



Workplace Research Monthly

Formerly Emerging Evidence Alert

May 2026

This Workplace Research Monthly includes the latest peer-reviewed articles, reports and evidence on a range of workplace health and safety, prevention, recovery at work and return to work topics that were published in April 2026 only.

Contents

Methodology	2
Enabling Healthy and Safe Workplaces	3
Health and Wellbeing	3
Work Health and Safety.....	7
Ergonomics	11
Chronic Health Issues	12
Occupational Exposure.....	12
Musculoskeletal Health	17
Guiding and Supporting Mental Health and Wellbeing	19
Mental Health.....	19
Bullying, Harassment and Occupational Violence.....	21
Psychosocial Issues.....	22
Fostering Work Participation.....	27
Return to Work.....	27
Workers Compensation.....	28
Working hours	28
Wellness Programs	29
Management and Leadership.....	32
Adapting to the Future of Work	35
Technology	35
Work Environment	37

Methodology

Search

Open access, English language article abstracts related to the broad Work, Health and Safety and Rehabilitation/Return To Work themes of Enabling Healthy & Safe Workplaces, Enhancing Employer Capability, Fostering Work Participation, Promoting Mental Health and Adapting to the Future of Work, published in the preceding month are sourced from PubMed®, Emcare®, Ergonomic Abstracts® and Psychinfo® databases at the start of the month. Results are screened, critically reviewed in terms of level of evidence and relevance to an Australian context, and collated.

Description of Evidence Levels Definitions Used in this Review

Articles are arranged from highest to lowest quality based on levels of evidence and relevance, as outlined in table 1 and 2.

- 1. Level of Evidence** – Comcare does not conduct critical evaluations of the articles listed in the Workplace Research Monthly, however, certain study designs are scientifically stronger at answering a question. The scoring hierarchy used is presented below.

Level of Evidence	Description
Level 1	Evidence from a systematic/scoping review or meta-analysis of relevant studies.
Level 2	Evidence from a randomised controlled trial.
Level 3	Evidence from a controlled intervention trial without randomisation (i.e. quasi-experimental).
Level 4	Evidence from a case-control or cohort study.
Level 5	Evidence from a single case study, a case series, or qualitative study.
Level 6	Evidence from opinion pieces, reports of expert committees and/or from literature reviews.

- 2. Relevance** – Research carried out in Australia or similar countries is most relevant to Australian readers.

Level	Description
A	Study conducted in Australia or the study has been conducted outside Australia but confounders unlikely to affect relevance
B	Study conducted outside Australia and confounders likely to affect generalisability

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Enabling Healthy and Safe Workplaces

Health and Wellbeing

What about the bright side? A systematic review of psychosocial antecedents of well-being among forensic healthcare workers

Forensic healthcare workers (FHWs) are highly susceptible to work-related stress and declining well-being due to frequent interactions with forensic patients, who often exhibit violent behavior. While much of the existing literature has centered on the factors that predict ill-being among FHWs, such as stress and burnout levels, fewer studies have explored the elements that actively contribute to their well-being. However, focusing solely on problems and their solutions overlooks the factors that promote well-being and does not ensure employees' potential to truly flourish. Hence, this systematic review adopted a positive psychological perspective by investigating the psychosocial antecedents of positive indicators of FHWs' well-being. The review analyzed studies from Web of Science, PubMed, and Scopus, following PRISMA guidelines, and included 54 papers. Six primary outcome variables were identified: job satisfaction, well-being and positive mental health, life satisfaction, resilience, adaptive coping, and other variables (confidence, self-efficacy, and posttraumatic growth). Organizational and interpersonal support were the most common antecedents for job satisfaction, well-being, and positive mental health, and partially for resilience. Job characteristics, such as autonomy and work involvement, were significant for life satisfaction and well-being. Organizational justice also consistently emerged as an antecedent of both job and life satisfaction. These findings suggest key pathways for supporting FHWs' well-being.

Bergmans et al. 2026.

Applied Psychology: Health and Wellbeing, vol. 18, no. 12.

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Keywords: Forensic healthcare workers; job satisfaction; life satisfaction; positive psychology; well-being.

Evidence Level: 1A

Link: <https://iaap-journals.onlinelibrary.wiley.com/doi/10.1111/aphw.70126>

A scoping review and research agenda: Psychological flexibility and wellbeing in organisations

As workplaces increasingly recognise the importance of employee mental wellbeing, research into psychological flexibility and psychological inflexibility (PF/PI) has grown. PF, rooted in Acceptance and Commitment Therapy (ACT), is the capacity to pursue valued goals despite stressors and internal challenges, whereas PI reflects rigid attempts to avoid or control unwanted internal experiences, even when doing so undermines wellbeing or goal pursuit. Our systematic search across five databases identified 88 studies that had examined the relationship between PF/PI and wellbeing in workplace contexts. The findings indicate a surge in research since 2020, with PF (and, as such, PI) predominantly measured using the Acceptance and Action Questionnaire-II (AAQ-II). Most studies focus on mitigating negative wellbeing outcomes, such as burnout and psychological distress, rather than fostering positive wellbeing. PF/PI research is concentrated in high-stress professions, particularly healthcare, with limited exploration in other sectors. Finally, PF/PI research is dominant in Western research. Recommendations for future research directions were established, including a clearer construct definition, development in measurement approaches, longitudinal and intervention-based designs and broader occupational and cultural representation. Ultimately, this review highlights the need for a more nuanced and precise understanding of PF/PI to optimise its role in enhancing workplace wellbeing.

Roche et al. 2026.

Applied Psychology: Health and Wellbeing, vol. 18, no. 2.

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Keywords: Acceptance and Commitment Therapy; organisation; psychological flexibility; wellbeing.

Evidence Level: 1A

Link: <https://iaap-journals.onlinelibrary.wiley.com/doi/10.1111/aphw.70139>

Social influences on the occupational dietary behaviour of firefighters: A scoping review

Aim: This scoping review aims to explore the literature on social influences on firefighters' occupational dietary behaviour. **Methods:** Academic databases (PsycINFO, Web of Science Core Collection, Scopus, PubMed, Embase, ProQuest Dissertations & Theses) were searched from inception to 29 August 2025, for published articles and theses meeting the inclusion criteria: English language, primary research studies reporting on social influences on workplace dietary behaviour in international firefighters aged 18-65 years. **Results:** Of 2576 identified works, 24 met the eligibility criteria; 20 peer-reviewed studies and four PhD dissertations. Ten qualitative, nine quantitative, and five mixed-methods studies were included. Twenty-one studies were conducted in North America, with the remainder conducted in Australia, Canada, and the United Kingdom. Sample populations included career, volunteer, and wildlands firefighters (n = 14-599), who were predominantly Caucasian males with a median age between 39 and 51 years. The volume of evidence suggests the social influence of colleagues significantly shapes firefighters' dietary behaviour. This influence can be negative (promoting less healthy eating patterns) or positive (promoting healthier eating patterns). Firefighters who exert social influence and those most susceptible to influence tend to exhibit different characteristics. Social influence also plays a key role in communicating normative behaviour, contributing to a distinct culture in firefighting workplaces. **Conclusions:** The social influences on firefighters' occupational dietary behaviour warrant further investigation as a potential barrier or facilitator to dietary change. Given diet is a modifiable risk factor for health conditions disproportionately affecting firefighters, understanding these influences is critical to informing effective interventions.

Ranson et al. 2026.

Nutrition and Dietetics, vol. 83, no. 2.

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Keywords: Eating behavior; first responders; social norms; systematic review; workplace environment.

Evidence Level: 1A

Link: <https://onlinelibrary.wiley.com/doi/10.1111/1747-0080.70076>

Use of digital peer support for employee well-being: Retrospective analysis across five large employers

Background: Anonymous, 24/7 digital peer support (DPS) offers a scalable solution to support employees' emotional well-being. Understanding sociobehavioral factors, such as timing of engagement and the impact of shared resources, can help employers and employee assistance programs (EAPs) integrate digital tools to better support workforce well-being. **Objective:** This study examines (1) outcomes via overall sentiment changes among DPS users; (2) sociobehavioral differences between employees who accessed real-time, anonymous DPS during versus outside business hours; (3) differences in sentiment outcomes based on time of use; and (4) the impact of in-session resource sharing on sentiment improvement. **Methods:** Using OpenAI's large language model (LLM) GPT-4o-mini with a few-shot learning approach, 24,818 anonymous chat conversations from 13,879 employees at 5 large employers were evaluated for subclinical sentiment variables, including loneliness, sadness, stress, anxiety, depression, despair, helplessness, and optimism. **Results:** Distinct activity patterns were observed between employees during and outside business hours, with a median user age of 36 years. During business hours, employees reported higher baseline stress ($\Delta 1.6\%$), whereas outside business hours, baseline depression ($\Delta 1.7\%$) and loneliness ($\Delta 1.2\%$) were higher. After DPS use, LLM-derived negative sentiment scores decreased (loneliness 46% reduced, sadness 45%, stress 46%, anxiety $\sim 39\%$, depression $\sim 40\%$, despair $\sim 40\%$, and helplessness $\sim 38\%$), and optimism increased ($\sim 77\%$). Outside business hours, users engaged more ($\sim 68\%$ of all sessions), remained in sessions 19% longer, and discussed 13% more topics, whereas users during business hours reported greater improvements in depression ($\Delta 2.3\%$), helplessness ($\Delta 1.9\%$), and loneliness ($\Delta 0.5\%$). Resource sharing was associated with greater improvements in loneliness ($\Delta 2.9\%$), stress ($\Delta 1.3\%$), anxiety ($\Delta 1.9\%$), depression ($\Delta 7.3\%$), despair ($\Delta 3.0\%$), helplessness ($\Delta 2.8\%$), and optimism ($\Delta 8.8\%$), but not sadness. **Conclusions:** DPS complements employers' EAPs by addressing employee engagement gaps, reducing barriers to mental health care, and promoting emotional well-being among the workforce.

Sedaghati et al. 2026.

JMIR Human Factors, vol. 13.

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Keywords: Digital peer support; employee assistance programs; employee benefits; employee wellness; workforce well-being.

Evidence Level: 4B

Link: <https://humanfactors.jmir.org/2026/1/e90431>

Generation Alpha's expectations at work: Well-being, pay and sense of agency

In contemporary organizations, representatives of different generations meet. Many publications have been written about the work style, expectations, and needs of representatives of previous generations, but we notice a certain gap concerning the youngest participants of the labor market, i.e., Generation Alpha. The aim of the publication was to find answers to the questions about the requirements for remuneration and well-being at work of young people in Poland, whether these two groups of expectations are causally related, and what is the role of the sense of agency of representatives of Generation Alpha in this causal-effect system. We surveyed 446 respondents aged 19-22, selected on a quota basis. The results of the study confirmed that the expectations of the youngest players in the labor market go in many directions: first, toward earning "good" money, secondly - well-being at work is important. We confirmed that the expectation of young people regarding satisfactory remuneration is related to the expectations (and implicitly also the search for) of an employer who will ensure well-being at work. However, it was not possible to directly confirm the mediating role of the high sense of agency in the relationship between expectations about pay and well-being at work.

Syper-Jędrzejak et al. 2026.

PLoS One, vol. 21, no. 4.

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Keywords: Generation Alpha; well-being; pay; work expectations.

Evidence Level: 4B

Link: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0336725>

Cardiovascular disease risk across subsectors and occupations in the transportation and storage industry: A national cohort study

Cardiovascular disease (CVD) is a major contributor to global morbidity and mortality. While the transportation industry is recognized as high-risk for CVD, variation across subsectors and occupations remains unclear. We evaluated CVD risk across subsectors and occupations in South Korea's transportation industry. This retrospective cohort study used linked data from Korean National Health Insurance Service and Employment Insurance databases. Male workers aged 35-54 years in 2013 who remained in the same occupation during 2012 and underwent health screening in 2012-2013 were included. Follow-up continued through 2022. We calculated age-standardized incidence rates, standardized incidence ratios (SIRs), and population-attributable fractions across industries, with stratified analyses by subsector, occupation and lifestyle factors. Among 2 300 512 workers, transportation industry exhibited the highest age-standardized CVD incidence rate (558.9 per 100 000 person-years) and population-attributable fraction (1.49%) of all industries. Within 182 551 transportation workers, driving-related occupations showed the highest SIRs, especially in land and freight subsectors. Aviation subsectors had lower CVD incidence and more favorable health indicators. These patterns remained consistent after stratification by obesity and smoking status. Substantial heterogeneity exists in CVD risk across transportation subsectors and occupations. Targeted prevention strategies are needed for high-risk groups, particularly drivers.

Oh et al. 2026.

European Journal of Public Health, vol. 36, no. 3.

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Keywords: Cardiovascular disease risk; transportation; storage.

Evidence Level: 4B

Link: <https://academic.oup.com/eurpub/article/36/3/ckag052/8651727?login=true>

The influence of coworking on well-being and performance: An Experience Sampling Method study

Remote work from coworking spaces developed as an alternative to remote work from home, aiming to retain its benefits while overcoming its costs. There are reasons to question whether work from coworking spaces delivers on these aims, however. The current study uses the Experience Sampling Method to explore within-participant differences in well-being, work engagement, and productivity among remote workers, depending on (1) whether they are working from home or from a community-based coworking space, and - when working from a coworking space - (2) whether they work in a shared space and (3) whether the work is collaborative. Results suggest that coworking promotes higher outcomes on all measures relative to working from home. Within the coworking space, the impact of other people in the room and of collaboration is mixed, suggesting distinct strategies for how to best use a coworking space depending on the activity.

Lukeš et al. 2026.

Ergonomics, vol. 69, no. 4.

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Keywords: Coworking; Experience Sampling Method; performance; remote work; well-being.

Evidence Level: 4B

Link: <https://www.tandfonline.com/doi/full/10.1080/00140139.2025.2473019>

Precarity and sleep problems among online platform workers: Evidence from a survey of German-speaking workers

Objectives: This study investigates the association between sleep and precarious working conditions in the digital platform economy. Specifically, we examine how six dimensions of employment precariousness are associated with the likelihood of experiencing sleep problems among online platform workers (OPW).

Methods: We analyze survey data from German-speaking OPW (N = 1969). Sleep outcomes are measured using the Jenkins Sleep Scale (JSS-4), and precariousness is captured by six factor scores derived from an exploratory factor analysis, based on adapted questionnaire items from the Employment Precariousness Scale (EPRES). Logistic regression models with average marginal effects are used to estimate associations, controlling for sociodemographic and work-related characteristics. **Results:** Among the six dimensions of precariousness, two are robustly associated with higher likelihood of reporting sleep problems: Time poverty (the inability to take breaks and leave when needed) and vulnerability (reflecting opaque rating and payment systems). A typical variation across each of these scales corresponds to a 7.7%-8.1% increase in the probability of reporting elevated sleep problems. **Conclusions:** Our findings highlight that platform-related working conditions, particularly opaque management systems and limited ability to take time off, are important correlates of sleep problems among OPW. Addressing these factors may contribute to improving sleep health in this growing segment of the workforce.

