

IWH Research Alert
July 9, 2021

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***Fan J, Senthanaar S, Macpherson RA, Sharpe K, Peters CE, Koehoorn M, et al. An umbrella review of the work and health impacts of working in an epidemic/pandemic environment. *International Journal of Environmental Research and Public Health*. 2021; 18(13):6828.**

<https://doi.org/10.3390/ijerph18136828> [open access]

Abstract: This umbrella review of reviews examined the evidence on the work and health impacts of working in an epidemic/pandemic environment, factors associated with these impacts, and risk mitigation or intervention strategies that address these factors. We examined review articles published in MEDLINE, PsycINFO and Embase between 2000 and 2020. Data extracted from the included reviews were analyzed using a narrative synthesis. The search yielded 1524 unique citations, of which 31 were included. Included studies were focused on health care workers and the risk of infection to COVID-19 or other respiratory illnesses, mental health outcomes, and health care workers' willingness to respond during a public health event. Reviews identified a variety of individual, social, and organizational factors associated with these work and health outcomes as well as risk mitigation strategies that addressed study outcomes. Only a few reviews examined intervention strategies in the



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workplace such as physical distancing and quarantine, and none included long-term outcomes of exposure or work during an epidemic/pandemic. Findings suggest a number of critical research and evidence gaps, including the need for reviews on occupational groups potentially exposed to or impacted by the negative work and health effects of COVID-19 in addition to health care workers, the long-term consequences of transitioning to the post-COVID-19 economy on work and health, and research with an equity or social determinants of health lens

***Perri M, McColl MA, Khan A, and Jetha A. Scanning and synthesizing Canadian policies that address the school-to-work transition of youth and young adults with disabilities. Disability and Health Journal. 2021; [epub ahead of print].**

<https://doi.org/10.1016/j.dhjo.2021.101122>

Abstract: **BACKGROUND:** Disability faced by a young person can impact the school-to-work transition and shape health and well-being over the life course. Unique barriers to entry and advancement within the labor market that are relevant to young people with disabilities underscore the need for tailored policy-level supports. **OBJECTIVES:** To examine and describe policies that support the school-to-work transition of young people with disabilities in Canada. **METHODS:** A scan of policies which focused on the school-to-work transition of young people with disabilities across Canada was conducted between June 2019 and January 2020. Searches were completed within federal, provincial and territorial policy portals. Each policy relating to employment participation of people with disabilities was summarized. Policies that focused on the school-to-work-specific were synthesized using Bemelmans-Vidic, Rist and Vedung's policy tool framework. **RESULTS:** A total of 36 policies were identified by our scan that focused on the employment of people with disabilities. Only five policies explicitly addressed the school-to-work transition. All existing policies were implemented at the provincial level and aimed to promote entry into employment. The synthesis of policies revealed that financial policy tools were primarily used to incentivize employment, provision of workplace accommodations, or the development and implementation of job readiness programs. **CONCLUSION:** Our analysis of federal, provincial and territorial policies in Canada uncovered a limited number of policies that



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specifically support the school-to-work transition. Addressing these policy gaps can increase the inclusion of young people with disabilities in the labor market

Alexander BM, Wurzelbacher SJ, Zeiler RJ, and Naber SJ. Lessons learned from Ohio workers' compensation claims to mitigate hazards in the landscaping services industry. American Journal of Industrial Medicine. 2021; [epub ahead of print].

