research alert

June 10, 2022

*Biswas A, Chen C, Prince SA, Smith PM, and Mustard CA. Workers' activity profiles associated with predicted 10-year cardiovascular disease risk. Journal of the American Heart Association. 2022; [epub ahead of print].
https://doi.org/10.1161/JAHA.121.025148   [open access]

Abstract: Background There is a need to explore common activity patterns undertaken by workers and the association between these activity profiles and cardiovascular disease (CVD). This study explored the number and type of distinct profiles of activity patterns among workers and the association between these profiles and predicted 10-year risk for a first atherosclerotic CVD event. Methods and Results Distinct activity patterns from a cross-section of workers' accelerometer data were sampled from Canadian Health Measures Survey participants (5 cycles, 2007-2017) and identified using hierarchical cluster analysis techniques. Covariates included accelerometer wear time, work factors, sociodemographic factors, clinical markers, and lifestyle variables. Associations between activity profiles and high atherosclerotic CVD risk >10% were estimated using robust Poisson regression models. Six distinct activity profiles were identified from 8909 workers. Compared with the "lowest activity" profile, individuals in the "highest activity" and "moderate evening activity" profiles were at 42% lower risk (relative risk [RR], 0.58; 95% CI, 0.47, 0.70) and 33% lower risk (RR, 0.67; 95% CI, 0.44, 0.87) of predicted 10-year atherosclerotic CVD risk of >10%, respectively. "Moderate activity" and "fluctuations of moderate activity" profiles were also associated with lower risk estimates, whereas the "high daytime activity" profile was not statistically different to the reference profile. Conclusions Workers accumulating physical activity throughout the

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day and during recreational hours were found to have optimal CVD risk profiles. Workers accumulating physical activity only during daytime work hours were not associated with reduced CVD risk. Findings can inform alternative strategies to conferring the cardiovascular benefits of physical activity among workers. Large prospective studies are needed to confirm these findings

*Sears JM, Fulton-Kehoe D, and Hogg-Johnson S. Differential underestimation of work-related reinjury risk for older workers: challenges to producing accurate rate estimates. American Journal of Industrial Medicine. 2022; [epub ahead of print].
https://doi.org/10.1002/ajim.23403
Abstract: Background: Older workers are increasingly represented in the U.S. workforce, but frequently work part-time or intermittently, hindering accurate injury rate estimates. To reduce the impact of reporting barriers on rate comparisons, we focused on reinjury (both injury recurrence and new injury) among workers with a workers' compensation claim, assessing: (1) reinjury risk for workers age 65+ versus <65; (2) importance of work-time at-risk measurement for rate estimates and comparisons; and (3) age distribution of potential risk factors. Methods: Washington State workers' compensation claims for a retrospective cohort of workers with work-related permanent impairments were linked to state wage files. Reinjury rates were calculated for the cohort (N = 11,184) and a survey sample (N = 582), using both calendar time and full-time equivalent (FTE)-adjusted time. Risk differentials were assessed using rate ratios and adjusted survival models. Results: The rate ratio for workers age 65+ (vs. <65) was 0.45 (p < 0.001) using calendar time, but 0.70 (p = 0.07) using FTE-adjusted time. Survey-based rates were 35.7 per 100 worker-years for workers age 65+, versus 14.8 for <65. Workers age 65+ (vs. <65) were more likely to work <100% FTE, but were similar regarding job strain, their ability to handle physical job demands, and their comfort reporting unsafe conditions or injuries. Conclusions: Accounting for work-time at risk substantially improves age-based reinjury comparisons. Although the marked elevation in self-reported reinjury risk for older workers might be a small-sample artifact (n = 34), workers age 65+ are likely at higher risk than previously appreciated. Ongoing workforce trends demand increased attention to injury surveillance and prevention for older workers.

