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

**\*Jazayeri H, Gignac MAM, Ahmad Z, and Johnson SR. Understanding the employment landscape in people with systemic sclerosis. *Journal of Rheumatology*. 2024; 51(6):622-627.**

<https://doi.org/10.3899/jrheum.2023-0975>

**Abstract:** Objective: Systemic sclerosis (SSc) can restrict employment participation. Our objectives were to comparatively evaluate health factors, work factors, and workplace accommodations between those who are employed and those who recently gave up employment. Methods: A cross-sectional study was conducted of employed and recently working, but now unemployed, individuals with SSc. Demographics, employment sectors, health factors, flare frequency, work context, and information about the need, availability, and use of workplace supports were collected. Results: Participants were 140 individuals (108 [77.1%] women, 32 [22.9%] men), of whom 110 (78.6%) were employed and 30 (21.4%) were unemployed. Participants worked in education/health/sciences/arts (n = 51, 36.4%), sales/retail (n = 23, 16.5%), banking/insurance/business/technology (n = 22, 15.7%), government (n = 15, 10.7%), construction/utilities (n = 10, 7.1%), and manufacturing/agriculture/mining/logging (n = 10, 7.1%). Employed participants had a lower mean age (48.4 vs 54.3 yrs), and higher level of education (77.3% with postsecondary education vs 22.7% without). Those who had no flares were more frequently employed (41.7%), compared to those who had 1 to 2 flares (35.2%) and  $\geq 3$  flares (23.1%). The availability of workplace accommodations differed significantly between the employed and unemployed: flexible hours (74.5% vs 40%,  $P = 0.0005$ ), more rest periods (73.6% vs 46.7%,  $P = 0.0001$ ), special equipment (82.7% vs 46.7%,  $P < 0.0001$ ), and work schedule flexibility (66.4% vs 33.3%,  $P = 0.003$ ). Conclusion: Health factors alone do not differentiate those who are employed and those who gave up employment. This study lays the groundwork for where SSc-specific efforts in workplace policies and practices should be directed, especially workplace support.

**Alhainen M, Harma M, Pentti J, Ervasti J, Kivimaki M, Vahtera J, et al. Physical activity and risk of workplace and commuting injuries: a cohort study. *Scandinavian Journal of Work, Environment & Health*. 2024; [epub ahead of print].**

<https://doi.org/10.5271/sjweh.4163> [open access]

**Abstract:** Objective: Leisure-time physical activity (PA) has been hypothesized to reduce the likelihood of occupational injuries, but it is unclear whether this association varies between workplace and commuting injuries. The aim of this study was to examine the association between PA and risk of workplace and commuting injuries. Methods: Data were derived from the Finnish Public Sector study including 82 716 person-observations (48 116 participants). PA was requested repeatedly in four questionnaire surveys between 2000-2012. The average level of PA from two subsequent questionnaires was used to assess long-term PA. To obtain a 1-year incidence of injuries, participants were linked to occupational injury records from the national register. Logistic regression analysis with generalized estimating equations was used to examine the association between PA and injury risk. The analysis was adjusted for age, sex, education, work schedule, job demand, sleep difficulties, cardiovascular diseases, diabetes, and depression for workplace and commuting injuries, and workplace injuries were additionally adjusted for physical heaviness of an occupation and injury risk by occupation. Results: Higher level of PA was associated with a lower risk of workplace injuries compared to inactive participants [odds ratio (OR) 0.85, 95% confidence interval (CI) 0.73-0.98]. This association was most marked in the =50-year-old age group (OR 0.78, 95% CI 0.64-0.99). No association between the PA and the risk for commuting injuries was observed. Conclusion: Higher PA is associated with lower risk of workplace injuries particularly among older employees.

**Baxter S, Cullingworth J, Whitworth A, Runswick-Cole K, and Clowes M. Understanding interventions and outcomes in supported employment and individual placement support: a qualitative evidence synthesis. *Disability and Health Journal*. 2024; 17(2):101579.**

<https://doi.org/10.1016/j.dhjo.2024.101579> [open access]

