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

***Kinitz DJ, Ross LE, MacEachen E, Fehr C, and Gesink D. "...full of opportunities, but not for everyone": a narrative inquiry into mechanisms of labor market inequity among precariously employed gay, bisexual, and queer men. *American Journal of Industrial Medicine*. 2024; 67(4):350-363.**

<https://doi.org/10.1002/ajim.23574> [open access]

Abstract: BACKGROUND: This study brings lesbian, gay, bisexual, transgender (trans), and queer (LGBTQ+) populations into scholarly discourse related to precarious employment through a political economy of queer struggle. METHODS: Drawing on narrative inquiry, 20 gay, bisexual, and queer men shared stories of precarious employment that were analyzed using Polkinghorne's narrative analysis. RESULTS: Results tell an overarching narrative in three parts that follow the trajectory of participants' early life experiences, entering the labor market and being precariously employed. Part 1: Devaluation of LGBTQ+ identities and adverse life experiences impacted participants' abilities to plan their careers and complete postsecondary education. Part 2: Participants experienced restricted opportunities due to safety concerns and learned to navigate white, cis, straight, Canadian ideals that are valued in the labor market. Part 3: Participants were without protections to respond to hostile treatment for fear of losing their employment. CONCLUSIONS: These stories of precarious employment illustrate unique ways that LGBTQ+ people might be particularly susceptible to exploitative labor markets

***Naye F, Toupin-April K, de Wit M, LeBlanc A, Dubois O, Boonen A, Barton JL, Fraenkel L, Li LC, Stacey D, March L, Barber CEH, Hazlewood GS, Guillemin F, Bartlett SJ, Berthelsen DB, Mather K, Arnaud L, Akpabio A, Adebajo A, Schultz G, Sloan VS, Gill TK, Sharma S, Scholte-Voshaar M, Caso F, Nikiphorou E, Nasef SI, Campbell W, Meara A, Christensen R, Suarez-Almazor ME, Jull JE, Alten R, Morgan EM, El-Miedany Y, Singh JA, Burt J, Jayatilleke A, Hmamouchi I, Blanco FJ, Fernandez AP, Mackie S, Jones A, Strand V, Monti S, Stones SR, Lee RR, Nielsen SM, Evans V, Srinivasalu H, Gerard T, Demers JL, Bouchard R, Stefan T, Dugas M, Bergeron F, Beaton D, et al. OMERACT Core outcome measurement set for shared decision making in rheumatic and musculoskeletal conditions: a scoping review to identify candidate instruments. *Seminars in Arthritis and Rheumatism*. 2024; 65:152344.**

<https://doi.org/10.1016/j.semarthrit.2023.152344>

Abstract: OBJECTIVES: Shared decision making (SDM) is a central tenet in rheumatic and musculoskeletal care. The lack of standardization regarding SDM instruments and outcomes in clinical trials threatens the comparative effectiveness of interventions. The Outcome Measures in Rheumatology (OMERACT) SDM Working Group is developing a Core Outcome Set for trials of SDM interventions in rheumatology and musculoskeletal health. The working group reached consensus on a Core Outcome Domain Set in 2020. The next step is to develop a Core Outcome Measurement Set through the OMERACT Filter 2.2. METHODS: We conducted a scoping review (PRISMA-ScR) to identify candidate instruments for the OMERACT Filter 2.2. We systematically reviewed five databases (Ovid MEDLINE®, Embase, Cochrane Library, CINAHL and Web of Science). An information specialist designed search strategies to identify all measurement instruments used in SDM studies in adults or children living with rheumatic or musculoskeletal diseases or their important others. Paired reviewers independently screened titles, abstracts, and full text articles. We extracted characteristics of all candidate instruments (e.g., measured construct, measurement properties). We classified candidate instruments and summarized evidence gaps with an adapted version of the Summary of Measurement Properties (SOMP) table. RESULTS: We found 14,464 citations, read 239 full text articles, and included 99 eligible studies. We identified 220 potential candidate instruments. The five most used measurement instruments were the Decisional Conflict Scale (traditional and low literacy versions) (n=38), the Hip/Knee-Decision Quality Instrument (n=20), the Decision Regret Scale (n=9), the Preparation for Decision Making Scale (n=8), and the CollaboRATE (n=8). Only 44 candidate instruments (20%) had any measurement properties reported by the included studies. Of these instruments, only 57% matched with at least one of the 7-criteria adapted SOMP table. CONCLUSION: We identified 220 candidate instruments used in the SDM literature amongst people with rheumatic and musculoskeletal diseases. Our classification of instruments showed evidence gaps and inconsistent reporting of measurement properties. The next steps for the OMERACT SDM Working Group are to match candidate instruments with Core Domains, assess feasibility and review validation studies of measurement instruments in rheumatic diseases or other conditions. Development and validation of new instruments may be required for some Core Domains

