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*Nowak LL, Hall J, Davis AM, McKee MD, Mamdani M, Beaton D, et al. Development and internal validation of novel risk tools to predict subsequent shoulder surgery after proximal humerus fractures. Journal of Orthopaedic Trauma. 2022; 36(6):e236-e242.
https://doi.org/10.1097/BOT.0000000000002302

Abstract: Objective: To (1) identify predictors of subsequent surgery after initial treatment of proximal humerus fractures (PHFs) and (2) generate valid risk prediction tools to predict subsequent surgery. Methods: We identified patients ≥ 50 years with PHF from 2004 to 2015 using health data sets in Ontario, Canada. We used procedural codes to classify patients into treatment groups of (1) surgical fixation, (2) shoulder replacement, and (3) conservative. We used procedural and diagnosis codes to capture subsequent surgery within 2 years after fracture. We developed regression models for two-thirds of each group to identify predictors of subsequent surgery and the regression equations to develop risk tools to predict subsequent surgery. We used the final third of each cohort to evaluate the discriminative ability of the risk tools using c-statistics. Results: We identified 20,897 patients with PHF, 2414 treated with fixation, 1065 with replacement, and 17,418 treated conservatively. Predictors of reoperation after fixation included bone grafting and nail or wire fixation versus plate fixation, whereas poor bone quality was associated with reoperation after initial replacement. In conservatively treated patients, more comorbidities were associated with subsequent surgery, whereas age 70+ and discharge home after presentation lowered the odds of subsequent surgery. The risk tools were able to discriminate with c-statistics of 0.75-0.88 (derivation) and 0.51-0.79 (validation). Conclusions: Our risk tools showed good to

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strong discriminative ability for patients treated conservatively and with fixation. These data may be used as the foundation to develop a clinically informative tool. Level of evidence: Prognostic Level III. See Instructions for Authors for a complete description of levels of evidence.

Alsabbagh MW, Cooke M, Elliott SJ, Chang F, Shah NU, and Ghobrial M. Stepping up to the Canadian opioid crisis: a longitudinal analysis of the correlation between socioeconomic status and population rates of opioid-related mortality, hospitalization and emergency department visits (2000-2017). Health Promotion and Chronic Disease Prevention in Canada. 2022; 42(6):229-237.
https://doi.org/10.24095/hpcdp.42.6.01

Abstract: INTRODUCTION: High levels of income inequality and increased opioid-related harm across Canada bring into question the role of socioeconomic status (SES) in the opioid epidemic. Only a few studies have examined this association, and most of those have analyzed this issue on a provincial level. This study examined the association between opioid-related health outcomes and SES, and investigated rate ratios over time. METHODS: Administrative databases were used to identify opioid-related mortality, hospitalization and emergency department visits between 2000 and 2017. Patient's postal code was linked to the quintile of median household income at the forward sortation area level. Crude rates and age- and sex-adjusted rates in each quintile were calculated, as well as the adjusted rate ratio of average annual rates between the lowest and highest quintiles. The significance of the time trend of rate ratios for all outcomes was examined using linear regression. RESULTS: A stepped gradient of opioid-related outcomes across all income quintiles emerged from these data. For mortality, hospitalization and emergency department visits, the average annual rate ratio between lowest quintile and highest quintile was 3.8, 4.3 and 4.9, respectively. These ratios were generally stable and consistent over the study period, albeit the opioid-related mortality SES gap decreased gradually ($p < 0.01$). CONCLUSION: Area income quintile was found to be highly associated with opioid outcomes. Psychosocial factors (stress, unemployment, housing insecurity) that are typically concentrated in low SES areas may play a significant role in the opioid epidemic. Health policies should address these factors in order to provide effective solutions

Booke F, Fauser D, Reims N, and Bethge M. Unemployment due to the SARS-CoV-2-pandemic among people with and without severe disabilities: a difference-in-differences analysis. Occupational and Environmental Medicine. 2022; 79:494-496.
https://doi.org/10.1136/oemed-2021-108125

