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

Anderson GG and Gilin DA. Examining the empathy profiles and work outcomes of trauma workers. *Journal of Career Assessment*. 2025; 33(4):739-759.

<https://doi.org/10.1177/10690727241296859> [open access]

Abstract: Trauma work involves intervening with others enduring acute pain and suffering, often with heavy psychological and physical health impacts. An important question is whether dispositional empathy helps or hurts trauma workers in their occupational functioning. The current study addresses this gap in the research literature by using a person-centered approach to examine the empathy profiles and professional outcomes of a broad sample of trauma workers (n = 315). We measured their trait empathy and organizational outcomes (occupational burnout, person-job fit, turnover intentions, job performance), and found three distinct empathy profiles which differed significantly in their occupational functioning. A 'self-focused' empathy profile (dominated by high personal distress responding) reported the worst functioning; an 'other-oriented' profile (high on perspective taking and empathic concern) had more positive functioning, and an unexpected 'low reactivity' profile (a full SD below the general population on empathy facets) showed the lowest exhaustion. Exploratory analyses revealed that first responders (e.g., police, firefighters, EMTs, paramedics) were overrepresented in the 'low reactivity' profile, while psychology-related professions (e.g., psychologists, counsellors, social workers) were underrepresented in that profile. The significance of these results, as well as their implications for empathy research and vocational counselling in the field of trauma work, are discussed.

Brakenridge CL, Silverwood A, Potter RE, Oakman J, Hadgraft N, Goode AD, et al. Barriers, facilitators and acceptability of health promotion initiatives and behaviours in contact centre workers: a systematic review. *Safety Science*. 2025; 191:106945.

<https://doi.org/10.1016/j.ssci.2025.106945> [open access]

Abstract: Contact centre work is characterised by prolonged sitting, musculoskeletal disorders and poor mental health. Therefore, health promotion initiatives in contact centre workplaces are vital, yet implementation is challenging because of factors such as high workloads and limited participation opportunities. Through a systematic review, we provide an up-to-date overview of the specific target behaviours, barriers, facilitators and worker acceptability surrounding health promotion in contact centres. Barriers and facilitators were categorised using an ecological model (e.g., individual, psychosocial, physical, organisational levels). We searched seven academic databases (including PubMed) and Google between August 2023 and October 2024. Twenty-one intervention, 33 observational and 24 grey literature reports met inclusion criteria. Risk of bias was assessed by checklists from the Critical Appraisal Skills Program and JBI, and the Risk of Bias and ROBINS-I tools. Information on target behaviours, barriers, facilitators, and intervention acceptability were extracted. Target behaviours for health promotion initiatives comprised sitting, physical activity, diet, smoking and stress. Barriers and facilitators occurred at multiple, intersecting levels. The main barriers to health promotion were psychosocial work characteristics (high workloads, monitoring, low job control, shift work), unhealthy organisational cultures and low worker motivation. Facilitators included colleague and manager support, offline time to participate in the interventions, and physical support from sit-stand desks. Individual sit-stand desks, education sessions, wellbeing breaks, and group-based programs were acceptable. Qualitative studies were primarily low risk, other study designs were moderate or high risk. Health promotion programs for contact centre workers should be tailored to improve work characteristics and culture.

Chan X and Brough P. Future-oriented coping: advances, applications, and future research directions. *International Journal of Stress Management*. 2025; 32(3):233-238.

<https://doi.org/10.1037/str0000368> [open access]

Abstract: This special issue explores future-oriented coping, specifically the cognitive, emotional, and behavioral strategies individuals employ to anticipate and prepare for potential stressors before they occur. In an era of accelerating change exemplified by the COVID-19 pandemic and rapid workforce developments, this proactive approach to stress management is increasingly vital for promoting individual resilience and well-being. The issue features six articles examining specific dimensions of future-oriented coping across diverse contexts. Two studies investigate how regulatory focus shapes coping strategies and workplace behaviors, demonstrating differential effects of promotion versus prevention orientations. The third article illuminates resource dynamics through which organizational health support builds employee resilience, particularly when reinforced by workplace social support. The fourth article offers methodological contributions revealing significant differences between real-time and retrospective coping assessments, creating an integrated framework capturing temporal and contextual dimensions of coping. The fifth article proposes a theoretical model conceptualizing how job crafting evolves from mediating behavior to moderating personal resource through habit formation. The final article provides empirical validation of the challenge/hindrance/threat framework while integrating future-oriented coping theory, demonstrating differential effects of proactive and preventive coping on work engagement and work-related anxiety. These contributions

advance understanding of how individuals prepare for future challenges in rapidly evolving environments, highlighting promising directions for future research. (PsycInfo Database Record (c) 2025 APA, all rights reserved)

Dahl Nielsen MB, Andersen AB, Grundtvig G, Sorensen K, Andersen JR, Larsson NP, et al. Workplace sexual and gender-based harassment in Denmark: a comparison of the self-labelling and behavioural list method. *Scandinavian Journal of Public Health*. 2025; 53(6):586-593.

