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Anastas TM, Meints SM, Gleckman AD, and Hirsh AT. Social influences on peer judgments about chronic pain and disability. *Journal of Pain*. 2019; 20(6):698-705.

<https://doi.org/10.1016/j.jpain.2018.12.006>

Abstract: Chronic pain is a leading cause of work absenteeism and disability compensation. Previous work demonstrates that patients with chronic illness often seek advice, such as whether or not to pursue disability benefits, from peers with similar health conditions. The current study examined the extent that social factors influence patients with chronic pain ("peers") when making disability judgments and recommendations for other patients with chronic pain. Participants (N=71) made pain-related and disability ratings for fictional vignette patients that varied in weight (normal vs obese), fault of accident, and physical work demands. Results of repeated measures analyses of variance indicated that participants rated patients with obesity, who were not at fault, and who held a physically demanding job as experiencing more severe pain symptoms and disability and were more likely to recommend they seek disability benefits. Participants who had applied for disability benefits themselves rated patients as more disabled than participants who had not applied for disability. These data suggest that patients with chronic pain are influenced by patient and contextual factors when

making pain-related and disability judgments for peers. These judgments may impact patient decision making via peer support programs and online forums. PERSPECTIVE: This study suggests that patients with chronic pain are influenced by patient weight, fault of accident, and physical work demands when making judgments about pain and disability for peers. Future studies should examine the extent such peer-to-peer recommendations influence actual disability-seeking behaviors for pain

Cashin AG, Lee H, Lamb SE, Hopewell S, Mansell G, Williams CM, et al. An overview of systematic reviews found suboptimal reporting and methodological limitations of mediation studies investigating causal mechanisms. Journal of Clinical Epidemiology. 2019; 111:60-68.

<https://doi.org/10.1016/j.jclinepi.2019.03.005>

Abstract: OBJECTIVES: The objective of this study was to investigate whether systematic reviews of mediation studies identify limitations in reporting quality and methodological conduct. STUDY DESIGN AND SETTING: We conducted an overview of systematic reviews. We searched four databases (MEDLINE, PsycINFO, Cochrane Database of Systematic Reviews, and PubMed) to identify systematic reviews of studies that used mediation analysis to investigate mechanisms of health care interventions or exposures in clinical populations between 2007 and 2017. Two reviewers independently screened titles and abstracts. Summary data on the characteristics, reporting quality, and methodological conduct of the studies included in the systematic reviews were extracted independently by two reviewers. The protocol was prospectively registered on PROSPERO (CRD42017059834). RESULTS: Fifty-four systematic reviews were included, representing 11 health care fields, 26 health conditions, and 2008 mediation studies. Eighteen of fifty-four systematic reviews (33%) explicitly stated that the reporting of primary studies was suboptimal. Of these, 14/18 (78%) reviews noted incomplete reporting of effect sizes and precision estimates from mediation analyses. Twenty-nine of fifty-four systematic reviews (54%) identified limitations in the methodological conduct of primary studies. CONCLUSION: The reporting and methodological conduct of studies investigating mechanisms in health care seems to be suboptimal. Guidance is needed to improve the quality, completeness, and transparency of mediation studies

Cavallari JM, Burch KA, Hanrahan J, Garza JL, and Dugan AG. Safety climate, hearing climate and hearing protection device use among transportation road maintainers. American Journal of Industrial Medicine. 2019; 62(7):590-599.

<https://doi.org/10.1002/ajim.22970>

Abstract: BACKGROUND: It is important to understand workplace factors including safety climate that influence hearing protection device (HPD) use. We sought to investigate the association between HPD use, safety climate, and hearing climate, a new measure specific to hearing. METHODS: A survey was developed and distributed among transportation "maintainers" who perform road maintenance and repair. A new hearing climate measure was designed by adapting a safety climate measure. HPD use was assessed by asking workers how often they wear HPD while in noise. The differences in safety climate and hearing climate were compared by the frequency of HPD use using analysis of variance. RESULTS: Among 166 maintainers, 54% reported always or almost always wearing HPD while noise exposed. High-frequency HPD users reported a statistically significant higher safety climate ($P = 0.004$) and hearing climate ($P = 0.003$). CONCLUSIONS: Hearing climate predicts the frequency of HPD use and may be a useful measure when assessing and improving hearing conservation programs

Christie N and Ward H. The health and safety risks for people who drive for work in the gig economy. Journal of Transport & Health. 2019; 13:115-127.

