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

***Jetha A, Shamaee A, Tompa E, Smith P, Bultmann U, Bonaccio S, Tucker LB, Norman C, Banks CG, Gignac MAM. The future of work in shaping the employment inclusion of young adults with disabilities: a qualitative study. *Equality, Diversity and Inclusion*. 2023; 42(9):75-91.**

<https://doi.org/10.1108/EDI-06-2022-0154> [open access]

Abstract: Purpose The world of work is changing and creating challenges and opportunities for the employment inclusion of young people with disabilities. In this article, the perceptions held by young adults with disabilities regarding participation in the future of work are examined. Design/methodology/approach One-on-one interviews were conducted with Canadian young adults (ages 18–36 years) living with a disability. Participants were asked about their thoughts regarding the impact of the changing nature of work on their labor market involvement and career aspirations. A thematic analysis was performed to identify and examine emergent salient themes. Findings In total, 22 young adults were interviewed; over half held secure employment. Career aspirations and work-related decisions were primarily shaped by a participant's health needs. The future of work was seen as a more proximal determinant to employment. Digital technologies were expected to impact working conditions and create barriers and facilitators to employment. Participants who indicated being securely employed held positive expectations regarding the impact of digital technology on their work. Participants working precariously held negative appraisals regarding the impact of digital technologies on employment opportunities. The role of technological and soft skills was critical to participating in a labor market reliant on advanced

technology. Participants reported barriers to developing job skills related to their disability and their work arrangements. Originality/value This research highlights the importance of considering changes in the future of work, especially the digital transformation of the economy, in the design of initiatives which promote the employment inclusion of young adults with disabilities. Despite the significance of the changing nature of work, supporting health needs and encouraging access to secure work arrangements also remain paramount.

***St.Cyr K, Kurdyak P, Smith PM, and Mahar AL. Mental health service use among Canadian veterans within the first 5 years following service: methodological considerations for comparisons with the general population. Occupational and Environmental Medicine. 2023; [epub ahead of print].**

<https://doi.org/10.1136/oemed-2022-108772> [open access]

Abstract: Introduction: Previous research comparing veteran and civilian mental health (MH) outcomes often assumes stable rates of MH service use over time and relies on standardisation or restriction to adjust for differences in baseline characteristics. We aimed to explore the stability of MH service use in the first 5 years following release from the Canadian Armed Forces and the Royal Canadian Mounted Police, and to demonstrate the impact of using increasingly stringent matching criteria on effect estimates when comparing veterans with civilians, using incident outpatient MH encounters as an example. Methods: We used administrative healthcare data from veterans and civilians residing in Ontario, Canada to create three hard-matched civilian cohorts: (1) age and sex; (2) age, sex and region of residence; and (3) age, sex, region of residence and median neighbourhood income quintile, while excluding civilians with a history of long-term care or rehabilitation stay or receipt of disability/income support payments. Extended Cox models were used to estimate time-dependent HRs. Results: Across all cohorts, time-dependent analyses suggested that veterans had a significantly higher hazard of an outpatient MH encounter within the first 3 years of follow-up than civilians, but differences were attenuated in years 4-5. More stringent matching decreased baseline differences in unmatched variables and shifted the effect estimates, while sex-stratified analyses revealed stronger effects among women compared with men. Conclusions: This methods-focused study demonstrates the implications of several study design decisions that should be considered when conducting comparative veteran and civilian health research.

Afsharian A, Dollard MF, Glozier N, Morris RW, Bailey TS, Nguyen H, et al. Work-related psychosocial and physical paths to future musculoskeletal disorders (MSDs). Safety Science. 2023; 164:106177.