Kettl et al. 2026.

Sleep Health, vol. 12, no. 2.

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Keywords: Algorithmic management; gig economy; insomnia; platform labor; time poverty; work stress.

Evidence Level: 4B

Link: [https://www.sleephealthjournal.org/article/S2352-7218\(25\)00269-4/fulltext](https://www.sleephealthjournal.org/article/S2352-7218(25)00269-4/fulltext)

Vaccination gaps in decentralized emergency response: Understanding immunization barriers among volunteer firefighters: A cross-sectional mixed methods study

Introduction: Volunteer firefighters are crucial for decentralized emergency response systems but operate outside standardized occupational health frameworks. Despite elevated exposure to biological hazards, systematic data on vaccination knowledge, immunization status, and preventive health engagement in this population are limited. To better understand the determinants of their preventive health engagement, and to inform strategies that strengthen operational readiness and public health resilience, this study examined vaccination behavior among German volunteer firefighters and identified determinants of immunization uptake. **Methods:** Between April 2025 and August 2025, semi-structured interviews were conducted with

150 active volunteer firefighters. Data were analyzed using inductive qualitative content analysis, following Mayring's framework. Vaccination status, evaluation of vaccination, and willingness to undergo medical surveillance were assessed. K-means cluster analysis identified behavioral typologies, and Spearman's correlations examined the associations between risk perception, social integration, and vaccination behavior. **Results:** Approximately one-third of the participants could not confirm their current immunization status. The most common vaccinations recorded among the 150 firefighters were tetanus (n = 110) and hepatitis B (n = 100). Three distinct behavioral clusters emerged: health-engaged prevention-oriented individuals (predominantly healthcare workers), vaccine-supportive but surveillance-resistant firefighters (craftsmen/trading backgrounds), and vaccine-ambivalent personnel open to alternative prevention (logistics/technical fields). Hazard perception was weakly correlated with vaccination status ($\rho = +0.300$, $p = 0.035$). Social proximity correlated positively with vaccination willingness ($\rho = +0.33$, $p = 0.037$) and negatively with hazard perception ($\rho = -0.43$, $p = 0.024$). Vaccination rates varied by occupation, ranging from 100% in IT/technical professionals, to 66.7% in healthcare workers, and 50 % craftsmen/trading workers. **Discussion:** Substantial vaccination knowledge gaps, incomplete documentation, and heterogeneous behavioral patterns shaped by professional background and institutional trust characterized the population surveyed. Effective interventions require differentiated strategies that address structural barriers, transparent communication, integration with valued occupational health surveillance, and recognition of distinct motivational profiles across volunteer firefighter subgroups.

Baron et al. 2026.

Frontiers in Public Health, vol. 14.

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Keywords: Communicable diseases; emergency response; health promotion; resilience; vaccination; volunteering.

Evidence Level: 5B

Link: <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2026.1803949/full>

Vulnerabilities, extreme weather and temporal tensions as experienced by construction workers in the Swedish construction sector

Aim: Climate change poses increasing risks to outdoor occupations, including construction work. This study explores how vulnerability is constructed in narratives of manual labour within the Swedish construction sector, particularly under extreme weather conditions. **Methods:** Drawing on 16 qualitative interviews with Swedish construction workers, the study adopts a social constructionist lens to explore how vulnerability is shaped and experienced. **Findings:** The findings identify multiple, intersecting forms of vulnerability-bodily, hierarchical, material, social, and market-driven-exacerbated by climate-related challenges such as high temperatures, heavy rainfall, and strong winds. Crucially, the analysis highlights how extreme weather disrupts temporal rhythms, widening the gap between scheduled work plans and the actual time needed to complete tasks. **Conclusion:** The paper concludes that vulnerability arises not only from direct exposure to adverse weather, but also through indirect social, material, and temporal dynamics inherent in the construction sector and exacerbated by climate change.

Nilsson et al. 2026.

PLoS One, vol. 21, no. 4.

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Keywords: Extreme weather; temporal tensions; construction workers.

Evidence Level: 5B

Link: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0345707>

Work Health and Safety

Assessing integrative prevention at work: A scoping review

Background: Integrative prevention at work is a promising avenue to better prevent occupational injuries and manage prolonged incapacity in a changing world of work. Integrative prevention at work can be operationalized using its five defining attributes: (1) holistic vision of health, (2) common understanding of

the purpose of integrative prevention, (3) communication among stakeholders, (4) collaboration among stakeholders, and (5) coordination of preventive action. An assessment tool for these characteristics would be a valuable resource for organizations seeking to improve their approach to prevention. Namely, it would allow organizations to assess the presence of integrative prevention at work in their environment and enhance their ability to implement it. **Objective:** This study aimed to describe the evaluation tools assessing attributes of integrative prevention at work. **Methods:** This scoping review followed a five-step process: 1) identifying the research question, 2) identifying relevant documents, 3) selecting documents, 4) extracting the data, and 5) examining, synthesizing, and reporting the results. **Results:** Twelve evaluation tools were identified assessing one or more attributes of integrative prevention at work. Descriptive elements are provided for each tool (e.g., its purpose, the attribute(s) it assesses, and its metrological properties). Our study suggests that communication among stakeholders and collaboration among stakeholders are the attributes that are the most assessed by the evaluation tools. **Conclusions:** This study provides the first comprehensive and detailed overview of the extant tools currently being used to assess the attributes of integrative prevention at work. None can assess all five attributes on a unified scale.

Drolet et al. 2026.

Work, vol. 83, no. 4.

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Keywords: Disability management; health promotion; occupational health; occupational injury prevention; scoping review; workplace.

Evidence Level: 1A

Link: <https://pmc.ncbi.nlm.nih.gov/articles/PMC13053870/>

Young workers' perceptions about occupational carcinogens

Background: Young workers (≤ 25 years) face a well-documented increased risk of occupational injury, but little is known about their risk for occupational disease or how it compares to older workers, even though similar factors may contribute to both injuries and hazardous exposures. **Objective:** The objective of this mixed-methods study was to assess young workers' ability to identify carcinogens and identify factors that may be indicative of a higher risk of occupational cancer. **Methods:** We conducted a survey of young workers in Canada and the United Kingdom via Prolific to assess knowledge, attitudes, and behaviours around carcinogenic exposures in the workplace. Participants were asked True/False (T/F) questions on factors affecting hazardous exposures, Likert-scale questions on workplace behaviours, and to identify carcinogens among various hazards. Scores were assigned based on ability to identify carcinogens, median scores were compared across demographics, occupational groupings, and responses. Participants were then recruited to participate in focus groups to discuss questions in further detail. **Results:** Median scores were lowest among participants in (1) retail and sales, and (2) agriculture, trades and manufacturing. Regardless of occupation, the ability to identify carcinogens was low. Median carcinogen scores were lower among incorrect T/F responses related to hazardous exposure. Many participants indicated a lack of knowledge regarding workplace hazards or how they may affect their health despite reporting receiving training. **Conclusions:** There are knowledge gaps by occupational groups that highlight a need for improvements to the delivery of training to young workers in the primary sector, manufacturing, and retail and sales.

Duffy et al. 2026.

Work, vol. 83, no. 4.

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Keywords: Awareness; cancer; hazards; work; youth.

Evidence Level: 4B

Link: <https://pmc.ncbi.nlm.nih.gov/articles/PMC13053868/>

Severing the health-impairment chain: Psychological distress and cross-level safety climate associations with safety behavior

Work in high-risk industries requires employees to follow technical procedures closely while operating in hazardous environments. Drawing on the health-impairment pathway of the Job Demands-Resources (JD-R) framework and Situational Strength Theory, this study examines whether three core hindrance stressors-

workload, lack of autonomy, and role ambiguity-are associated with employees' safety behavior through psychological distress. We also examine whether team safety climate, as a cross-level contextual condition, shapes this relationship. Using a three-wave time-lagged field design with 466 elevator technicians nested within 61 teams, we tested a multilevel moderated mediation model. The results showed that psychological distress mediated the associations between each job stressor and safety behavior, including both safety compliance and safety participation. In addition, team safety climate moderated the relationship between psychological distress and safety behavior, such that the negative association was weaker in teams with a strong safety climate. As a result, the indirect associations between job stressors and safety behavior through psychological distress were no longer significant under conditions of high team safety climate. These findings identify psychological distress as an important proximal mechanism linking job stressors to safety behavior and suggest that team safety climate can reduce the extent to which distress is reflected in unsafe behavior in high-risk work.

Li et al. 2026.

Acta Psychologica, vol. 264.

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Keywords: Job stressors; psychological distress; safety behavior; safety climate.

Evidence Level: 4B

Link: <https://www.sciencedirect.com/science/article/pii/S0001691826005743?via%3Dihub>

Workforce safety vulnerabilities in Pakistan's construction sector

Background: The construction workforce drives infrastructure growth in Pakistan but faces severe occupational safety and health (OSH) risks, including high injury rates and poor protection. These vulnerabilities threaten worker well-being and jeopardize sustainable development. **Objective:** This study investigates OSH vulnerabilities among construction workers in Pakistan and identifies sociodemographic factors contributing to occupational injuries. **Methods:** The Labour Force Survey (LFS), a nationally representative survey conducted by the Pakistan Bureau of Statistics, collects comprehensive data on employment, occupational injuries, and sociodemographic characteristics using standardized questionnaires. LFS data from 2001-02 to 2017-18 were analyzed using the index value trend method, documenting construction worker injuries from 151 cases (7.3% injury rate) in 2001-02 to 516 cases (8.6% injury rate) in 2017-18 across four provinces. Injuries were examined by age, province, education, occupation, unsafe acts, unsafe conditions, and treatment received. **Findings:** Younger workers, those in rural areas, and low-skilled, less-educated blue-collar employees faced the highest risk of occupational injuries. Unsafe practices, including neglecting the use of protective equipment and improper handling of materials, combined with hazardous site conditions, were the primary contributors to accidents. Trends across provinces and occupational categories reveal persistent vulnerabilities, indicating that despite some minor improvements over time, significant risks in workplace safety remain. **Conclusions:** Targeted OSH interventions, including safety training, mandatory compliance in construction projects, and formalization of informal labor, are essential. Integrating OSH measures with social protection programs can reduce injuries, improve workforce health, and support safer practices in Pakistan's infrastructure development.

Umair et al. 2026.

Annals of Global Health, vol. 92, no. 1.

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Keywords: Labour Force Survey; construction industry; index value trend; occupational injuries.

Evidence Level: 4B

Link: <https://pmc.ncbi.nlm.nih.gov/articles/PMC13089374/>

Alcohol consumption at work in construction workers employed in small Italian companies

Background: Alcohol consumption is an important occupational risk factor, especially in safety-sensitive sectors such as construction. Alcohol-related psychomotor impairment may increase the risk of workplace injuries and may also affect the safety of third parties. However, data on alcohol-related behaviors, workers' risk perception, and alcohol-focused health surveillance among Italian construction workers are still limited. **Methods:** We conducted a cross-sectional survey between September 2023 and June 2024 in 315 construction workers employed in small Italian companies. All participants performed work activities

for which local legislation mandates alcohol-use and alcohol-dependence checks as part of occupational health surveillance. Data were collected through an anonymous 27-item questionnaire exploring sociodemographic characteristics, alcohol consumption (AUDIT-C; cut-off ≥ 5 for men and ≥ 4 for women), alcohol use at work, knowledge of national regulations, alcohol-related risk perception, and accident/injury indicators. Nonparametric tests and multivariable linear regression were used to identify factors associated with AUDIT-C scores. Logistic regression analyses examined associations between perceived alcohol-related risks and awareness of, and exposure to, alcohol-dependence checks during health surveillance. **Results:** The sample was predominantly male (274/315; 86.98%), and 26.03% of workers were aged 46-55 years. The mean AUDIT-C score was 2.85 ± 2.49 (3.13 ± 2.47 in men; 0.95 ± 1.75 in women); 32.7% of workers screened positive, mainly men. Alcohol consumption during the work shift was reported by 1.9% of participants (7.94% occasionally), and during breaks by 5.08% (19.37% occasionally). Most workers were aware of the workplace alcohol ban (90.48%), and 83.49% reported having undergone alcohol-related checks. Higher AUDIT-C scores were associated with alcohol consumption during the work shift and occasional drinking during breaks. **Conclusions:** Although average AUDIT-C scores were not high, a relevant subgroup of workers showed risky drinking patterns and some alcohol consumption at work. These findings highlight the need to strengthen prevention strategies and ensure consistent alcohol-related health surveillance in construction settings.

Borrelli et al. 2026.

La Medicina del Lavoro Work Environment and Health, vol. 117, no. 2.

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Keywords: Alcohol consumption; alcohol; construction workers; Italian.

Evidence Level: 4B

Link: <https://mattioli1885journals.com/index.php/lamedicinadellavoro/article/view/18756>

Hand eczema in US employees: A retrospective observational study of workers' compensation and medical claims

Aims: This research quantified the impact of hand eczema (HE) on US employees. **Methods:** Retrospective observational analysis of real-world data from >500 large, self-insured employers from 2010 through 2024. The database includes detailed workers' compensation (WC) claims: eligibility, duration (days claims were open), medical costs, salary replacement, and absence days. The protocol included employees with medical claims (ICD-10s [L20.x, L23.x, L24.x, L25.x, L30.x] or ICD-9 = 691.x) and WC claims suggestive of HE based on body-parts and nature of injury. The analysis quantified HE-related WC claims: incidence, work loss, costs, and duration. HE-related WC incidence and average cost/claim were reported by industry. Costs inflation-adjusted to December 2024. **Results:** The analysis identified 1,937 WC claims with study body-part and nature of injury codes, >48,000 employees with medical claims for the study ICD codes. 226 employees met the study criteria and had 6.1 HE-related WC claims/100,000 eligible person-years. Their 226 closed WC claims remained open for a mean of 343 days (SD = 616; median = 121) and cost a mean of \$10,197 per claim (SD=\$45,172; median=\$477), including \$4,535 in WC medical costs, \$3,992 in salary-replacement costs, and \$1,670 in other WC costs. Lost work time occurred in 11.5% (n = 26) of cases, with a mean duration of 277 days (SD = 680; median = 51). HE-related WC incidence was highest in manufacturing (11.2/100,000 person-years) and retail trade (10.5/100,000 person-years). Manufacturing had the highest average cost per claim (\$29,587; SD=\$94,790) and "healthcare and social assistance" had the highest average lost work time. **Conclusion:** HE-related WC claims were associated with significant lost work time and costs. Costs approached \$30,000 per claim among those in the manufacturing industry. These findings underscore the severe burden of occupational HE and the need for early diagnosis and treatment to limit disability.