<https://doi.org/10.1016/j.jth.2019.02.007>

Dekkers-Sanchez PM and de Wind AE. Enhancing medical evaluations of sick-listed employees: an educational intervention to improve professional practice of physicians performing work ability assessments of employees on long-term sick leave. International Archives of Occupational & Environmental Health. 2019; 92(5):729-738.

<https://doi.org/10.1007/s00420-019-01409-4>

Abstract: PURPOSE: Long-term sick leave (LTSL) is a complex phenomenon. Medical and non-medical factors can delay return-to-work (RTW); therefore, the assessment of work ability is complicated. A checklist for identifying factors associated with delayed RTW was

developed in a prior study to facilitate the exploration of barriers and facilitators for RTW. The purpose of the present study was to determine if use of the checklist enhances professional practice of physicians performing work ability assessments of employees on long-term sick leave and whether the reporting of work ability assessments improved when using the checklist in the routinely practice-based context. **METHODS:** An educational intervention study was performed using qualitative framework analysis. Thirty-five Dutch physicians were asked to identify and report the barriers and facilitators for RTW and the consequences for the work ability and for the prognosis regarding work reintegration using the checklist. A pre-post qualitative analysis of the medical records was performed using a gradual classification of the reporting of the work ability to evaluate the change in reporting following the educational intervention. **RESULTS:** A total of 337 work ability assessments were performed using the checklist. The identification of factors influencing RTW and the comprehensiveness of the medical records increased when compared with the reporting before the educational intervention. The reporting of the work ability assessments improved after the educational intervention. Most physicians reported at least one of the factors of the checklist. 72% participants reported and described adequately at least one factor. 48% participants reported how the factors influenced the work ability, 20% participants reported how the factors influenced the prognosis regarding RTW and 12% participants reported which advice was provided by the physician to influence the barriers for RTW. **CONCLUSIONS:** Use of the checklist enhances professional practice of physicians performing work ability assessments of employees on long-term sick leave and is associated with increased identification of barriers and facilitators for RTW. The use of the checklist should be considered to improve professional practice of physicians performing work ability assessments

Hallman DM, Holtermann A, Bjorklund M, Gupta N, and Norregaard Rasmussen CD. Sick leave due to musculoskeletal pain: determinants of distinct trajectories over 1 year. International Archives of Occupational & Environmental Health. 2019; [Epub ahead of print].

<https://doi.org/10.1007/s00420-019-01447-y>

Abstract: **PURPOSE:** This study aimed to identify sub-groups of

workers with different trajectories of sick leave due to musculoskeletal pain over 1 year, and to investigate the extent to which the identified trajectories are associated with personal, occupational, lifestyle, and pain-related factors at baseline. **METHODS:** Data on 981 blue- and white-collar workers were analyzed in the DPHACTO cohort (2012-2014). The number of days on sick leave due to pain was reported using text messages at 4-week intervals across 1 year. Latent class growth analysis was used to distinguish sub-groups with different trajectories of sick leave. A web-based questionnaire at baseline was used to assess personal, occupational (physical and psychosocial), lifestyle, and pain-related factors. Multinomial regression models were constructed to determine associations between baseline factors and trajectories of sick leave (referencing no sick leave), with adjustment for potential confounders. **RESULTS:** Four distinct sub-groups were identified, with trajectories of sick leave due to pain ranging from no sick leave (prevalence 76%; average 0.5 days/year) to some days and increasing sick leave due to pain over 1 year (2%; 89 days/year). The increasing trajectory of sick leave was associated with higher perceived physical exertion, more time in manual work, less social community and influence at work, less leisure-time physical activity, smoking, and more severe symptoms (e.g., multisite pain, low back pain intensity, and pain interference). **CONCLUSIONS:** We identified four distinct trajectories of sick leave due to musculoskeletal pain. The sub-group with increasing sick leave due to pain was associated with several modifiable physical and psychosocial factors at work and outside work, which may have implications for prevention

Kayes NM, Martin RA, Bright FA, Kersten P, and Pollock A. Optimizing the real-world impact of rehabilitation reviews: increasing the relevance and usability of systematic reviews in rehabilitation. European Journal of Physical & Rehabilitation Medicine. 2019; 55(3):331-341.