Abstract: Objectives: Unemployment reduces health and impairs participation in important areas of life, especially for people with severe disabilities, who tend to have a longer duration of unemployment and are less likely to find new employment than their counterparts without such constraints. Our analysis examines the increase in unemployment due to the SARS-CoV-2 pandemic among people with and without severe disabilities in Germany. Methods:

Monthly cross-sectional data on unemployment for 2019 and 2020 were provided by the Federal Employment Agency. We used a difference-in-differences model to estimate the increase in unemployment attributable to the pandemic. The months April to December 2020 represented the months of exposure to the pandemic. Incidence rate ratios (IRRs) are reported. Results: The increase in unemployment among people with severe disabilities due to the pandemic is 11.2% (IRR 1.112; 95% CI 1.107 to 1.117). People with severe disabilities receiving unemployment benefits due to unemployment lasting less than a year (Social Code III: short-term unemployment) and women have been most affected. Among people without severe disabilities, unemployment has increased by 24.8% due to the pandemic (IRR 1.248; 95% CI 1.246 to 1.249), while people receiving unemployment benefits according to social code III and men have been most affected. Both groups show a varying increase in unemployment depending on the region of residency. Conclusions: The findings show a particularly significant increase in unemployment among people without severe disabilities. People with severe disabilities might be less impacted due to the special legal protection against their dismissal. The clear regional differences in the increase in unemployment suggest a strong influence of regional economics.

Braun A, Franczukowska AA, Teufl I, and Krczal E. The economic impact of workplace physical activity interventions in Europe: a systematic review of available evidence. International Journal of Workplace Health Management. 2022; 15(4):445-466.
https://doi.org/10.1108/IJWHM-04-2021-0105

Denuwara B, Gunawardena N, Dayabandara M, and Samaranayake D. A systematic review and meta-analysis of the effectiveness of individual-level interventions to reduce occupational stress perceptions among teachers. Archives of Environmental & Occupational Health. 2022; 77(7):530-544.
https://doi.org/10.1080/19338244.2021.1958738

Abstract: Teachers are largely affected by OS, during their most productive years, leading to catastrophic physical, psychological, and economic burden on themselves, families and society by large. Teachers are responsible for producing the workforce of any nation, and thus have a major impact indirectly on the economy and health of a nation. There are several individual-level interventions conducted to reduce occupational stress (OS) among teachers. This study was conducted to systematically review and conduct a meta-analysis of the effectiveness of individual-level interventions to reduce occupational stress among teachers. This review was registered in the International Prospective Register of Systematic Reviews (PROSPERO; Registration ID: CRD42020149277) and followed Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. PubMed, Scopus, Cochrane, PsycInfo, and Web of Science databases were searched using predefined search strategies covering the eligibility criteria. Studies were selected in four rounds. Risk of bias assessments were conducted with GRADE recommendations and ROBINS-I criteria for randomized and non-randomized interventions, respectively. Study selection, data extraction and bias

assessments were performed independently by two reviewers with a third reviewer to resolve conflicts. Narrative synthesis of the findings were also performed. Clinical, methodological, and statistical heterogeneity assessments were conduct ed. Meta-analyses were performed with Review Manager 5.3 software using the "generic inverse variance method" with mean difference as the pooled estimate. Sensitivity analyses of the findings was also performed. At the initial search, 293 articles were identified and 29 subsequently selected for synthesis of findings. The findings of the meta-analysis indicated that Cognitive Behavioral Therapy (CBT) and relaxation interventions significantly reduced OS among teachers with an effect size of 6.2 (p < 0.001). Effect size was highest for combined CBT and relaxation interventions which was 6.57 (p < 0.001). Relaxation interventions only and CBT interventions only had effect sizes of 3.35 (p < 0.001) and 3.12 (p = 0.002) respectively. In sensitivity analysis, after removing low-quality studies, CBT interventions only, combined CBT and relaxation interventions and overall effect size were 6.31 (p < 0.00001), 17.36 (p < 0.00001), and 14.55 (p < 0.00001), respectively, ie, substantially greater than with low-quality studies included. Inconclusion, CBT and relaxation interventions reduce OS among teachers and it's most effective when those individual-level interventions are conducted together.