Akerstrom M, Severin J, Miech EJ, Wikstrom E, and Roczniowska M. Reducing sickness absence among public-sector healthcare employees: the difference-making roles of managerial and employee participation. *International Archives of Occupational & Environmental Health*. 2024; 97(3):341-351.

<https://doi.org/10.1007/s00420-024-02048-0> [open access]

Abstract: PURPOSE: Evaluations of organizational-level interventions to prevent work-related illness have identified enabling factors, but knowledge of necessary and sufficient conditions for intervention success is needed. The aim was to identify difference-making factors that distinguish intervention groups with and without a positive intervention effect on sickness absence. METHODS: An organizational-level intervention designed to decrease sickness absence by providing support from process facilitators was implemented at eight healthcare workplaces in Sweden between 2017 and 2018. We applied coincidence analysis (CNA) to analyze 34 factors and determine which factors were necessary and sufficient for a successful implementation of tailored interventional measures on an organizational level (dichotomous) and reduced sickness absence (trichotomous). RESULTS: Two factors perfectly explained both the presence and absence of a successful implementation: "a high sense of urgency" and "good anchoring and participation from the strategic management". The presence of either of these factors alone was sufficient for successful implementation, whereas the joint absence of both conditions was necessary and sufficient for the absence of successful implementation and an intervention effect. In addition, high employee participation was both necessary and sufficient for a high intervention effect. For organizations without high employee participation, successful implementation led to a medium-effect size. CONCLUSIONS: This study identified participation as a difference-maker in the implementation process. Participation from different stakeholders turned out to be important in different phases. When implementing organizational-level interventions, high participation from both strategic management and employees appears to be crucial in terms of the intervention's effect on sickness absence

Asfaw A. Paid sick leave and self-reported depression and anxiety: evidence from a nationally representative longitudinal survey. *American Journal of Preventive Medicine*. 2024; 66(4):627-634.

<https://doi.org/10.1016/j.amepre.2023.11.012>

Abstract: INTRODUCTION: The objective of this study was to explore the association between access to paid sick leave (AtPSL) and self-reported feelings of depression and anxiety in a nationally representative U.S. working population. METHODS: In 2023, this study examined data from the 2019-2020 Longitudinal National Health Interview Survey. A Generalized Linear Latent and Mixed Model (GLLAMM) was used to analyze the longitudinal data. RESULTS: The descriptive analysis of population averages showed that fewer workers with AtPSL reported daily feelings of depression (45%), anxiety (24%), and both depression and anxiety (52%) than workers without AtPSL. According to the GLLAMM analysis, the odds of workers with AtPSL self-reporting feelings of daily depression, anxiety, and both were 48%, 27%, and 51% lower, respectively, than workers without AtPSL. This analysis controlled for different demographic and socioeconomic variables. Robustness analysis demonstrated that these associations persisted when the outcome variables were measured in terms of self-reported feelings of weekly depression and anxiety. CONCLUSIONS: The role of mental health in improving overall well-being and the recognition of AtPSL as a social justice issue have reinforced the importance of providing paid sick leave to help protect the mental health status of workers. This study, using a

unique longitudinal data set, found that AtPSL was associated with a lower prevalence of self-reported daily or weekly feelings of depression and anxiety

Collatuzzo G, Hamdani M, and Boffetta P. Risk of bladder, kidney and prostate cancer from occupational exposure to welding fumes: a systematic review and meta-analysis. *International Archives of Occupational & Environmental Health*. 2024; 97(3):221-230.