Brook et al. 2026.

Journal of Medical Economics, vol. 29, no. 1.

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Keywords: Hand eczema; I13; M21; claims data; cost; dermatitis; incidence; occupational dermatology; work absence; workers' compensation.

Evidence Level: 4B

Link: <https://pubmed.ncbi.nlm.nih.gov/41984619/>

Ergonomics

Methods and approaches for evaluating occupant satisfaction with office space design: A systematic review

Occupant satisfaction in office spaces is a critical factor influencing occupant's productivity, satisfaction and overall workplace experience. This systematic review examines the methodologies and approaches used to assess occupant satisfaction with office space design, identifying key evaluation tools and research trends. The study explores the extent to which existing methodologies integrate environmental, spatial and design factors to provide a comprehensive understanding of user experience. Additionally, it highlights the limitations in current assessment tools, including the lack of standardised frameworks for capturing occupant feedback at different stages of the design process. The findings suggest a growing shift towards data-driven and real-time feedback mechanisms to enhance workplace adaptability. By synthesising existing research, this review aims to provide insights for designers, facility managers and policymakers to refine evaluation methods and integrate occupant-centric strategies into office space planning.

Dávalos Quevedo et al. 2026.

Ergonomics, vol. 69, no. 4.

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Keywords: Occupant satisfaction assessment; user-centered office design; workplace experience; office environment evaluation.

Evidence Level: 1A

Link: <https://www.tandfonline.com/doi/full/10.1080/00140139.2025.2480271>

Person-specific evaluation method for occupational exoskeletons - Biomechanical body heat map

Human-centred and ergonomic work design is one of the most important drivers for increasing the competitiveness of the European Union. As a flexible, person-specific occupational measure, exoskeletons promise great potential for effectively reducing individual ergonomic stress. Digital human models can provide important insights and offer great potential for systematising the effect and targeted use of exoskeletons, supporting their effective implementation in practice. In this article, digital human models are applied on two levels. Firstly, a realistic industrial logistics scenario in which boxes had to be relocated is designed with the help of a digital human model for workplace and process planning and secondly, a new biomechanical evaluation methodology to analyse intended and unintended effects on internal stress on the human body is demonstrated by applying musculoskeletal exoskeleton human models of four test subjects. Finally, the modelled biomechanical support tendencies of one exoskeleton are preliminary validated using EMG measurement data of the back muscles collected from the four male workers. The preliminary analysis of two back-support exoskeletons to demonstrate the new methodological approach confirms the expected, intended effects in the lower back and reveals unintended effects, such as e.g. changes in knee kinetics when applying a soft or hard-frame exoskeleton. Furthermore, the exemplary results to demonstrate the methodological approach expose notable differences between the test subjects, which underlines the relevance of person-specific evaluation and consideration of exoskeleton support. The preliminary validation shows a correlation between the modelled and the EMG-measured biomechanical exoskeleton support of the considered back muscles.

Tröster et al. 2026.

Applied Ergonomics, vol. 132.

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Keywords: Biomechanics; digital human modelling; ergonomics; industry 5.0; musculoskeletal modelling; occupational exoskeletons.

Evidence Level: 5B

Link: <https://www.sciencedirect.com/science/article/pii/S0003687025002078?via%3Dihub>

Chronic Health Issues

Experiences of unemployed and/or work-disabled cancer survivors who have pursued to return to paid employment: A focus group study

Purpose: To explore experiences of unemployed and/or work-disabled cancer survivors who have pursued to return to paid employment. **Methods:** Four digital focus group interviews were conducted with 16 cancer survivors (< 10 years post-diagnosis) who have pursued to return to work within the last 2 years. Interview topics included motivations, facilitators of and barriers to job seeking, and returning to and maintaining paid employment. Interview audio recordings were transcribed verbatim and analyzed using conventional content analyses. **Results:** Participants were mostly female (94%), and the majority had successfully returned to paid employment (56%). Both intrinsic factors (e.g., sense of purpose, social interactions) and extrinsic factors (e.g., financial necessity) motivated their return to paid employment. During job seeking, participants experienced facilitators including support, personal qualities (e.g., life experience), and trial workplaces. Barriers included inadequate support, perceived employer discrimination, and work ability uncertainty. Returning to and maintaining employment was facilitated by flexible work, supportive colleagues, and intrinsic drive, while barriers included side effects (e.g., fatigue) and overly demanding work. **Conclusions:** Unemployed and/or work-disabled cancer survivors are generally motivated to return to paid employment by both intrinsic and extrinsic factors, but uncertainty about their ability and inadequate support may hinder this. These findings highlight the need for trial workplaces, support during every phase of return to paid employment, and a flexible, supportive workplace. **Implications for cancer survivors:** Tailored interventions addressing the needs identified in this study are urgently needed. The recommendations provided offer strategies for various stakeholders to enhance support for unemployed and work-disabled cancer survivors.

Greidanus et al. 2026.

Journal of Cancer Survivorship, vol. 20, no. 2.

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Keywords: Cancer survivors; employment; focus groups; job application; motivation; neoplasm.

Evidence Level: 5B

Link: <https://link.springer.com/article/10.1007/s11764-024-01657-5>

Occupational Exposure

Occupational exposure to toxic particles and risk of pulmonary sarcoidosis: A systematic review and meta-analysis

Introduction: The onset of sarcoidosis is likely the result of a complex genetic-environment-immunological interaction. This systematic review and meta-analysis aimed to identify occupational toxic particles associated with an increased risk of developing pulmonary sarcoidosis. **Methods:** Publications in English, published from January 2000 to January 2025, were searched in PubMed, Scopus and JSTOR. The risk of bias was assessed for all included studies. Sensitivity analyses stratified by study quality were conducted to evaluate the robustness of the findings and potential bias. To assess publication bias, a funnel plot was used when more than six studies were included in the analysis. **Results:** Five categories of toxic particles were identified to be associated with increased risk of the onset of sarcoidosis: chemicals, inorganic dusts, metals, mixed dusts and fumes and organic dusts. The quantitative analysis includes data from 13 studies. The results suggested that occupational silica, pesticides, mould/mildew and World Trade Center ((WTC) dust exposures were associated with increased odds of pulmonary sarcoidosis. Sensitivity analysis confirmed the robustness of the association for WTC dust and mould, whereas the risk associated with silica appeared attenuated in high-quality studies. However, gold exposure was identified as a protective factor. **Conclusion:** Pulmonary sarcoidosis is associated with occupational silica, pesticides, WTC dust and mould. Future research should prioritise gene-environment interactions and granuloma mineralogy to refine preventive strategies and disease management.

Kotti et al. 2026.

BMJ Open Respiratory Research, vol. 13, no. 1.

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Keywords: Occupational lung disease; sarcoidosis; systemic disease and lungs.

Evidence Level: 1A

Link: <https://bmjopenrespres.bmj.com/content/13/1/e003961>

Exposure to occupational inhalants and the risk of developing rheumatoid arthritis: A systematic review and meta-analysis

Objective: Rheumatoid arthritis (RA) is a chronic autoimmune disease characterized by joint pain, swelling, and stiffness. Although smoking is a well-established risk factor for RA, the role of occupational inhalants in RA development is less well recognized. This study aimed to systematically review and synthesize existing evidence on the association between occupational inhalants and the risk of developing RA. **Methods:** We conducted a systematic review and meta-analysis following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, searching MEDLINE, Embase, and Web of Science from database inception to November 20, 2024. Eligible studies were cross-sectional, were case-control and cohort designs, were population-based, reported original data on occupational inhalant exposures and RA, measured exposures, included a comparison group, and used reliable RA ascertainment methods. Studies relying solely on self-reported RA or focusing on treatment, prognosis, sick leave, or death were excluded. Two reviewers independently conducted literature screening, data extraction, and risk-of-bias assessment using the Newcastle-Ottawa Scale. Random-effects meta-analyses with relative risk were performed for cohort and case-control studies, and heterogeneity was assessed using the I² statistic. **Results:** In total, 31 studies met inclusion criteria, and 25 were included in meta-analyses across 10 types of occupational inhalants. Significant associations with RA risk were observed for exposure to silica, asbestos, solvents, pesticides, fertilizers, animal dust, and engine exhaust (relative risks ranging from 1.25 to 1.49). Moderate-to-high heterogeneity was observed in seven meta-analyses. **Conclusion:** Occupational inhalants are associated with increased RA risk, underscoring the importance of workplace prevention strategies and further research into biologic mechanisms.

Liu et al. 2026.

Arthritis and Rheumatology, vol. 78, no. 4.

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Keywords: Rheumatoid arthritis; chronic autoimmune disease.

Evidence Level: 1A

Link: <https://acrjournals.onlinelibrary.wiley.com/doi/10.1002/art.43446>

Update on occupational contact urticaria: A systematic narrative review

Purpose of review: Occupational contact urticaria (OCU) is an immediate-type skin reaction triggered by chemicals or proteins encountered in the workplace. It is classified as either nonimmunologic (irritant) or immunologic (IgE-mediated), which differ in pathogenesis, diagnostic approach, and clinical severity. Immunologic OCU may present with generalized urticaria and even anaphylaxis. We conducted a systematic narrative review to provide an updated overview of OCU, integrating findings from a structured literature search (2017-2025) with expert clinical interpretation. This review synthesizes knowledge on causative agents, diagnostic strategies, and management approaches, with a focus on emerging occupational exposures. **Recent findings:** The spectrum of occupational allergens continues to expand, with new reports implicating Cannabis sativa, arthropods (e.g., Anisakis simplex, pine processionary caterpillar), mask materials such as polypropylene, disinfectants (e.g., chloramine-T), antiseptics (e.g., chlorhexidine), cosmetic ingredients (e.g., henna, indigo, and hydrolyzed wheat protein), and enzymes (e.g., alpha-amylase, cellulase, papain, protease, and xylanase). Despite novel exposures, traditional culprits like natural rubber latex, ammonium persulfate, and animal-and plant-derived foods remain prevalent. **Summary:** Early recognition, diagnostic testing, and prevention are essential to reduce systemic involvement and occupational disability. Strengthening workplace awareness, surveillance programs, and systematic occupational health, safety, and environmental management remains essential to reducing this preventable condition.

Bizjak-Suran et al. 2026.

Current Opinion in Allergy and Clinical Immunology, vol. 26, no. 2.

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Keywords: Anaphylaxis; contact urticaria; immediate hypersensitivity; occupational diseases; occupational exposure.

Evidence Level: 1B

Link: https://journals.lww.com/co-allergy/fulltext/2026/04000/update_on_occupational_contact_urticaria_a.3.aspx

Association between hearing protection device use and noise-induced hearing loss among manufacturing workers in China: A cross-sectional study

Objective: Noise-induced hearing loss (NIHL) is a leading occupational illness globally. This study aimed to identify factors related to hearing protection device (HPD) use that were associated with NIHL and to quantify the relationship between the duration of HPD use and NIHL risk. **Methods:** In a cross-sectional study, 845 noise-exposed manufacturing workers in China underwent health examinations and surveys. The associations between hearing protection devices use duration, related factors, and hearing loss were analyzed using multivariable linear regression and restricted cubic spline model. **Results:** Providing hearing protection and training in its use at the enterprise level were associated with less hearing loss. At the individual level, consistent full-day use of hearing protection and using earplugs instead of earmuffs were linked to significantly less hearing loss. Lower hearing thresholds were linked to longer HPD use: each additional year of use was associated with a modest (~0.3 dB) reduction in the increase of hearing thresholds. Greater protective associations were observed after approximately 3 years of continuous use. **Conclusion:** Longer duration of HPD use is associated with milder hearing loss, particularly among workers reporting sustained use for three or more years, underscoring the importance of long-term hearing protection in noisy workplaces.

Pan et al. 2026.

Frontiers in Public Health, vol. 14.

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Keywords: Hearing protection device; high-frequency pure-tone average; noise-induced hearing loss; occupational noise; workers.

Evidence Level: 4B

Link: <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2026.1787668/full>

Occupational exposure to industrial dust and rates of Multiple Sclerosis

Background and objectives: Exposure to lung irritants such as smoking and organic solvents has been associated with increased risk of multiple sclerosis (MS), particularly among genetically susceptible individuals. The aim of this study was to investigate the association between occupational exposure to industrial dust and MS and to assess potential interactions with smoking and HLA-DRB1*15:01. **Methods:** We conducted a Swedish population-based case-control study. Patients with incident MS age 16-70 years were consecutively identified by neurologists at 40 clinics (2005-2015). Eligibility criteria for participants were age 16-70 years, residence in Sweden, and a neurologist-confirmed diagnosis of MS according to the McDonald criteria. Controls without MS were randomly sampled from the national population register using density sampling and frequency-matched to cases on age, sex, and residential area. Occupational dust exposure was assessed using questionnaire data. Logistic regression was used to estimate odds ratios (ORs) and 95% CIs. Additive interactions between dust exposure and smoking and between dust exposure and HLA-DRB1*15:01 were assessed by calculating the attributable proportion (AP) due to interaction. An AP >0 is considered evidence of interaction. **Results:** The analytic sample included 2,070 participants and 2,899 controls. The mean age at index was 34.4 years for participants and 35.4 years for controls. Women comprised 72.5% of participants and 75.1% of controls. Industrial dust exposure was associated with increased rate of MS (OR 1.30, 95% CI 1.05-1.63), with a dose-response relationship with duration (OR per 1-year exposure 1.03, 95% CI 1.00-1.06). Evidence of additive interactions was observed between dust exposure and smoking (AP 0.32, 95% CI 0.03-0.62) and between dust exposure and HLA-DRB1*15:01 (AP

0.25, 95% CI 0.002-0.52). Participants who smoked, were exposed to dust, and carried the HLA-DRB1*15:01 allele had an 11-fold increased rate of MS (OR 11.1, 95% CI 5.7-21.9), compared with those without any of these risk factors. **Discussion:** Occupational dust exposure was associated with increased rate of MS, particularly in combination with smoking and HLA-DRB1*15:01, suggesting joint effects of occupational, environmental, and genetic risk factors. The reliance on self-reported occupational histories and potential residual confounding are important limitations. Further studies are warranted to clarify underlying mechanisms and to inform preventive strategies.

Alfredsson et al. 2026.

Neurology, vol. 106, no. 7.

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Keywords: Occupational exposure; industrial dust; multiple sclerosis.