Frost G, Liddle M, Cockayne S, Cunningham-Burley R, Fairhurst C, and Torgerson DJ. Relationship between age, workplace slips and the effectiveness of slip-resistant footwear among healthcare workers. Injury Prevention. 2022; 28(3):256-258.
https://doi.org/10.1136/injuryprev-2022-044533   [open access]

Abstract: Objectives: To explore any age-related trend in workplace slip rate and assess the effectiveness of appropriate slip-resistant footwear in preventing workplace slips by age. Methods: Secondary data analysis of the Stopping Slips among Healthcare Workers trial, a two-arm randomised controlled trial conducted between March 2017 and May 2019. 4553 National Health Service (NHS) staff across seven sites in England were randomised 1:1 to the intervention group (provision of 5* GRIP-rated slip-resistant footwear) or the control group (usual work footwear). The primary outcome was self-reported workplace slips, ascertained primarily through weekly text messages throughout the 14-week trial follow-up and analysed using mixed-effects negative binomial regression. This paper reports a control group-only analysis of the association between age and slip rate, and a full intention-to-treat analysis of the effectiveness of slip-resistant footwear by age. Results: The mean age of participants was 43 years (range 18-74). In the control group-only analysis, slip rate differed by age (p<0.001) with those aged 60+ having double the slip rate of those aged <30 years (95% CI 1.40 to 2.87). In the intention-to-treat analysis, the interaction between allocation and age was statistically significant (p=0.002). In addition, for all age groups except those aged <30 years, the slip rate in the intervention group was statistically significantly lower than the control group; the smallest incidence rate ratio (ie, the biggest effect) was 0.39 (95% CI 0.24 to 0.64) in the 60+ age group. Conclusion: The provision of appropriate slip-resistant footwear was more effective at reducing workplace slips for older NHS staff.

Hagqvist E, Lidwall U, and Leineweber C. Is work-life interference a risk factor for sickness absence? A longitudinal study of the Swedish working population. European Journal of Public Health. 2022; 32(3):398-401.

https://doi.org/10.1093/eurpub/ckac028   **[open access]**

Abstract: Background: While there is increasing literature on the health effects of work-life interference, few studies have investigated the relationship between a direct measure of work-life interference and objective sickness absence measures. The aim of this study is to investigate whether work-life interference is a risk factor for subsequent long-term sickness absence (LTSA). Methods: Data were derived from the Swedish Longitudinal Occupational Survey of Health 2010, 2012, 2014 and 2016. Data were linked to register data on LTSA (having at least one continuous period of medically certified sick leave exceeding 14 days) the following 2 years after each data collection wave. We applied generalized estimating equations, odds ratios (ORs) and 95% confidence intervals (CIs). The sample included 15 244 individuals (43.1% men and 56.9% women). Nearly a fifth of the sample (18.7%, n = 1110) started at least one period of LTSA at any point between 2010 and 2018. Results: Work-life interference was found to be a risk factor for subsequent LTSA (OR = 1.55; 95% CI = 1.44-1.67) even when adjusting for relevant factors including general health (OR = 1.39; 95% CI = 1.29-1.51). We found no significant moderating effect of gender. Conclusion: The results of this study indicate that work-life interference is a risk factor for subsequent LTSA for working men and women in Sweden.