<https://doi.org/10.1016/j.ssci.2023.106177> [open access]

Abstract: Given the human, industrial and societal costs of Musculoskeletal Disorders (MSDs) we evaluated antecedents to MSDs (assessed as pain, doctor diagnosis, and workplace injury) over a six-year period T1 (2014/2015) and T2 (2020/2021). The purpose of the study was to examine the role of the organisational climate (i.e., psychosocial safety climate, PSC) for

employees' psychological health and safety as an antecedent to physical demands, and psychosocial risks (e.g., low control, harassment) that in turn might relate to MSDs using a longitudinal design. We used matched data from follow-up telephone interviews of 432 Australian employees. We found evidence for several psychosocial paths; PSC was related to future workplace injuries through decision authority; PSC was related to MSD pain through depressive symptoms. For future doctor diagnosed MSDs, PSC was directly negatively related. Older age, being male and low income was related to work injury; being female associated with MSD pain; and being older was associated with MSD diagnosis. A novel finding was the linkage between psychosocial risks (low skill discretion and harassment) and future physical demands leading to future MSD pain and work injury highlighting a new pathway linking psychosocial and physical aspects. Overall poor PSC was found as a distal antecedent of all MSDs. Decision authority and skill discretion were most critical psychosocial risks in predicting future pain and injuries. Psychosocial factors predicted future demands. Actions should target improving PSC and autonomy and reducing harassment and physical demands, to decrease the incidence of MSDs.

Anwer S, Li H, Umer W, Antwi-Afari MF, Mehmood I, Yu Y, et al. Identification and classification of physical fatigue in construction workers using linear and nonlinear heart rate variability measurements. *Journal of Construction Engineering and Management*. 2023; 149(7):04023057.

<https://doi.org/10.1061/JCEMD4.COENG-13100>

Ballentine KL, Woo J, Tillman H, and Goodkind S. "You have to keep in mind that you're dealing with people's lives": how hospital service workers enact an ethic of care. *New Solutions*. 2023; 33(1):25-36.

<https://doi.org/10.1177/10482911231164906>

Abstract: The COVID-19 pandemic heightened the need to examine the health and safety of all workers, especially frontline workers, like hospital service workers (HSWs). Given ongoing pandemic-related challenges like healthcare labor shortages, attention to HSWs is essential. This paper draws from 3 waves of in-depth interviews conducted with HSWs from 2017 to 2020 to understand the evolving nature and challenges of their work from their perspectives. By analyzing the interviews, we found their approach to labor consistent with a feminist ethic of care. The ethic of care framework understands care as a public responsibility necessary for a functioning society. Workers perceived the ethic of care to be consistently violated by their employer, which contributed to poor working conditions, threatening the well-being of workers and patients alike. Drawing from workers' experiences and insights, the ethic of care framework can inform organizational changes to improve both occupational health and patient care.

Brehmer CE, Strauser DR, Shen S, Phillips BN, Kosciulek JF, and Austin BS. Differential effects of functioning on the career development of individuals with disabilities.

Rehabilitation Counseling Bulletin. 2023; 66(3):162-169.

<https://doi.org/10.1177/003435522211303> [open access]

Abstract: Individuals with disabilities experience disproportionate rates of unemployment and underemployment when compared to individuals without disabilities. Furthermore, health functioning impacts career development and employment across multiple life contexts. To build on what is known regarding the relationships between functioning and career development, this study focuses on delineating how varying aspects of functioning differentially impact specific areas of career development. Based on data collected from 674 individuals with disabilities in the United States this study investigated the relationship between individual health functioning and the following three core components of career development: vocational identity, work personality, and work adjustment. Findings illuminate important differences across dimensions of functioning that impact career development. Results suggest that a multidimensional approach to career development would be most efficacious in supporting the functioning of individuals with disabilities.

Briscoe S, Abbott R, Lawal H, Shaw L, and Coon JT. Feasibility and desirability of screening search results from Google Search exhaustively for systematic reviews: a cross-case analysis. Research Synthesis Methods. 2023; 14(3):427-437.