Evidence Level: 4B

Link: <https://pubmed.ncbi.nlm.nih.gov/41824926/>

Coal dust complexes host cell iron to impact metal homeostasis and pneumoconiosis

Surface complexation of cell iron following particle exposure can be relevant to coal mine dust lung disease. We tested the postulate that 1) coal dust and humic substances (HS), a specific component of coal, complex intracellular iron from cultured cells to initiate a functional metal deficiency, 2) the functional cell iron deficiency that results after exposure to coal dust and HS impacts an increased release of both superoxide-related products and proinflammatory mediators, and 3) the disruption in iron homeostasis after coal dust exposure is associated with pneumoconiosis in miners. Cell exposures to coal dust and HS initiated a functional iron deficiency, reflected by elevated expression of an importer (divalent metal transporter-1), which increased metal uptake measured as cell nonheme concentrations. Cell exposure to coal dust and HS increased 1) the generation of superoxide, measured using nitro blue tetrazolium reduction and an Amplex Red assay, and 2) the release of interleukin (IL)-6 and IL-8. These measures of oxidative stress and inflammatory mediator release were diminished with co-exposure to iron, supporting a relationship of both with a functional cell deficiency of the metal. Using a cohort of retired miners, blood ferritin levels were elevated in those diagnosed with a positive B read for coal workers' pneumoconiosis. Elevated blood ferritin concentrations correlated with progression of disease on B reads obtained 1 year later in the miners. It is concluded that coal dust and HS can initiate a disruption of iron homeostasis associated with superoxide generation, release of proinflammatory cytokines, and pneumoconiosis. **NEW & NOTEWORTHY** Following its inhalation, coal dust disrupts the homeostasis of iron in lung cells to decrease availability. This occurs through a complexation, or binding, of the cell's required iron by the coal dust. The decreased iron concentrations available to the cell initiate inflammatory and fibrotic lung injuries, with the latter recognized as coal workers' pneumoconiosis.

Ghio et al. 2026.

The American Journal of Physiology - Lung Cellular and Molecular Physiology, vol. 330, no. 4.

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Keywords: Anthracosis; coal mining; ferritins; iron; pneumoconiosis.

Evidence Level: 4B

Link: <https://journals.physiology.org/doi/10.1152/ajplung.00156.2025>

Co-exposure to asbestos, mineral wool, crystalline silica and refractory ceramic fibres and risk of lung cancer and mesothelioma

Background: Asbestos, mineral wool (MW), refractory ceramic fibres (RCF) and silica are among the most common exposures to mineral particles in the workplace. **Objective:** To study the effect of co-exposure to asbestos and MW, crystalline silica or RCFs and the risk of lung cancer and mesothelioma. **Methods:** The Asbestos-Related Diseases Cohort is a surveillance programme in retired workers exposed to asbestos during their working life. Complete job histories were collected and occupational exposure to asbestos was assessed by an expert, while occupational exposure to MW, RCFs and silica was assessed using French job-exposure matrices. Cox proportional hazards models were used to estimate HR and 95% CI for lung cancer mortality and lung cancer incidence and for mesothelioma mortality or mesothelioma incidence. **Results:** In this population of workers exposed to asbestos, in the mortality study, exposures to MW, crystalline silica

and RCFs were not found to be associated with lung cancer after adjustment for smoking and asbestos, nor with mesothelioma after adjustment for asbestos. In the incidence study, there was an association between exposure to crystalline silica (ever exposed) and mesothelioma (HRa=1.75, 95% CI 1.17 to 2.62). **Conclusion:** Crystalline silica is not known to induce mesothelioma but coexposure to asbestos could increase the effect of asbestos on the mesothelial cells.

Delva et al. 2026.

Thorax, vol. 81, no. 5.

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Keywords: Asbestos induced lung disease; lung cancer; mesothelioma; occupational lung disease.

Evidence Level: 4B

Link: <https://thorax.bmj.com/content/81/5/430.long>

Association between occupational noise-induced hearing loss and cognitive function: A multimodal cross-sectional study

Objective: To investigate the association between hearing loss and cognitive function in noise-exposed workers, to evaluate the predictive value of multimodal audiological and neurophysiological indicators, and to analyze the influence of covariates, including smoking, alcohol consumption, hypertension, and diabetes.

Methods: In this cross-sectional study, 170 noise-exposed workers with at least 6 months of exposure were enrolled from 2023 to 2025 using cluster sampling. Participants underwent pure-tone audiometry, tympanometry, otoacoustic emissions (OAEs), auditory brainstem response (ABR), and the Montreal Cognitive Assessment (MoCA). Data on demographics, smoking, alcohol consumption, hypertension, and diabetes were collected. Pearson correlation, multiple linear regression, hierarchical regression, and bootstrap mediation analysis were performed. **Results:** The study included 170 participants, of whom 97.1% were male. The mean age was 46.9 ± 9.8 years, and the mean duration of noise exposure was 6.9 ± 5.7 years. The mean high-frequency hearing threshold was 54.9 ± 10.2 dB, and the mean MoCA score was 26.2 ± 2.1 . Hearing thresholds and ABR wave V latency were both significantly negatively correlated with MoCA scores ($p < 0.05$). The absolute correlation coefficients ranged from 0.2 to 0.3, indicating weak to moderate correlations. Multiple regression analysis showed that age, exposure duration, and high-frequency hearing threshold were independent predictors of MoCA score ($p < 0.05$). This association remained stable after adjustment for smoking, alcohol consumption, hypertension, and diabetes.

Mediation analysis revealed that hearing loss played a significant mediating role in the negative effect of occupational hazard exposure duration on cognitive function. Specifically, 47.6% of the total effect of exposure duration on cognitive function was mediated by high-frequency hearing loss. The observed correlation coefficients were modest (e.g., $r \approx -0.3$), suggesting a small to moderate clinical effect size. Hypertension was also independently associated with lower MoCA scores ($\beta = -0.120$, $p = 0.048$).

Conclusion: In this predominantly male cohort of noise-exposed workers, hearing loss was significantly associated with cognitive decline. This association was independent of age, exposure duration, and other health risk factors, including smoking, alcohol consumption, hypertension, and diabetes. These findings suggest a potential link between occupational hearing loss and cognitive function. However, because of the limitations of the cross-sectional design, causal relationships cannot be inferred. A multimodal assessment integrating audiological, neurophysiological, and health risk factors may provide a more systematic and objective reference for early identification, risk warning, and the development of comprehensive occupational health intervention strategies for cognitive decline in occupational populations.

Jin et al. 2026.

Frontiers in Public Health, vol. 14.

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Keywords: Auditory brainstem response; cognitive impairment; hearing loss; hypertension; occupational noise exposure; smoking.

Evidence Level: 4B

Link: <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2026.1789178/full>

Occupational exposure to antimony from cement additives: Speciation and health risk insights

Antimony (Sb) is an emerging environmental contaminant of concern due to its persistence, bioaccumulation potential, and toxicity. Its trivalent form [Sb(III)] is of particular relevance, as it is classified as a suspected human carcinogen. In the cement industry, Sb-based additives are increasingly used to mitigate water-soluble hexavalent chromium [Cr(VI)], a highly toxic and allergenic compound. However, the environmental fate, chemical speciation, and occupational exposure to Sb during cement handling are still poorly characterized. This study developed and validated a robust analytical workflow combining citric acid-EDTA extraction with HPLC-ICP-MS/MS detection for accurate Sb(III)/Sb(V) differentiation in complex industrial matrices. The method ensured oxidation-state preservation and achieved recovery values up to 68%. The workflow was applied to commercial additives, premixed cements, and personal air filters collected from workers during bagging operations. Sb(III) was identified as the predominant species in both bulk materials and airborne particulate matter. Airborne Sb concentrations ranged from 0.00004 to 0.00114 mg m⁻³, remaining below international occupational exposure limits. The predominance of Sb(III) in both bulk materials and airborne particulate matter underscores the importance of chemical speciation in occupational exposure assessment. The validated workflow offers a practical approach for monitoring antimony species in cement production environments and supports evidence-based risk management.

Fontanella et al. 2026.

Chemosphere, vol. 399.

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Keywords: Antimony speciation; cement additives; HPLC-ICP-MS/MS; worker safety.

Evidence Level: 5B

Link: <https://www.sciencedirect.com/science/article/pii/S0045653526000718?via%3Dihub>

Musculoskeletal Health

Occupational biomechanical risk factors for hip and knee arthroplasty incidence: A register-based cohort study in male construction workers

Objective: To evaluate the association between exposure to occupational biomechanical factors and the incidence of surgically treated osteoarthritis (OA) treated with arthroplasty in the hip and knee among male construction workers. **Design:** Longitudinal register-based cohort study. **Participants and setting:** Male construction workers (n=291 062) who participated in a national Swedish occupational health examination programme between 1971 and 1993, delivered through multiple primary-level nationwide occupational health centres. **Primary and secondary outcome measures:** Hip and knee arthroplasties performed due to OA from 1987 to 2019 were identified through linkage with the Swedish National Patient Register. Data on age, smoking habits, body mass index, job title and self-reported biomechanical exposures were collected during the health examinations. Occupational biomechanical workload was assessed using eight factors from a job-exposure matrix. Poisson regression was applied to estimate adjusted incidence rate ratios (IRRs) associated with each type of occupational biomechanical exposure. **Results:** The study included 10 336 cases of hip arthroplasties and 8926 cases of knee arthroplasties. All studied biomechanical risk factors were associated with an increased risk of knee OA requiring arthroplasty, especially for individuals exposed to static work in non-neutral lumbar postures (IRR 1.38, 95% CI 1.16 to 1.65) and those with a high frequency of kneeling (IRR 1.27, 95% CI 1.12 to 1.45). In contrast, only a few biomechanical factors were associated with an increased risk of hip OA requiring arthroplasty. Similar results were observed when alternative exposure measures, such as occupational group and self-reported exposure assessments, were employed. **Conclusions:** Occupational workload was associated with an increased risk of knee arthroplasty due to OA, whereas the association for hip arthroplasty remains unclear.

Gustafsson et al. 2026.

BMJ Open, vol. 16, no. 4.

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Keywords: Hip; knee; occupational & industrial medicine.

Evidence Level: 4B

Link: <https://bmjopen.bmj.com/content/16/4/e107604.long>

Association of the 24-hour movement behaviours composition with workers' chronic musculoskeletal pain

Background: Chronic musculoskeletal pain is a significant symptom among workers. 24-hour movement behaviours comprising sleep, sedentary behaviour, light-intensity physical activity, and moderate-to-vigorous-intensity physical activity are associated factors. However, the relationships between these behaviours and workers' chronic musculoskeletal pain, considering the interrelationship between the behaviours, are still unclear. This study aimed to investigate the associations of 24-hour movement behaviours with workers' low-back and neck/shoulder pain. **Methods:** In 2023, cross-sectional survey was conducted targeting adults who registered for a Japanese Internet survey system. Time for 24-hour movement behaviours and other demographic characteristics (age, gender, marital status, education, household income, height, weight, smoking, alcohol, chronic disease, work hours, and job activity) were self-reported. The intensity of low-back and neck/shoulder pain was evaluated using the numerical rating scale and a score of ≥ 4 was considered as moderate-to-severe pain. Compositional logistic regression and isotemporal substitution were performed to examine the associations of 24-hour movement behaviours and time reallocations between the behaviours with moderate-to-severe low-back and neck/shoulder pain, adjusted for all the demographic variables. **Results:** 1,665 full-time workers (women: 35.8%, mean age: 42.1 ± 10.2 years) were analysed. Increased sleep and decreased light-intensity or moderate-to-vigorous-intensity physical activity were associated with lower odds of moderate-to-severe low-back (adjusted odds ratio [AOR] = 0.54, 95% confidence interval [CI] = 0.40-0.72; 1.45, 1.25-1.69; 1.17, 1.06-1.30, respectively) and neck/shoulder pain (AOR = 0.60, 95% CI = 0.45-0.80; 1.37, 1.19-1.60; 1.12, 1.01-1.24, respectively). Reallocating sleep from the other behaviours was associated with decreased probabilities of low-back and neck/shoulder pain, whereas replacing sedentary behaviour or light-intensity physical activity with more intense activity was associated with increased probabilities. However, the results of moderate-to-vigorous-intensity physical activity reallocation were no longer significant when restricted to complete cases. **Conclusions:** Considering the interrelationship of 24-hour movement behaviours, sleep was favourably associated with workers' low-back and neck/shoulder pain.

Kitayama et al. 2026.

PLoS One, vol. 21, no. 4.

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Keywords: Chronic musculoskeletal pain; workers; behaviour.

Evidence Level: 4B

Link: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0346414>

Occupational risks, musculoskeletal disorders, and quality of work life: An age-based analysis

Background: Work-related musculoskeletal disorders (WMSDs) are a prevalent issue, associated with a complex interaction of occupational risk factors that can be linked to lower quality of work life (QWL). While these relationships are well-established, it remains unclear how age-based differences mediate them, as younger and older workers may respond differently to various workplace hazards. Understanding these age-specific pathways is crucial for developing targeted interventions. **Objective:** This study aimed to investigate the relationships between occupational risk factors, WMSDs, and QWL across different age groups to identify key differences and inform ergonomic practice. **Methods:** A sample of 312 workers, divided into young (under 45 years) and older (45 years and above) groups, was analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to test hypotheses linking biomechanical, psychosocial, and organizational risk factors to WMSDs and QWL. **Results:** Significant differences were observed between age groups. Tight deadlines were associated with occupational stress (OS) only in older workers, whereas WMSDs were significantly associated with lower QWL only among younger workers. Physical job demands and OS were associated with WMSDs in both groups, and OS was related to their QWL. The findings indicate that worker age significantly influences how occupational risks are associated with WMSDs and QWL, and that these associations are not uniform. **Conclusion:** This study validated a model that examined the relationships among occupational risk factors, WMSDs, and QWL across age groups. The model demonstrated robust psychometric properties, enabling the identification of significant differences between young and older workers.

Silva et al. 2026.

Musculoskeletal Science and Practice, vol. 82.

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Keywords: Age-group differences; complex model; working conditions.