**Abstract:** BACKGROUND: Economically developed economies continue to display large and long-standing disability employment gaps. Train-then-place activation models have traditionally dominated efforts to support non-working disabled people to gain employment but recently there has been increasing interest in place-then-train Supported Employment (SE) activation models. OBJECTIVE: Evidence regarding the effectiveness of SE approaches is growing. However, authors have called for greater understanding of the mechanisms underpinning these interventions. We therefore carried out a systematic review of qualitative research to understand the processes operating. METHODS: We carried out a systematic review of qualitative research around SE interventions carried out in developed countries since 2000 in any population excepting those with severe mental illness. We used thematic synthesis and logic modelling methods and assessed the quality of the body of literature. RESULTS: We identified and included 13 relevant source studies containing qualitative data. Key aspects of the programmes reported were the nature of the support, the employment advisor, and the type of employment. Influencing factors were client-related, employer and employment-related, programme-related, and system-related. Effects beyond the gaining of employment included a changed attitude to work, different outlook, increased skills and/or confidence. Suggested longer-term impacts were on health and wellbeing, financial security, independence, contribution to society and sense of belonging. CONCLUSIONS: This review adds to the growing evidence regarding the value of SE interventions for disabled people. It adds insights regarding the key elements of the

programmes, and suggests outcomes beyond the measures typically considered within quantitative studies

**Belvis F, Muntane F, Muntaner C, and Benach J. What is the impact of job precariousness on depression? Risk assessment and attributable fraction in Spain. *Public Health*. 2024; 231:154-157. <https://doi.org/10.1016/j.puhe.2024.03.019> [open access]**

**Abstract:** OBJECTIVES: The prevalence of depression related to precarious employment (PE) has become a significant public health concern, given the declining trend of the standard employment relationship. Research has focused on the mental health detrimental effects of employment conditions, whereas there is scarce evidence concerning the burden of depression that could be prevented by targeting precariousness. This paper estimates the impact of PE on the risk of depression and the attributable fraction within the active and working salaried population in Spain. STUDY DESIGN: Observational cross-sectional on data drawn from the Spanish portion of European Health Survey 2020. METHODS: After applying selection criteria and descriptives, binary logistic regression models stratified by sex are used to examine the associations between a 9-categories combination of employment precariousness and occupational social class, and depressive symptoms. RESULTS: There is a higher risk of depression among individuals in PE and among those who are unemployed, with a notable gradient based on occupational social class for women. Adjusting by sex, age and foreign-born origin, we estimate that approximately 15.0% (95% confidence interval [CI]: 1.0%-26.2%) of depression cases among the working population and 33.3% (95% CI: 23.2%-43.2) among the active population can be attributed to PE. CONCLUSIONS: These findings highlight the public health impact of PE on mental health, provide evidence to estimate the economic burden linked to employment-related mental health, and underscore the need for policy changes and interventions at the level of labour markets and workplaces to mitigate the detrimental effects of PE

**Cendales BE, Gomez-Ortiz V, Useche SA, Cedillo L, Stephenson DWH, and Landsbergis P. Mental health outcomes among urban public transport workers: a systematic literature review. *Journal of Transport & Health*. 2024; 36:101804.**

<https://doi.org/10.1016/j.jth.2024.101804> [open access]

**Abstract:** Background Although abundant evidence suggests that Urban Public Transport (UPT) workers are at high risk of poor mental health, there is no consensus on the exposures that explain these outcomes, nor on the effectiveness of mental health interventions in this occupational group. Objective This study aims to systematically review the literature on the mental health of UPT workers to assess the effects of occupational exposures and interventions. Method A systematic review was conducted following the PRISMA guidelines. The literature search was performed from 1990 to December 2021 in three databases (PubMed, Scopus, and the Web of Science). The included observational, experimental, intervention and qualitative studies were critically appraised and assessed for risk of bias. A narrative evidence synthesis was conducted by mental health outcomes, occupational exposures, and intervention categories. Results The database search yielded 1383 records. A total of 83 studies (49 cross-sectional, 8 longitudinal, 8 experiments, 7 interventions, and 11 qualitative) met the inclusion criteria. Bus drivers were the most studied population, followed by metro and train drivers. The included studies covered eleven mental health outcomes: sleep problems, fatigue and recovery needs, alcohol and substance use, PTSD, panic disorders, depression, anxiety, psychopathology symptoms, psychosomatic symptoms, and psychological stress. Work

organization-related stressors (work content, workload and pace, working hours, participation and control, career development, status and salary, role in the organization, and interpersonal relationships) and occupational safety risks are the main predictors of negative mental health outcomes. Most intervention studies focus on the management of PTSD symptoms of UPT workers exposed to safety hazards. Conclusion The results of this review contribute to the consensus on the antecedents of negative mental health outcomes among UPT workers, as well as to the identification of intervention targets and promising research lines for the development of this study field.