<https://doi.org/10.1002/jrsm.1622>

Abstract: A commonly reported challenge of using Google Search to identify studies for a systematic review is the high number of results retrieved. Thus, 'stopping rules' are applied when screening, such as screening only the first 100 results. However, recent evidence shows that Google Search estimates a much higher number of results than the viewable number, raising the possibility of exhaustive screening. This study aimed to provide further evidence on the feasibility of screening search results from Google Search exhaustively, and to assess the desirability of this in terms of identifying studies for a systematic review. We conducted a cross-case analysis of the search results of eight Google Search searches from two systematic reviews. Feasibility of exhaustive screening was ascertained by calculating the viewable number of results. Desirability was ascertained according to: (1) the distribution of studies within the results, irrespective of relevance to a systematic review; (2) the distribution of studies which met the inclusion criteria for the two systematic reviews. The estimated number of results across the eight searches ranged from 342,000 to 72,300,000. The viewable number ranged from 272 to 364. Across the eight searches the distribution of studies was highest in the first 100 results. However, the lowest ranking relevant studies were ranked 227th and 215th for the two systematic reviews. One study per review was identified uniquely from searching Google Search, both within the first 100 results. The findings suggest it is feasible and desirable to screen Google Search results more extensively than commonly reported.

Dall'Ora C, Ejebu OZ, Ball J, and Griffiths P. Shift work characteristics and burnout among nurses: cross-sectional survey. *Occupational Medicine*. 2023; 73(4):199-204.

<https://doi.org/10.1093/occmed/kqad046> [open access]

Abstract: BACKGROUND: Nurses working long shifts (12 h) experience higher levels of burnout. Yet other shift characteristics, including fixed versus rotating night work, weekly hours and breaks have not been considered. Choice over shift length may moderate the relationship; however, this has not been tested. AIMS: To examine the association between shift work characteristics and burnout and exhaustion, and whether choice over shift length influences burnout and exhaustion. METHODS: Cross-sectional online survey of nursing staff working in the UK and Ireland. We recruited two large National Health Service Trusts, through trade union membership, online/print nursing magazines and social media. We assessed associations using both univariable and multivariable generalized linear models. RESULTS: We had 873 valid responses. Reports of inadequate staffing levels (odds ratio [OR] = 2.84; 95% confidence interval [CI] 2.08-3.90) and less choice over shift length (OR = 0.20; 95% CI 0.06-0.54) were associated with higher burnout in multivariable models. Similar associations were found for exhaustion, where rarely or never taking breaks was also a predictor (OR = 1.61; 95% CI 1.05-2.52). Nurses who worked long shifts had less choice than those working shifts of 8 h or less (66% of 12-h shift nurses versus 44% 8-h shift nurses reporting having no choice), but choice did not moderate the relationship between shift length and burnout and exhaustion. CONCLUSIONS: The relationship between long shifts and increased burnout reported previously might have arisen from a lack of choice for those staff working long shifts. Whether limited choice for staff is intrinsically linked to long shifts is unclear

Kersten A, van Woerkom M, Geuskens GA, and Blonk RWB. Organisational policies and practices for the inclusion of vulnerable workers: a scoping review of the employer's perspective. *Journal of Occupational Rehabilitation*. 2023; 33(2):245-266.

<https://doi.org/10.1007/s10926-022-10067-2> [open access]

Abstract: Purpose Current models of inclusive workplaces are primarily based on the perceptions of vulnerable workers, whereas attention for employer's perceptions is lacking. This scoping review addresses this issue by mapping the literature that covers employer's perceptions on the application and importance of organisational policies and practices aimed at the inclusion of vulnerable workers. Methods A literature search for qualitative and quantitative research articles was conducted in MEDLINE, Scopus, ProQuest, PsychInfo, Google Scholar and Web of Science. Studies were included when (a) they reported on practices aimed at the inclusion, participation, or rehabilitation of (b) workers with disabilities, a low education or migration background, or who were long-term unemployed, and (c) were based on samples of employers or their representatives. Results The search resulted in 3,134 articles. In total, 38 articles met the inclusion criteria of this study. We identified seven types of inclusive practices to stimulate the inclusion of vulnerable workers that employers applied and/or perceived as valuable: senior management commitment,

recruitment and selection, performance management and development practices, job accommodations and redesign of work, supportive culture, external collaborations with other employers, and monitoring. Conclusions Our review identified seven categories of inclusive practices that pertain to all stages of the employee journey of vulnerable workers. These categories move beyond those reported in studies based on employee samples, for instance by highlighting the importance of monitoring and collaborations with other employers. Hence, our findings stress that insight into employers' perceptions about effective measures is crucial to increase labour market participation of vulnerable groups