Evidence Level: 5B

Link: <https://www.sciencedirect.com/science/article/pii/S2468781226000287?via%3Dihub>

Guiding and Supporting Mental Health and Wellbeing

Mental Health

Occupational stress and professional burnout among the Millennial generation: A scoping review

Introduction: Millennials, born between the early 80s and the mid-90s, face distinct work-life challenges shaped by recent cultural, economic, and social shifts, leading to high levels of work-related syndromes. Some authors describe Millennials as a 'burnout generation'. **Objective:** The main objective is to provide a comprehensive overview of occupational stress and professional burnout within the millennial generation. The secondary objectives are to identify how millennials are conceptualised in literature and to map the available information regarding occupational stress and professional burnout in Millennials. **Methods:** A scoping review was conducted between January and May 2025 using the PsycINFO, ERIC, Medline, Embase, Scopus, and Google Scholar databases. Both scientific and grey literature were included. Literature reviews older than 5 years were excluded, as well as papers in non-English, French, or Spanish. **Results:** 23 international publications were selected. Most are quantitative (n = 18), followed by a qualitative (n = 3) and a mixed-methods approach (n = 2). 5 studies cited a theoretical framework on generations. Burnout was assessed with the Maslach Burnout Inventory - MBI (n = 8), followed by the Copenhagen Burnout Inventory CBI (n = 3). The remaining studies used the Oldenburg Burnout Inventory - OLB, other work burnout scales, as well as interviews and focus groups. **Conclusions:** Studies are guided by inconsistency in the definition of millennials, heterogeneity in the definition of burnout, and overall methodological imbalance. Future research is needed through qualitative and mixed methods approach. This study lays the foundation for future research by identifying key gaps and providing a theoretical basis on millennials and work-related syndromes.

Valdiviezo et al. 2026.

Acta Psychologica, vol. 264.

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Keywords: Burnout; generation; millennials; occupational stress.

Evidence Level: 1A

Link: <https://www.sciencedirect.com/science/article/pii/S0001691826003008?via%3Dihub>

Comparing profiles of mental illness and positive mental health between injured workers and the general working population in Ontario

Background: Mental illness (MI) is prevalent among workers with work-related injury. However, complete mental health includes both MI and positive mental health (PMH). To better understand differences in prevalence, this study compared MI and PMH profiles among injured Ontario workers to a representative sample of the general Ontario working population. **Methods:** We studied 1132 Ontario workers with a physical work-related injury from the Ontario Life After Work Injury Study (OLAWIS) and 1652 general workers in compensation-covered industries from the 2012 Mental Health Canadian Community Health Survey (MH-CCHS). MI was self-reported 18 months post-injury as a mood or anxiety disorder diagnosed pre- or post-injury in OLAWIS and defined as a major depressive episode or generalized anxiety disorder in MH-CCHS. PMH was measured in both samples using the Mental Health Continuum Short Form. Latent class analysis in each sample identified MI and PMH profiles, and chi-square tests assessed within- and between-sample differences. **Results:** Three MI and PMH classes were identified in the OLAWIS sample, whereas four MI and three PMH classes were identified in the MH-CCHS sample. Compared with general

workers, more injured workers belonged to high-burden MI classes (19% vs. 9%) and the languishing PMH class (11% vs. 4%). Injured workers reported lower emotional and psychological well-being but higher belonging than general workers. **Conclusions:** Most workers showed low MI and flourishing PMH, but injured workers more often showed high MI and languishing PMH. Targeting aspects of psychological and emotional well-being may help improve overall mental health among injured workers.

Dobson et al. 2026.

American Journal of Industrial Medicine, vol. 69, no. 4.

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Keywords: Complete mental health; injured workers; mental illness; positive mental health; working population.

Evidence Level: 4B

Link: <https://onlinelibrary.wiley.com/doi/10.1002/ajim.70061>

Promoting employment participation for people with mental health challenges: Photovoice and advocacy

People with mental health issues are three times more likely to be unemployed. The purpose of this community-engaged research project was to address an issue brought up by our community partner that people with mental health challenges were restricted from participating in employment. A photovoice study was conducted to answer the research question: what facilitating factors and hindering factors of employment were encountered by people with mental health challenges? Seven participants recruited by our community partner completed three rounds of photo assignments and group meetings. Study findings revealed that mental health conditions presented challenges in finding, acquiring, and retaining employment, and that self-management strategies and a safe work environment were critical to facilitate employment participation. A community advisory group was informed about the study findings. We then hosted photovoice exhibit events to increase awareness about the employment issue for community people. Recommendations for conducting community-engaged research are discussed.

Wu et al. 2026.

OTJR: Occupational Therapy Journal of Research, vol. 46, no. 2.

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Keywords: Community participation; mental health; work.

Evidence Level: 5B

Link: <https://pubmed.ncbi.nlm.nih.gov/41237300/>

Professional burnout and functioning styles in a group of soldiers and civilian employees working in the armed forces

Background: This study aimed to analyze the relationship between the level of professional burnout, professional functioning styles, and occupational activity in a group of soldiers and civilian employees working in the military. The theoretical basis was the model of professional burnout of Christine Maslach and the concept of professional functioning styles developed by Barbara Mróz. **Material and methods:** The study employed the following tools: Christine Maslach's Maslach Burnout Inventory (MBI) to measure burnout, Barbara Mróz's new, original Professional Functioning Scale (Skala funkcjonowania zawodowego - SFZ) in occupational psychology, and a questionnaire assessing the level of occupational activity. **Results:** The results of statistical analyses showed statistically significant differences between soldiers and civilian employees in selected dimensions of burnout (depersonalization $t = 3.723$, $p < 0.001$) and professional functioning styles (authoritarian $t = 5.031$, $p < 0.001$; avoidant $t = -3.153$, $p < 0.002$; cooperative $t = -4.531$, $p < 0.001$). All differences were higher among soldiers. Occupational activity proved to be a statistically significant factor differentiating operational effectiveness and stress resistance ($t = -4.934$, $p < 0.001$). Here, the difference was higher among military personnel. Correlations were found between professional functioning styles and burnout levels (authoritarian and avoidant styles were associated with higher burnout levels, the cooperative style had a protective effect). Soldiers: correlation positive ($r = 0.270$, $p < 0.05$), prefer an authoritarian style - based on control, decision-making, and hierarchy. Civilian employees:

correlation positive ($r = 0.377$, $p < 0.01$), that the more often used an authoritarian style in their professional functioning, the higher their overall level of burnout was. **Conclusions:** The results obtained are relevant for human resource management in military organizations and for the development of psychological support programs and training in coping with stress and developing effective professional functioning styles.

Mróz et al. 2026.

Medycyna Pracy, vol. 77, no. 2.

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Keywords: Professional Functioning Scale; burnout; civilian military employees; industry activity; professional functioning styles; soldiers.

Evidence Level: 5B

Link: <https://medpr.imp.lodz.pl/Professional-burnout-and-functioning-styles-in-a-group-of-soldiers-and-civilian-employees,219826,0,2.html>

Navigating burnout and professional identity among allied health educators

Introduction: Professional identity shapes the effectiveness, motivation, and well-being of allied health clinical educators (CEs). Burnout, characterised by emotional exhaustion, depersonalisation, and reduced personal accomplishment, can undermine these outcomes, diminishing both teaching quality and educator retention. While burnout in healthcare professionals is well documented, limited research has explored its relationship with educator identity among allied health professionals (AHPs), particularly in Asian contexts. This study examines the interrelationship between burnout, job satisfaction, and educator identity among AHP CEs, and identifies contextual factors that influence these experiences. **Methods:** An exploratory qualitative study was conducted across multiple healthcare institutions in Singapore using a constructivist paradigm. Sixteen AHP CEs representing diverse disciplines participated in semi structured focus group discussions guided by Maslach and Jackson's burnout framework. Data were analysed thematically through iterative coding and team based discussion to identify recurrent patterns and relational dynamics between burnout and educator identity. **Results:** Participants described burnout as a multifaceted experience influenced by workload pressures, limited institutional recognition, and insufficient protected time for educational work. Contributing factors included inadequate career pathways and constrained access to faculty development. A strong sense of educator identity and job satisfaction emerged as protective buffers, whereas weak identification with the educator role appeared to heighten burnout risk. Supportive communities of practice and organisational cultures that value teaching were key in sustaining motivation and professional fulfilment. **Discussion:** These findings underscore the need for systemic and institutional strategies to strengthen the educator identity of AHP CEs. Enhancing professional recognition, fostering collegial support, and promoting meaningful engagement in education may mitigate burnout and sustain a resilient allied health education workforce.

Lee et al. 2026.

Medical Teacher, vol. 48, no. 8.

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Keywords: Allied health professional; burnout; clinical educator; professional identity; qualitative research.

Evidence Level: 5B

Link: <https://pubmed.ncbi.nlm.nih.gov/41201870/>

Bullying, Harassment and Occupational Violence

A scoping review of risk determinants for workplace violence in emergency departments

Workplace violence refers to physical violence, verbal abuse, threats, or other aggressive behaviors directed toward healthcare workers in the workplace. It is a critical occupational and public health hazard, disproportionately affecting emergency departments (EDs) worldwide. This scoping review aimed to synthesize evidence on the prevalence of ED violence and to map its risk determinants through the lens of 'Who, When, and Why'. We conducted a scoping review following PRISMA guidelines, including qualitative, quantitative, and mixed-method studies on risk determinants for ED violence. PubMed, Scopus, Embase,

and Web of Science were searched from inception to June 2025. English-language studies reporting prevalence or risk factors of ED violence were included. Titles and abstracts were screened using ASReview. Twenty-one studies were included, reporting workplace violence prevalence ranging from 72.5% to 91.5%. Thirty-four influencing factors were identified across four dimensions: individual characteristics (perpetrator traits: male gender, middle age, psychiatric illness, substance use; healthcare worker traits: provider gender), temporal triggers (night shifts, weekends, long waiting times), spatial vulnerabilities (triage and treatment areas, overcrowded or poorly monitored spaces), and situational/psychological drivers (pain, fear, unmet expectations, miscommunication). Workplace violence in EDs is a multifactorial phenomenon shaped by individual vulnerabilities, environmental pressures, and systemic factors. This review highlights the persistent normalization of violence against frontline staff and underscores the need for immediate protective measures and systemic reforms.

Li et al. 2026.

European Journal of Emergency Medicine, vol. 33, no. 3.

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Keywords: Emergency department; risk factors; scoping review; workplace violence.

Evidence Level: 1A

Link: https://journals.lww.com/euro-emergencymed/fulltext/2026/06000/a_scoping_review_of_risk_determinants_for.7.aspx

Suffer at work, vent at home: Linking workplace ostracism to family undermining from an emotional resource perspective

Although workplace ostracism has been widely recognized as a harmful organizational stressor, its cross-domain spillover effects on employee family behaviors and the underlying mechanisms remain insufficiently explored. This study investigates the relationship between workplace ostracism and employees' family undermining, focusing on the underlying mechanisms from the perspective of emotional resource depletion, specifically regulatory emotional self-efficacy and surface acting. A total of 609 employees from private enterprises in China were surveyed using the Workplace Ostracism Scale, Regulatory Emotional Self-Efficacy Scale, Surface Acting Scale, and Family Undermining Scale. The results indicate that workplace ostracism is significantly positively associated with employee family undermining, and is linked to family undermining through three pathways: (1) the independent mediating role of regulatory emotional self-efficacy; (2) the independent mediating role of surface acting; (3) the serial mediation of regulatory emotional self-efficacy and surface acting. These findings deepen understanding of the mechanisms underlying the association between workplace ostracism and family interactions and provide theoretical and practical implications for organizational management and employee mental health.

Li et al. 2026.

Acta Psychologica, vol. 264.

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Keywords: Corporate employees; emotional labor; family undermining; regulatory emotional self-efficacy; workplace ostracism.

Evidence Level: 4B

Link: <https://www.sciencedirect.com/science/article/pii/S0001691826003938?via%3Dihub>

Psychosocial Issues

Work-related psychosocial factors and working life expectancy among Finnish public sector employees aged 50 years or older

Objective: This study aimed to examine the associations between work-related psychosocial factors and working life expectancy (WLE) across occupational groups among Finnish public sector employees aged ≥ 50 years. **Methods:** In this cohort study, 70 662 Finnish public sector employees completed surveys on work-related psychosocial factors in 2000-2002, 2004, 2008, 2011-2012, 2013-2014, and 2015-2016, with each participant responding at least once at age ≥ 50 years (response rates 66-71%; 80% female). Survey data were linked to pensionable earnings records to verify work participation until 31 December 2018. WLE WLE

between ages 50 and 68 was estimated using a multi-state life tables approach. Analyses were conducted among three occupational groups: managers and specialized professionals, non-manual professionals, and service and manual workers. **Results:** The overall WLE at age 50 was 13.1 years [95% confidence interval (CI) 13.1-13.2]. Work-related psychosocial factors were associated with shorter WLE across all occupational groups, with WLE shortening from the highest to the lowest occupational group. High effort-reward imbalance (ERI) was associated with the shortest WLE, approximately five months shorter than among employees with low ERI. Compared with managers and specialized professionals with low psychosocial risks, high ERI, high job strain, high relational or procedural injustice were each associated with an approximately 1-year shorter WLE among service and manual workers. Occupational group showed a stronger association with WLE than the accumulation of psychosocial risk factors. No sex differences in WLE were observed. **Conclusion:** These findings suggest that promoting favorable psychosocial working conditions may extend working careers and reduce inequalities in working life participation, particularly among service and manual workers.

Haukka et al. 2026.

Scandinavian Journal of Work, Environment and Health, vol. 52, no. 3.

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Keywords: Work-related psychosocial factors; working life expectancy; Finnish public sector employees; 50.

Evidence Level: 4B

Link: <https://www.sjweh.fi/article/4298>

Metabolomics of mouth-rinsed water for assessing psychophysiological stress in office workers

Workplace stress impacts productivity and health, necessitating non-invasive, rapid, and objective assessment methods. This study investigates the potential of metabolite profiling of mouth-rinsed water (MW)-an oral biofluid collected in just 10 s-as a screening tool for psychophysiological stress among office workers. Thirty-two participants were classified into high-stress and control groups based on the State-Trait Anxiety Inventory and the Brief Job Stress Questionnaire, and objective physiological measures. MW samples were collected at four time points, including before and after brief mental stress tasks. Biochemical features were profiled using capillary electrophoresis-mass spectrometry and liquid chromatography-mass spectrometry. A total of 559 analytes, including 532 water-soluble metabolites, 25 steroids, and 2 salivary proteins, were measured, of which 127 analytes with acceptable analytical precision were selected for subsequent analyses. Statistically significant differences in numerous metabolites indicated stress-associated alterations in metabolic activity. Notably, a predictive model using the ratio of N-acetyl- β -alanine to asymmetric dimethylarginine achieved high accuracy, with an area under the receiver operating characteristic curve (AUC) of 0.845 for identifying high stress. The distinct metabolite dynamics under varying stress conditions suggest multiple stress-response mechanisms. These findings underscore MW metabolite profiling as a promising approach for assessing and managing workplace stress.

Maruyama et al. 2026.

Scientific Reports, vol. 16, no. 1.

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Keywords: Biological markers; metabolomics; occupational stress; saliva; workplace.