<https://doi.org/10.1007/s00420-023-02040-0>

Abstract: Background: Our aimed to conduct a meta-analysis of cohort studies on risk of genitourinary (GU) cancers in workers exposed to welding fumes (WF). Methods: We performed a systematic review of studies published on Pubmed, Scopus and Embase following PRISMA criteria. Two researchers selected cohort studies on WF exposure. From 2582 articles, 7 non-overlapping studies were included. Quality of studies was scored according to CASP. We run a random effects meta-analysis to calculate the relative risk (RR) and 95% confidence intervals (CI) of GU cancer, overall and stratified by cancer, country, and quality score. Results: We included seven studies reporting results on GU cancers, including prostate, bladder and kidney cancer (PC, BC, and KC). The RR was 1.19 (95% CI = 1.07-1.32, 16 risk estimates) for GU cancer; 1.13 (95% CI = 0.90-1.42, 4 risk estimates) for PC; 1.26 (95% CI = 0.98-1.60, 7 risk estimates) for BC and 1.28 (95% CI = 1.12-1.47, 5 risk estimates) for KC. Heterogeneity was present in all meta-analyses ($p < 0.001$). The increased risk was more pronounced in North American than in European studies (respectively, OR = 1.35, 95% CI = 1.18-1.55; OR = 1.13, 95% CI = 1.01-1.27 p heterogeneity = 0.03). There was no heterogeneity according to quality score ($p = 0.4$). Data were insufficient to investigate associations by industry or welding type. Publication bias for each cancer was excluded. Conclusion: This meta-analysis suggests increased risk of KC and BC, but not of PC, in workers exposed to WF. Confounding by other occupational and non-occupational risk factors could not be excluded. Data were not adequate to address the risk of specific exposure circumstances.

Estudillo B, Forteza FJ, Carretero-Gomez JM, and Rejon-Guardia F. The role of organizational factors in promoting workers' health in the construction sector: a comprehensive analysis. *Journal of Safety Research*. 2024; 88:41-55.

<https://doi.org/10.1016/j.jsr.2023.10.007>

Abstract: INTRODUCTION: The number of physical and mental problems caused by occupational accidents and diseases increases every year. To control them, the safety climate at work is a recognized critical factor. However, a widely applicable model to capture the safety climate for various industries and organizations is lacking. METHOD: This study proposes a theoretical model to measure the direct and indirect effects of safety climate on workers' physical and mental health, mediated by job satisfaction, in the construction sector. We propose a multidimensional construct of safety climate, considering the most salient factors from the literature, and including psychological capital as a new factor. Using data from the last wave of the European Working Conditions Survey (2015) in Spain, the proposed model was validated using structural equation modeling. RESULTS: Our findings suggest that to further improve the mental health of construction workers, work-life balance and job rewards and compensation must be prioritized along with safety climate. As for physical health, safety climate and work-life balance are crucial. Finally, we provide some recommendations for construction company managers based on a ranking of all the factors affecting the safety climate and the workers' health

Gibbs MT, Hayden JA, Cashin AG, Shah B, Gilanyi YL, Natoli A, et al. Are exercise interventions in Clinical trials for chronic low back pain dosed appropriately to meet the World Health Organization's physical activity guidelines? *Physical Therapy*. 2024; 104(1):pzad114.