<https://doi.org/10.1177/14034948241228158> [open access]

Abstract: AIM: Knowledge about the prevalence of sexual and gender-based harassment is hampered by disagreements about definitions and measurement methods. The two most common measurement methods are the self-labelling (a single question about exposure to sexual harassment) and the behavioural list method (an inventory of sexually harassing behaviours). The aim of this paper was to compare the self-labelling and the behavioural list methods for measuring sexual harassment and assess the association with depressive symptoms. **METHODS:** The study is based on a convenience sample of 1686 individuals employed in 29 workplaces in Denmark. Survey data were collected from November 2020 until June 2021 and there were 1000 participants with full data on key variables. We used a linear mixed-effects model to examine the relationship between sexual harassment and depressive symptoms. **RESULTS:** In total, 2.5% self-labelled as being sexually harassed, while 19.0% reported exposure to at least one type of sexual and gender-based harassment using the behavioural list method. Both groups reported higher levels of depressive symptoms compared with non-exposed employees. The most common types of behaviours were: that someone spoke derogatorily about women/men (11.6%); being belittled because of one's gender or sexuality (4.7%); and unwanted comments about one's body, clothes or lifestyle (4.5%). **CONCLUSIONS:** The behavioural list method yielded a higher prevalence of sexual and gender-based harassment compared with the self-labelling method. Self-labelling and reporting at least one type of sexual and gender-based harassment was associated with depressive symptoms

Froyland K, Breit E, and Spjelkavik O. Engaged employers - engaged workplaces? Exploring workplace resistance to work inclusion of Persons with Disabilities (PwD). *Work*. 2025; 82(1):111-119.

<https://doi.org/10.1177/10519815251335786>

Abstract: **BACKGROUND:** The term employer engagement denotes the active participation of employers in facilitating the labor market integration of PwDs. However, the enthusiasm of employers themselves may not always trickle down to middle managers and co-workers who are entrusted with the daily task of supporting PwDs. **OBJECTIVE:** Explore empirically the phenomenon of resistance towards the inclusion of PwDs, how it may unfold at the workplace level such as its potential forms and reasons. **METHODS:** An exploratory case study of five Norwegian organizations comprising 26 qualitative interviews with PwDs, managers, HR-representatives, union-representatives and co-workers. **RESULTS:** Our data reveal various forms of workplace resistance, often stemming from frustration related to the slow pace or lack of competence in PwDs, increased workload for co-workers, or challenges related to team performance. Social challenges and attempts to protect social and organizational positions may also lead to resistance. Employees at the ground level appear to hold significant power in influencing the sustainability of inclusion. The data suggest that workplace resistance can potentially lead to drop-out from work. **CONCLUSIONS:** This paper underscores the

significance of co-workers' resistance in employer engagement. Our study suggests that resistance is a relevant topic in the workplace that may impact the inclusion of PwDs and should be further explored empirically. Resistance should also be addressed at the theoretical level, particularly in relation to the concept of employer engagement. Further studies are required to obtain a representative understanding of how resistance unfolds across different businesses and industries, including strategies to mitigate or prevent it

Gao G, So CL, Cheng ASK, Man SS, and Ng SSM. Effect of exoskeleton devices on work-related musculoskeletal disorders (WMSDs) among healthcare workers: a scoping review. *Ergonomics*. 2025; 68(9):1409-1421.

