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

***Woloshin S, Landsman V, Miller DG, Byrne J, Graubard BI, and Feuer EJ. Updating the Know Your Chances website to include smoking status as a risk factor for mortality estimates. *JAMA Network Open*. 2023; 6(6):e2317351.**

<https://doi.org/10.1001/jamanetworkopen.2023.17351> [open access]

Abstract: IMPORTANCE: To make wise decisions about the health risks they face, people need information about the magnitude of the threats as well as the context, such as how risks compare. Such information is often presented by age, sex, and race but rarely accounts for smoking status, a major risk factor for many causes of death. **OBJECTIVE:** To update the National Cancer Institute's Know Your Chances website to present mortality estimates for a broad set of causes of death and all causes combined by smoking status in addition to age, sex, and race. **DESIGN, SETTING, AND PARTICIPANTS:** In this cohort study, mortality estimates using life table methods were calculated with the National Cancer Institute's DevCan software package, combining data from the US National Vital Statistics System, National Health Interview Survey-Linked Mortality Files, National Institutes of Health-AARP (American Association of Retired Persons), Cancer Prevention Study II, Nurses' Health and Health Professions follow-up studies, and Women's Health Initiative. Data were collected from January 1, 2009, to December 31, 2018, and analyzed from August 27, 2019, to February 28, 2023. **MAIN OUTCOMES AND MEASURES:** Age-conditional probabilities of dying due to various causes and all causes combined, accounting for competing causes of death, for people aged 20 to 75 years over the next 5, 10, or 20 years by sex, race, and smoking status. **RESULTS:** A total of 954 029 individuals aged 55 years or older (55.8% women) were included

in the analysis. Regardless of sex or race, for never-smokers, coronary heart disease represented the highest 10-year chance of death after about 50 years of age, which is higher than for any malignant neoplasm. Among current smokers, the 10-year chance of death due to lung cancer was almost as high as for coronary heart disease in each group. For Black and White female current smokers aged from the mid-40s onward, the 10-year probability of death due to lung cancer was substantially higher than for breast cancer. After 40 years of age, the observed effect of never vs current smoking on the 10-year chance of death due to all causes approximated adding 10 years of age. After 40 years of age when conditioning on smoking status, mortality risk for Black individuals was approximately that of White individuals 5 years older. CONCLUSIONS AND RELEVANCE: Using life table methods and accounting for competing risks, the revised Know Your Chances website presents age-conditional mortality estimates according to smoking status for a broad set of causes in the context of other conditions and all-cause mortality. The findings of this cohort study suggest that failing to account for smoking status results in inaccurate mortality estimates for many causes—namely, they are too low for smokers and too high for nonsmokers

Alturkistani S. Correlation between chronic conditions and job absenteeism among healthcare administration employees at King Abdullah Medical City in Makkah, Saudi Arabia. Work. 2023; 75(1):349-355.

<https://doi.org/10.3233/WOR-220157>

Abstract: BACKGROUND: Globally, chronic conditions are becoming more prevalent, both in general and within the workforce. Moreover, the appropriate workplace recognition and interventions are lacking for employees with chronic conditions, which may affect productivity and quality of work as a result of increased rates of absenteeism among such employees. OBJECTIVE: The main objective was to examine the correlation between healthcare administrators' chronic conditions and job absenteeism at King Abdullah Medical City (KAMC) in Makkah, Saudi Arabia. METHODS: A cross-sectional study was conducted at KAMC in Makkah, Saudi Arabia. Data obtained from the responses of 225 administrative employees with a chronic condition working at KAMC. Data were analyzed using SPSS Statistics version 20. RESULTS: The results of this study indicated that a significantly relationship exists between chronic heartburn, as well as other chronic conditions, such as irritable bowel syndrome, severe anemia, chronic fatigue, and high blood pressure or hypertension with employees' job absenteeism. CONCLUSION: According to the obtained results, employees' chronic conditions have a significant impact on absenteeism. Therefore, we recommend that employers intervene to determine how employees' chronic conditions affect their health and prevent them from attending work. Providing workplace health and wellness programs within an organization can improve employee health, thereby reducing the rate of absenteeism and increase the rate of productivity in the working environment

Barati Jozan MM, Ghorbani BD, Khalid MS, Lotfata A, and Tabesh H. Impact assessment of e-trainings in occupational safety and health: a literature review. BMC Public Health. 2023;

23(1):1187.