*Somani R, Muntaner C, Smith P, Hillan EM, and Velonis AJ. Increased workplace bullying against nurses during COVID-19: a health and safety issue. Journal of Nursing Education and Practice. 2022; 12(9):47-53.
https://doi.org/10.5430/jnep.v12n9p47   [open access]
Abstract: Nurses are the backbone of healthcare organizations. However, as frontline workers, nurses are regularly exposed to perilous conditions and workplace harassment, with a few or no avenues to report or seek adequate support. This causes frustration and stress among nurses and can eventually lead to compromised patient care. This also contributes to workplace bullying, which results in a toxic and stressful work environment. This problem is a global health and safety issue due to its highly negative impact on both individuals and

organizations. Recent studies indicate that the COVID 19 pandemic has significantly increased incidents of workplace bullying against nurses. Several contributing factors have been highlighted, when considering the underlying causes of workplace bullying against nurses, including power disparity, organizational attributes, and the image of nurses, as portrayed in the media. Because the pandemic has brought the challenge of creating a safe work environment for nurses to the fore, now more than ever, healthcare organizations need to take bold actions to protect nurses. Nursing management needs to implement bullying prevention interventions that provide nurses with a safe work environment. Using empirical and theoretical literature as its basis, this paper aims to discuss workplace bullying against nurses and consider how this problem has been impacted by the COVID 19 pandemic. This paper recommends the application of a Socio Ecological Model (SEM), which provides evidence-based interventions intended to reduce workplace bullying against nurses.

Baumann I, Cabib I, Eyjolfsdottir HS, and Agahi N. Part-time work and health in late careers: evidence from a longitudinal and cross-national study. SSM - Population Health. 2022; 18:101091.
https://doi.org/10.1016/j.ssmph.2022.101091   [open access]

Abstract: In this exploratory study, we examine how older workers' part-time employment and health are associated in four countries promoting this type of employment in late careers but with a different welfare regime: the United States, Germany, Sweden, and Italy. Using data from two large representative panel surveys and conducting multichannel sequence analysis, we identified the most typical interlocked employment and health trajectories for each welfare regime and for three different age groups of women and men. We found that there is more heterogeneity in these trajectories in countries with a liberal welfare regime and among older age groups. Overall, women are more strongly represented in the part-time employment trajectories associated with lower health levels. In countries with a social-democratic or corporatist welfare regime, part-time employment in late careers tends to be associated with good health. Our findings suggest that the combination of a statutory right to work part-time in late careers with a more generous welfare regimes, may simultaneously maintain workers' health and motivate them to remain active in the labor force

Bykov KV, Zrazhevskaya IA, Topka EO, Peshkin VN, Dobrovolsky AP, Isaev RN, et al. Prevalence of burnout among psychiatrists: a systematic review and meta-analysis. Journal of Affective Disorders. 2022; 308:47-64.
https://doi.org/10.1016/j.jad.2022.04.005

Abstract: BACKGROUND: Burnout is a consequence of chronic occupational stress exposure. Psychiatrists are prone to burnout due to specific work-related factors. This study examined the burnout prevalence among psychiatrists. METHODS: The study protocol was registered in PROSPERO (CRD42020204615). We searched MEDLINE, EMBASE, CENTRAL, PsycINFO, Web of Science, ClinicalTrials.gov, and OpenGrey for relevant publications. Random-effect meta-analysis was performed. We used subgroup analysis and meta-regression to reveal any

association of geographical region, survey year, participants' age, gender, and response rate with burnout. RESULTS: Thirty-six studies involving 5481 participants were included. The prevalence of overall burnout was 25.9% [11.1%-40.7%] as measured by a Maslach Burnout Inventory (MBI) and 50.3% [30.9%-69.8%] as measured by a Copenhagen Burnout Inventory (CBI). The pooled prevalence was 43.5% [27.9%-59%] for high emotional exhaustion (EE), 28.2% [17.5%-38.9%] for high depersonalization (DP), and 32.4% [3.4%-61.3%] for low personal accomplishment (PA). The mean scores of 22-item MBI subscales were 21.51 [18.64%-24.38%] for EE, 6.57 [5.53%-7.62%] for DP, and 31.83 [25.73%-37.94%] for PA. European psychiatrists revealed (p = 0.045) lower EE score (20.82; 95% CI 7.24-24.41) measured by 22-item MBI compared to their non-European colleagues (24.99; 95% CI 23.05-26.94). Other results include mean scores for 16-item MBI-General Survey, burnout rates, and scores in CBI subscales. LIMITATIONS: The main limitation was high heterogeneity in terms of statistics, screening methods, burnout definitions, and cut-off points utilized in included studies. CONCLUSIONS: Burnout is highly prevalent among psychiatrists. Future research should focus on finding consensus on burnout screening, longitudinal evaluation of psychiatrists' burnout predictors, and development of effective intervention strategies

