 and 2017 and focuses on the exposed workers in 2017. Methods: Exposures to this carcinogen were assessed using the Matg en  job-exposure matrix. Trends in the prevalence and proportion of exposure over the study period were estimated by linking the matrix with population data from the 1982, 1990, 1999, 2007, and 2017 censuses and are described for selected industry groups. Results: The number of exposed workers to wood dust has decreased significantly over the last 40 years, from 466,900 potentially exposed workers in 1982 to 305,000 workers in 2017. The proportion of exposed workers has also decreased over time, although not uniformly across industries. Increases in the proportion of exposed workers are observed in certain industries, such as "Sawmilling and logging" (from 61.2% to 73.6% over the period for men) and "Finishing of sale premises" (from 3.3% to 6.2% for women). Conclusion: This article is the first to describe occupational exposure to wood dust in France for all workers and to follow its evolution over the last 40 years. Occupations and industries still at risk in 2017 are also described with the aim of helping to improve prevention policies.

Graves JM, Ross N, Gonzalez C, Moore M, Denson V, and Vavilala MS. Compassion and trauma: occupational health experiences of certified medical interpreters in five U.S. States. *Workplace Health & Safety*. 2023; 71(9):436-444.

<https://doi.org/10.1177/21650799231167586>

Abstract: Medical interpreters play a vital role in fostering understanding and ensuring safety and transparency in healthcare for patients with non-English language preference. Limited research describes work-related experiences of medical interpreters. The purpose of this research was to explore perceptions of occupational health and safety among medical interpreters. A structured, online survey was administered to all certified medical interpreters in Hawaii, New York, New Jersey, California, and Texas. Participants described occupational experiences as an interpreter via an open-ended question. Responses were coded using qualitative thematic analysis. Response text was reviewed, a codebook of descriptive themes developed, and data thematically coded and summarized. Of 981 potential participants, 199 responded (20.3% response rate). Four main themes were identified: Professionalism and Role, Work-Related Challenges, Approaches to Mitigate Vicarious Trauma, and The Rewarding Nature of the Job. Respondents described compassion fatigue, vicarious trauma, intentional emotional distancing from clients, and loneliness. Respondents identified needs for workplace support to ensure professionalism and safeguard interpreter safety. Medical interpreters appreciate their work, yet face challenges, including

compassion fatigue and vicarious trauma. Employers and healthcare institutions should support the occupational and emotional needs of medical interpreters as a vital member of the healthcare team

Holford D, Tognon G, Gladwell V, Murray K, Nicoll M, Knox A, et al. Planning engagement with web resources to improve diet quality and break up sedentary time for home-working employees: a mixed methods study. *Journal of Occupational Health Psychology*. 2023; 28(4):224-238.

<https://doi.org/10.1037/ocp0000356> [open access]

Abstract: As home working becomes more common, employers may struggle to provide health promotion interventions that can successfully bridge the gap between employees' intentions to engage in healthier behaviors and actual action. Based on past evidence that action planning can successfully encourage the adoption of healthier behaviors, this mixed-methods study of a web-based self-help intervention incorporated a randomized planning trial that included quantitative measures of engagement and follow-up qualitative interviews with a subsample of participants. Participants either (a) selected a movement plan for incorporating a series of 2-min exercise videos into their work week to break up sedentary time and a balanced meal plan with recipe cards for a week's lunches and dinners or (b) received access to these resources without a plan. Selecting a movement plan was more effective at increasing engagement with the web resources compared to the no-plan condition. In the follow-up interviews, participants indicated that the plan helped to remind participants to engage with the resources and made it simpler for them to follow the guidance for exercises and meals. Ease of use and being able to fit exercises and meals around work tasks were key factors that facilitated uptake of the resources, while lack of time and worries about how colleagues would perceive them taking breaks to use the resources were barriers to uptake. Participants' self-efficacy was associated with general resource use but not plan adherence. Overall, including plans with online self-help resources could enhance their uptake. (PsycInfo Database Record (c) 2023 APA, all rights reserved)

Kushnier L, Nadin S, Hill ME, Taylor M, Jun S, Mushquash CJ, et al. Culturally responsive evaluation: a scoping review of the evaluation literature. *Evaluation and Program Planning*. 2023; 100:102322.