<https://doi.org/10.1186/s12889-023-16114-8> [open access]

Abstract: BACKGROUND: Implementing workplace preventive interventions reduces occupational accidents and injuries, as well as the negative consequences of those accidents and injuries. Online occupational safety and health training is one of the most effective preventive interventions. This study aims to present current knowledge on e-training interventions, make recommendations on the flexibility, accessibility, and cost-effectiveness of online training, and identify research gaps and obstacles. METHOD: All studies that addressed occupational safety and health e-training interventions designed to address worker injuries, accidents, and diseases were chosen from PubMed and Scopus until 2021. Two independent reviewers conducted the screening process for titles, abstracts, and full texts, and disagreements on the inclusion or exclusion of an article were resolved by consensus and, if necessary, by a third reviewer. The included articles were analyzed and synthesized using the constant comparative analysis method. RESULT: The search identified 7,497 articles and 7,325 unique records. Following the title, abstract, and full-text screening, 25 studies met the review criteria. Of the 25 studies, 23 were conducted in developed and two in developing countries. The interventions were carried out on either the mobile platform, the website platform, or both. The study designs and the number of outcomes of the interventions varied significantly (multi-outcomes vs. single-outcome). Obesity, hypertension, neck/shoulder pain, office ergonomics issues, sedentary behaviors, heart disease, physical inactivity, dairy farm injuries, nutrition, respiratory problems, and diabetes were all addressed in the articles. CONCLUSION: According to the findings of this literature study, e-trainings can significantly improve occupational safety and health. E-training is adaptable, affordable, and can increase workers' knowledge and abilities, resulting in fewer workplace injuries and accidents. Furthermore, e-training platforms can assist businesses in tracking employee development and ensuring that training needs are completed. Overall, this analysis reveals that e-training has enormous promise in the field of occupational safety and health for both businesses and employees

Bend GL and Priola V. 'There is nothing wrong with me': the materialisation of disability in sheltered employment. *Work, Employment and Society*. 2021; 37(3):645-664.

<https://doi.org/10.1177/09500170211034762> [open access]

Abstract: This article explores the lived experiences of disabled men and women who work in sheltered employment. Specifically, it analyses how the entanglement of sociomaterial practices affects disabled workers' co-constructions of work and disability. Theoretically grounded in posthumanist performativity theory, the article shows how embodied employment experiences within organisational spaces contribute to the materialisation of disability. Findings emerged from ethnographic participant observations and interviews with management and workers at a sheltered workshop. The data highlight how the entanglement of bodies, space, objects and discourses affects materialisations of disability in ways that

appear more inclusive than in mainstream employment. However, these sociomaterial practices remain embedded in a productivity-oriented work logic.

Caspi H, Perlman Y, and Westreich S. Managing near-miss reporting in hospitals: the dynamics between staff members' willingness to report and management's handling of near-miss events. *Safety Science*. 2023; 164:106147.

<https://doi.org/10.1016/j.ssci.2023.106147>

Gorig T, Breitbart EW, Drexler H, and Diehl K. Setting-based skin cancer prevention at the workplace: a survey among German outdoor workers. *American Journal of Industrial Medicine*. 2023; 66(7):601-609.

<https://doi.org/10.1002/ajim.23480>

Abstract: BACKGROUND: Outdoor workers are at increased risk of developing skin cancer. Setting-based prevention at the workplace can reduce the UV exposure of outdoor workers through appropriate technical or organizational measures. We explored the implementation of setting-based UV protection at the workplace in Germany from the perspective of outdoor workers. METHODS: A Germany-wide sample of 319 outdoor workers from different employment sectors (64.3% male) was surveyed via telephone on different technical and organizational measures for UV protection at the workplace. Bivariate analyses were performed to explore associations with job-related characteristics. RESULTS: In general, 28.0% were rarely or never provided with a place in the shade during working hours, and 27.4% rarely or never provided with a shaded place during breaks. One-third had rarely or never the opportunity to work in the shade on hot summer days. Overall, 51.9% reported receiving protective clothing from their employer, 45.5% were provided with headgear, and 25.1% with sunscreen. About one-third had often or always the option of starting work earlier in the morning on hot summer days to work less in the sun, while 18.6% had to work overtime on such days. One-third (35.4%) had been educated at work about risks of solar radiation and sun protection measures. CONCLUSIONS: Our study is among the first to present findings on the implementation of different setting-based UV protection measures at the workplace and provides starting points for employers and policy makers to improve UV protection at the workplace

Huth KBS and Chung-Yan GA. Quantifying the evidence for the absence of the job demands and job control interaction on workers' well-being: a Bayesian meta-analysis. *Journal of Applied Psychology*. 2023; 108(6):1060-1072.