Chong HT and Collie A. The characteristics of accepted work-related injuries and diseases claims in the Australian coal mining industry. Safety and Health at Work. 2022; 13(2):135-140.
https://doi.org/10.1016/j.shaw.2021.12.701   [open access]
Abstract: BACKGROUND: Coal mining is a hazardous industry. The purpose of the study is to identify the nature of occupational injuries and diseases among coal miners and to determine the factors that affect the rate of injury and duration of time loss from work. METHODS: A retrospective cohort study was conducted using accepted workers' compensation claims data of 30,390 Australian coal miners between July 2003 and June 2017. RESULTS: Musculoskeletal and fracture conditions accounted for approximately 60% of claims in all occupational groups. Cox regression analysis showed that older age and female gender were significant predictors of longer time off work. Injury types and occupations were associated with work time loss: mental health conditions, and machine operators and drivers had significantly longer durations of time off work. CONCLUSION: Future research can further address how these factors led to longer time off work so that coal industry regulators, employers, and healthcare providers can target interventions more effectively to these at-risk workers

Fishwick D, Harding AH, Chen Y, Pearce N, and Frost G. Asthma in pesticide users: an update from the Great Britain Prospective Investigation of Pesticide Applicators' Health (PIPAH) cohort study. Occupational & Environmental Medicine. 2022; 79(6):380-387.
https://doi.org/10.1136/oemed-2021-107486   [open access]
Abstract: Objectives: To define the prevalence and incidence of asthma in a large working population of pesticide workers and to assess which exposures are potentially of relevance to causing or aggravating this condition. Methods: A baseline cross-sectional study at

recruitment (2013-2017, n=5817), with follow-up in 2018 (n=2578), was carried out in predominantly Great Britain based pesticide workers. At baseline, participants completed a health and work questionnaire which included questions on demographic, lifestyle, socioeconomic and work-related factors, pesticide use and doctor diagnosed health conditions. In January 2018, a follow-up questionnaire focused on respiratory ill health, with questions covering self-reported respiratory symptoms and doctor diagnosed respiratory conditions. The associations of various exposures with asthma were estimated using logistic regression adjusting for age as a continuous variable, and for sex where possible. An estimate of hours worked with pesticides in the previous year was calculated for each participant. Results: At baseline, 608 (10.4%) had doctor diagnosed asthma. In 2018 the figure was 297 (11.5% of the follow-up population); the incidence of new asthma cases between surveys was 1.7 cases per 1000 participants per year. At follow-up, 18.1% reported wheeze in the last 12 months, 73.2% of those with self-reported asthma noted it to be persistent and using a more specific definition of asthma (doctor diagnosed asthma with at least one asthma-related symptom in the last year); 6.8% (95% CI 5.9% to 7.9%) fulfilled this definition. At follow-up, 127 participants felt that their asthma was caused or made worse by their work, with 77 (63.6%) nominating organic dust, 13 (10.7%) unspecified dust, 12 (9.9%) chemicals, 9 (7.4%) mixed exposures, 7 (5.8%) physical agents and 3 (2.5%) fumes or other irritants. There was little or no association between high pesticide exposure and doctor diagnosed asthma or self-reported recent wheeze, although there was an elevated risk for work-related wheeze (OR for high exposure=2.67; 95% CI 1.16 to 6.18). High pesticide exposure (high vs low exposure category OR 2.68, 95% CI 1.28 to 5.60) was also associated with work-related chest tightness. Exposure to organic dusts was associated (significantly, p=0.026) with persistent asthma when adjusted for the effects of age and smoking. Conclusions: This large study of pesticide workers has identified expected levels of doctor diagnosed asthma, and high levels of self-reported respiratory symptoms. Pesticide exposure was associated with an increased risk of self-reported work-related wheeze, but not with asthma or wheeze in general. Further work is needed to identify more clearly which exposures within a complex mixed exposure profile are likely causative in order to best focus interventions to reduce work-related asthma and related conditions.