<https://doi.org/10.1093/ptj/pzad114>

Abstract: OBJECTIVE: This study aimed to estimate the proportion of exercise interventions tested in clinical trials of people with chronic low back pain (CLBP) that meet the World Health Organization's (WHO) physical activity guidelines. METHODS: A secondary analysis of the 2021 Cochrane review of exercise therapy for CLBP was performed. Data from each study were extracted by 1 reviewer and were checked by a second reviewer. Data extracted related to the frequency, duration and intensity of each exercise intervention, and the proportion of exercise interventions that met the WHO's physical activity guidelines (aerobic, muscle strengthening, or both) were determined. RESULTS: The 249 included trials comprised 426 exercise interventions. Few interventions reported an exercise type and dose consistent with the WHO guidelines (aerobic: 1.6%, muscle strengthening: 5.6%, both: 1.6%). Poor reporting of exercise intensity limited our ability to determine whether interventions met the guidelines. CONCLUSION: Few interventions tested in clinical trials for people with CLBP prescribe an exercise type and dose consistent with the WHO guidelines. Therefore, they do not appear sufficiently dosed to achieve broader health outcomes. Future trials should investigate the effect of WHO guideline-recommended exercise interventions on patient-reported outcomes (pain and disability) as well as health-related outcomes in people with CLBP. IMPACT: This exploratory analysis showed the lack of exercise interventions in the CLBP literature that meet the WHO's physical activity guidelines. With people in chronic pain groups, such as people with CLBP, being at higher risk for noncommunicable disease, it appears this is a key consideration for exercise practitioners when designing interventions for people with CLBP

Haipeter T, Wannoffel M, Daus JT, and Schaffarczyk S. Human-centered AI through employee participation. *Frontiers in Artificial Intelligence*. 2024; 7:1272102.

<https://doi.org/10.3389/frai.2024.1272102> [open access]

Abstract: This article examines the role of employee participation in AI implementation, focusing on a case study from the German telecommunications sector. Theoretical discussions highlight concepts of employee participation and workplace democracy, emphasizing the normative basis for human-centered AI in Europe. The empirical analysis of the case study demonstrates social practices of human-centered AI and the importance of employee representatives and labor policies in sustainable technology. The contribution is structured into two main parts: first, discussing sociological concepts of employee participation and summarizing the role of works councils in shaping digital technology implementation. Second, focusing on a case study of AI regulations at Deutsche Telekom, highlighting the significant effects of employee participation and co-determination by the group works council in promoting socially sustainable AI implementation which is done via qualitative case analysis. The article highlights the significance of participation and negotiations and gives an example for social partnership relations in AI implementations

Huang Y, Li Y, Li R, and Zhang K. The privilege of working from home and health disparities during the COVID-19 pandemic in major American cities. *Health & Place*. 2024; 86:103183.

<https://doi.org/10.1016/j.healthplace.2024.103183>

Abstract: Working from home (WFH) has been adopted as a key mitigation strategy in the COVID-19 pandemic; yet few research has studied its impact on pandemic outcomes. Using multiple sources of data including cellphone data and online survey during the pandemic, this study investigates the effect of WFH on intra-city health disparities during the COVID-19 pandemic in American cities. Pandemic data for zip code tabulation areas and cellphone mobility data for census block groups in New York City (NYC), Chicago, and Philadelphia are converted to census tract level, which are then merged with 2019 census data. WFH is measured with the proportion of workers who potentially can telework based on employment composition in census tracts and percentages of jobs in each industry that actually WFH during the pandemic. Results show that while infection and death rates are higher in NYC, intra-city disparities in pandemic outcomes are more pronounced in Philadelphia. Poisson regressions show a negative association between WFH and COVID-19 infection and death rates in NYC and Chicago, which is weakened by increased time spent at home during the pandemic and in minority neighborhoods (in NYC). In Philadelphia, WFH is barely relevant for infection rates but has a marginally positive association with death rates, which is also moderated by the time spent at home. This study demonstrates the relative effectiveness of WFH in mitigating pandemic outcomes and underscores the intersectionality between WFH and race/ethnicity and resident behaviors. It provides important policy implications for future pandemic mitigation

Khan TH and MacEachen E. The role of informal support systems during illness: a qualitative study of solo self-employed workers in Ontario, Canada. *PLoS ONE*. 2024; 19(3):e0297770.