Kreider AR and Werner RM. The home care workforce has not kept pace with growth in home and community-based services. Health Affairs. 2023; 42(5):650-657.

<https://doi.org/10.1377/hlthaff.2022.01351>

Abstract: Home and community-based services (HCBS) are the predominant approach to delivering long-term services and supports in the US, but there are growing numbers of reports of worker shortages in this industry. Medicaid, the primary payer for long-term services and supports, has expanded HCBS coverage, resulting in a shift in the services' provision out of institutions and into homes. Yet it is unknown whether home care workforce growth has kept up with the increased use of these services. Using data from the American Community Survey and the Henry J. Kaiser Family Foundation, we compared trends in the size of the home care workforce with data on Medicaid HCBS participation between 2008 and 2020. The home care workforce grew from approximately 840,000 to 1.22 million workers between 2008 and 2013. After 2013, growth slowed, ultimately reaching 1.42 million workers in 2019. In contrast, the number of Medicaid HCBS participants grew continuously from 2008 to 2020, with accelerated growth between 2013 and 2020. As a consequence, the number of home care workers per 100 HCBS participants declined by 11.6 percent between 2013 and 2019, with preliminary estimates suggesting that further declines occurred in 2020. Improving access to HCBS will require not just expanded insurance coverage but also new workforce investments.

Longpre SM, Rader NC, Dougherty KJ, Motai Y, and Leinhauser KC. Factors that influence occupational engagement of young adults who are cancer survivors: a pilot study. OTJR. 2023; 43(2):218-227.

<https://doi.org/10.1177/15394492221128779>

Abstract: Cancer and its treatment can impact occupational engagement. However, occupational therapy-specific research studying young adult cancer survivors remains limited. The objective of this study to identify the type of occupations that young adult cancer survivors choose to engage in and to understand their decision-making process when choosing these occupations. A mixed-methods explanatory sequential design was used. Eleven participants, nine females and two males, between the ages of 18 and 35, were included. Several occupations were identified for engagement such as activities of daily living, leisure, work, sleep and rest, and health management. The predominant factor that

influenced why occupations were chosen was that individuals purposefully selected occupations that allowed them to choose a path toward a more meaningful life. Information gained from this pilot study can be used to inform occupational therapy practitioners regarding services and interventions that promote occupational engagement for young adult cancer survivors

Nevins P, Davis-Plourde K, Pereira Macedo JA, Ouyang Y, Ryan M, Tong G, et al. A scoping review described diversity in methods of randomization and reporting of baseline balance in stepped-wedge cluster randomized trials. *Journal of Clinical Epidemiology*. 2023; 157:134-145.

<https://doi.org/10.1016/j.jclinepi.2023.03.010>

Abstract: Objectives: In stepped-wedge cluster randomized trials (SW-CRTs), clusters are randomized not to treatment and control arms but to sequences dictating the times of crossing from control to intervention conditions. Randomization is an essential feature of this design but application of standard methods to promote and report on balance at baseline is not straightforward. We aimed to describe current methods of randomization and reporting of balance at baseline in SW-CRTs. Study design and setting: We used electronic searches to identify primary reports of SW-CRTs published between 2016 and 2022. Results: Across 160 identified trials, the median number of clusters randomized was 11 (Q1-Q3: 8-18). Sixty-three (39%) used restricted randomization-most often stratification based on a single cluster-level covariate; 12 (19%) of these adjusted for the covariate(s) in the primary analysis. Overall, 50 (31%) and 134 (84%) reported on balance at baseline on cluster- and individual-level characteristics, respectively. Balance on individual-level characteristics was most often reported by condition in cross-sectional designs and by sequence in cohort designs. Authors reported baseline imbalances in 72 (45%) trials. Conclusion: SW-CRTs often randomize a small number of clusters using unrestricted allocation. Investigators need guidance on appropriate methods of randomization and assessment and reporting of balance at baseline.