Lee SJ, Lee JH, and Harrison R. Safe patient handling legislation and musculoskeletal disorders among California healthcare workers: analysis of workers' compensation data, 2007-2016. American Journal of Industrial Medicine. 2022; 65(7):589-603.

https://doi.org/10.1002/ajim.23366

Abstract: Background: California requires general acute care hospitals to have a comprehensive plan to prevent patient handling injuries (PHIs) among employees. The California safe patient handling (SPH) law took effect in 2012. This study assessed the impact of the SPH law on workers' compensation claims for musculoskeletal disorders (MSDs) in California hospital workers. Methods: We used California Workers' Compensation Information System data from 2007 to 2016 and analyzed claims for MSDs that occurred in acute care hospitals compared with nursing and residential care facilities. MSD claims were classified into PHI and non-PHI claims. Results: We identified 199,547 MSD claims that occurred during 2007-2016 in acute care hospitals (62.8%) and nursing and residential care facilities (37.2%). MSDs accounted for 42.8% of all claims. Of the MSD claims, 81.0% were strains or sprains and 33.5% of MSDs were related to patient handling activities. From 2011 to 2016, MSD claim rates showed significant reductions among both hospital and nursing/residential care workers. However, the MSD-PHI claim rate showed a significant reduction only among hospital workers (7.3% per year, incidence rate ratio [IRR] = 0.927, 95% confidence interval [CI] 0.903-0.952). There was no significant change among nursing/residential care workers (IRR = 0.990, 95% CI 0.976-1.005). The non-PHI claim rate

showed no significant change among hospital workers (IRR = 0.982, 95% CI 0.956-1.009). Conclusions: Our study identified significant reductions of PHI claims among California hospital workers after the passage of the SPH legislation, suggesting that SPH legislation played a crucial role in reducing the risk of injury among healthcare workers.

Los FS, van der Molen HF, de Boer AGEM, Hulshof CTJ, Ketelaar SM, and Nieuwenhuijsen K. Workers' health surveillance targeting mental health: evaluation of a training. Occupational Medicine. 2022; 72(4):244-247.

https://doi.org/10.1093/occmed/kqab165

Abstract: BACKGROUND: Mental health complaints occur frequently among healthcare workers. A workers' health surveillance mental health module (WHS-MH) was found to be effective in improving work functioning of nurses, although not implemented regularly. Therefore, training for occupational physicians and nurses to facilitate the implementation of WHS-MH was developed and evaluated. AIMS: This study was aimed to evaluate the effect of training on knowledge, self-efficacy and motivation to implement WHS-MH, and to evaluate participants' satisfaction with the training. METHODS: Three-hour training was held among 49 occupational physicians and nurses in the Netherlands. Effect on knowledge, self-efficacy and motivation was assessed using knowledge tests and questionnaires before and immediately after the training. Satisfaction with the training was measured using questionnaires after the training. RESULTS: A mean knowledge test score of 5.3 (SD = 1.6) was found before training, which did not significantly increase after training (M = 5.6, SD = 1.8). In total, 43% agreed or strongly agreed to have sufficient skills to implement WHS-MH, which significantly increased to 78% after the training. Furthermore, 87% agreed or strongly agreed to be motivated to initiate WHS, which significantly increased to 94% after the training. The majority of participants were satisfied with the training. CONCLUSIONS: Training may enhance the implementation of the WHS-MH through increasing self-efficacy and motivation. However, no effect on level of knowledge to implement WHS-MH was found

Mohamed AF, Isahak M, Awg Isa MZ, and Nordin R. The effectiveness of workplace health promotion program in reducing work-related depression, anxiety and stress among manufacturing workers in Malaysia: mixed-model intervention. International Archives of Occupational and Environmental Health. 2022; 95(5):1113-1127.