<https://doi.org/10.1371/journal.pone.0297770> [open access]

Abstract: Today's labor market has changed over time, shifting from mostly full-time, secure, and standard employment relationships to mostly entrepreneurial and precarious working arrangements. In this context, self-employment (SE), a prominent type of precarious work, has been growing rapidly due to globalization, automation, technological advances, and the rise of the 'gig' economy, among other factors. Employment precarity profoundly impacts workers' health and well-being by undermining the comprehensiveness of social security systems, including occupational health and safety systems. This study examined how self-employed (SE'd) workers sought out support from informal support systems following illness, injury, and income reduction or loss. Based on in-depth interviews with 24 solo SE'd people in Ontario, Canada, narrative analysis was conducted of participants' experiences with available informal supports following illness or injury. We identified three main ways that SE'd workers managed to sustain their businesses during periods of need: (i) by relying on savings; (ii) accessing loans and financial support through social networks, and (iii) receiving emotional and practical support. We conclude that SE'd workers managed to survive despite social security system coverage gaps by drawing on informal support systems

Lau SJ, McKelvey S, Gokita T, Ramsey H, and Mosley D. Facilitators and barriers of pre-employment transition services implementation: preliminary findings and recommendations. *Journal of Vocational Rehabilitation*. 2024; 60(2):253-261.

<https://doi.org/10.3233/JVR-240010> [open access]

Abstract: BACKGROUND: Employment rates for people with disabilities have only slightly changed since the passage of WIOA. As possible reauthorization nears, it is necessary to reassess the provision and coordination of pre-employment transition services (Pre-ETS) to increase employment outcomes for students with disabilities. OBJECTIVE: This article identifies facilitators and barriers to Pre-ETS implementation and provides practical recommendations to align with the original intent of WIOA. METHOD: Researchers used independent samples t-tests to analyze 56 students' pre and post-test quiz scores following Pre-ETS lessons. Researchers then employed qualitative thematic analysis of research artifacts collected during one phase of a three-year study to gather data on instructors' experiences of facilitating Pre-ETS services. RESULTS: Results reveal higher student quiz scores reported with a small effect demonstrating increased student knowledge in job exploration ($d = 0.312$) and workplace readiness ($d = 0.275$). In addition, five qualitative themes emerged including silos, performative technology, career alienation, absenteeism, and instructional autonomy. CONCLUSION: Findings show increased student knowledge in job exploration and workplace readiness. The study also identifies 1) family engagement, interagency collaboration, and technology as possible barriers to Pre-ETS implementation while 2) instructor autonomy acted as a potential facilitator. Recommendations suggest personnel preparation and training of educators and VR professionals to support improved collaboration.

Nava GJA and Pebley AR. Racial, ethnic, and immigrant generational disparities in physically strenuous and hazardous work conditions. *Journal of Immigrant & Minority Health*. 2024; 26(2):268-277.

<https://doi.org/10.1007/s10903-023-01552-8> [open access]

Abstract: Despite the importance of work in adult life, research on the social determinants of health often ignores its effects. We examine race/ethnic, immigrant generational, and gender differentials in exposure to work conditions associated with poor health outcomes, using a nationally-representative sample of adults. On average, Latino 1st generation workers are more exposed to strenuous and hazardous work conditions than other workers, even after adjusting for sociodemographic differences. Exposure is lower for 2nd and 3rd generation Latinos. In contrast, Asian 1st generation men often have the lowest exposure levels of all groups and Asian 2nd and 3rd generation men have higher levels of exposure than the first generation, primarily due to intergenerational differences in education. Asian 1st generation women have higher exposures than those in the 2nd or 3rd generation. These results illustrate the importance of considering work conditions in research and policy related to the social determinants of health

Oakman J, Lambert KA, Rogerson S, and Bell A. We know it doesn't work: why do we still use how to lift training for the prevention of musculoskeletal disorders? *International Journal of Industrial Ergonomics*. 2024; 100:103542.