Quigley A, Kaur N, Askari S, and Mayo N. How much does presenteeism change in response to interventions or alterations in health status? A systematic review and meta-analysis using the COSMIN methodology. *Journal of Occupational Rehabilitation*. 2023; 33(2):231-244.

<https://doi.org/10.1007/s10926-022-10082-3>

Abstract: Purpose The purpose of this study was to estimate the extent to which measures of presenteeism among workers change in response to alterations in health status induced by treatment or natural history. Methods We searched eight databases in August 2020 for studies published since 2012 measuring presenteeism longitudinally. Two independent reviewers screened the titles, abstracts, and full-text articles and performed data extraction. Studies were stratified into longitudinal studies using presenteeism as an outcome and measurement studies designed to test the responsiveness of presenteeism measures. We appraised the methodological quality of the measurement studies using the COnsensus-

based Standards for the selection of health Measurement INstruments (COSMIN) risk of bias checklist. Standardized response means (SRMs) for interventional studies where participants reported improvement on anchor measures were quantitatively pooled. Results Our searches returned 2882 results. Eleven measurement studies and 126 longitudinal studies were included. Of the measurement studies (n = 2625 participants), 7 had adequate study quality and 4 studies were deemed doubtful. Anchors and responsiveness methods varied considerably. Our estimate of responsiveness from 5 measurement studies and 4 presenteeism measures is an SRM of 0.85 (95% CI 0.77, 0.92) and Cohen's d of 0.54 (95% CI 0.49, 0.58), translating to an average important change of 17/100. For deterioration, the value is - 17/100. Conclusions We found considerable variation regarding how responsiveness data was reported in measurement studies. There is evidence that responsiveness is strong for four presenteeism measures: the Work Productivity Survey, the Work Functioning Impairment Scale, the Work Role Functioning Questionnaire, and the Nurses Work Functioning Questionnaire.

Reme BA, Grosland M, Gjefsen H, and Magnusson K. Impact of the COVID-19 pandemic on sick leave among healthcare workers: a register-based observational study. *Occupational and Environmental Medicine*. 2023; 80(6):319-325.

<https://doi.org/10.1136/oemed-2022-108555>

Abstract: Objectives: To assess the impact of the COVID-19 pandemic on sick leave among healthcare workers (HCWs) in primary and specialist care and examine its causes. Methods: Using individual-level register data, we studied monthly proportions of sick leave (all-cause and not related to SARS-CoV-2 infection) from 2017 to February 2022 for all HCWs in primary (N=60 973) and specialist care (N=34 978) in Norway. First, we estimated the impact of the pandemic on sick leave, by comparing the sick leave rates during the pandemic to sick leave rates in 2017-2019. We then examined the impact of COVID-19-related workload on sick leave, by comparing HCWs working in healthcare facilities with different levels of COVID-19 patient loads. Results: HCWs had elevated monthly rates of all-cause sick leave during the COVID-19 pandemic of 2.8 (95% CI 2.67 to 2.9) and 2.2 (95% CI 2.07 to 2.35) percentage points in primary and specialist care. The corresponding increases for sick leave not related to SARS-CoV-2 infection were 1.2 (95% CI 1.29 to 1.05) and 0.7 (95% CI 0.52 to 0.78) percentage points. All-cause sick leave was higher in areas with high versus low COVID-19 workloads. However, after removing sick leave episodes due to SARS-CoV-2 infections, there was no difference. Conclusions: There was a substantial increase in sick leave among HCWs during the pandemic. Our results suggest that the increase was due to HCWs becoming infected with SARS-CoV-2 and/or sector-wide effects, such as strict infection control measures. More differentiated countermeasures should, therefore, be evaluated to limit capacity constraints in healthcare provision.