<https://doi.org/10.1016/j.evalprogplan.2023.102322>

Abstract: Evaluators have become increasingly aware of the influence of culture in evaluation, leading to new evaluation approaches that account for the cultural considerations in which evaluations are situated. This scoping review sought to explore how evaluators understand culturally responsive evaluation and identify promising practices. A search of nine evaluation journals yielded 52 articles that were included in this review. Nearly two-thirds of the articles stated that community involvement was essential to culturally responsive evaluation. Power differentials were discussed in almost half of the articles, and the majority used participatory or collaborative approaches to community engagement. Findings from this

review suggest that in culturally responsive evaluation, evaluators prioritize community involvement and have an awareness and attentiveness to power differentials. Yet, gaps exist in how culture and evaluation are defined and interpreted, and consequently, inconsistency in how culturally responsive evaluation is practiced

Mellifont D, Smith-Merry J, and Bulkeley K. The employment of people with lived experience of disability in Australian disability services. *Social Policy & Administration*. 2023; 57(5):642-655.

<https://doi.org/10.1111/spol.12898> [open access]

Abstract: In Australia there is a significant gap in employment rates between people with disability and those without. This is in the context of general gaps in the disability sector workforce, which has been the subject of recent policy concern. Our study critically investigates (a) data on the employment of people with disability in Australian disability services; (b) data on disability awareness training in disability services; (c) these results in the context of the National Disability Insurance Scheme (NDIS) National Workforce Plan: 2021–2025 and the NDIS workforce Capability Framework. We undertook a mixed methods study that brought together descriptive statistics from the National Disability Services Workforce Census data and qualitative content analysis of the NDIS National Workforce Plan and the NDIS workforce Capability Framework. We found that 50% of disability service organisations employ at least one person with disability in their organisations, with 20% employing less than three people with disability. Only 24% of organisations include a person with disability on their board, and 19% of organisations employ people with disability in management positions. Policy document analysis shows policies support key areas for increasing employment of people with disability and disability inclusion. Employment of people with disability at all levels of disability services remains poor in Australia. We argue that 'soft' approaches to addressing low employment levels need to be supplemented by harder approaches that take full advantage of the levers available to government through the operation of the NDIS.

Meyer SB, Rotolo B, Majowicz S, Amoako J, Crouch M, Hopwood P, et al. Perceptions of COVID-19 related risks by platform-based couriers: an analysis of user comment threads on Reddit. *Work*. 2023; 75(4):1113-1125.

<https://doi.org/10.3233/WOR-220244>

Abstract: Background: The COVID-19 pandemic increased demand for app-based platform-based couriers, creating job opportunities for individuals who have lost income because of COVID-19. Through various stages of lockdown, courier workers (e.g., delivering for Uber Eats, Amazon Flex, and Lyft) provide an essential service. At the same time, this form of work poses risks for exposure to the SARS-CoV-2 virus as these workers are highly mobile and in contact with many individuals. Objective: To explore how platform-based couriers discuss risks associated with their work during periods of high (first wave, second wave, third wave/rise in concerns regarding variants) and low risk during the COVID-19 pandemic, 2020-

2021. Methods: We provide a narrative analysis of user posts (n = 2,866) on Reddit during periods of interest. Results: Our analysis resulted in three central findings. First, we identified changing patterns in discourse as the pandemic went on. Second, we found that the theme of risk prevailed largely in the first wave, with dialogue dominated by tips and asking for advice about how to manage risk. Third, our findings reveal a growing polarization among users during the latter phases of the study. Conclusion: Polarization largely focused on acceptance (or not) of public health measures and the nature of their work as independent contractors and the role/responsibility of courier companies to offer protection. Our study is the first to document risks, from the perspectives of anonymous couriers who may be unwilling to share their honest opinions and thoughts through primary data collection where anonymity is not guaranteed.

Peristera P, Stengard J, Eib C, Bernhard-Oettel C, and Leineweber C. Organizational injustice and sickness absence: the moderating role of locked-in status. *SSM - Population Health*. 2023; 23:101427.