**Griffin BJ, Coyle PT, Weber MC, Benight CC, Morison M, Maguen S, et al. The impact of adjustment on workplace attitudes and behaviors among health care workers during the COVID-19 pandemic. *Journal of Occupational & Environmental Medicine*. 2024; 66(5):e153-e159.**

<https://doi.org/10.1097/JOM.0000000000003066>

Abstract: OBJECTIVE: We examined the impact of health care workers' (HCWs) adjustment to the COVID-19 pandemic on their work-related attitudes and behaviors. METHODS: HCWs (n = 1468) participated in an observational longitudinal study in which they completed surveys of anxiety and occupational health between 2020 and 2021. RESULTS: Most HCWs reported anxiety that was consistently below the diagnostic threshold (68%) or fell below the threshold within a year (16%). Others reported consistently high (14%) or increasing (2%) anxiety, especially women, younger HCWs, those with a weakened immune system, and allied health professionals. Consistently high or increasing anxiety was associated with poorer job satisfaction, work engagement, perceived supervisor support, burnout, and turnover intentions. CONCLUSIONS: Resources to support HCWs may be focused on those who report consistently high or increasing anxiety to minimize the effects of crises and disasters on the workforce

**Hoshi R, Kikuchi H, Machida M, Nakanishi Y, and Inoue S. Impact of shifting from office work to telework on workers' physical health: a longitudinal study. *Journal of Occupational & Environmental Medicine*. 2024; 66(5):375-380.**

<https://doi.org/10.1097/JOM.0000000000003058>

Abstract: OBJECTIVE: The aim of the study is to clarify the longitudinal association between teleworking and physical health changes of Japanese workers before and during the COVID-19 pandemic. METHODS: Participants were in a certain company who received mandatory health examinations in 2019 and 2020. In June 2020, the participants were asked about frequency of teleworking, which was introduced owing to the COVID-19. Whether physical health differed by the frequency of teleworking was analyzed. RESULTS: The participants were 3689 workers. Frequency of teleworking were associated with more deleterious changes in diastolic blood pressure, antilipidemic drug use, low-density lipoprotein (LDL) cholesterol, Glutamic Oxaloacetic Transaminase(GOT), Glutamic Pyruvic Transaminase(GPT), metabolic syndrome, and insufficient walking time among men. In contrast, no significant changes were observed in women. CONCLUSIONS: Male workers who teleworked more frequently were more likely to experience a deterioration in their physical health within 1-year compared with those who worked at the office

**Johnsen AM, Wagman P, Brostrom A, and Fransson EI. Work-, lifestyle-, and health-related factors among women and men working in the emergency medical services. *International Journal of Occupational Safety & Ergonomics*. 2024; 30(2):651-661.**

<https://doi.org/10.1080/10803548.2024.2332115>

**Abstract:** Objectives. This study aimed to describe work-, lifestyle-, and health-related factors among ambulance personnel, and to analyse differences between women and men. Methods. The cross-sectional study (N = 106) included self-reported and objective measures of work, lifestyle, and health in 10 Swedish ambulance stations. The data collection comprised clinical health examination, blood samples, tests of physical capacity, and questionnaires. Results. A high proportion of the ambulance personnel reported heavy lifting, risk of accidents, threats and violence at work. A low level of smoking and alcohol use, and a high level of leisure-time physical activity were reported. The ambulance personnel had, on average, good self-rated health, high work ability and high physical capacity. However, the results also showed high proportions with risk factors for cardiovascular disease (CVD), e.g., high blood pressure, and high levels of blood lipids. More women than men reported high work demands. Furthermore, women performed better in tests of physical capacity and had a lower level of CVD risk factors. Conclusions. Exposure to work-related factors that might affect health was common among ambulance personnel. Lifestyle- and health-related factors were somewhat contradictory, with a low proportion reporting lifestyle-related risk factors, but a high proportion having risk factors for CVD.