<https://doi.org/10.1037/apl0001066>

Abstract: Central to many influential theories in the occupational health and stress literature is that job resources reduce the negative effects of job demands on workers' well-being. However, empirical investigations testing this supposition have produced inconsistent findings. This study evaluates the interaction between job demands and job control on workers' well-being through a systematic literature search and using a Bayesian meta-analytic

approach. Both aggregated study findings and raw participant-level data were included in the study, resulting in 104 effect sizes of aggregate-level data and 14 participant-level data sets. Overall, the data provided strong evidence for the absence of an interaction between job demands and job control. Longitudinal and nonlinear research designs were also examined but did not alter this overall conclusion. Contrary to the postulations of widespread theories, job control does not reduce the negative impact of job demands on workers' well-being. Alternative theoretical approaches and the need for more consistent and rigorous research standards, like open science practices, are discussed. (PsycInfo Database Record (c) 2023 APA, all rights reserved)

Jackson H. Pathways to single fatality and serious injury incidents in coal and metalliferous mining in NSW, Australia: can we learn from multiple fatality incidents to prevent serious injury? *Safety Science*. 2023; 165:106194.

<https://doi.org/10.1016/j.ssci.2023.106194>

Kim M and Beehr TA. Politically skilled employees can alter their jobs so that they stay and are healthier. *International Journal of Stress Management*. 2023; 30(1):57-68.

<https://doi.org/10.1037/str0000284>

Nielsen K, Ng K, Vignoli M, Lorente L, and Peiro JM. A mixed methods study of the training transfer and outcomes of safety training for low-skilled workers in construction. *Work and Stress*. 2023; 37(2):127-147.

<https://doi.org/10.1080/02678373.2022.2086646> [open access]

O'Connor LF, Madden GR, Stone D, Classen DC, and Eby JC. Risk factors for severe COVID-19 among health care workers. *Journal of Occupational & Environmental Medicine*. 2023; 65(6):529-532.

<https://doi.org/10.1097/JOM.0000000000002843> [open access]

Abstract: OBJECTIVE: Evaluate potential risk factors for severe coronavirus disease 2019 (COVID-19) among health care workers (HCWs) at the University of Virginia Medical Center in Charlottesville, Virginia. METHODS: We conducted a retrospective manual chart review of data from HCWs who were diagnosed with COVID-19 from March 2020 to March 2021. Using data from patient medical histories, we ascertained risk factors for COVID-19-related emergency department encounter, hospitalization, or death. RESULTS: We had 634 patients in total, and 9.8% had a severe COVID-19-related outcome. A history of deep vein thrombosis/pulmonary embolism/stroke (odds ratio, 19.6; 95% confidence interval, 5.11 to 94.7), as well as asthma, chronic lung disease, diabetes, or current immunocompromised status, was associated with increased adjusted odds of COVID-19-related emergency department encounter/hospitalization/death. CONCLUSIONS: A preexisting history of deep

vein thrombosis/pulmonary embolism/stroke is a novel risk factor for poor COVID-19 outcomes among a cohort of HCWs

Peterson S and Alkhadim GS. Predictors of employment for transition-aged youth with co-occurring substance use disorder and psychiatric disorder in the state vocational rehabilitation service-delivery system. *Psychiatric Rehabilitation Journal*. 2023; 46(2):137-147.

<https://doi.org/10.1037/prj0000556>

Abstract: OBJECTIVE: To identify state vocational rehabilitation (VR) services that were associated with employment for transition-aged youth with co-occurring disabilities (TAYWCD). METHOD: Hierarchical logistic regression analyses were utilized. Participants were 830 youth aged 24 and younger who had a co-occurring substance use disorder and another mental illness. RESULTS: After controlling for the effect of demographic covariates, assessment services (OR = .53, 95% CI [.35, .80], $p < .01$), job placement services (OR = 2.56, 95% CI [1.73, 3.78], $p < .001$), and supported employment services (OR = 3.7, 95% CI [2.33, 5.89], $p < .001$) were found to significantly impact employment outcomes. CONCLUSIONS AND IMPLICATIONS FOR PRACTICE: State VR services that aligned with the individual placement and support model of supported employment principles were correlated with successful employment outcomes for TAYWCD who received these services.