https://doi.org/10.1007/s00420-022-01836-w

Abstract: Introduction: The implications of work-related stress among manufacturing workers were often unrecognised. The purpose of this study is to determine the effectiveness of the workplace health promotion (WHP) program in reducing depression, anxiety, and stress levels, as well as improving the overall quality of life among Malaysian manufacturing workers. Methods: The study used a randomised controlled trial (RCT) design and included 88 employees from a food and beverage manufacturing factory in Klang Valley, Malaysia. The intervention group received a comprehensive WHP program based on organisational and individual stress management programs that included (i) healthy mental health module, (ii)

anxiety management technique, (iii) mindfulness for stress and (iv) stress at work. The module was delivered through the Occupational Stress Management Course and Employee Assistance Program. The control group received no further intervention other than a general brochure on stress. The study period consisted of an intervention period of 3 months followed by a post-intervention period of 3 months. Measurements were recorded at baseline and at 3 month post-intervention. Outcome measures included the self-perceived depression, anxiety, and stress (DASS-21), participant's quality of life (WHOQOL), coping skills (COPE-28) and job characteristics (JCQ). Results: The intervention group demonstrated a significant reduction in self-perceived stress, anxiety, and depression scores three months post intervention (p ≤ 0.001). All domains of health-related quality of life and coping skills related to social support and problem-solving were significantly improved in the intervention group following the intervention (p < 0.001). In the control group, no significant changes were observed in all the parameters. Conclusion: WHP program shows promising results in improving mental health status, quality of life and coping skills among the manufacturing workers.

Norgaard B, Draborg E, Andreasen J, Juhl CB, Yost J, Brunnhuber K, et al. Systematic reviews are rarely used to inform study design: a systematic review and meta-analysis. Journal of Clinical Epidemiology. 2022; 145:1-13.
https://doi.org/10.1016/j.jclinepi.2022.01.007

Abstract: OBJECTIVE: Our aim was to identify and synthesize the results from meta-research studies to determine whether and how authors of original studies in clinical health research use systematic reviews when designing new studies. STUDY DESIGN AND SETTING: For this systematic review, we searched MEDLINE (OVID), Embase (OVID) and the Cochrane Methodology Register. We included meta-research studies and primary outcome was the percentage of original studies using systematic reviews to design their study. Risk of bias was assessed using an ad hoc created list of ten items. The results are presented both as a narrative synthesis and a meta-analysis. RESULTS: Sixteen studies were included. The use of a systematic review to inform the design of new clinical studies varied between 0% and 73%, with a mean percentage of 17%. The number of components of the design in which information from previous systematic reviews was used varied from three to 11. CONCLUSION: Clinical health research is characterized by variability regarding the extent to which systematic reviews are used to guide the design. An evidence-based research (EBR) approach towards research design when new clinical health studies are designed is necessary to decrease potential research redundancy and increase end-user value

Patel AK, Banga C, and Chandrasekaran B. Effect of an education-based workplace intervention (move in office with education) on sedentary behaviour and well-being in desk-based workers: a cluster randomized controlled trial. International Journal of Occupational Safety & Ergonomics. 2022; 28(3):1655-1663.
https://doi.org/10.1080/10803548.2021.1916221

Abstract: This study aimed to assess the effectiveness of short-term workplace-based physical activity education on altering sitting outcomes, maximal oxygen consumption (VO2max) and occupational well-being. Four office clusters (46 participants) of desk-based workers were randomized to either the move in office with education (MOWE) group or the control (CONT) group for 4 weeks. The outcomes were occupational sedentary time, V_{O2max} and workplace well-being. Data were analysed using non-parametric tests. Our study results did not show any significant change in sitting time or V_{O2max}. Nevertheless, workplace well-being of the MOWE group significantly improved when compared to the CONT group, especially in the domains of work satisfaction (odds ratio 11.67; p = 0.001) and employer care (odds ratio 0.167; p = 0.001). Workplace education (MOWE) improves well-being but may not alter sitting outcomes or VO2max in office workers. Workplace education without policy change may not yield positive health outcomes.