Evidence Level: 5B

Link: <https://www.nature.com/articles/s41598-026-42241-4>

Modelling the association between psychosocial work factors and risky driving: Mediating roles of burnout and engagement

Introduction: Drivers of heavy goods vehicles (HGVs) face significant psychosocial work challenges that increase their job burnout and risky driving behaviours, affecting drivers' well-being and on-the-road safety. However, these psychosocial work challenges have received limited research attention in developing countries. This study explored the relationships among job demands, job resources, job burnout, job engagement, and risky driving behaviours in Ghanaian HGV drivers. **Method:** This cross-sectional survey collected data from 1,575 HGV drivers (truck and tanker drivers) in Tema, Ghana. Data were collected using a validated questionnaire and analyzed with partial least squares structural equation modelling (PLS-SEM)-SmartPLS. **Results:** High job demands is associated with high job burnout and risky driving behaviours

among HGV drivers in Ghana, while job burnout positively correlates with the occurrence of risky driving behaviour. High job resources are associated with low job burnout and high job engagement among the drivers. However, high job resources did not have a statistically significant association with low risky driving behaviour among the drivers. Mediation analyses revealed that job burnout partially mediated the relationships between job demands and risky driving behaviour, and job resources and risky driving behaviour. Moreover, job engagement mediated the relationships between job resources and risky driving behaviour. Moreover, job resources significantly buffered the effects of job demands on job burnout. Job resources further moderated the influence of job burnout on risky driving behaviours.

Conclusion: This study suggests that psychosocial work factors strongly influenced job burnout and associated risky driving behaviours among Ghanaian HGV drivers. Efforts to balance job demands and enhance support systems are critical to improving the health, safety, and well-being of these drivers and ultimately reducing road accidents in the country.

Amoadu et al. 2026.

Frontiers in Public Health, vol. 14.

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Keywords: Ghana; PLS-SEM; heavy goods drivers; job burnout; job demands; job engagement; job resources; risky driving behaviours.

Evidence Level: 4B

Link: <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2026.1766587/full>

A familiar working environment influences surgeon's stress in the operating room: A multi-specialty prospective cohort study

Objective: To determine the influence of operating room familiarity on surgeon stress. **Background:** Regulating surgeon stress may improve patient safety. This study evaluated how assisting surgeons and operating room familiarity influence intraoperative heart rate variability among surgeons. **Methods:** Attending surgeons from 7 specialties within 4 university hospitals in France were enrolled from November 1, 2020 to December 31, 2021. Vagal tone, an indicator of stress derived from heart rate variability, was assessed during the first 5 minutes after incision using the root mean square of successive differences (RMSSD). Higher RMSSD values indicate greater vagal tone. Team familiarity was quantified as the cumulative time the attending and assisting surgeons had operated together in the past, while operating rooms in which the surgeon conducted >10% of their operations were termed familiar. The effect of each on the RMSSD was assessed via a linear mixed-effect model adjusting for the random effect of the surgeon and possible confounders. **Results:** Overall, 643 surgeries performed by 37 surgeons were included. The median surgeon age was 49 years; 299 (78.4%) were male, and 22 (59.5%) were professors. Surgeons spent an average of 21.2 hours with the assisting surgeon before surgery and conducted 585 (91.0%) of their operations in a familiar operating room. For every 10 additional hours spent operating together, $\ln(\text{RMSSD})$ significantly increased by 0.018 (95% CI: 0.003 to 0.033, $P = 0.016$). Familiar operating rooms also tended to increase surgeon $\ln(\text{RMSSD})$ [0.098 (95%CI: -0.007 to 0.203, $P = 0.068$)]. **Conclusion:** Familiar with assisting surgeons and potentially operating rooms, increased surgeon vagal tone. Maintaining a stable operating room environment may improve surgeon stress and patient care.

Awtry et al. 2026.

Annals of Surgery, vol. 283, no. 4.

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Keywords: Heart rate variability; human factors; operating room environment; operating room familiarity; stress; team familiarity; vagal tone.

Evidence Level: 4B

Link:

https://journals.lww.com/annalsofsurgery/fulltext/2026/04000/a_familiar_working_environment_influences.14.aspx

How workplace social support facilitates work situations of disabled employees: A qualitative interview study

Background: Social support in the workplace is crucial for the well-being of employees. For disabled employees, however, social support may have a different role, given structural, physical and social barriers in the work context. **Objective:** Considering this, the study aims to explore the meaning and role of workplace social support in enabling disabled employees. **Methods:** Using semi-structured interviews and qualitative content analysis, the experiences of 28 disabled employees were investigated. **Results:** The participants highlight that social support is essential for balancing their individual needs with work demands by helping them deal with work tasks, create a suitable job framework, and develop occupational skills. Furthermore, the findings show that social support is both an expression and a driver of inclusion in the workplace when it is experienced as a regular lived working practice and reflects belonging.

Conclusions: Workplace social support is vital for disabled employees, as it helps mitigate work demands and addresses various barriers. Supervisors and coworkers play a key role in aligning disabled employee's needs with work requirements and fostering inclusion. To ensure sustainable employment for disabled employees, organizations must create environments that encourage supportive relationships. Inclusive work design should enable equal access to workplace social support for disabled employees but ensure they are not overly dependent on it.

Teborg et al. 2026.

Work, vol. 83, no. 4.

User License:

Keywords: Diversity; employment; equity; inclusion; persons with disabilities; social inclusion; social support; workforce diversity; workplace.

Evidence Level: 5B

Link: <https://pmc.ncbi.nlm.nih.gov/articles/PMC13053872/>

Toward compassionate workplaces: Employers' and employees' perspectives on serious illness, dying, death, and grief: Findings from a nationwide online survey in Germany

Background: Experiences of serious illness, dying, death, and grief in the workplace significantly affect employee well-being, productivity, and organizational culture. Despite increasing recognition of their importance, there is limited understanding of workplace perspectives in Germany. This study addresses this gap by examining the attitudes and experiences of employees and employers regarding these issues to inform workplace policies that promote well-being and resilience. **Methods:** We conducted a nationwide representative cross-sectional online survey (n = 1,127) using a self-developed questionnaire with closed and open-ended items. Data were collected from managers and non-managers across multiple sectors to identify key themes, challenges, and opportunities for improving workplace practices. Closed-ended questions were analyzed quantitatively, and open-ended responses qualitatively. **Findings:** More than sixty-three percent (63.1%) of respondents reported having been affected within the past five years. Workplace support was limited, with 42.7% seldom or never receiving managerial support. Informal support from colleagues and managers was more common and often preferred over formal provisions. Employees valued understanding, empathy, and availability, whereas managers emphasized structural measures such as leave policies. Barriers, uncertainties, and a strong need for guidance and training were frequently reported. Employees in smaller companies expressed greater concerns about legal consequences and stronger support needs, while larger organizations more often offered formal guidelines and programs. **Conclusions:** The mismatch between employees' needs and managerial focus underscores the importance of aligning workplace practices with employee expectations. Training, guidance, and initiatives that integrate psychosocial and structural support could strengthen well-being and enhance organizational resilience.

Kukla et al. 2026.

PLoS One, vol. 21, no. 4.

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Keywords: Compassionate; serious illness; death; grief.

Evidence Level: 4B

Link: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0345333>

Adverse psychosocial work exposures and 2-year incident prescription of psychotropic medications: A prospective French study using the national healthcare reimbursement database

Objective: Despite the abundant literature on the associations between psychosocial work exposures and mental health outcomes, prospective studies using medico-administrative data are lacking. The objective was to study the associations between various psychosocial work exposures and incident prescription of psychotropic medications. **Methods:** The study relied on three waves (2010, 2012, 2014) of the French ESPS survey (Health, Health Care and Insurance Survey) (baseline data), linked to the national database of healthcare reimbursements (follow-up data). Each survey wave was conducted among a randomly selected national sample of people aged 18+. The study included a total of 8689 observations among 7695 workers without psychotropic medication prescription within the 6 months preceding survey wave. Ten psychosocial work exposures (quantitative demands, tensions with the public, freedom, possibilities for learning new things, colleague support, recognition, salary satisfaction, job insecurity, temporary contract, and redundancy plan) were assessed at each survey wave. Covariates included gender, age, marital status, employee/self-employed worker, private/public sector, occupation, and full/part-time work. The outcome was psychotropic medication prescription within the 2 years following survey wave. Mixed effects Cox regression modelling was used. **Results:** Seven of the ten psychosocial work exposures were associated with incident psychotropic medication prescription. Associations were observed more with incident prescription of antidepressants and anxiolytics than with hypnotics/sedatives. The number of psychosocial work exposures increased the risk linearly, except for hypnotics/sedatives. No gender interaction was found for any of these associations. **Conclusion:** The findings may support that poor psychosocial working conditions increase the risk of subsequent psychotropic medication prescription.

Bertrais et al. 2026.

Journal of Affective Disorders, vol. 399.

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Keywords: Mental health; multiple exposures; psychosocial work factors; psychotropic drugs.

Evidence Level: 4B

Link: <https://www.sciencedirect.com/science/article/pii/S0165032725025200?via%3Dihub>

Psychological flexibility and proactive career behaviors during the university to work transition: A longitudinal analysis

Proactive career behaviors facilitate the transition from student to employee, and understanding the mechanisms behind their development is crucial for informing strategies that promote these behaviors. The literature indicates that the development of proactive career behaviors has been investigated in several studies; however, most of these studies employed a cross-sectional research methodology, thereby limiting the ability to draw robust causal inferences. This study is to investigate the mediating function of students' career adaptability in the relationship between psychological flexibility and proactive career behaviors throughout a longitudinal framework. The research involved 310 Turkish university students using convenience sampling. A two-wave cross-lagged panel model was tested within a structural equation modeling framework to examine cross-lagged effect among the variables over time. The findings indicated that students' career adaptability significantly mediated the longitudinal relationship between proactive career behaviors and psychological flexibility. It shows that interventions designed to enhance psychological flexibility and career adaptation within career counseling services can effectively boost students' proactive career behaviors. When assessed by human resources specialists, graduates with high psychological flexibility and career adaptability may exhibit more proactive and adaptable career behaviors, emphasizing the importance of including these attributes in recruitment processes.

Doğanülkü et al. 2026.

PsyCh Journal, vol. 15, no. 2.

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Keywords: Career adaptability; career development; cross-lagged panel model; longitudinal mediation; proactive career behaviors; psychological flexibility.

Evidence Level: 4B

Link: <https://onlinelibrary.wiley.com/doi/10.1002/pchj.70083>

Exploring the Theory of employee planned behavior: Job satisfaction as a key to organizational performance

This article introduces a significant advancement with the "Theory of Employee Planned Behavior" (TEPB), a novel extension of the well-established Theory of Planned Behavior (TPB). The TEPB uniquely positions job satisfaction as a central determinant in driving organizational performance. Using data from county-level government institutions in the United States, this research offers a nuanced exploration into how employee satisfaction influences organizational commitment and citizenship behaviors, which, in turn, substantially impact organizational performance. Our approach utilizes a significant dataset involving 372 dyads across hierarchical levels in government institutions. Through the application of Structural Equation Modeling (SEM), we rigorously validate the TEPB model. The results highlight a significant relationship where enhanced job satisfaction leads to stronger organizational commitment. This heightened commitment further fosters organizational citizenship behaviors, crucial in achieving superior organizational performance. This work notably extends the TPB model by integrating organizational performance as a consequential outcome. It also provides empirical evidence of the direct relationship between job satisfaction and organizational performance, specifically in the context of government institutions. Such findings are invaluable for organizational executives and policymakers in recognizing the paramount importance of employee satisfaction for organizational success. Overall, the TEPB model presented in this study offers a holistic and practical framework for organizations seeking to understand and effectively manage employee behavior. By focusing on job satisfaction, organizations can foster a more committed and proactive workforce, significantly improving performance and efficiency.

Hemsworth et al. 2026.

Psychological Reports, vol. 129, no. 2.

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Keywords: Theory of employee planned behavior; attitude-intention-behavior-outcome process; job satisfaction; organizational citizenship behavior; organizational commitment; organizational performance.

Evidence Level: 5B

Link: <https://journals.sagepub.com/doi/10.1177/00332941241252784>

Fostering Work Participation

Return to Work

Physician work patterns in pregnancy, parental leave, and return to the workforce

Importance: Pregnancy and parental leave remain poorly supported in medical culture, yet little is known about how physicians adjust their workloads around childbirth. **Objective:** To examine work patterns of physicians before, during, and after pregnancy across specialties. **Design, setting, and participants:** This population-based retrospective cohort study included physicians registered with the College of Physicians and Surgeons of Ontario between April 1, 2002, and November 18, 2018, and had been practicing for at least 2 years prior to conception in Ontario, Canada. Physicians were followed up to November 26, 2023. Data were analyzed between January 2022 and December 2025. **Exposure:** Childbirth. **Main outcomes and measures:** Physician billing claims were used to identify the amount, cessation, and resumption of work activity around delivery. The rate of days worked per 100 person-days and rate of nights worked per 100 person-days according to physician specialty group prior to and during pregnancy were calculated. A negative binomial regression model was used to estimate the rate ratio of work activity in each trimester of pregnancy. The cumulative probability of return to the workforce according to specialty group was evaluated. **Results:** In this study, 5948 deliveries were evaluated among 3932 practicing physicians, median (IQR) age 35 (33-37) years at delivery, of which 2378 (40%) were first deliveries. Compared with prepregnancy, overall workload increased in pregnancy (RR, 1.06; 95% CI, 1.06-1.07). Workload increased in the first trimester (RR, 1.12; 95% CI, 1.11-1.12) and second trimester (RR, 1.12; 95% CI, 1.11-1.13) and then decreased in the third trimester (RR, 0.95; 95% CI, 0.94-0.97). Overnight work was reduced during pregnancy compared with prepregnancy (RR, 0.92; 95% CI, 0.89-0.95), although it increased in the first trimester (RR, 1.09; 95% CI, 1.06-1.12) and second trimester (RR, 1.05; 95% CI, 1.01-1.08), and decreased in

the third trimester (RR, 0.62; 95% CI, 0.58-0.65). The cumulative probability of return to work was high for all specialties; surgeons returned the earliest (median [IQR], 133 [94-192] days). **Conclusions and relevance:** In this cohort study, Ontario physicians appeared to frontload work in early pregnancy, likely to offset financial losses or group obligations. Wide variation in leave across specialties highlights inequities in how medical culture and practice structures accommodate childbearing. Supporting equitable, expected parental leave is critical to advancing gender equity in medicine.

Simpson et al. 2026.

JAMA Network Open, vol. 9, no. 4.

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Keywords: Pregnancy; return to work; parental leave.

Evidence Level: 4B

Link: <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2848014>

Workers Compensation

Using job exposure matrices to estimate an individual's exposure for compensation?