<https://doi.org/10.1002/ajim.23261>

Abstract: **BACKGROUND:** The landscaping services industry is one of the more dangerous in the United States, with higher rates of both fatal and nonfatal injuries than the all-industry average. This study uses claims from the Ohio Bureau of Workers' Compensation (OHBWC) database to identify high rates of occupational injuries and illnesses in this industry in Ohio. The causes of those illnesses and injuries are highlighted to identify common factors. **METHODS:** The OHBWC database includes injured-worker industry identification, occupation, business size, demographics, diagnoses, and free-text descriptions of injury circumstances. We identified landscaping service industry claims from 2001 to 2017, and describe annual claim counts and rates. **RESULTS:** Over the 17-year period, 18,037 claims were accepted, with "Struck by object or equipment" and "Overexertion involving outside sources" being the most common events or exposures. Sprains and fractures were the most prevalent of the more serious lost-time (LT) injuries. Free-text descriptions of claims indicate that arborist work and loading/unloading of work vehicles and trailers are particularly hazardous. Younger and shorter-tenured workers were injured most frequently, although the average workers' age was higher for LT claims. The total cost of claims to the OHBWC from the landscaping services industry for 2001-2017 was over \$226,000,000. Almost \$214,000,000, or 94.4%, was for LT injuries and illnesses, even though LT claims comprise only 18% of total claims. **CONCLUSIONS:** Targeted improvements in landscaper safety could come from controlling events leading to LT claims. Engineering controls and improved training are strongly recommended to reduce falls, overexertion, and struck-by injuries

Benson C, Dimopoulos C, Argyropoulos CD, Varianou Mikellidou C, and Boustras G. Assessing the common occupational health



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hazards and their health risks among oil and gas workers. *Safety Science*. 2021; 140:105284.

<https://doi.org/10.1016/j.ssci.2021.105284>

Campos JADB, Martins BG, Campos LA, de Fatima V, and Maroco J. Symptoms related to mental disorder in healthcare workers during the COVID-19 pandemic in Brazil. *International Archives of Occupational & Environmental Health*. 2021; 94(5):1023-1032.

<https://doi.org/10.1007/s00420-021-01656-4> [open access]

Abstract: Background: Studies of previous pandemics indicate that healthcare workers have a high risk of developing symptoms related to mental health, especially depression, anxiety, and stress. Objective: To identify mental disorder symptoms among Brazilian healthcare workers during the Sars-Cov-2 pandemic and compare findings in different work categories. Methods: This was an online cross-sectional study. Information related to the pandemic and mental disorder symptoms was collected. The Depression, Anxiety, and Stress Scale and the Impact of Event Scale-revised were used. Associations were estimated by the chi-square test. The mean scores were compared among work categories with ANOVA ($\alpha = 5\%$) and the prevalence of symptoms was estimated. Results: 1,609 healthcare workers participated in the survey [mean age: 36.9 (SD = 11.6) years, women = 83.6%]. There was no association between work category and changes in mental health during the pandemic ($p = 0.288$) or prevalence of unsafe feeling ($p = 0.218$). A significant relationship was observed between maintaining work activities during the pandemic and work category ($p < 0.001$). Physicians had the lowest out-of-work prevalence (9.5%) while dentists had the highest (32.3%). Physicians and nurses showed the highest prevalence of in-person work routine. Psychologists presented the highest prevalence of remote work (64.0%) while dentists had the lowest (20.2%). A high prevalence of depression (D), anxiety (A), and stress (S) symptoms was observed in all professional categories (D: 57.2, 95% CI 48.3-66.1%; A: 46.20%, 95% CI = 37.2-55.2%; S: 55.80%, 95% CI = 46.8-64.8%), with physicians (D = 38.4%, A = 25.80%, S = 37.90%), psychologists (D = 50.2%, A = 39.0%, S = 43.1%), and nurses (D = 50.0%, A = 40.9%, S = 49.0%) having significantly lower scores. Psychologists had the lowest pandemic-related psychological impact



(42.70%, 95% CI 36.8-48.6%). Conclusion: Extreme changes in the work routine of dentists and psychologists and an overall high prevalence of mental symptoms due to the pandemic were found. Researchers should focus on gathering information that can identify workers at increased risk of mental illness to guide discussions and develop actions to minimize the harm of the pandemic. In addition, we suggest that healthcare and support systems urgently adopt mental health care measures with specialized professionals to protect the psychological well-being of the healthcare community.