<https://doi.org/10.23736/S1973-9087.19.05793-9> [open access]

Abstract: BACKGROUND: Despite a growing portfolio of rehabilitation reviews, uptake of review findings into practice remains slow, with review findings perceived to be lacking in relevance and usability for stakeholders. Key aspects of review design, production and dissemination have been identified to contribute to this knowledge

translation (KT) gap. AIM: The aim of this study is to identify strategies relevant to rehabilitation review design, production and dissemination which have the potential to optimize uptake of review findings into practice. RESULTS: Two strategies are discussed, drawing on case examples of existing rehabilitation reviews, including: 1) involving stakeholders in review design, production and dissemination; and 2) moving towards theory-based, mixed methods review design. The merits of these strategies are discussed with reference to the unique and specific characteristics of the rehabilitation context, where there is complexity inherent in the multiple interacting components across population, intervention, context and implementation processes. CONCLUSIONS: Moving towards theory-based, mixed methods reviews which involve stakeholders may be a critical first step in supporting uptake of review findings into rehabilitation practice. Doing so also has the potential to support advances in knowledge and practice in rehabilitation through theory development, as well as creating the context for evidence-based practice

Mazza D, Chakraborty SP, Brijnath B, Nowak H, Howell C, Brott T, et al. Diagnosing and managing work-related mental health conditions in general practice: new Australian clinical practice guidelines. Medical Journal of Australia. 2019; [Epub ahead of print].

<https://doi.org/10.5694/mja2.50240>

Abstract: INTRODUCTION: In Australia, mental health conditions (MHCs) arising from workplace factors are a leading cause of long term work incapacity and absenteeism. While most patients are treated in general practice, general practitioners report several challenges associated with diagnosing and managing workplace MHCs. This guideline, approved by the National Health and Medical Research Council and endorsed by the Royal Australian College of General Practitioners and the Australian College of Rural and Remote Medicine, is the first internationally to address the clinical complexities associated with diagnosing and managing work-related MHCs in general practice. MAIN RECOMMENDATIONS: Our 11 evidence-based recommendations and 19 consensus-based statements aim to assist GPs with: the assessment of symptoms and diagnosis of a work-related MHC; the early identification of an MHC

that develops as a comorbid or secondary condition after an initial workplace injury; determining if an MHC has arisen as a result of work factors; managing a work-related MHC to improve personal recovery or return to work; determining if a patient can work in some capacity; communicating with the patient's workplace; and managing a work-related MHC that is not improving as anticipated. CHANGES IN MANAGEMENT AS RESULT OF THE GUIDELINE: This guideline will enhance care and improve health outcomes by encouraging: the use of appropriate tools to assist the diagnosis and determine the severity of MHCs; consideration of factors that can lead to the development of an MHC after a workplace injury; more comprehensive clinical assessments; the use of existing high quality guidelines to inform the clinical management of MHCs; consideration of a patient's capacity to work; appropriate communication with the workplace; and collaboration with other health professionals

Mattson Molnar M, von Thiele Schwarz U, Hellgren J, Hasson H, and Tafvelin S. Leading for safety: a question of leadership focus. *Safety and Health at Work*. 2019; 10(2):180-187.