<https://doi.org/10.1080/00140139.2024.2413150>

Abstract: Work-related musculoskeletal disorders (WMSDs) have been a concern among healthcare workers, impacting their well-being and patient safety. Exoskeleton technologies have gained a growing interest as an ergonomic intervention for WMSDs. This scoping review explores exoskeleton effects on WMSDs among healthcare workers. A comprehensive search identified 9 eligible studies published in English between 2013 and 2023. Exoskeletons showed promising effects on objective measures, selectively reducing muscle activation in a task-dependent manner. They also improved force exertion and body posture parameters in specific scenarios. Subjectively, exoskeletons reduced discomfort, pain, fatigue, and received positive perceptions with acceptable usability. However, the impact on perceived exertion varied with tasks. While exoskeletons have shown potential in enhancing healthcare workers' well-being and performance, more work is required to refine their effectiveness and maximise benefits in different healthcare settings. The study revealed the need for standardised methodologies, consideration of participant characteristics, and optimisation of exoskeleton design

Holzgreve F, Rittinghausen C, Hermanns I, Weber B, Ellegast R, Bille J, et al. Work related musculoskeletal stress among residents of internal medicine on cardiological wards in their daily working practice: a kinematic and ergonomic analysis. *Journal of Occupational Medicine and Toxicology*. 2025; 20(1):25.

<https://doi.org/10.1186/s12995-025-00471-8> [open access]

Abstract: BACKGROUND: Earlier, interventional and sonography techniques have been analyzed in detail for the field of internal medicine concerning workplace ergonomics. Here, work related musculoskeletal disorders (WRMSDs) have been reported with a prevalence of about 76%. The aim of this study is to provide a comprehensive kinematic and ergonomic analysis of an average working day of a resident physician in internal medicine on a cardiological ward. METHODS: The kinematic data of 17 resident physicians (9f/8m) of internal medicine, working in 3 different cardiological wards in a hospital of maximum care was collected on an average workday using the CUELA measurement system. A detailed, computer-based task analysis was conducted concurrently with the kinematic assessment. By synchronizing the data obtained from both measurements, postural patterns were chronologically aligned and contextualized with the corresponding task performance. The main categories were (1) Office work, (2) Ward rounds, (3) Tasks performed directly with the patient (i.e. patient examination, blood withdrawal) and (4) Other. The main categories were divided into several sub-categories for further differentiation. For the data analysis, characteristic values of joint angle distributions (percentiles P05, P25, P50, P75, and P95) for the head, neck, and torso during predefined

tasks were examined and evaluated in accordance with ergonomic standards. In addition, the Owako Working Posture Analysing System was applied (OWAS). RESULTS: A total duration of 129.2 working hours were recorded. Resident physicians of internal medicine on a cardiological ward spend a large part of their work day in office type work situations (57%) with 36% dedicated to computer work, followed by 18% for ward rounds and 16% for directly patient related activities. The office type work situations showed high sedentary rates with increased ergonomic risk for postures of the cervical and thoracolumbar spine (moderate to unfavorable postures for back curvature in almost all percentiles and office activities, reclination of the neck during (-8°- -16° in P05 and P25) for 'use of computer'. Several aspects of patient related activities displayed high percentages of forward bending (predominately moderate and unfavorable postures for back curvature, sagittal trunk and neck inclination) and in P25-P95 for 'blood withdrawal' and 'patient examination'. CONCLUSION: An important office type work setting is predominant in the daily routine of resident physicians of internal medicine working on cardiological wards and have been detected as important predictor to cause musculoskeletal stress. Resident physicians of internal medicine on cardiological wards have a high occurrence of ergonomically unfavorable situations, particularly during patient related activities and sedentary work using visual display units. This study highlights the need for ergonomic interventions particularly in respect to adjustable, individualized workstations and equipment

Kilic Y and Vayvay O. Integrating occupational health and safety into enterprise risk management: a structural evaluation. *Frontiers in Public Health*. 2025; 13:1608227.

<https://doi.org/10.3389/fpubh.2025.1608227> [open access]

Abstract: INTRODUCTION: This study aims to investigate the extent to which Occupational Health and Safety (OHS) risks can be incorporated into the broader framework of Enterprise Risk Management (ERM). Although both systems were developed with similar goals-identifying, assessing, and mitigating risks-they have often operated independently. The research explores whether aligning OHS practices with ERM strategies, particularly through internal audit mechanisms, can foster a more unified and efficient approach to organizational risk management. METHOD: A qualitative document analysis was conducted, examining current national legislation, international standards such as ISO 31000 (Risk Management) and ISO 45001 (Occupational Health and Safety), and selected academic studies. The evaluation focused on structural similarities, procedural intersections, and the functional roles of personnel involved in ERM, Internal Audit (IA), and OHS processes. RESULTS: The analysis revealed a substantial convergence between ERM and OHS in terms of risk identification techniques, prevention-based methodologies, and monitoring processes. The responsibilities of internal auditors and occupational safety specialists display notable overlaps, particularly in areas such as compliance, documentation, hazard assessment, and performance reporting. These parallels support the feasibility of integrating OHS risk management into the ERM structure. CONCLUSION: For a more effective and holistic approach to enterprise-level risk governance, it is essential to include Occupational Health and Safety risks within the ERM framework. This integration would not only streamline risk management activities but also enhance audit efficiency and organizational resilience. Establishing a closer operational relationship between OHS units and internal audit systems would contribute to safer working environments and more strategic risk oversight