<https://doi.org/10.1016/j.ergon.2023.103542> [open access]

Abstract: Abstract Musculoskeletal disorders (MSDs) have a complex aetiology. How to lift training (HTLT) does not address this complexity, is an ineffective prevention strategy but remains widely

utilised. This study explores the extent to which HTLT is utilised and the beliefs of employers and work health and safety (WHS) providers to this approach as an MSD prevention strategy. Method An online questionnaire was distributed to employers and WHS providers to collect quantitative and qualitative information on the extent to which HTLT was being used and the beliefs about its use in MSD prevention. Results A total of 1507 responses were analysed (1271 employers, 236 WHS providers). Over 70% of participants had used HTLT in an MSD prevention program in the past 2 years. For employers the belief that HTLT is necessary under WHS legislation (OR 1.755, CI 1.135,2.712) was associated with the use of HTLT. For providers, the belief that HTLT is necessary for MSD prevention programs (OR 1.57 CI 1.10, 2.25) or if the service was requested (OR 3.88 CI 1.78,8.45) were associated with HTLT delivery. Conclusions HTLT remains highly prevalent in MSD prevention despite strong evidence that lifting training is ineffective and does not address WHS legislative requirements. Strategies to reduce HTLT use industry and utilise more effective MSD risk management controls will need to bridge the research evidence to practice gap and use implementation science principles to improve the uptake of evidence-based interventions which take a comprehensive systems-based approach to MSD prevention.

Rooney-Kron M, Malouf ET, Brenner HR, Taylor J, Whittenburg H, Carlson S, et al. A scoping review of Pre-Employment Transition Services for transition aged youth with disabilities. Journal of Vocational Rehabilitation. 2024; 60(2):163-174.

<https://doi.org/10.3233/JVR-240003> [open access]

Abstract: BACKGROUND: The Workforce Innovation and Opportunity Act (2014) requires state vocational rehabilitation agencies to dedicate 15% of their budget to providing pre-employment transition services (Pre-ETS) to transition aged youth (TAY) with disabilities. OBJECTIVE: The purpose of this study was to summarize the peer-reviewed, empirical literature focused on Pre-ETS for TAY with disabilities. METHOD: An initial search was completed on October 24th, 2023. A second search was conducted on January 1, 2024 to determine whether any additional publications that met inclusion criteria were published. We used scoping review methods to review, summarize, and identify gaps within the existing literature about Pre-ETS for TAY with disabilities. We identified study characteristics and main areas of foci for each study. RESULTS: A total of 26 peer-reviewed articles published in the United States between 2017–2023 focused on Pre-ETS for TAY with disabilities. Articles focused on (a) participants' perceptions of Pre-ETS, (b) program and TAY outcomes, and (c) policy analyses. CONCLUSION: Our findings suggest that Pre-ETS are a promising set of practices to increase the postschool outcomes of TAY with disabilities. Implications for practice, research, and policy are discussed.

Sabino I, do Carmo Fernandes M, Cepeda C, Quaresma C, Gamboa H, Nunes IL, et al. Application of wearable technology for the ergonomic risk assessment of healthcare professionals: a systematic literature review. International Journal of Industrial Ergonomics. 2024; 100:103570.

<https://doi.org/10.1016/j.ergon.2024.103570> [open access]

Abstract: Healthcare professionals are exposed to multiple physical risk factors related to the development of work-related musculoskeletal disorders (WRMSD), which significantly affect their quality of life. Several ergonomic methods have been developed for identifying risk factors in the workplace. Among these, wearable devices that perform direct measurements have demonstrated outstanding potential in recent years to provide reliable, non-invasive, and continuous exposure

assessment. Therefore, this systematic review aims to describe the use of wearable technology for the ergonomic risk assessment of healthcare professionals. Twenty-nine publications were selected following PRISMA guidelines based on the inclusion and exclusion criteria set. Most of the articles were published in the last three years, confirming a growing trend in the research on this topic. Most wearable devices, which were used isolated or combined, consist of inertial sensors used to measure and assess the exposure to awkward postures and sEMG sensors, which provide the measurement of muscle activity parameters related to the force applied while performing work activities. The main results and respective analyses provided insights into the strengths and limitations of using wearable technology to acquire data on several work activities performed by healthcare professionals. Future research is needed to widen and validate the applicability of wearable technology in support of ergonomic interventions aimed at preventing the development of WRMSD among healthcare professionals.