Hom GL, Kalur A, Iyer A, and Singh RP. Ocular occupational injuries in the United States between 2011-2018. Occupational Medicine. 2022; 72(4):255-259.
https://doi.org/10.1093/occmed/kqab189
Abstract: BACKGROUND: Current advocacy literature in occupational eye injury focuses on demographics and industries with the largest number of injuries. Additional demographics may also benefit from targeted advocacy that experience a greater proportion of eye injuries relative to all other occupational injuries. AIMS: To characterize which demographic groups are experiencing occupational ocular injuries in the United States. METHODS: This cross-sectional study examined de-identified individuals who experienced ocular workplace injuries from 2011 to 2018 and were reported to the survey of occupational injuries and illnesses

(SOII). Data were stratified and analysed based on SOII reported characteristics. RESULTS: 197 160 out of 9 197 350 (2%) ocular workplace injuries were reported. 152 940 (78%) injuries occurred in males. Relative to all workplace injuries experienced by industry, farming, fishing and forestry saw the highest percentage of ocular injuries (6%), followed by production, and installation (4%), maintenance and repairs (4%). Employers cited contact with objects (65%) and exposure to harmful substances (26%) as leading reasons for eye injury. Relative to all injuries, chemicals frequently injured the eye (27%). CONCLUSIONS: A disproportionate number of American ocular workplace injuries occur in males who are likely relatively young. Industries such as fishing, farming and forestry see a high frequency of ocular injury relative to all occupational injuries. Hispanics see a slight increase in ocular occupational injury relative to other injuries. Advocates of occupational ocular safety should consider expanding their targeted audiences to include individuals who are part of demographics and occupations that more frequently experience an ocular workplace injury relative to all injuries

Kokubun K, Ino Y, and Ishimura K. Social and psychological resources moderate the relation between anxiety, fatigue, compliance and turnover intention during the COVID-19 pandemic. International Journal of Workplace Health Management. 2022; 15(3):262-286. https://doi.org/10.1108/IJWHM-07-2021-0142   [open access]

Abstract: Purpose The workplace health management lessons to be learned from the pandemic are important. However, few studies have examined the relationship between workplace anxiety, resources and behaviors during the pandemic. Therefore, this paper aims to investigate the relationship between anxiety, fatigue, compliance, turnover intention and social and psychological resources during the COVID-19 pandemic by applying the conservation of resources (COR) theory. Design/methodology/approach Path analysis was carried out using data obtained from a questionnaire survey conducted on 2,973 Chinese employees of Japanese companies in China. Findings The analysis showed that anxiety had a positive correlation with compliance, but simultaneously had a positive correlation with fatigue and turnover intention; psychological resources moderated to weaken the relationships between anxiety and compliance/fatigue; social resources moderated to strengthen the negative correlation between compliance and willingness to leave. Research limitations/implications This study targeted employees of Japanese companies in China. Therefore, in the future, it is necessary to verify generalizability as to whether it applies to employees of companies of other nationalities in other countries. Also, the authors used newly developed scales instead of the general psychological scales. Therefore, it is necessary to verify the reproducibility using a more general scale. Practical implications Anxiety encourages compliance practices but also increases fatigue and willingness to leave. Therefore, a method of inciting anxiety and making employees follow rules reduces the strength of an organization. To overcome this dilemma, managers need to provide psychological and social resources. Originality/value This study is the first to show how effective social and psychological resources are in the management of anxiety and fatigue in

achieving high performance during the COVID-19 pandemic. This study was conducted in the very early days of the COVID-19 pandemic with the cooperation of employees working for Japanese companies in China. However, the importance of utilizing resources in a crisis revealed by this study can be applied to all kinds of disasters.