<https://doi.org/10.1016/j.ssmph.2023.101427> [open access]

Abstract: Organizational injustice is known to negatively affect employees' health and to increase the risk for sickness absence. The negative health effects are also known to be more pronounced in uncontrollable, strain increasing, situations at the workplace. This study tests whether locked-in status, i.e., being stuck in a non-preferred workplace, modifies the associations between injustice perceptions and frequent (=2 times/yr) and long (= 8 days/yr) sickness absence. The sample contained 2631 permanent employees from the Swedish Longitudinal Occupational Survey of Health in 2018 and 2020. Multigroup structural equation modelling was used to compare the proposed relationships between employees who are locked-in in their workplace and employees who are not. We found a positive association between higher overall organizational injustice and long sickness absence two years later, with the association being stronger for the locked-in group. Also, higher injustice was associated with more frequent sickness absence, but only for those not being locked-in. Employees being locked-in seem to have higher risk of long-term sickness absence which might indicate more serious health problems. Employees not being locked-in more often take short sickness absence, which could indicate a coping behaviour to handle high strain. This study adds knowledge to the role of locked-in status as a moderator in the much-studied relationship between organizational justice and health as well as to the multiple reasons underlying sickness absence.

Toren K, Neitzel RL, Eriksson HP, and Andersson E. Cancer incidence among workers in soft paper mills: a cohort study. *American Journal of Industrial Medicine*. 2023; 66(9):728-735.

<https://doi.org/10.1002/ajim.23508>

Abstract: Objectives: To elucidate whether occupational exposure to soft paper dust increases the incidence of cancer. Methods: We studied 7988 workers in Swedish soft paper mills from 1960 to 2008, of whom 3233 (2 187 men and 1046 women) had more than 10

years of employment. They were divided into high exposure (>5 mg/m³ for >1 year) or lower exposure to soft paper dust based on a validated job-exposure matrix. They were followed from 1960 to 2019, and person-years at risk were stratified according to gender, age, and calendar-year. The expected numbers of incident tumors were calculated using the Swedish population as the reference, and standardized incidence ratios (SIR) with 95% confidence intervals (95% CI) were assessed. Results: Among high-exposure workers with more than 10 years of employment, there was an increased incidence of colon cancer (SIR 1.66, 95% CI 1.20-2.31), small intestine cancer (SIR 3.27, 95% CI 1.36-7.86), and thyroid gland cancer (SIR 2.68, 95% CI 1.11-6.43), as well as lung cancer (SIR 1.56, 95% CI 1.12-2.19). Among the lower-exposed workers there was an increased incidence of connective tissue tumors (sarcomas) (SIR 2.26, 95% CI 1.13-4.51) and pleural mesothelioma (SIR 3.29, 95% CI 1.37-7.91). Conclusion: Workers in soft paper mills with high exposure to soft paper dust have an increased incidence of large and small intestine tumors. Whether the increased risk is caused by paper dust exposure or some unknown associated factors is unclear. The increased incidence of pleural mesothelioma is probably linked to asbestos exposure. The reason for increased incidence of sarcomas is unknown.

Viklund A, Andersson T, Selander J, Kader M, Albin M, Bodin T, et al. Night and shift work patterns and incidence of type 2 diabetes and hypertension in a prospective cohort study of healthcare employees. *Scandinavian Journal of Work, Environment & Health*. 2023; 49(6):439-448.

<https://doi.org/10.5271/sjweh.4104>

Abstract: Objectives: This study aimed to evaluate effects of night and shift work patterns on type 2 diabetes (T2D) and hypertension in a longitudinal study, with detailed information on working hours. Methods: The cohort comprised about 28 000 nurses and nursing assistants employed for more than one year 2008-2016 in Stockholm, Sweden. The employee register held detailed individual information on daily working hours. Information on diagnoses came from national and regional registers. Hazard ratios (HR) and confidence intervals (CI) were estimated by discrete-time proportional hazard models, adjusting for sex, age, country of birth, and profession. Results: During follow-up in 2013-2017, we identified 232 cases of T2D and 875 of hypertension. We observed an increased risk of T2D, but not hypertension, among employees who worked only night shifts the previous year (HR 1.59, 95% CI 1.02-2.43) and those with intensive shift work (>120 afternoon and/or night shifts the previous year: HR 1.67, 95% CI 1.11-2.48) compared to only day work. There was a non-significantly increased risk of T2D related to mixed day and afternoon shifts (HR 1.34, 95% CI 0.97-1.88). We observed tendencies in increased risk of T2D related to frequent spells of =3 consecutive night shifts and with number of years with exclusive (but not mixed) night work. Conclusions: Permanent night work and frequent afternoon and/or night shifts were associated with an increased risk of T2D the following year, but not hypertension. The T2D risk was, to some

extent, affected by frequent spells of several night shifts in a row and by cumulative years with permanent night work.