Cheng WJ, Harma M, Koskinen A, Kivimaki M, Oksanen T, and Huang MC. Intraindividual association between shift work and risk of drinking problems: data from the Finnish Public Sector Cohort. Occupational & Environmental Medicine. 2021; 78:465-471.

<https://doi.org/10.1136/oemed-2020-107057>

Abstract: Objectives: Studies concerning the association between shift work and drinking problems showed inconsistent results. We used data from a large occupational cohort to examine the association between shift work and different types of drinking behaviour. Methods: A total of 93 121 non-abstinent workers from the Finnish Public Sector Study were enrolled in the study. Six waves of survey data were collected between 2000 and 2017. Work schedules were categorised as regular day, non-night shift and night shift work, and shift intensities were calculated from registered working hour data. Two indicators of adverse drinking behaviour were measured: at-risk drinking (>7 and >14 drinks per week in women and men, respectively) and high-intensity drinking (measured as pass-out experience). Intraindividual analysis was conducted using fixed-effects regression to examine the association between shift work and drinking behaviours. Results: Compared with regular day work, night shift work was associated with an increased risk of high-intensity drinking (OR 1.28, 95% CI 1.07 to 1.52) but a lower risk of at-risk drinking (OR 0.85, 95% CI 0.74 to 0.99). Shift workers who worked long shifts had a lower risk of at-risk drinking compared with those who rarely worked long shifts (OR 0.58, 95% CI 0.37 to 0.93). Conclusions: Associations between shift work and alcohol use vary according to drinking patterns. Workers engaged in high-intensity



drinking more often during night shift schedules compared with day work, but did not drink averagely higher volume.

Eskilsson T, Norlund S, Lehti A, and Wiklund M. Enhanced capacity to act: managers' perspectives when participating in a dialogue-based workplace intervention for employee return to work. Journal of Occupational Rehabilitation. 2021; 31(2):263-274.

<https://doi.org/10.1007/s10926-020-09914-x> [open access]

Abstract: Purpose To explore if and how a dialogue-based workplace intervention with a convergence dialogue meeting can support a return to work process from the managers' perspective. Methods Individual interviews were conducted with 16 managers (10 women and 6 men) who had an employee on sick leave because of stress-induced exhaustion disorder. The manager and employee participated in a dialogue-based workplace intervention with a convergence dialogue meeting that was guided by a healthcare rehabilitation coordinator. The intervention aimed to facilitate dialogue and find concrete solutions to enable return to work. The interviews were analyzed by the Grounded Theory method. Results A theoretical model was developed with the core category enhancing managerial capacity to act in a complex return to work process, where the managers strengthened their agential capacity in three levels (categories). These levels were building competence, making adjustments, and sharing responsibility with the employee. The managers also learned to navigate in multiple systems and by balancing demands, control and support for the employee and themselves. An added value was that the managers began to take preventive measures with other employees. When sick leave was caused only by personal or social issues (not work), workplace actions or interventions were difficult to find. Conclusions From the managers' perspective, dialogue-based workplace interventions with a convergence dialogue meeting and support from a rehabilitation coordinator can strengthen managerial competence and capacity to act in a complex return to work process

Fabius R and Phares S. Companies that promote a culture of health, safety, and wellbeing outperform in the marketplace. Journal of Occupational & Environmental Medicine. 2021;



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63(6):456-461.

<https://doi.org/10.1097/JOM.0000000000002153>

Abstract: OBJECTIVE: The objective of this research is to test the hypothesis that companies distinguished by their commitment to their workforce's health, safety, and well-being outperform in the marketplace. METHODS: To test this, we analyzed the real-world stock market performance of an investment fund of publicly traded companies selected on evidence demonstrating their pursuit of a culture of health, safety, and well-being. RESULTS: This fund outperformed the market by 2% per year, with a weighted return on equity of 264% compared with the S&P 500 return of 243% over a 10-year period. CONCLUSIONS: Employers, fund managers, and fund investors would be well served by including strategies that assess a company's commitment to the health, safety, and well-being of their workforce when evaluating investments in their enterprise and portfolios

Friel CP, Pascual CB, Duran AT, Goldsmith J, and Diaz KM. Joint associations of occupational standing and occupational exertion with musculoskeletal symptoms in a US national sample.