Lee Y and Park H. Working hours and depressive and anxiety symptoms according to shift work and gender. Journal of Occupational & Environmental Medicine. 2022; 64(5):e316-e321.

https://doi.org/10.1097/JOM.0000000000002515

Abstract: Objectives: We aimed to analyze the relationship between long working hours and depressive and anxiety symptoms according to gender and shift work. Methods: After dividing shift and day workers according to sex, multiple logistic regression analysis was performed to investigate the relationship between weekly working hours and both depressive and anxiety symptoms. Results: Both depressive and anxiety symptoms were significantly higher in weekly working 40 to 52 and more than 52 hours compared with working fewer than 40 hours in female day workers. Male day workers and both male and female shift workers, showed the association between weekly working more than 52 hours and both depressive and anxiety symptoms, compared with working fewer than 40 hours. Conclusions: Our study demonstrated a significant association between long working hours and depression and anxiety symptoms, regardless of gender and shift work schedule.

Lunny C, Reid EK, Neelakant T, Chen A, Zhang JH, Shinger G, et al. A new taxonomy was developed for overlap across 'overviews of systematic reviews': a meta-research study of research waste. Research Synthesis Methods. 2022; 13(3):315-329.

https://doi.org/10.1002/jrsm.1542

Abstract: Multiple 'overviews of reviews' conducted on the same topic ("overlapping overviews") represent a waste of research resources and can confuse clinicians making decisions amongst competing treatments. We aimed to assess the frequency and characteristics of overlapping overviews. MEDLINE, Epistemonikos and Cochrane Database of Systematic Reviews were searched for overviews that: synthesized reviews of health interventions and conducted systematic searches. Overlap was defined as: duplication of PICO eligibility criteria, and not reported as an update nor a replication. We categorized overview topics according to 22 WHO ICD-10 medical classifications, overviews as broad or narrow in scope, and overlap as identical, nearly identical, partial, or subsumed. Subsummation was defined as when broad overviews subsumed the populations, interventions and at least one outcome of another overview. Of 541 overviews included, 169 (31%) overlapped across similar PICO, fell within 13 WHO ICD-10 medical classifications, and 62 topics. 148/169 (88%) overlapping overviews were broad in scope. Fifteen overviews were classified as having nearly identical overlap (9%); 123 partial overlap (73%), and 31 subsumed (18%) others. One third of overviews overlapped in content and a majority covered broad topic areas. A multiplicity of overviews on the same topic adds to the ongoing waste of

research resources, time, and effort across medical disciplines. Authors of overviews can use this study and the sample of overviews to identify gaps in the evidence for future analysis, and topics that are already studied, which do not need to be duplicated

Mayer B, Helm S, Barnett M, and Arora M. The impact of workplace safety and customer misbehavior on supermarket workers' stress and psychological distress during the COVID-19 pandemic. International Journal of Workplace Health Management. 2022; 15(3):339-358.
https://doi.org/10.1108/IJWHM-03-2021-0074   [open access]

Abstract: Purpose Essential frontline workers in the retail sector face increased exposure risks to coronavirus disease 2019 (COVID-19) due to frequent interactions with the general public. Often these interactions are fraught with controversies over public safety protocols. The purpose of this study is to examine the impacts of frontline workers' perceptions of workplace safety and customer misbehaviors on their stress and psychological distress to inform managing workplace health and safety during public health crises. Design/methodology/approach The authors conducted an online survey of 3,344 supermarket workers in the state of Arizona (US) during the state's first COVID-19 pandemic wave in July 2020. Measures included mental health distress, and perceptions of workplace safety and customer behaviors. The authors utilized a mixed-methods approach combining multiple regression analyses with qualitative analyses of open-ended comments. Findings Workers reported high rates of stress and psychological distress. Increases in mental health morbidity were correlated with perceptions of being unsafe in the workplace and concerns about negative customer encounters. Qualitative analyses reveal frustration with management's efforts to reduce risks intertwined with feelings of being unsafe and vulnerable to threatening customer encounters. Practical implications The findings highlight the need to provide and enforce clear safety guidelines, including how to manage potential hostile customer interactions, to promote positive health workplace management during a pandemic. Originality/value This study is among the first to assess the COVID-19 pandemic's impact on the mental health of non-health care frontline essential workers and presents novel insights regarding perceived customer misbehavior and need for management support and guidance in a public health crisis.