Trepanier SG, Peterson C, Gagne M, Fernet C, Levesque-Cote J, and Howard JL. Revisiting the Multidimensional Work Motivation Scale (MWMS). *European Journal of Work and Organizational Psychology*. 2023; 32(2):157-172.

<https://doi.org/10.1080/1359432X.2022.2116315>

Waddell A, Kunstler B, Lennox A, Pattuwage L, Grundy EAC, Tsering D, et al. How effective are interventions in optimizing workplace mental health and well-being? A scoping review of reviews and evidence map. *Scandinavian Journal of Work, Environment & Health*. 2023; 49(4):235-248.

<https://doi.org/10.5271/sjweh.4087> [open access]

Abstract: Objectives: Mental well-being is critical to quality of life. Workplace mental well-being is crucial to ensure employee health, satisfaction, and performance. Mental ill-health is a global challenge, costing workplaces \$17 billion per year. Workplaces have realized the need for investment in interventions to promote mental health and well-being in their workforce. However, given their limited resources, workplace personnel responsible for program implementation need evidence-based guidance on which interventions influence which outcomes. Methods: This study employed a scoping review methodology in order to produce an evidence map and includes reviews of workplace mental well-being interventions. The search strategy focused on peer-reviewed articles with the primary aim of investigating workplace mental health interventions. Reviews were assessed for quality using AMSTAR 2. The evidence map includes interventions (rows) and outcomes (columns), with the relative size of the reviews underpinning each intersection represented by circles and the direction of evidence represented by color. Results: Eighty reviews were deemed eligible from 4795 citations. The resulting evidence map includes 17 intervention types designed to influence 12 outcomes. Interventions with the highest quality evidence were mindfulness, education and information provision, and individual psychological therapies. The most common outcomes were burnout / stress reduction and mental well-being. Interventions tended to focus on individual level factors rather than organizational or system-level factors. Conclusion: The evidence-base for workplace mental health interventions is broad and extensive. There is an apparent knowledge-to-practice gap, presenting challenges to implementing workplace mental health programs (ie, what interventions have the highest quality evidence). This study aims to fill the gap by providing an interactive evidence-map. Future research should look to fill the gaps within the map including the lack of organization and system level factors and especially economic evaluations.

White RMB, Baldwin ML, and Cang X. Workers' perspectives on workplace disclosure of serious mental illness and their employers' responses. *Qualitative Health Research*. 2023; 33(6):481-495.

<https://doi.org/10.1177/10497323231160108> [open access]

Abstract: Persons with serious mental illness are often reluctant to disclose their disability to an employer because of the intense stigma associated with their illness. Yet, disclosure may

be desirable to gain access to employer-provided job accommodations, or to achieve other goals. In this article, we aimed to (1) describe the contexts in which workers in regular employment disclose a mental illness to their employer and (2) describe employer responses to disclosure, as perceived by the workers themselves. Semi-structured interviews were conducted with 40 workers, who were currently or formerly employed in a mainstream, regular job, post-onset of mental illness. Workers were asked to describe the circumstances that led to disclosure, and to describe their employers' responses to disclosure. Conventional content analysis was applied to identify common themes in the transcribed interviews. Analyses revealed five mutually exclusive disclosure contexts: seeking job accommodations, seeking protection, seeking understanding, responding to an employer's symptom-based inquiries, or being exposed by a third party or event. Analyses also revealed a wider range of employer responses-positive, negative, and ambiguous-than has been suggested by studies in which employers described their reactions to worker disclosure. Some themes were more prevalent among current versus former workers. Overall, the disclosure process appeared to be more complex than has been described by extant frameworks to date, and the linkages between disclosure contexts and employer response themes suggested that many workers did not receive the responses they were seeking from their employers

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