Lervik LV, Frostestad E, Stromstad K, Gulliksen IG, Lillefjell M, Skogen JC, et al. Self-perceived barriers to returning to work among employees with a low educational level on long-term sick leave: the "NOW WHAT" large-scale interview study. *Journal of Rehabilitation Medicine*. 2025; 57:jrm40604.

<https://doi.org/10.2340/jrm.v57.40604>

Abstract: Objective: Because employees with low educational levels have the highest rates of sick leave, this study aimed to identify the self-perceived return-to-work barriers of employees with low educational levels on long-term sick leave. Methods: Employees on long-term sick leave with primary/secondary educational attainment were included from the NOW WHAT large-scale interview study (n = 122). The World Health Organization's system of classifying functioning, disability, and health guided the deductive content analysis. Results: 1,942 meaning units describing return-to-work barriers across all classifications were identified. The most frequent components were body functions (n = 552, 28%, mean = 4.5), with mental functions (e.g., sleep, tiredness, emotional and cognitive functioning) the most frequent barriers; environmental factors (n = 414, 21%, mean = 3.4), with services, systems, and policies (e.g., social security, healthcare system) the most prevalent barriers; activity limitations (n = 352, 18%, mean = 2.9); and personal factors (n = 323, 17%, mean = 2.6). Conclusion: Employees with low educational levels on long-term sick leave described a wide range of return-to-work barriers and combinations thereof. In addition to health-related functional barriers, identifying environmental, activity-limitation, and personal barriers is important to enhance understanding of this group's potential determinants of absence from work.

Mallampalli KC and Karmakar S. Ergonomic design interventions to minimize musculoskeletal disorders among female workers in cashew kernel separating activity: a participatory approach. *Theoretical Issues in Ergonomics Science*. 2025; 26(5):589-607.

<https://doi.org/10.1080/1463922X.2025.2493817> [open access]

Abstract: In India, with the increase in Small and Medium-scale Enterprises (SMEs) in recent decades, work-related musculoskeletal disorders (WMSDs) problems caused by poor workplace design have considerably increased. In order to minimize WMSDs, the present study proposes ergonomic interventions specifically for cashew kernel separating (CKS) workers in Indian cashew SMEs. First, the prevalence of WMSDs was evaluated using a Nordic Musculoskeletal Questionnaire (NMQ). A sample of 52 women CKS workers were interviewed regarding WMSD problems. The results showed that more than three-fourths (76.9%) of the workers had experienced WMSDs in the past 12 months. The lower back (75.0%) and hands/wrist (67.5%) disorders are the most prevalent. Subsequently, the present study focused on ergonomic design interventions to minimize WMSDs among female CKS workers. A participatory approach was adopted, involving workers in the design process. The ergonomic requirements of workers were collected through focus group meetings. After requirement analysis, a new ergonomic workstation was developed based on Indian female anthropometric data. The Rapid Upper Limb Assessment (RULA) method was used to evaluate the newly developed workstation by comparing existing conditions. The results showed that RULA scores reduced from 7 to 3, suggesting the musculoskeletal risk was minimized with the new workstation design.

Park Y, An SY, Jeon JY, and Lee DH. Occupational physical activity and depression risk: a systematic review and dose-response meta-analysis. *Journal of Affective Disorders*. 2025; 391119983.