Occupational & Environmental Medicine. 2021; 78:494-499.

<https://doi.org/10.1136/oemed-2020-106911>

Abstract: OBJECTIVE: Observational studies have linked occupational standing or walking to musculoskeletal pain. These prior studies, however, are flawed as few accounted for physical exertion; a potential confounder that accompanies many standing-based occupations. The purpose of this study was to examine the individual and joint associations of occupational standing/walking and exertion with musculoskeletal symptoms. METHODS: Data for this analysis come from the 2015 National Health Interview Survey, a US nationally representative survey. Occupational standing/walking and exertion were assessed by self-report on a 5-point Likert scale. The presence of musculoskeletal symptoms (pain, aching and stiffness) for upper extremities (neck, shoulders, elbows, wrists and fingers), lower extremities (hips, knees, ankles and toes) and lower back was also assessed. RESULTS: Occupational standing/walking was associated with a greater likelihood of upper extremity, lower extremity and lower back musculoskeletal symptoms; however, associations were attenuated and no longer significant with



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adjustment for exertion. When stratified by levels of occupational exertion, occupational standing/walking was associated with musculoskeletal symptoms only among the group with high exertion (eg, OR=1.69 (95% CI: 1.48 to 1.94) for lower back symptoms comparing high/high for standing or walking/exertion vs low/low). Among groups with low exertion, occupational standing/walking was not associated with musculoskeletal symptoms (eg, OR=1.00 (95% CI: 0.85 to 1.16) for lower back symptoms comparing high/low for standing or walking/exertion vs low/low). **CONCLUSION:** Results from this US representative survey suggest that the association between occupational standing/walking and musculoskeletal symptoms is largely driven by the co-occurrence of occupational exertion and does not provide evidence that standing or walking incurs adverse musculoskeletal symptoms

Hawkins D. Understanding the role of work in mortality: making the best use of available US death certificate occupation data and opportunities for improvements. Journal of Occupational & Environmental Medicine. 2021; 63(6):503-507.

<https://doi.org/10.1097/JOM.0000000000002177>

Abstract: Occupational disparities in mortality are a concern in public health. Understanding these disparities is important for identifying high-risk occupations for intervention and occupational factors that may be contributing to high risk for primary prevention. Using data from death certificates is a useful strategy for tracking occupational disparities in mortality. There are a number of challenges associated with working with this data. This paper describes how to access death certificate data, code occupational information from these death certificates, calculate mortality rates by occupation, and combine death certificate data with data from other sources. Limitations of existing death certificate occupation data are described along with recommendations about how to improve the collection of occupation information for death certificates. Finally, a proposal for the development of a national occupational mortality surveillance system is presented

Karabinski T, Haun VC, Nubold A, Wendsche J, and Wegge J. Interventions for improving psychological detachment from work: a meta-analysis. Journal of Occupational Health



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Psychology. 2021; 26(3):224-242.