**Kalski L, Volkel L, Haubler S, and Wolfarth B. Efficacy of occupational rehabilitation in return to work for back pain: a systematic literature review. *Work*. 2024; 78(1):29-43.**

<https://doi.org/10.3233/WOR-230277>

**Abstract:** BACKGROUND: Currently, there is no standard procedure for a return to work (RTW) rehabilitation program used by practitioners. OBJECTIVE: The aim is to investigate the efficacy of occupational rehabilitation programs for workers with back pain. METHODS: Two independent reviewers screened abstracts and full-text articles in a systematic literature search in three databases conducted in 2023. Subsequently, they extracted data according to the PRISMA Statement. RESULTS: Among the 4,010 articles retrieved, 20 met the inclusion criteria. Data from accepted studies were abstracted into tables relating to the RTW, improvement of pain intensity, quality of life (QOL), and degree of disability in persons with back pain. The risk of bias was assessed using the (SIGN)-criteria. Significant improvements in RTW were shown by a workplace intervention with a physical approach and a multidisciplinary intervention but with a wide range of effect sizes. Five studies showed significant improvements in pain intensity and QOL, six studies observed significant improvements in disability. CONCLUSION: The studies that stated positive effects on work-related data differed between intervention programs and traditional care. A combination of activity, maintenance therapy, stretching, and manual therapy showed promising results in improving RTW. In addition, the relationship and mediation between employer/workplace and employee seems to be an important aspect of RTW. However, pain intensity, disability, and QOL were enhanced with interventions that included a high proportion of physical activity. However, the intervention programs differed widely, leading to the assumption that the treatment effect of the intervention programs is not established, yet

**Kaur M, Kamalyan L, Abubaker D, Alheresh R, and Al-Rousan T. Self-reported disability among recently resettled refugees in the United States: results from the national Annual Survey of Refugees. *Journal of Immigrant & Minority Health*. 2024; 26(3):434-442.**

<https://doi.org/10.1007/s10903-023-01580-4> [open access]

Abstract: The prevalence rates and correlates of mental or physical disability among recently resettled refugees, who undergo strenuous journeys before arriving in the US, remain unknown, masking potential health disparities. Self-reported disability was measured by the 2018 Annual Survey of Refugees (ASR), and defined as having a physical, mental, or other health condition for more than 6 months that precluded one from working. Prevalence rates of self-reported disability and sample correlates were investigated using descriptive and logistic regression analyses. Of N = 4259 participating refugees in ASR (Mean Age = 28.2, SD = 17.2; 52.5% male), 2875 responded to the disability question and 21.4% reported disability. About 33.7% were born in the Middle East region, 29.5% had no formal education, and 35% had an income of less than \$15,000. Age (OR = 1.06, 95% Confidence Interval (CI) [1.06,1.07],  $p < 0.001$ ), region of birth (OR = 1.82, 95% CI [1.31, 2.51],  $p < 0.001$ ), employment status (OR = 3.31, 95% CI [2.67, 4.11],  $p < 0.001$ ), and receiving food stamps (OR = 2.09, 95% CI [1.66, 2.62],  $p < 0.001$ ) were associated with self-reported disability. Disability levels among refugees recently resettled in the United States are comparable to national disability rates in the US. Our results suggest that multiple aspects of the refugee experience (i.e., demographics, socioeconomic status, contextual migration history) need to be considered to understand the risk for health outcomes. Future investigations of disabilities in diverse refugee populations over time and tailored public health interventions to mitigate potential risk factors are warranted to promote health equity.

**Lundqvist D, Reineholm C, Stahl C, and Hellgren M. Occupational health and safety management: managers' organizational conditions and effect on employee well-being. *International Journal of Workplace Health Management*. 2024; 17(2):85-101.**

<https://doi.org/10.1108/IJWHM-10-2023-0151> [open access]

Abstract: Purpose Knowledge regarding the importance of the psychosocial work environment for health and well-being in the workplace is extensive. However, more knowledge is needed about how the managers' organizational conditions are related to what occupational health and safety management (OHSM) is actually conducted and how this relates to the work-related health of employees. The aim of this study is therefore to investigate if managers' organizational conditions are associated with the conducted OHSM, and if the conducted OHSM is associated with the psychosocial work environment and well-being of the employees. Design/methodology/approach An electronic questionnaire was sent to managers and their employees working in 10 different organizations in Sweden, resulting in 1,097 valid responses. Structural equation modeling (SEM) was used to analyze the results. Findings The SEM analysis showed that managers' conditions were related to employee well-being via OHSM and psychosocial work environment (job demands and job resources). Originality/value This study contributes to the existing literature in the field of OHSM by placing explicit focus on the role of organizational conditions for conducting OHSM. By studying not only the link between work environment and health, but also focus on the underlying organizational structures for OHSM, provides additional possibilities for prevention of the increasing work-related illness. As such, this paper contributes to a more holistic perspective in the field of OHSM.