<https://doi.org/10.1016/j.jad.2025.119983>

Abstract: BACKGROUND: The relationship between occupational physical activity (OPA) and depression remains unclear. This meta-analysis aimed to systematically evaluate the association between OPA and depression risk, including dose-response relationships. METHODS: A systematic search of the PubMed and EMBASE databases was conducted and update through May 25th 2025. Observational studies investigating the relationship between OPA and depression risk were included. Random-effects models were used to calculate the pooled relative risks (RRs), and both linear and nonlinear dose-response analyses were performed. Subgroup analyses were used to explore potential sources of heterogeneity. RESULTS: Eleven studies with 183,555 participants in total were included. The pooled RR that compared highest versus lowest OPA levels was 1.25 (95% CI: 1.12, 1.40), indicating increased depression risk with higher OPA. Linear dose-response analysis showed that each 1-hour increment in OPA was associated with a 5% elevated depression risk (RR=1.05, 95% CI: 1.01, 1.09). Subgroup analyses revealed stronger associations among males (RR=1.45, 95% CI: 1.09, 1.93) and in Asian populations (RR=1.60, 95% CI: 1.15, 2.23). Studies using depression-specific assessment tools (e.g., the Patient Health Questionnaire-9 and Center for Epidemiologic Studies-Depression Scale) have shown stronger associations with depression than those using general mental health questionnaires. CONCLUSIONS: This meta-analysis provides evidence that higher levels of OPA are associated with increased depression risk, challenging the assumption that all forms of physical activity benefit mental health. These findings highlight the importance of considering the context of physical activity and suggest the need for workplace interventions that address the unique characteristics of OPA

Raper MJ, Brough P, and Biggs A. Threats, challenges, hindrances, and future-oriented coping: a daily diary study of the occupational stress process. *International Journal of Stress Management*. 2025; 32(3):239-255.

<https://doi.org/10.1037/str0000367>

Skountridaki L and Mallett O. 'I can just do work I'm paid to do': hybrid work and tertiary labour time gains. *Industrial Relations Journal*. 2025; 56(5):339-352.

<https://doi.org/10.1111/irj.12469> [open access]

Abstract: This paper adopts a moral economy framework to analyse the unique and collective experience of remote work during the UK pandemic lockdowns. Through analysis of qualitative interviews with workers based at home during periods of lockdown, we explore how this offered workers a new opportunity to evaluate a particular type of work extensification experienced when working onsite. We found that workers gained clarity over 'preparing-for-work', commuting and other unpaid labour as unfairly burdening nonwork time and social goods like family, health and leisure. We expand on the idea of tertiary time to suggest that hybrid work, despite its potential drawbacks, is viewed by workers as a way to regain some control over this area of their lives. By examining this in terms of the concept of lay normativity, our analysis draws out the importance of personal needs and emotional connections. We identify how, during the pandemic's extreme circumstances, a new opportunity for evaluation emerged that facilitated the development of a new sentiment around tertiary time devoted to the commute and preparation for work.

Statistics Canada. Labour market outcomes of the Black populations in Canada, 2020 to 2025. In *The Daily*. Ottawa, ON: Statistics Canada; 2025.

<https://www150.statcan.gc.ca/n1/daily-quotidien/250922/dq250922c-eng.pdf>

Svard AC, Kalima ML, Halonen JI, Manty M, Kujanpaa T, Roos E, et al. Joint contributions of psychological distress and demanding working conditions to short and long sickness absence among young and early midlife municipal employees. *European Journal of Public Health*. 2025; 35(3):534-540.

<https://doi.org/10.1093/eurpub/ckaf048> [open access]

Abstract: This register-linked follow-up study examined whether psychological distress and demanding working conditions are jointly associated with short and long sickness absence (SA) periods among young and midlife Finnish public sector employees. We linked the Helsinki Health Study survey (response rate 51.5%, 80% women, ages 19-39 years in 2017) on psychological distress, physically and mentally strenuous work, and hours per day spent in physical work with the employer's SA register (n = 3609, mean follow-up of 2.1 years). We calculated rate ratios (RRs) and their 95% confidence intervals (CIs) for short (1-7 days) and long (8+ days) SA periods using negative binomial regression models. Additionally, we calculated the synergistic interaction between psychological distress and working conditions. Most (88%) participants had at least one short and 31% at least one long SA period. Participants with psychological distress and exposure to demanding working conditions had the highest RRs for long SA periods (physically strenuous work: RR: 2.27, CI: 1.87-2.77; mentally strenuous work: RR: 2.02, CI: 1.66-2.46; =3 h per day spent in physical work: RR: 2.41, CI: 1.94-2.99). The interactions for long SA were negative for physically demanding working conditions, but additive for mentally strenuous work. The associations were weaker for short SA periods. Adjusting for other covariates only slightly attenuated these associations. Psychological distress and demanding working conditions were jointly associated with short and long SA periods. Both individual- and workplace-related risk factors for SA need to be considered when planning preventive actions.

Zhou H, Chan AP, Yang Y, and Yi W. A systematic review of mental states and safety performance of construction workers. *Journal of Construction Engineering and Management*. 2025; 151(10):03125007.

<https://doi.org/10.1061/JCEMD4.COENG-15931>

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