<https://doi.org/10.1016/j.shaw.2018.12.001>

Abstract: Background There is considerable evidence that leadership influences workplace safety, but less is known about the relative importance of different leadership styles for safety. In addition, a leadership style characterized by an emphasis and a focus on promoting safety has rarely been investigated alongside other more general leadership styles. Methods Data were collected through a survey to which 269 employees in a paper mill company responded. A regression analysis was conducted to examine the relative roles of transformational, transactional (management-by-exception active; MBEA), and safety-specific leadership for different safety behavioral outcomes (compliance behavior and safety initiative behaviors) and for minor and major injuries. Results A safety-specific leadership contributed the most to the enhanced safety of the three different kinds of leadership. Transformational leadership did not contribute to any safety outcome over and above that of a safety-specific leadership, whereas a transactional leadership (MBEA) was associated with negative safety outcomes (fewer safety initiatives and increased minor injuries). Conclusion The most important thing for leaders aiming at improving workplace safety is to continuously

emphasize safety, both in their communication and by acting as role models. This highlights the importance for leadership training programs aiming to improve safety to actually focus on safety-promoting communication and behaviors rather than general leadership. Furthermore, an overly monitoring and controlling leadership style can be detrimental to attempts at achieving improved workplace safety

Navarro A, Salas-Nicas S, Llorens C, Moncada S, Molinero-Ruiz E, and Morina D. Sickness presenteeism: are we sure about what we are studying? A research based on a literature review and an empirical illustration. American Journal of Industrial Medicine. 2019; 62(7):580-589.

<https://doi.org/10.1002/ajim.22982>

Abstract: BACKGROUND: There has been an increasing interest in studying sickness presenteeism (SP). An ever-increasing amount of scientific literature is published using this term, yet there appears to be considerable heterogeneity in how it is assessed, which could result in substantial differences in the definition and interpretation of the phenomenon really being studied. We aim to discuss what really is being studied, depending on how the phenomenon is operationalized, measured, and analyzed. METHODS: A study based on a literature review and an empirical illustration using data of the third Spanish Psychosocial Risks Survey (2016). RESULTS: Differences are observed based on the population in which SP is measured, the cut-off points used to define a worker as presenteeist, the reasons for an SP episode and even an analysis of the phenomenon treated as a count or as a dichotomous. CONCLUSIONS: Without being completely exclusive, it seems that restricting the population of analysis to only those workers who consider that they should not have gone to work due to their health, and/or establishing low cut-off points to define someone as presenteeist, would more clearly delimit the study of SP to the exercise of a right to sick leave. In contrast, working with the entire population or using high cut-off points appears to relate the study of SP more with health status and less with the exercise of rights. On the other hand, taking the reasons for SP into account would probably help to improve interpretation of the phenomenon

Owens JD, Hegmann KT, Thiese MS, and Phillips AL. Impacts of adherence to evidence-based medicine guidelines for the management of acute low back pain on costs of worker's compensation claims. Journal of Occupational & Environmental Medicine. 2019; 61(6):445-452.

<https://doi.org/10.1097/JOM.0000000000001593> [open access]

Abstract: OBJECTIVE: American College of Occupational and Environmental Medicine's (ACOEM's) evidence-based guidelines for acute low back pain (LBP) were used to assess relationships between guideline adherence and worker's compensation costs. METHODS: Treatments at first appointments were abstracted. Two scoring tools were utilized to assess each patient's treatment plan. One score assessed ACOEM Guideline compliance while the second utilized mean expert scores of the perceived value of each treatment. Claim costs were log-transformed and compared with scores. RESULTS: There is a significant trend between increased compliance and decreasing costs. Medical and total costs trended lower by an average \$352.90 and \$586.20 per unit of compliance score respectively. No outlier cost claims were in the best guidelines compliance groups. CONCLUSION: This study shows a statistically significant trend in the relationship between adherence to ACOEM guidelines for initial management of work-related LBP and decreasing claim costs

Pryor P, Hale A, and Hudson D. Development of a global framework for OHS professional practice. Safety Science. 2019; 117:404-416.

<https://doi.org/10.1016/j.ssci.2019.04.033>

Reichard A, Stransky M, Brucker D, and Houtenville A. The relationship between employment and health and health care among working-age adults with and without disabilities in the United States. Disability and Rehabilitation. 2019; 41(19):2299-2307.