Recommendations include the following: (a) prepare VR counselors to effectively work with individuals with psychiatric disabilities; (b) provide TAYWCD with high-quality assessment and the individual placement and support model of supported employment services; (c) require VR counselors who serve TAYWCD to collaborate with community partner agencies that provide coordinated specialty care model services; (d) require VR counselors to collaborate with community partner agencies that provide recovery-oriented and evidence-based services; (e) encourage clients to formulate a Wellness Recovery Action Plan (WRAP) as a state VR assessment and Individualized Plan for Employment planning service; (f) include the state VR on-the-job training service in the Individualized Plan for Employment; (g) make use of benefits counseling services; and (h) institute in-service learning opportunities in state VR agencies. (PsycInfo Database Record (c) 2023 APA, all rights reserved)

Rodrigues V and Rocha R. Participatory ergonomics approaches to design and intervention in workspaces: a literature review. *Theoretical Issues in Ergonomics Science*. 2023; 24(4):413-428.

<https://doi.org/10.1080/1463922X.2022.2095457>

Rumrill PD, Romeo JM, Wickert K, Sheppard-Jones K, Park S, and Souders J. Providing quality employment services to people living with asthma in the vocational rehabilitation program: a model for meeting the needs of an emerging clientele. *Work*. 2023; 75(2):367-374.

<https://doi.org/10.3233/WOR-236015>

Abstract: **BACKGROUND:** With incidence and prevalence rates of asthma diagnoses steadily increasing in the United States and worldwide over the past 30 years, people with asthma are an emerging vocational rehabilitation (VR) consumer population. **OBJECTIVE:** This article describes the job acquisition and return to work considerations facing employees with asthma. **METHODS:** Following an overview of the etiology, incidence, prevalence, and career development implications of this chronic respiratory disease, the authors present career preparatory and return to work recommendations to meet the needs of Americans with asthma across the phases of the VR process. **RESULTS:** The importance of access to quality healthcare, lifestyle, and environmental modifications to promote respiratory health, employer consultation, workplace accommodations and universal design, and interface with medical and mental health professionals is emphasized throughout the article. **CONCLUSION:** Asthma is an emerging disability that disproportionately affects people of color and people who live in poverty. Rehabilitation professionals must be prepared to meet the needs of this growing and diverse clientele as people with asthma seek assistance from the VR program in acquiring, maintaining, and advancing in meaningful, satisfying employment

Schaufeli WB, De Witte H, Hakanen JJ, Kaltainen J, and Kok R. How to assess severe burnout? Cutoff points for the Burnout Assessment Tool (BAT) based on three European samples. *Scandinavian Journal of Work, Environment & Health*. 2023; 49(4):293-302.

<https://doi.org/10.5271/sjweh.4093> [open access]

Abstract: **OBJECTIVE:** Despite decades of burnout research, clinical validated cut-off scores that discriminate between those who suffer from burnout and those who don't are still lacking. To establish such cut-off scores, the current study uses a newly developed questionnaire, the Burnout Assessment Tool (BAT) that consists of four subscales (exhaustion, mental distancing, and emotional and cognitive impairment). Separate cut-offs were computed for those at risk for burnout and those suffering from severe burnout for the original BAT-23 as well as for the shortened BAT-12. **METHODS:** Relative operating characteristic (ROC) analyses were carried out using representative samples of healthy employees from The Netherlands (N=1370), Belgium (Flanders; N=1403) and Finland (N=1350). In addition, samples of employees who received a burnout diagnosis were used (N=335, 158 and 50, respectively). **RESULTS:** The diagnostic accuracy of the BAT (area under the curve) ranges from good to excellent with the exception of mental distancing, which is fair. The country-specific cut-off values as well as their specificity and sensitivity are comparable to those of the pooled sample. **CONCLUSIONS:** In addition to country-specific cut-offs, general cut-offs can be used tentatively in other similar countries, pending future replication studies. Caution is warranted for using cut-offs for mental distance as the sensitivity and specificity of this subscale is relatively poor. It is concluded that the BAT can be used in organizational surveys for identifying employees at risk for burnout and, in clinical treatment settings, for identifying those with severe burnout, keeping in mind the tentativeness of the present cut-offs

Sperlich S, Beller J, Epping J, Geyer S, and Tetzlaff J. Trends of healthy and unhealthy working life expectancy in Germany between 2001 and 2020 at ages 50 and 60: a question of educational level? *Journal of Epidemiology & Community Health*. 2023; 77(7):430-439.