Introduction: Job-exposure matrices (JEMs) are being used to assign (quantitative levels of) exposure to individuals based on their job history. In human observational studies, a group-based approach in which every individual with a similar job will be assigned similar exposure will not bias exposure-response associations but will result in loss of precision. However, since JEMs do not consider between-worker differences in average exposure, some individual workers' cumulative exposures will be underestimated. This may affect their chances of compensation when a minimal (cumulative) exposure threshold is applied.

Methods: We analysed more than 80 000 repeated exposure measurements from a variety of industries and consequently combined variance components of location and worker (within a location within a job) to estimate the bandwidth of individual average exposures within a job. This allowed estimating percentiles one and two standard deviations (SD) above the median of workers' exposure distribution within a job (across locations/companies). **Results:** The bandwidth factor appeared to be larger for exposures to particulates than for gases. It was also larger for biological agents. For exposure to particulate matter, the bandwidth factor varied slightly between industries (84BWfactor range 1-4) with a median 2.5.

Conclusion: By applying a default bandwidth factor to an average exposure estimate resulting from a quantitative JEM, the Dutch occupational disease compensation scheme has chosen for an approach that recognises between-worker differences in exposure. This approach, in addition to considering uncertainty in exposure-response associations, addresses another important factor of uncertainty in ascertaining occupational disease based on the 'presumably plausible' principle.

Kromhout et al. 2026.

Occupational and Environmental Medicine, vol. 83, no. 1.

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Keywords: Dust; occupational health; statistics; volatile organic compounds; workers.

Evidence Level: 3B

Link: <https://oem.bmj.com/content/83/1/58.long>

Working hours

Changes in working hours and burnout levels among physicians: A cohort study

Background: Currently, the health care system in Germany is facing a serious physician shortage. Previous research reported changes in working hours and a tendency towards a reduction in clinical hours. The aim was to investigate the relationship between changes in working hours and symptoms of burnout in German physicians over two time points. **Method:** In 2020, a random sample of physicians from the Federal State of Saxony (Germany) was drawn. The current analyses are based on data from a longitudinal survey conducted in 2020 and 2024. Overall, a sample of n = 333 physicians working in both inpatient and outpatient care was investigated using descriptive and regression analyses. In a multivariate analysis predicting burnout symptoms (overall, patient-related, work-related, personal burnout) in 2024, sociodemographic factors such as age, sex and work-related aspects (i.e. medical setting and working hour

characteristics), as well as burnout level in 2020, were controlled for. **Results:** Overall, 19.2% (n = 64) of the sample reported no changes in working hours over 4 years, whereas 27% (n = 90) reported an increase in working hours and 53.8% (n = 179) reported a decrease in working hours. In fact, a working hour reduction was significantly linked to lower overall burnout, lower personal burnout and lower work-related burnout at follow-up ($p < 0.001$ for all regression models), while controlling for covariates. No significant association between change in working hours and the third burnout dimension-patient-related burnout at follow-up was found. **Discussion:** The present findings emphasize that physician burnout remains a critical issue, especially in the context of clinical working hours. Reducing actual working hours and decreasing overwork may help to improve physician well-being. Future efforts should also focus on optimizing working conditions beyond hours alone-such as increasing schedule flexibility and addressing systemic stressors-to sustainably protect physicians' health and ensure high-quality patient care.

Jung et al. 2026.

Human Resources for Health, vol. 24, no. 1.

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Keywords: Burnout; full-time; health care; part-time; physicians; working time.

Evidence Level: 4B

Link: <https://link.springer.com/article/10.1186/s12960-026-01064-0>

Wellness Programs

The effectiveness and mechanisms of action of app-based interventions for improving mental health and workplace well-being: Randomized Controlled Trial

Background: Depression is the most common mental health disorder worldwide and frequently leads to workplace absence. As face-to-face treatment can be difficult to access, app-based interventions are a popular solution, although their effectiveness in working populations and their mechanisms of action are unclear. Deficits in executive function may contribute to the onset and maintenance of depression, and executive function training is proposed to improve symptoms by enhancing executive function. Responders to cognitive behavioral therapy (CBT) show improvements in executive function, suggesting that this may be one mechanism of action. **Objective:** This study investigated the effectiveness of app-based interventions (executive function or CBT-based) for reducing depressive and anxiety symptoms and improving workplace well-being, and assessed whether changes in executive function mediated improvements. **Methods:** A total of 228 participants (147 female participants) with mild-to-moderate symptoms of depression and anxiety were recruited online and randomly assigned to a waitlist control group, an executive function training group (NeuroNation app, Synaptikon GmbH), or a self-guided CBT group (Moodfit app, Roble Ridge LLC) for a 4-week intervention period. Participants assigned to the active intervention groups were asked to use their apps a minimum of 21 times during the intervention. Participants completed measures of depressive symptoms, anxiety symptoms, and workplace well-being, and a working memory task at baseline, postintervention, and follow-up (12 weeks). **Results:** Executive function training reduced anxiety ($\beta = -2.79$; $P = .004$) and depressive ($\beta = -2.77$; $P = .02$) symptoms at follow-up but not at postintervention, and it did not affect workplace well-being. There were no reductions in depressive or anxiety symptoms in the self-guided CBT group, though workplace well-being was improved at postintervention ($\beta = 3.72$; $P = .02$) and follow-up ($\beta = 4.46$; $P = .02$). Improvements in executive function did not mediate intervention-related changes in symptoms or workplace well-being. Self-reported adherence rates were high (executive function training: 48/54, 89%; self-guided CBT: 52/54, 96%), although attrition was high at follow-up (58% missing). **Conclusions:** These results suggest that app-based executive function training may be effective at managing symptoms of anxiety and depression in a working population, while self-guided CBT apps may improve workplace well-being. However, improving executive function did not appear to be a mechanism of action of either intervention.

MacLellan et al. 2026.

JMIR Mental Health, vol. 13.

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Keywords: Anxiety; cognitive control; computerized cognitive training; depression; digital mental health.

Evidence Level: 2B

Link: <https://mental.jmir.org/2026/1/e91564>

Enhancing sleep and mental health: Longitudinal, observational, real-world study from a digital mental health platform

Background: Poor sleep is closely linked to mental health challenges and workplace burnout. Mental health and workplace stressors can impair sleep, while good sleep quality supports cognitive and emotional resources to cope with daily challenges. Despite positive outcomes of maintaining good sleep, many people struggle to get enough restorative sleep at night. Given the bidirectional relationship between sleep and mental health, evidence-based digital mental health solutions may offer an accessible and scalable approach to improving sleep quality. **Objective:** This study examines whether engagement with an employer-sponsored, multimodal digital mental health platform is associated with improvements in sleep quality over time, and whether changes in sleep quality are associated with concurrent changes in mental health and burnout outcomes. **Methods:** This 12-month prospective, observational study followed working adults who were newly registered to an employer-sponsored digital mental health platform (Modern Health). The platform leveraged technology (mobile and web) to connect employees with comprehensive provider-led and self-guided care through therapy, coaching, on-demand digital resources, and group psychoeducational sessions. Participants [N=578; 61.1% (n=353) women; mean age 33.88, SD 8.73 years; 40.3% (n=233) people of color] completed measures of self-rated sleep quality, depression, anxiety, and burnout (exhaustion, cynicism, and professional efficacy) at baseline and after 3 and 12 months of accessing the platform. Upon registering for the platform, participants were given an initial care recommendation but could flexibly engage in any combination of services. Participants in this study engaged with at least one care modality, including therapy, coaching, psychoeducation sessions, and self-guided mental health resources. We examined perceived sleep quality and associations with other study variables at baseline, changes in perceived sleep quality over time, and whether changes in sleep quality correlated with concurrent changes in mental health and burnout. **Results:** At baseline, 42% (243/578) reported poor sleep quality and were more likely to have higher levels of depression, anxiety, and burnout. A generalized linear mixed-effects model showed that each additional month of platform access was related to an increased odds of having good sleep quality by 3.7% (P=.02). Linear mixed-effects models found that higher sleep quality over time was associated with lower depression, anxiety, exhaustion, cynicism, and efficacy (all P<.001). Among participants reporting poor sleep quality at baseline, 44% (62/141) reported good sleep quality at 12 months. Within this subgroup, paired sample t tests showed significant reductions in depression (-48.3%) and anxiety (-38.3%), and increased cynicism, burnout, though cynicism levels remained below the cutoff for high burnout (23.9%; all P <.01). **Conclusions:** Use of an employer-sponsored digital mental health platform was associated with meaningful improvements in self-reported sleep quality over 12 months. These gains were associated with significant reductions in depression, anxiety, and burnout symptoms, highlighting broader well-being benefits of comprehensive mental health care.

Van Swearingen et al. 2026.

JMIR Formative Research, vol. 10.

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Keywords: Anxiety; burnout; coaching; cynicism; depression; digital health; efficacy; employees; exhaustion; longitudinal; mental health; observational; platform; prospective; psychoeducation; real world; sleep; therapy; well-being; workplace.

Evidence Level: 4B

Link: <https://formative.jmir.org/2026/1/e83492>

Changes in workplace productivity and estimated cost savings during internet-based cognitive behavioral therapy in the Irish National Health Service: Naturalistic, repeated-measures, retrospective survey study

Background: Depression and anxiety can significantly impact workplace productivity, for instance, by increasing absenteeism and presenteeism. This loss of productivity leads to diminished workplace economic outcomes. Internet-based cognitive behavioral therapy (iCBT) has emerged as a cost-effective intervention within workplace settings that improves workplace productivity loss due to depression and

anxiety, but more generalizable evidence beyond the workplace, such as in a national health service setting, is lacking. **Objective:** This naturalistic, repeated-measures, retrospective study investigated the impact of iCBT on work productivity metrics using nationally representative data from patients enrolled in the Irish national health service (ie, the Health Service Executive). **Methods:** We analyzed repeated measures retrospective data from 7125 employed patients enrolled in iCBT at the Health Service Executive between March 2023 and May 2024. The Work Productivity and Activity Impairment questionnaire was used to measure absenteeism, presenteeism, overall productivity loss, and activity impairment. Secondary outcomes included depression (Patient Health Questionnaire-9) and anxiety (Generalized Anxiety Disorder-7). Patients were primarily 25 to 64 years old (n=5578, 78%), female (n=4956, 70%), and met clinical scoring criteria on the Patient Health Questionnaire-9 or Generalized Anxiety Disorder-7 (n=4774, 67%). Missing data were handled using multiple imputation. We used mixed-effects models to assess pre-post treatment changes in outcomes and then utilized Irish national salary estimates from 2022 to derive cost savings (in 2022 € values; €1=approximately US \$1.05) based on productivity improvement during use of the iCBT program. **Results:** From baseline to follow-up, absenteeism reduced by 6.85% (P<.001, 95% CI 5.79%-7.91%, Cohen d=0.21), presenteeism reduced by 5.84% (P<.001, 95% CI 4.59%-7.09%, Cohen d=0.18), productivity loss reduced by 9.48% (P<.001, 95% CI 8.30%-10.66%, Cohen d=0.27), and activity impairment reduced by 8.34% (P<.001, 95% CI 7.07%-9.61%, Cohen d=0.30). Depression symptom scores reduced by 2.70 points (P<.001, 95% CI 2.50-2.90, Cohen d=0.51) and anxiety symptom scores reduced by 2.71 points (P<.001, 95% CI 2.51-2.91, Cohen d=0.52) scores posttreatment. Larger reductions in depression and anxiety symptoms were linked to greater improvements in workplace functioning outcomes (r=0.06-0.34, all P<.001). Patients with higher baseline clinical severity experienced approximately 6% greater improvements in workplace productivity than subclinical patients (P<.001). These improvements in work productivity from baseline to follow-up corresponded to more than €4000 annual savings per patient treated, which equated to an estimated annual savings of €29 million in the sample (in 2022 € values). The average currency exchange rate in 2022 would be €1 to approximately US \$1.05. **Conclusions:** Building on work that primarily focused on work productivity improvements from iCBT in occupational contexts, this study provides evidence that iCBT for the general adult population in a national routine health care setting is associated with improvements in both Common mental disorders (CMD) and workplace productivity losses associated with CMD. These productivity improvements were further associated with sizable cost savings. These findings suggest that integrating iCBT into national mental health infrastructure can be a feasible, scalable solution, which could generate clinical and economic benefits at a population level.

Lee et al. 2026.

Journal of Medical Internet Research, vol. 28.

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Keywords: Anxiety; cost effectiveness; depression; digital mental health; health services; iCBT; internet-based cognitive behavioral therapy; workplace productivity.

Evidence Level: 4B

Link: <https://www.jmir.org/2026/1/e80689>

Employee expectations towards employer-provided workplace health promotion and mental health support: A 2025 cross-sectional survey

Introduction: Workplace health promotion (WHP) interventions are public health activities targeted to working adults that may improve health outcomes, organizational performance, and work ability. This study aimed to assess employees' expectations towards employer-provided workplace health promotion and mental health support, as well as to identify factors associated with employees' expectations towards WHP and mental health support. **Methods:** This nationwide questionnaire-based cross-sectional study was conducted in Poland between 1 and 9 December 2025 among 1,030 full-time employees aged 18-60 years. Data were collected through computer-assisted web interviews (CAWI). **Results:** Out of all respondents (n = 1,030), 86.5% declared that employers should provide workplace health promotion activities. Most respondents (35% "definitely yes" and 36.1% "rather yes") declared that employers should actively support employees' mental health. Burnout prevention (35.7%), prevention of spine and musculoskeletal disorders (34.6%), and stress management strategies (34%) were the most frequently indicated WHP expected by employees. Having higher education (aOR: 2.13; 95%CI: 1.46-3.11; p < 0.001), living in cities from 20,000 to

99,999 residents (aOR: 2.18; 95%CI: 1.21-3.93; $p = 0.01$), being in informal relationship (aOR: 2.01; 95%CI: 1.08-3.75; $p = 0.03$), and working in companies with 250 employees or over ($p = 0.02$) were associated with employees' expectations regarding employer-provided WHP activities. Number of employees was the only factor significantly associated with employees' expectations regarding employer-provided mental health support ($p < 0.05$). **Conclusion:** Most full-time employees in Poland expect employers to implement workplace health promotion and to provide mental health support. Expectations varied by sociodemographic and job-related characteristics. These findings indicate high acceptability of WHP among employees and point to the need for scalable approaches that also reach workers in smaller companies.

Olearczyk et al. 2026.

Frontiers in Public Health, vol. 14.

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Keywords: Poland; employees' health; mental health; public health; workforce health; workplace health promotion.