Sushil M, Butte AJ, Schuit E, van Smeden M, and Leeuwenberg AM. Cross-institution Natural Language Processing for reliable clinical association studies: a methodological exploration. *Journal of Clinical Epidemiology*. 2024; 167:111258.

<https://doi.org/10.1016/j.jclinepi.2024.111258> [open access]

Abstract: Objectives: Natural language processing (NLP) of clinical notes in electronic medical records is increasingly used to extract otherwise sparsely available patient characteristics, to assess their association with relevant health outcomes. Manual data curation is resource intensive and NLP methods make these studies more feasible. However, the methodology of using NLP methods reliably in clinical research is understudied. The objective of this study is to investigate how NLP models could be used to extract study variables (specifically exposures) to reliably conduct exposure-outcome association studies. Study design and setting: In a convenience sample of patients admitted to the intensive care unit of a US academic health system, multiple association studies are conducted, comparing the association estimates based on NLP-extracted vs. manually extracted exposure variables. The association studies varied in NLP model architecture (Bidirectional Encoder Decoder from Transformers, Long Short-Term Memory), training paradigm (training a new model, fine-tuning an existing external model), extracted exposures (employment status, living status, and substance use), health outcomes (having a do-not-resuscitate/intubate code, length of stay, and in-hospital mortality), missing data handling (multiple imputation vs. complete case analysis), and the application of measurement error correction (via regression calibration). Results: The study was conducted on 1,174 participants (median [interquartile range] age, 61 [50, 73] years; 60.6% male). Additionally, up to 500 discharge reports of participants from the same health system and 2,528 reports of participants from an external health system were used to train the NLP models. Substantial differences were found between the associations based on NLP-extracted and manually extracted exposures under all settings. The error in association was only weakly correlated with the overall F1 score of the NLP models. Conclusion: Associations estimated using NLP-extracted exposures should be interpreted with caution. Further research is needed to set conditions for reliable use of NLP in medical association studies.

Walters D. Professions, power and paradox in occupational safety and health in the 21st century. Safety Science. 2024; 174:106446.

<https://doi.org/10.1016/j.ssci.2024.106446> [open access]

Abstract: Analysis of the development of professions and professional institutions in occupational safety and health is somewhat neglected. While there are some accounts of the development of professional practice in occupational medicine and a discourse on its ethics in the literature, that addressing the development and role of the general OSH practitioner is more limited. This paper seeks to contribute to this literature and to the development of such a discourse, with an account of some key antecedents of current practice. It identifies structural factors within the economy and its regulatory framework for OSH, that have influenced the rise to prominence of the generalist professional/practitioner. It examines the consequences of this for these OSH professionals and the associations that represent their professional interests. It frames this examination with reference to the sociological literature on professions more generally. Drawing on parallels in this literature, it argues that substantial shifts in the loci of power in work relations during recent decades, occurring against a back-drop of neo-liberal political and economic policies, have helped shape the current corporate demand for OSH generalists. This has led to their increased presence in the OSH infrastructures of advanced market economies and beyond. At the same time, and with reference to parallels in the sociological literature on salaried professionals, the paper suggests that meeting such a demand, in these structural contexts, may have consequences for professional practice. But with a few notable exceptions, it finds theoretically informed discussion of these consequences and their determinants to be underdeveloped in recent specialist literature on professional practice in OSH. The paper concludes that further research and informed discussion of the issues raised by viewing professional development in OSH from a more sociological perspective is important and should be encouraged.

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