<https://doi.org/10.1080/09638288.2018.1465131>

Abstract: Purpose: To better understand the relationship between employment and health and health care for people with disabilities in the United States (US). Methods: We pooled US Medical Expenditure Panel Survey (2004-2010) data to examine health status, and access

to health care among working-age adults, comparing people with physical disabilities or multiple disabilities to people without disabilities, based on their employment status. Logistic regression and least squares regression were conducted, controlling for sociodemographics, health insurance (when not the outcome), multiple chronic conditions, and need for assistance. Results: Employment was inversely related to access to care, insurance, and obesity. Yet, people with disabilities employed in the past year reported better general and mental health than their peers with the same disabilities who were not employed. Those who were employed were more likely to have delayed/forgone necessary care, across disability groups. Part-time employment, especially for people with multiple limitations, was associated with better health and health care outcomes than full-time employment. Conclusion: Findings highlight the importance of addressing employment-related causes of delayed or foregone receipt of necessary care (e.g., flex-time for attending appointments) that exist for all workers, especially those with physical or multiple disabilities. Implications for rehabilitation These findings demonstrate that rehabilitation professionals who are seeking to support employment for persons with physical limitations need to ensure that overall health concerns are adequately addressed, both for those seeking employment and for those who are currently employed. Assisting clients in prioritizing health equally with employment can ensure that both areas receive sufficient attention. Engaging with employers to develop innovative practices to improve health, health behaviors and access to care for employees with disabilities can decrease turnover, increase productivity, and ensure longer job tenure

Wrona RM. Medical data mining: the search for knowledge in workers' compensation claims. American Journal of Industrial Medicine. 2019; [Epub ahead of print].

<https://doi.org/10.1002/ajim.22990>

Abstract: Workers' compensation claims data are an underutilized source of research data. Data mining is a step in the process of knowledge discovery. This report is an inquiry into the question of whether data mining can be used to expand the research potential of workplace injury claims. A descriptive data-mining method is used to avoid the hazards of predictive data mining. A key decision in

descriptive data mining is the selection of the descriptive variables to be included. A major purpose of claims processing is documentation of benefit decisions. This documentation is used in selecting the case records embedded in a claim history. This novel process is called beneficiation not only because of the obvious reference to benefit but also because it is a mining term that describes a process that further refines metallic ores. Claim beneficiation identified four data forms that contain descriptive information about workplace injury claim data. They are the first report of injury, the activity prescription form, a functional capacity evaluation, and a physical capability estimate. When the data variables from these forms are combined they become a workplace injury case registry history which is a new frontier for research in injury epidemiology

Zahiri Harsini A, Ghofranipour F, Sanaeinasab H, and Amin Shokravi F. A randomised controlled trial of an educational intervention to promote safe behaviours in petrochemical workers: a study protocol. BMC Public Health. 2019; 19(1):776. <https://doi.org/10.1186/s12889-019-7126-1> [open access]

Abstract: BACKGROUND: The worldwide concern about safety has created a need for new and effective strategies to improve safety in the workplace. Based on reported studies, approximately 90% of workplace accidents are due to unsafe behaviour and human error. Therefore, the most important strategy in reducing the rate of these accidents is training workers regarding safe behaviour and avoiding human error. There is limited research on understanding the barriers to promoting safe behaviour amongst petrochemical workers. This paper presents a protocol for an intervention study, using training sessions in combination with an educational software (application). The intervention aims to both promote workers' safe behaviour and reduce the rate of occupational accidents. METHODS: One hundred seventy-six workers will be recruited to this study from an Iranian petrochemical industry. The study is Mixed Methods Research (MMR) which will be carried out in two phases. In the first phase, using a qualitative approach, in-depth interviews will identify the causes of unsafe behaviour in the petrochemical industry. In the second phase, models of safe behaviour used in workplaces and the petrochemical industry will be investigated. The findings of the first phase will be matched with the constructs of these models to produce

a well-suited conceptual model. Questionnaires and an educational intervention will be designed based on the results of the two phases. The workers will receive training interventions using direct methods, involving training sessions and workshops, and in an indirect method for which educational software will be designed. A randomised controlled trial (RCT) will assess comparability between the intervention group and the control group at baseline, after the intervention, and at a three-month follow up. DISCUSSION: This research will provide a practical approach for promoting safe behaviours and reducing occupational hazards amongst industrial workers. TRIAL REGISTRATION: Iranian Registry of Clinical Trials: IRCT20170515033981N2 . Registered 19 June 2018