Evidence Level: 4B

Link: <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2026.1806781/full>

Management and Leadership

Effects of distributed leadership on teachers' job satisfaction: The mediating role of teacher collaboration

Teachers are the primary resource for educational development and the fundamental force behind building and achieving a high-quality education system. Researching strategies to improve teacher job satisfaction is crucial for the high-quality development of teachers. Being empirical in nature and based on distributed leadership theory, this study uses data from OECD's TALIS 2018 teachers survey. The multiple regression analysis model is used to analyze the impact of distributed leadership on teachers' job satisfaction in an international context, with a particular focus on the mediating effect of teacher collaboration. Results show that distributed leadership significantly and positively predicts teachers' job satisfaction, and teacher collaboration partially mediates the relationship between distributed leadership and teacher job satisfaction. The study not only provides a systematic explanation and empirical evidence for the promotion and enhancement mechanisms of distributed leadership on teachers' job satisfaction from an international perspective, but also offers valuable insights for finding pathways to improve teachers' job satisfaction and promote teacher development.

Ma et al. 2026.

PLoS One, vol. 21, no. 4.

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Keywords: Job satisfaction; teacher collaboration.

Evidence Level: 4B

Link: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0347862>

Psychological safety as a context-sensitive predictor of retention intentions: Gendered effects of supervisor support under caregiving-assumed conditions

This study examined how emotional and instrumental supervisor support influence employees' retention intentions through psychological safety, with a particular focus on gender and caregiving contexts. An online questionnaire survey was conducted among 522 Japanese employees (248 men and 274 women), and the hypothesized model was tested using structural equation modeling (SEM), multi-group invariance analysis, and bootstrapping. The analysis revealed clear differences in the indirect effects of emotional support on retention intentions via psychological safety between the general working condition and the caregiving-assumed condition. Under the general condition, the indirect effects were statistically significant for both men and women; however, the standardized indirect effects (β) were small in magnitude, particularly among men. In contrast, when employees assumed future caregiving responsibilities, the magnitude of the mediated pathway increased substantially, and the influence transmitted through psychological safety became markedly stronger. Furthermore, the direct effect of psychological safety on retention intentions also exhibited context-dependent variation. Among men, this direct path was non-

significant under the general condition but became significantly and markedly stronger under the caregiving-assumed condition. Among women, the direct effect was significant under both conditions but was notably stronger when caregiving responsibilities were assumed. In contrast, instrumental support did not show significant effects under either condition, suggesting that practical assistance alone may be insufficient to enhance psychological safety or retention intentions when interpersonal risk is salient. Taken together, these findings suggest that when employees anticipate future caregiving burdens, the strength of the influence transmitted through psychological safety increases, indicating that the effectiveness of emotional support varies considerably depending on contextual demands. These findings highlight the importance of psychological safety as a context-sensitive mechanism linking supervisor support to retention intentions, particularly under anticipated caregiving conditions.

Yoshimura et al. 2026.

PLoS One, vol. 21, no. 4.

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Keywords: Psychological safety; retention; supervisor.

Evidence Level: 4B

Link: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0346791>

When does perceived overqualification enhance civil servants' work engagement? The role of public service motivation and ethical leadership

Perceived overqualification, the perception that employees' qualifications exceed their job requirements, is increasingly common among civil servants. Studies in the public sector have primarily focused on its negative outcomes. However, employees who perceive themselves as overqualified often possess surplus talent. The impact of perceived overqualification, whether positive or negative, depends on certain moderating conditions, which have received little attention. Drawing on the Ability-Motivation-Opportunity model, this study examines how public service motivation and ethical leadership moderate the relationship between perceived overqualification and work engagement, using data from 407 Chinese civil servants. The results indicate that when public service motivation is low, perceived overqualification negatively impacts work engagement. However, high public service motivation alone is insufficient to drive overqualified employees to increase work engagement. The study further identifies a three-way interaction among perceived overqualification, public service motivation, and ethical leadership, showing that ethical leadership helps overqualified employees with high public service motivation better utilize their abilities, thus enhancing work engagement. These findings provide valuable insights for mitigating the negative effects of perceived overqualification and leveraging the potential of overqualified civil servants.

Dong et al. 2026.

Acta Psychologica, vol. 265.

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Keywords: Ethical leadership; human capital; perceived overqualification; public service motivation; work engagement.

Evidence Level: 4B

Link: <https://www.sciencedirect.com/science/article/pii/S0001691826005755?via%3Dihub>

Linking high-involvement work systems to employee voice behavior: The mediating role of ambidextrous learning and the moderating role of digital leadership

In the context of digital transformation, employee voice behavior has become increasingly important for organizational adaptation and improvement. However, prior studies on high-involvement work systems (HIWS) have not fully explained how HIWS lead to employee voice through learning, nor whether digital leadership strengthens or weakens this relationship. Drawing on self-determination theory, this study examines how HIWS influence employee voice behavior through ambidextrous learning (exploratory and exploitative learning) and tests digital leadership as a boundary condition. Using survey data from 238 employees and applying hierarchical regression, bootstrapping, and structural equation modeling, the results show that HIWS are positively associated with employee voice behavior, and this relationship is partially mediated by both exploratory and exploitative learning. In addition, digital leadership weakens the

positive relationship between HIWS and ambidextrous learning, thereby indirectly reducing its association with employee voice behavior. These findings show that ambidextrous learning plays a key motivational role and that technology-enabled leadership can improve efficiency while limiting discretionary learning and employee voice behavior.

Luo et al. 2026.

Acta Psychologica, vol. 265.

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Keywords: Ambidextrous learning; digital leadership; employee voice behavior; high-involvement work systems.

Evidence Level: 4B

Link: <https://www.sciencedirect.com/science/article/pii/S0001691826005561?via%3Dihub>

Color outside the lines: How does amoral management influence employees' creative unethicity?

Existing research has confirmed that amoral management can induce employees to engage in unethical behavior. However, its influence on a specific form of misconduct that involves creativity—namely, creative unethicity—remains unclear. Based on social information processing theory, this study constructs a theoretical model examining the influence of amoral management on employees' creative unethicity. Through a three-stage investigation of 249 R&D employees from three intelligent manufacturing companies in eastern China, the results reveal that amoral management positively influences employee moral decoupling. Moral decoupling leads to creative unethicity under high job creativity requirements. Job creativity requirements moderates the indirect effect among amoral management, moral decoupling, and creative unethicity. Specifically, when jobs require high creativity, amoral management positively influences moral decoupling, thereby inducing creative unethicity. This study combines amoral management and creative unethicity, broadening the understanding of creative unethicity origins from the viewpoint of leaders' moral conduct. It also provides empirical insights for organizations to manage creative unethicity through job stressors and leadership development.

Ren et al. 2026.

PLoS One, vol. 21, no. 4.

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Keywords: Amoral management influence; employees; creative unethicity.

Evidence Level: 5B

Link: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0347530>

Ethical handling of occupational health and safety data in the fire service: Empirical interview and focus group study of firefighter and fire service leadership privacy preferences

Background: There are ongoing efforts to collect larger and higher-quality amounts of occupational health and safety data to better understand and prevent injuries and fatalities among high-risk workers, such as firefighters. Digital health systems including wearable technologies, mobile apps, or internet-based data collection platforms could collect large amounts of sensitive data, but there is little evidence on worker and employer perspectives on data privacy in the fire service. **Objective:** Our study examined firefighters' and fire service leadership's preferences regarding occupational health and safety data privacy. **Methods:** We conducted interviews and focus groups with career firefighters in Maryland and Virginia; interviews with union representatives and department-level leaders in each state; and interviews with national-level fire service leaders in advocacy, government, and research organizations (March to November 2023). Interviews and focus groups were audio recorded and transcribed. We analyzed transcripts using thematic analysis. **Results:** The sample included 31 career firefighters, 2 union leaders, 11 national leaders, and 21 department-level leaders (65 total participants from 35 interviews and 4 focus groups). We identified 4 themes: acceptability of data access, sharing, and reporting practices; data sharing and access preferences; appropriate use of firefighter data; and the need for improved communication. Leaders described firefighters' concerns about job loss and loss of privacy. Firefighters expressed general preferences that their data be deidentified and not shared widely, and they identified mental health data as important but particularly sensitive information. Firefighters also expressed frustration about sharing data with

researchers or their departments without knowing the purpose or outcomes. Both firefighters and leaders emphasized the need for enhanced communication and translation of data for firefighters. **Conclusions:** Fire service leaders held more concerns about the use and sharing of occupational health and safety data than firefighters, but both groups identified ways to further safeguard firefighter data and improve communication about health and safety data. Future fire service data collection should incorporate privacy protections, such as limiting the collection of identifiable information and restricting data access. Data collection should be accompanied by clear communication about the purpose of the data collection, how firefighter data will be used and accessed, and the interpretation of the results. Future digital health interventions should integrate these data privacy protections to respect firefighter preferences and contribute to acceptability and uptake.

Topazian et al. 2026.

Journal of Medical Internet Research, vol. 28.

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Keywords: Data access; data privacy; data sharing; firefighter; mental health data; occupational health and safety.

Evidence Level: 5B

Link: <https://www.jmir.org/2026/1/e84465>

Adapting to the Future of Work

Technology

Failure of neutralization: How digital job demands shape cyberslacking and job performance in telework

Organisations across the globe are deliberating on the future of work, whether to call employees back to the office, enable remote working, or offer flexibility through hybrid options. In this context, we studied two job demands-techno-invasion and electronic monitoring-that could influence employee performance. We surveyed knowledge workers (n = 1446) in two waves, separated by 25 days, to explore these dynamics. Using PLS-SEM, we empirically examined the relationships between job demands and job performance, with cyberslacking as the mediating variable and Information Technology (IT) support as the moderating variable. We further conducted robustness checks using Hayes PROCESS macro in SPSS. This study introduces the concept of 'failure of neutralization' to show how techno-invasion operates as a hindrance stressor and can become intrusive to the extent that employees may be unable to justify or engage in cyberslacking. This specifies a boundary condition for neutralization, where a norm of perpetual availability can suppress even brief digital detachment. Techno-invasion is negatively related to cyberslacking and job performance. Our findings also reveal that cyberslacking positively influences job performance and mediates the relationship between job demands and performance. Additionally, IT support moderates the positive relationship between electronic monitoring and cyberslacking, which intensifies when IT support is low. It also emphasises the importance of sustainable work environments, where interventions such as IT support, clear boundaries for work-related ICT use, and policies promoting responsible internet behaviour can mitigate the adverse effects of job demands.

Kumar et al. 2026.

Acta Psychologica, vol. 264.

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Keywords: Cyberslacking; electronic monitoring; IT support; job performance; SDG 3, sustainable work environments; techno-invasion; telecommuting.

Evidence Level: 4B

Link: <https://www.sciencedirect.com/science/article/pii/S0001691826004105?via%3Dihub>

Digital literacy and technostress as dual pathways linking work-from-home practices to employee performance: Evidence from the post-digital workplace

The primary objective of this study was to assess employee performance among individuals working remotely, considering the mediating role of digital literacy and the moderating influence of technostress within public universities in Malaysia. A structured questionnaire was used to gather 320 responses from university lecturers. The data were analyzed using the partial least squares structural equation modelling (PLS-SEM) technique through smartPLS-4. The findings indicate that work-from-home (WFH) does not exhibit a direct significant relationship with employee performance, except for an indirect relationship mediated by digital literacy. Conversely, technostress significantly and negatively moderated the relationship between digital literacy and employee performance. Moreover, technostress moderated the indirect relationship between WFH and employee performance through digital literacy. Consequently, digital literacy is essential for the successful implementation of effective work-from-home strategies that enhance employee performance and well-being at work. University management should prioritize enhancing digital literacy before implementing remote work strategies. Additionally, management should address employee technostress levels, as it can influence both digital literacy and employee performance. Future research should explore these findings in other service sectors, such as information technology and customer services.

Pengfei et al. 2026.

Acta Psychologica, vol. 264.

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Keywords: Digital literacy; employee performance; technostress; universities; work from home.

Evidence Level: 5B

Link: <https://www.sciencedirect.com/science/article/pii/S0001691826002593?via%3Dihub>

Co-design of smartphone- and smartwatch-based occupational health visualisations in office environments

Office workers are exposed to a range of occupational health risks, including prolonged sedentary behaviour, postural load, elevated heart rate, and noise, yet objective and continuous monitoring of these risk factors in workplace settings remains uncommon. This study aimed to co-design occupational health visualisations based on smartphone and smartwatch data, through a multi-stakeholder group of office workers and occupational health professionals. A generative co-design framework was applied, comprising a pre-design phase with a field study and questionnaire, a structured multi-stakeholder workshop, and a follow-up evaluation session. Thematic analysis of the workshop transcript yielded 17 occupational health themes, which were subsequently assessed for technical feasibility relative to the available sensing platform. Of the 27 discrete visualisation elements proposed across both groups, the majority were classified as directly addressable using smartphone and smartwatch sensor data. Visualisations covering physical activity, heart rate, environmental noise exposure, and postural load were implemented in Python using real-world data collected from office workers. The follow-up session provided qualitative confirmation that the developed visualisations were interpretable and aligned with the stakeholder expectations. The generative co-design framework proved well-suited to the occupational health visualisation context, enabling structured translation of stakeholder requirements into technically feasible and interpretable visualisation outputs.

Probst et al. 2026.

Sensors, vol. 26, no. 7.

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Keywords: Biomedical engineering; co-design; data visualisation; occupational health; office environments.

Evidence Level: 5B

Link: <https://www.mdpi.com/1424-8220/26/7/2278>

Work Environment

Research on the effect of platform workers' algorithmic stigma on work engagement: A double-moderated mediation model

Based on the conservation of resources theory, this study examines the relationship between algorithmic stigma and work engagement among platform workers. Hindrance stressor appraisal is proposed as a mediating variable, while job autonomy and fairness perception are introduced as moderating factors. The data were collected from a two-wave survey of 297 platform workers. The results indicated that algorithmic stigma is negatively related to work engagement, and that hindrance stressor appraisal partially mediates the relationship between algorithmic stigma and work engagement. Furthermore, job autonomy and fairness perception moderate the positive link between algorithmic stigma and hindrance stressor appraisal, and also moderate the mediating role of hindrance stressor appraisal in the relationship between algorithmic stigma and work engagement. This study not only extends occupational stigma research into the realm of algorithmic management by proposing and validating the concept of "algorithmic stigma" with technological embeddedness, but also uncovers the stress transmission mechanism through which algorithmic stigma influences work engagement from a dynamic perspective of resource gains and losses. The findings offer practical guidance for platform enterprises to mitigate the adverse effects of algorithmic stigma and enhance workers' work engagement and sustainable career development by optimizing algorithm design, increasing job autonomy, and improving procedural and distributive fairness.

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Keywords: Algorithmic stigma; conservation of resources theory; hindrance stressor appraisal; work engagement.

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