<https://doi.org/10.1136/jech-2023-220345> [open access]

Abstract: Background: Extending the number of active working years is an important goal both for maintaining individual quality of life and safeguarding social security systems. Against this background, we examined the development of healthy and unhealthy working life expectancy (HWLE/UHWLE) in the general population and for different educational groups. Methods: The study is based on data from the German Socio-Economic Panel study, including 88 966 women and 85 585 men aged 50-64 years and covering four time periods (2001-05, 2006-2010, 2011-2015 and 2016-2020). Estimates of HWLE and UHWLE in terms of self-rated health (SRH) were calculated using the Sullivan's method. We adjusted for hours worked and stratified by gender and educational level. Results: Working-hours adjusted HWLE at age 50 increased in women and men from 4.52 years (95% CI 4.42 to 4.62) in 2001-2005 to 6.88 years (95% CI 6.78 to 6.98) in 2016-2020 and from 7.54 years (95% CI 7.43 to 7.65) to 9.36 years (95% CI 9.25 to 9.46), respectively. Moreover, UHWLE also rose with the proportion of working life spent in good SRH (health ratio) remaining largely stable. At age 50, educational differences in HWLE between the lowest and highest educational groups increased over time in women and in men from 3.72 to 4.99 years and from 4.06 to 4.40 years, respectively. Conclusions: We found evidence for an overall increase but also for substantial educational differences in working-hours adjusted HWLE, which widened between the lowest and highest educational group over time. Our findings suggest that policies and health prevention measures at workplace should be more focused on workers with low levels of education in order to extend their HWLE.

Turner N, Deng C, Granger S, and Dueck PM. How does subjective invulnerability impact young workers' safety voice? *Journal of Safety Research*. 2023; 85:129-139.

<https://doi.org/10.1016/j.jsr.2023.01.012>

Abstract: Introduction: Young workers are at risk of workplace injuries for numerous reasons. One contentious yet untested theory is that subjective invulnerability to danger—a sense of indestructibility in the face of physical hazards—can affect some young workers' reactions to workplace hazards. This study contends that subjective invulnerability can affect these reactions in two ways: (a) perceptions of physical hazards at work generate less fear of injury among those who perceive themselves as more invulnerable and/or; (b) fear of injury does not motivate speaking up about safety concerns (safety voice) among those who perceive themselves as more invulnerable. Method: This paper tests a moderated mediation model in which higher perceptions of physical hazards at work are related to higher safety voice intentions via higher fear of injury, but that subjective invulnerability reduces the extent to which: (a) perceptions of physical hazards at work are associated with fear of injury and/or; (b) fear of injury is associated with safety voice. This model is tested in two studies of young workers (Study 1 on-line experiment: N = 114, M age = 20.67, SD = 1.79; range = 18-24 years;

Study 2 field study using three waves of data collected at monthly intervals: N = 80, M age = 17.13, SD = 1.08, range = 15-20 years). Results: Contrary to expectations, the results showed that young workers who feel more invulnerable to danger are more likely to speak up about safety when experiencing higher fear of injury, and that perceptions of physical hazards-safety voice relationship is mediated by fear of injury for those who perceive themselves to be more invulnerable to danger. Conclusions/Practical Applications: Rather than subjective invulnerability silencing safety voice as predicted, the current data suggest that subjective invulnerability may serve to accelerate how fear of injury motivates safety voice.

Weibel S, Popp M, Reis S, Skoetz N, Garner P, and Sydenham E. Identifying and managing problematic trials: a research integrity assessment tool for randomized controlled trials in evidence synthesis. *Research Synthesis Methods*. 2023; 14(3):357-369.

<https://doi.org/10.1002/jrsm.1599>

Abstract: Evidence synthesis findings depend on the assumption that the included studies follow good clinical practice and results are not fabricated or false. Studies which are problematic due to scientific misconduct, poor research practice, or honest error may distort evidence synthesis findings. Authors of evidence synthesis need transparent mechanisms to identify and manage problematic studies to avoid misleading findings. As evidence synthesis authors of the Cochrane COVID-19 review on ivermectin, we identified many problematic studies in terms of research integrity and regulatory compliance. Through iterative discussion, we developed a research integrity assessment (RIA) tool for randomized controlled trials for the update of this Cochrane review. In this paper, we explain the rationale and application of the RIA tool in this case study. RIA assesses six study criteria: study retraction, prospective trial registration, adequate ethics approval, author group, plausibility of methods (e.g., randomization), and plausibility of study results. RIA was used in the Cochrane review as part of the eligibility check during screening of potentially eligible studies. Problematic studies were excluded and studies with open questions were held in awaiting classification until clarified. RIA decisions were made independently by two authors and reported transparently. Using the RIA tool resulted in the exclusion of >40% of studies in the first update of the review. RIA is a complementary tool prior to assessing "Risk of Bias" aiming to establish the integrity and authenticity of studies. RIA provides a platform for urgent development of a standard approach to identifying and managing problematic studies

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