Nowrouzi-Kia B, Nixon J, Ritchie SD, Wenghofer EF, VanderBurgh D, and Sherman JE. Examining the quality of work-life of paramedics in northern Ontario, Canada: a cross-sectional study. Work. 2022; 72(1):135-147.
https://doi.org/10.3233/WOR-205025

Abstract: Background: Paramedics are exposed to multiple stressors in the workplace. They are more likely to develop occupational-related stress conditions compared to other occupations. This study focused on understanding the factors affecting QoWL of paramedics in northern Ontario, Canada; a particular focus was on understanding the personal and organizational factors, such as practicing community paramedicine (CP), which may be

associated with Quality of Work Life (QoWL). Methods: Paramedic QoWL was assessed using an online survey that was distributed to approximately 879 paramedics across northern Ontario. The survey included the 23-Item Work- Related Quality of Work Life Scale. Data analysis involved linear regressions with nine predictor variables deemed to be related to QoWL for paramedics with QoWL and its six subscales as dependent variables. Multiple linear regressions were used to assess the personal and organizational factors, such as practicing of CP, which predicted QoWL. Results: One hundred and ninety-seven paramedics completed the questionnaire. Overall, the mean QoWL score of all paramedic participants was 73.99, and this average compared to relevant published norms for other occupations. Factors that were most associated with higher QoWL were, experience practicing CP ($p < 0.05$), number of sick days/year ($p < 0.01$), and higher self- rated mental health ($p < 0.001$). Conclusions: Higher paramedic QoWL appears to be associated with many factors such as number of sick days per year, self-rated mental health, and participation in CP. EMS organizations should consider establishing necessary workplace health promotion strategies that are targeted at improving QoWL for paramedics.

Potegal M, Htet L, and Sartor H. Levels of aggression escalation in adult/geriatric occupational therapy workplaces. Psychological Reports. 2022; [epub ahead of print].
https://doi.org/10.1177/00332941221100469

Abstract: Workplace aggression can escalate from verbal to physical, adding risk of physical injury to negative psychological impact. Understanding escalation is necessary to develop effective violence intervention/prevention programs, but its occurrence is not well documented. An online survey determined if and how aggression escalates in occupational therapy (OT) workplaces. Because local culture can influence workplace events we compared surveys from northeastern states with the lowest rates of homicide to southeastern states with the highest. Ninety four OTs working in southeastern or northeastern states reported details of the most recent verbal and/or physical aggressive event initiated by clients (NIOSH Type 2) or staff (NIOSH Type 3) they witnessed or experienced in the workplace within the last year. Aggressor status, motivation, actions; therapist reactions, injuries and psychological sequelae were queried in logical order. Behavior inter-correlation followed by cluster analysis determined if levels of escalation could be detected. Analyses grouped events into five escalation levels in which progressively more hostile or damaging behaviors were added at each successive level. Higher levels involved known risk factors: Younger, reactively angry clients with prior aggression histories escalated attacks to involve restraint, calls for help and physical injury. Southeastern aggressor/target interactions appeared more combative, seemingly regardless of personal risk. Remarkably, northeastern OTs reported significantly more positive and fewer negative feelings across levels of escalation. OT workplace aggression occurs frequently, can escalate to injurious levels and requires prevention/intervention. How therapists maintain positive attitudes in the face of violence deserves further study

Ropponen A, Narusyte J, Wang M, Karkkainen S, Mather L, Blom V, et al. Role of social benefits for future long-term sickness absence, disability pension and unemployment among individuals on sickness absence due to mental diagnoses: a competing risk approach. International Archives of Occupational & Environmental Health. 2022; 95(4):867-876.

https://doi.org/10.1007/s00420-021-01825-5   [open access]