**Patrick C, Stephens H, and Weinstein A. Born to care (or not): how gender role attitudes affect occupational sorting. *Labour*. 2024; 38(2):203-229.**

<https://doi.org/10.1111/labr.12261>

**Ryu JW, Gonzalez-Mule E, and O'Boyle EH. Taking a heavier toll? Racial differences in the effects of workplace mistreatment on depression. *Journal of Applied Psychology*. 2024; 109(5):611-621.**

<https://doi.org/10.1037/apl0001170>

Abstract: Previous studies have found that workplace mistreatment positively relates to depression, a critical mental health disorder. However, it is unknown whether mistreatment affects all individuals' depressive symptoms equally. Drawing from the hopelessness theory of depression and the stigma literature, we suggest that Blacks suffer from greater depression than Whites when they experience similar levels of workplace mistreatment because Blacks, as members of a racial minority group, are more likely to attribute workplace mistreatment to their race. This, in turn, causes them to make a pessimistic attribution (i.e., attributions that are internal, stable, and global) about themselves that, ultimately, leads to depression. We tested these predictions across two studies. In Study 1, we used a multiyear time-lagged design and multiple indicators of depression (i.e., self-reported clinical depression scale, device-traced sleep quantity, and self-reported sleep quality) and found that the positive relationship between workplace mistreatment and depression was stronger for Blacks than Whites, and that these patterns were consistent across the various indicators (although only results with the clinical depression scale and sleep quantity were statistically significant). In Study 2, we found that the influence of workplace mistreatment on depression is partly due to racial differences in how workplace mistreatment is attributed. We conclude by discussing the theoretical and practical implications of these findings and directions for future research. (PsycInfo Database Record (c) 2024 APA, all rights reserved)

**Yang XC, Zhang XY, Liu YH, Liu FJ, Lin HX, Chang C, et al. Association between workplace health promotion service utilisation and depressive symptoms among workers: a nationwide survey. *Public Health*. 2024; 231:64-70.**

<https://doi.org/10.1016/j.puhe.2024.03.001> [open access]

Abstract: OBJECTIVES: Workplace-related factors are associated with the risk of depression. Despite implementation of workplace health promotion (WHP) programmes in China to promote the physical and mental well-being of workers, the relationship between WHP and depression has received limited attention. This study investigated the association between WHP service utilisation and depressive symptoms among workers. STUDY DESIGN: This was a cross-sectional survey. METHODS: A researcher-designed questionnaire was used to collect information on socio-demographic and occupational characteristics, WHP service utilisation, and mental health status. The Lasso method was used for variable selection to achieve dimension reduction, and logistic regression was used to assess the association between WHP service utilisation and depressive symptoms. RESULTS: The analysis included 11,710 workers, of whom 17.0% had depressive symptoms. Lasso regression resulted in 6 of 18 WHP services showing significant negative associations with depressive symptoms, including occupational safety training, mental health services, health check-ups, sports activities, fitness rooms, and healthy canteens. The logistic regression results showed that, after adjusting for sociodemographic and occupational factors, utilisation of these six services was associated with a decreased likelihood of depressive symptoms. The adjusted odds ratio (aOR) was 0.84 (95%

confidence interval [CI]: 0.73-0.96) for occupational safety training, aOR: 0.82 (95% CI: 0.68-0.99) for mental health services, aOR: 0.80 (95% CI: 0.71-0.90) for health check-ups, aOR: 0.68 (95% CI: 0.57-0.80) for sports activities, aOR: 0.59 (95% CI: 0.47-0.74) for fitness rooms and aOR: 0.72 (95% CI: 0.59-0.87) for healthy canteens. CONCLUSIONS: Utilisation of WHP services was associated with a lower prevalence of depressive symptoms. Implementation of WHP services and the provision of a supportive workplace environment should be prioritised to benefit the mental health of workers

**Yousefi S, Ali S, and Varmazyar S. Investigation of the relationship between demographic factors and ergonomic risks assessed by the HEMPA method with musculoskeletal disorders among nurses. Theoretical Issues in Ergonomics Science. 2024; 25(3):268-286.**

<https://doi.org/10.1080/1463922X.2023.2171150>

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