<https://doi.org/10.1037/ocp0000280>

Abstract: Psychological detachment from work during off-job time is crucial to sustaining employee health and well-being. However, this can be difficult to achieve, particularly when job stress is high and recovery is most needed. Boosting detachment from work is therefore of interest to many employees and organizations, and over the last decade numerous interventions have been developed and evaluated. The aim of this meta-analysis was to review and statistically synthesize the state of research on interventions designed to improve detachment both at work and outside of it. After a systematic search (covering the period 1998-2020) of the published and unpublished literature, 30 studies with 34 interventions (N = 3,725) were included. Data were analyzed using a random-effects model. Interventions showed a significant positive effect on detachment from work ($d = 0.36$) on average. Moderator analyses revealed that it did not matter how the different studies conceptualized detachment but that the context in which detachment was measured (outside or at work) significantly influenced intervention effectiveness. Furthermore, using the stressor-detachment model as the organizing framework, we found that while interventions addressing job stressors or altering primary and secondary appraisal were all effective, only the interventions that addressed primary appraisal were more effective than those that did not. Additionally, while the delivery format did not moderate intervention effectiveness, interventions with longer durations and higher dosages were more effective than shorter and lower dosage interventions. Finally, interventions were more effective among older participants and participants with initial health or recovery-related impairments. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

Lettieri A, Soto-Perez F, Franco-Martin MA, de Borja Jordan de Urries F, Shiells Kate R, and Diez E. Employability with mental illness: the perspectives of employers and mental health workers. Rehabilitation Counseling Bulletin. 2021; 64(4):195-207.
<https://doi.org/10.1177/0034355220922607>

Morganstein JC and Flynn BW. Enhancing psychological sustainment & promoting resilience in healthcare workers



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during COVID-19 & beyond: adapting crisis interventions from high-risk occupations. Journal of Occupational & Environmental Medicine. 2021; 63(6):482-489.

<https://doi.org/10.1097/JOM.0000000000002184> [open access]

Abstract: COVID-19 is a unique disaster, which has placed extreme stress on Healthcare Workers (HCWs) and the systems in which they work. Eradicating the pandemic requires sustainment of the healthcare workforce through actions that mitigate stress, promote resilience, and enhance performance. A major barrier is the lack of organizational practices and procedures designed to sustain HCWs during prolonged crisis events, such as COVID-19. Adapting existing best practices from other high-risk occupations allows for a more rapid, efficient response to optimize workforce well-being and preserve healthcare organizational functioning. This paper discusses current and emerging literature on the unique impacts of COVID-19 on HCWs and provides actionable, evidence-informed recommendations for individuals, teams, and leaders to enhance sustainment of HCWs that is critical to the preservation of national and global health security

Nielsen MB, Pallesen S, Einarsen SV, Harris A, Rajalingam D, and Gjerstad J. Associations between exposure to workplace bullying and insomnia: a cross-lagged prospective study of causal directions. International Archives of Occupational & Environmental Health. 2021; 94(5):1003-1011.

<https://doi.org/10.1007/s00420-020-01618-2>

Abstract: Objective: Workplace bullying has been established as a significant correlate of sleep problems. However, little is known regarding the causal direction between bullying and sleep. The aim of this study was to examine temporal relationships between bullying and symptoms of insomnia. Methods: Reciprocal and prospective associations between exposure to workplace bullying and symptoms of insomnia were investigated in a national probability sample comprising 1149 Norwegian employees. Data stemmed from a two-wave full panel survey study with a 6-month time interval between the baseline and follow-up assessments. Models with stabilities, forward-, reverse-, and reciprocal associations were tested and compared using Structural Equation Modelling. Analyses were adjusted for age, gender, and the stability in the outcome variables over time.



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Workplace bullying was assessed with the nine-item Short Negative Acts Questionnaire. Insomnia was assessed with a previously validated three item scale reflecting problems with sleep onset, sleep maintenance, and early morning awakening. Results: The forward association model, which showed that exposure to workplace bullying prospectively increased levels of insomnia ($b = 0.08$; $p < 0.001$), had best fit with the data [CFI = 0.94; TLI = 0.93; RMSEA = 0.049 (0.046-0.052)]. The reverse association model where insomnia influences risk of being subjected to bullying was not supported. Conclusion: Workplace bullying is a risk factor for later insomnia. There is a need for further studies on moderating and mediating variables that can explain how and when bullying influence sleep.