Abstract: Purpose: To investigate associations between social benefits and disability pension (DP), long-term sickness absence (LTSA, = 90 days), or unemployment among Swedish twins with sickness absence (SA) due to mental diagnoses. Methods: This population-based prospective twin study included register data on first incident SA spell (< 90 days) due to mental diagnoses (ICD 10 codes F00-F99) during the follow-up 2005-2016. SA < 90 days due to other diagnoses than mental diagnoses or any other social insurance benefit was identified for the preceding year of the first incident SA spell due to mental diagnoses (coded yes/no). Comparing those with any previous social benefits vs without, cumulative incidence curve to compare time to an event, and Cox proportional hazards models for cause-specific hazard ratios (HR, 95% confidence intervals, CI) treating first incident DP, LTSA and unemployment as competing risks were modeled. Results: During follow-up, 21 DP, 1619 LTSA, and 808 unemployment events took place. Compared to those without, those with at least one benefit had a higher risk for DP (HR 5.03; 95%CI 1.80, 14.01), LTSA (1.67; 1.50, 1.84) and unemployment (1.24; 1.03, 1.50). The cumulative incidence for DP was very low, < 1%, for LTSA 80% with any previous social benefits vs. 60% without, and for unemployment = 5%. Conclusion: Social benefits received during the preceding year of SA due to mental diagnoses (< 90 days) predict DP, LTSA, and unemployment. Hence, previous social benefits may provide means for early identification of persons at risk for exit from labor market.

Tai K, Lee K, Kim E, Johnson TD, Wang W, Duffy MK, et al. Gender, bottom-line mentality, and workplace mistreatment: the roles of gender norm violation and team gender composition. Journal of Applied Psychology. 2022; 107(5):854-865.

https://doi.org/10.1037/apl0000936

Abstract: Although gender has been identified as an important antecedent in workplace mistreatment research, empirical research has shown mixed results. Drawing on role congruity theory, we propose an interactive effect of gender and bottom-line mentality on being the target of mistreatment. Across two field studies, our results showed that whereas women experienced more mistreatment when they had higher levels of bottom-line mentality, men experienced more mistreatment when they had lower levels of bottom-line mentality. In another field study, using round-robin survey data, we found that team gender composition influenced the degree to which the adoption of a bottom-line mentality by female team members was perceived to be a gender norm violation, which subsequently predicted their likelihood of being mistreated. Specifically, women who had higher (vs. lower) levels of bottom-line mentality were more likely to be perceived to violate gender norms in teams with a lower proportion of women, and in turn, perceived gender norm violation was

Waongenngarm P, van der Beek AJ, Janwantanakul P, Akkarakittichoke N, and Coenen P. Can the Borg CR-10 scale for neck and low back discomfort predict future neck and low back pain among high-risk office workers? International Archives of Occupational & Environmental Health. 2022; [epub ahead of print].
https://doi.org/10.1007/s00420-022-01883-3

Abstract: Purpose: Perceived discomfort could indicate an early sign of pain, for example, as a result of a biomechanical load on the musculoskeletal system. Assessing discomfort can, therefore, help to identify workers at increased risk of musculoskeletal disorders for targeted intervention development. We aimed: (1) to identify the optimal cut-off value of neck and low back discomfort among office workers and (2) to evaluate its predictive validity with future neck and low back pain, respectively. Methods: At baseline healthy participants (n = 100) completed questionnaires, including the Borg CR-10 discomfort scale (on a 0-10 scale), and were followed for six months, during which musculoskeletal pain was assessed monthly. Logistic regression analyses were performed to assess the associations of baseline discomfort with the onset of future neck or low back pain. Sensitivity, specificity, and the area under the receiver operating characteristics curve were estimated to identify the optimal discomfort cut-off value predicting future pain. Results: Borg CR-10 scores = 3.5 for perceived neck and low back discomfort had acceptable sensitivity and specificity to predict future neck and low back pain, respectively. Perceived discomfort at baseline as a dichotomous measure (using the = 3.5 cut-off) was a statistically significant predictor of future neck pain (OR = 10.33) and low back pain (OR = 11.81). Conclusion: We identified the optimal cut-off value of the Borg CR-10 discomfort scale to identify office workers at increased risk of developing neck and low back pain. These findings might benefit ergonomists, primary health care providers, and occupational health researchers in developing targeted interventions.

Zhan X, Wu W, Shen L, Liao W, Zhao Z, and Xia J. Industrial internet of things and unsupervised deep learning enabled real-time occupational safety monitoring in cold storage warehouse. Safety Science. 2022; 152:105766.
https://doi.org/10.1016/j.ssci.2022.105766

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