Puszka S, Walsh C, Markham F, Barney J, Yap M, and Dreise T. Towards the decolonisation of disability: a systematic review of disability conceptualisations, practices and experiences of First Nations people of Australia. Social Science & Medicine. 2022; 305:115047.
https://doi.org/10.1016/j.socscimed.2022.115047   [open access]

Abstract: In many settler-colonial countries, Indigenous people do not access disability services at rates commensurate with disability prevalence. Existing research suggests that services often do not reflect Indigenous values and social practices, impacting on accessibility. Furthermore, disability services have historically been implicated in processes of colonisation. There is an urgent need to decolonise disability services. Understanding Indigenous knowledge and experience of disability is a necessary step towards achieving this. We systematically reviewed the disability conceptualisations, practices and experiences of First Nations peoples of Australia. Twelve studies met inclusion criteria. There was a consensus among these studies that Western constructs of disability do not resonate with many First Nations people across Australia. The studies reported that many First Nations people conceptualise most disabilities as unremarkable conditions that reflect the normal range of human diversity, although some conditions may be associated with social stigma. Inclusive attitudes and practices of caregiving in First Nations families facilitate the participation of First Nations people with disabilities in family and community life. However, ableism and racism in broader society combine to exclude many First Nations peoples with disabilities from public spaces and from labour markets. Disability services regularly fail to reflect First Nations values and social practices, and can lead to further disempowerment and marginalisation due to diagnostic processes; displacement from country and communities; gendered discrimination; and poor relationships with service providers. We argue that intersectional experiences of colonialism, racism, ableism and sexism, particularly in disability services, can lead to the marginalisation of First Nations participants and families. The decolonisation of disability services requires services to embrace diverse First Nations values and practices associated with human capability, social participation and caregiving.

Decolonising disability services also necessitates First Nations control of the governance of disability services and reform across service, organisational, systemic and conceptual levels

Spasova S and Regazzoni P. Income protection for self-employed and non-standard workers during the COVID-19 pandemic. International Social Security Review. 2022; 75(2):3-24. https://doi.org/10.1111/issr.12292   **[open access]**
Abstract: Based on original evidence from the European Social Policy Network (ESPN), the article investigates the extent to which self-employed and non-standard workers, who are less protected by "ordinary" social protection, were included in "extraordinary" income protection and job retention schemes during the COVID-19 pandemic in the European Union (EU) and the United Kingdom. When the crisis hit, countries quickly introduced unprecedented emergency income replacement measures for the self-employed. Nevertheless, most of these schemes provided only basic support through lump sums and were, in some cases, subject to a variety of eligibility conditions. Non-standard workers were in general included in job retention schemes, but substantial gaps remained in some countries. The article discusses how such gaps were addressed in five EU Member States. The article concludes by highlighting some policy pointers for better and more adequate "extraordinary" income protection for the self-employed and non-standard workers in times of crisis.

Tapia-Caballero P, Serrano-Fernandez MJ, Boada-Cuerva M, Sora B, and Boada-Grau J. Influence that job characteristics, personality and burnout have on fatigue in professional drivers. International Journal of Occupational Safety & Ergonomics. 2022; 28(3):1331-1341. https://doi.org/10.1080/10803548.2021.1888019
Abstract: Objectives. Professional drivers drive for many hours without rest. This factor, in addition to the characteristics of the job, the vehicle, the environment and the driver, causes driver fatigue. Fatigue is one of the most common risk factors when driving because it causes drowsiness, decreases drivers' attention and may make them fall asleep at the wheel. In this article we propose a predictive model for professional drivers using the following variables: age, number of children, time spent at work, time spent inside the vehicle, personality, job characteristics (JDS), job content (JCQ) and burnout. Method. Participants were 509 professional drivers from various transport sectors recruited by non-probabilistic sampling. SPSS version 25.0 was used for statistical analysis. Results. The predictive capacity of variables that cause driver fatigue was determined. Exhaustion best predicts fatigue positively, while openness to experience best predicts it negatively. Burnout and certain personality characteristics are good predictors, whereas other variables, such as JCQ and JDS, are weak predictors. Conclusions. This study extends our knowledge of the factors that cause fatigue in professional drivers and underlines the importance of designing interventions aimed at reducing the incidence of fatigue, promoting greater driver well-being and lowering the incidence of accidents

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