Noll L, Mallows A, and Moran J. Consensus on tasks to be included in a return to work assessment for a UK firefighter following an injury: an online Delphi study. International Archives of Occupational & Environmental Health. 2021; 94(5):1085-1095.

<https://doi.org/10.1007/s00420-021-01661-7>

Abstract: OBJECTIVE: The aim was to provide a consensus tasks needed to be included in a return to work assessment for operational firefighters. METHODS: A two round online Delphi study was conducted with twenty-four participants including firefighters, service fitness advisers and occupational health managers. A consensus was set at 70% agreement. In round one, participants completed an online survey relating to tasks to be included during a return to work assessment for firefighters following an injury. Round two was an online consensus meeting to discuss the tasks where consensus was not achieved. RESULTS: A consensus was reached for ten of the thirteen tasks, including the number of repetitions required when lifting a light portable pump and climbing a ladder. A consensus was reached for the total distance equipment which should be carried. This included carrying a ladder, a hose and a light portable pump. CONCLUSIONS: This study has provided a consensus for tasks to be included when assessing a firefighter for return to work. Further research is needed to understand how to use this assessment optimally



Parker SK and Jorritsma K. Good work design for all: multiple pathways to making a difference. European Journal of Work and Organizational Psychology. 2021; 30(3):456-468.

<https://doi.org/10.1080/1359432X.2020.1860121>

Picon SPB, Batista GA, Pitangui ACR, and de Araujo RC. Effects of workplace-based intervention for shoulder pain: a systematic review and meta-analysis. Journal of Occupational Rehabilitation. 2021; 31(2):243-262.

<https://doi.org/10.1007/s10926-020-09927-6>

Abstract: The main objective of this study is to update the evidence related to the effectiveness of exercise and ergonomic interventions in the perception of shoulder pain intensity in workers considering the shoulder pain intensity and the minimum clinically important change in the analysis. The bibliographic search was conducted in seven databases (Cochrane, EMBASE, SciELO, PubMed, PEDro, Web of Science and Scopus) from March to April 2019. The study selection included randomized controlled trials (RCTs) involving workers with shoulder pain who underwent physical exercises, ergonomics, and combined interventions. To analyze the RCTs, the intensity of pain was divided into two subgroups < 3 and $= 3$ (0-10 points scale). A total of 27 RCTs were included in the qualitative synthesis considering the perception scales of shoulder pain intensity and the PEDro scale score of assessment of RCTs quality and risk of bias. Within these, seven RCTs were included in the quantitative synthesis. The overall effectiveness of interventions was calculated using a meta-analysis method, and the associated measurement used as a mean difference. The meta-analysis revealed that exercise interventions in workers with shoulder pain > 3 presented a minimally clinically important difference (MCID), but with no difference in workers with pain < 3 . The interventions with exercise in workers with pain $= 3$ at baseline reported a beneficial effect in reducing shoulder pain intensity, and a MCID. However, there was no significant difference for workers with pain < 3 and the effects of ergonomic interventions are still uncertain to reduce shoulder pain in workers.

Shields M, Dimov S, King TL, Milner A, Kavanagh A, Spittal MJ, et al. Does disability modify the relationship between labour force status and psychological distress among young people?



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Occupational & Environmental Medicine. 2021; 78:438-444.

<https://doi.org/10.1136/oemed-2020-107149>

Abstract: Objective: To examine the association between labour force status, including young people who were unemployed and having problems looking for work, and psychological distress one year later. We then assessed whether this association is modified by disability status. Methods: We used three waves of cohort data from the Longitudinal Surveys of Australian Youth. We fitted logistic regression models to account for confounders of the relationship between labour force status (employed, not in the labour force, unemployed and having problems looking for work) at age 21 years and psychological distress at age 22 years. We then estimated whether this association was modified by disability status at age 21 years. Results: Being unemployed and having problems looking for work at age 21 years was associated with odds of psychological distress that were 2.48 (95% CI 1.95 to 3.14) times higher than employment. There was little evidence for additive effect measure modification of this association by disability status (2.52, 95% CI -1.21 to 6.25). Conclusions: Young people who were unemployed and having problems looking for work had increased odds of poor mental health. Interventions should focus on addressing the difficulties young people report when looking for work, with a particular focus on supporting those young people facing additional barriers to employment such as young people with disabilities.