Vitrano G, Micheli GJL, Guglielmi A, De Merich D, Pellicci M, Urso D, et al. Sustainable occupational safety and health interventions: a study on the factors for an effective design. *Safety Science*. 2023; 166:106249.

<https://doi.org/10.1016/j.ssci.2023.106249> [open access]

Abstract: Effective interventions are a priority in continuously changing occupational environments, particularly in companies struggling to manage health and safety in the workplace. Practitioners may consider practical solutions for Occupational Safety and Health (OSH) improvement as a panacea for all major problems. However, they may overlook a range of other factors that affect the success of such solutions. The way in which a solution is developed, designed, implemented, and evaluated determines its impact. Participatory interventions are one way of ensuring better results. Consequently, this study proposes a way of establishing sustainable, effective, and efficient interventions by defining the required processes and actively involving responsible actors (i.e., who, when, and how). A national OSH intervention for introducing a near-miss management system, funded by the Italian National Institute for Insurance against Accidents at Work (INAIL), is used as a reference because its development process includes an accurate design stage. Based on this intervention, a multistep design process is built to answer how (how the intervention will persist by defining the context, processes, and scenarios), who (who will be the responsible actors actively participating), and when (when actors will be involved) questions. The design process established for the intervention, although within a specific context, provides clues to discriminant factors that would enable effectiveness in general interventions, and the proposed system for near-miss management generates insights that may be generalizable to other OSH interventions developed in different environments.

Yavuz K, Kocak O, and Kul Parlak N. Four serially mediating mechanisms in the relationship between COVID-19 fear and employee performance. *Work*. 2023; 75(3):753-766.

<https://doi.org/10.3233/WOR-211360>

Abstract: Background: During the COVID-19 pandemic, most workers were forced to work remotely, although having no prior experience, and as a result, they were exposed to new job-related stressors. Objectives: To examine the mediating role of job stress, work-family conflict and job satisfaction between fear of COVID-19 and job performance. Methods: An online questionnaire was conducted a survey of remote workers in Turkey. Responses were obtained from 351 subjects. Related scales were used to measure work-life balance, job stress, job satisfaction, and employee performance as well as fear of COVID-19. Because all hypothesis constructs can be analyzed simultaneously, structural equation modeling was used for data analysis. Results: The results showed that fear of COVID-19 affects job stress ($p = .001$; $\beta = .264$). There was a significant relationship between job stress and job satisfaction ($p = .001$; $\beta = .619$). Also, work-family conflict was affected employee job stress ($p = .001$; $\beta =$

.516). Job stress had a mediator role fear of COVID-19 on job satisfaction and work-family conflict on job satisfaction. Conclusion: The findings of this study provide a useful measurement model that can be used to evaluate and improve job performance and job satisfaction through work stress and work-family conflict in times of crisis such as COVID-19.ior experience, and as a result, they were exposed to new job-related stressors. Objectives: To examine the mediating role of job stress, work-family conflict and job satisfaction between fear of COVID-19 and job performance. Methods: An online questionnaire was conducted a survey of remote workers in Turkey. Responses were obtained from 351 subjects. Related scales were used to measure work-life balance, job stress, job satisfaction, and employee performance as well as fear of COVID-19. Because all hypothesis constructs can be analyzed simultaneously, structural equation modeling was used for data analysis. Results: The results showed that fear of COVID-19 affects job stress ($p = .001$; $\beta = .264$). There was a significant relationship between job stress and job satisfaction ($p = .001$; $\beta = .619$). Also, work-family conflict was affected employee job stress ($p = .001$; $\beta = .516$). Job stress had a mediator role fear of COVID-19 on job satisfaction and work-family conflict on job satisfaction. Conclusion: The findings of this study provide a useful measurement model that can be used to evaluate and improve job performance and job satisfaction through work stress and work-family conflict in times of crisis such as COVID-19

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