Smith A, McDonald AD, and Sasangohar F. The impact of commutes, work schedules, and sleep on near-crashes during nurses' post shift-work commutes: a naturalistic driving study. IISE Transactions on Occupational Ergonomics and Human Factors. 2021; [epub ahead of print].

<https://doi.org/10.1080/24725838.2021.1945708>

Abstract: OCCUPATIONAL APPLICATIONS Driving and survey data were collected from nurses following the night-shift and analyzed with logistic regression and frequency analysis. The analyses showed that prior near-crashes and drive length contributed significantly to near-crashes. The frequency analysis showed that most near-crashes occurred on major roadways, including principal arterials, major collectors, and interstates, within the first 15 minutes of the drive. These results highlight the urgent need for countermeasures to



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prevent drowsy driving incidents among night-shift nurses. Specifically, nurses and hospital systems should focus on countermeasures that encourage taking a break on the post work commute and those that can intervene during the drive. This may include the use of educational programs to teach nurses the importance of adequate rest or taking a break to sleep during their drive home, or technology that can recognize drowsiness and alert nurses of their drowsiness levels, prompting them to take a break

Svertoka E, Saafi S, Rusu-Casandra A, Burget R, Marghescu I, Hosek J, et al. Wearables for industrial work safety: a survey. Sensors (Basel). 2021; 21(11):3844.

<https://doi.org/10.3390/s21113844> [open access]

Abstract: Today, ensuring work safety is considered to be one of the top priorities for various industries. Workplace injuries, illnesses, and deaths often entail substantial production and financial losses, governmental checks, series of dismissals, and loss of reputation. Wearable devices are one of the technologies that flourished with the fourth industrial revolution or Industry 4.0, allowing employers to monitor and maintain safety at workplaces. The purpose of this article is to systematize knowledge in the field of industrial wearables' safety to assess the relevance of their use in enterprises as the technology maintaining occupational safety, to correlate the benefits and costs of their implementation, and, by identifying research gaps, to outline promising directions for future work in this area. We categorize industrial wearable functions into four classes (monitoring, supporting, training, and tracking) and provide a classification of the metrics collected by wearables to better understand the potential role of wearable technology in preserving workplace safety. Furthermore, we discuss key communication technologies and localization techniques utilized in wearable-based work safety solutions. Finally, we analyze the main challenges that need to be addressed to further enable and support the use of wearable devices for industrial work safety

Zhang C, Yu MC, and Marin S. Exploring public sentiment on enforced remote work during COVID-19. Journal of Applied Psychology. 2021; 106(6):797-810.

<https://doi.org/10.1037/apl0000933>



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Abstract: Due to the coronavirus disease 2019 (COVID-19) pandemic, many employees have been strongly encouraged or mandated to work from home. The present study sought to understand the attitudes and experiences of the general public toward remote work by analyzing Twitter data from March 30 to July 5 of 2020. We web scraped over 1 million tweets using keywords such as "telework," "work from home," "remote work," and so forth, and analyzed the content using natural language processing (NLP) techniques. Sentiment analysis results show generally positive attitudes expressed by remote work-related tweets, with minor dips during the weekend. Topic modeling results uncovered themes among tweets including home office, cybersecurity, mental health, work-life balance, teamwork, and leadership, with minor changes in topics revealed over the 14-week period. Findings point to topics of particular concern regarding working from home and can help guide hypothesis generation for future research. (PsycInfo Database Record (c) 2021 APA, all rights reserved)

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