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**December 11, 2020**

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**\*Tayer-Shifman OE, Green R, Beaton DE, Ruttan L, Wither JE, Tartaglia MC, et al. Validity evidence for the use of automated neuropsychologic assessment metrics as a screening tool for cognitive impairment in systemic lupus erythematosus. *Arthritis Care and Research*. 2020; 72(12):1809-1819.**

<https://doi.org/10.1002/acr.24096>

Abstract: OBJECTIVE: Screening for cognitive impairment in systemic lupus erythematosus (SLE) conventionally relies on the American College of Rheumatology (ACR) neuropsychologic battery (NB), which is not universally available. To develop a more accessible screening approach, we assessed validity of the Automated Neuropsychological Assessment Metrics (ANAM). Using the ACR NB as the gold standard for cognitive impairment classification, the objectives were 1) to measure overall discriminative validity of the ANAM for cognitive impairment versus no cognitive impairment, 2) to identify ANAM subtests and scores that best differentiate patients with cognitive impairment from those with no cognitive impairment, and 3) to derive ANAM composite indices and cutoffs. METHODS: A total of 211 consecutive adult patients, female and male, with SLE were administered the ANAM and ACR NB. 1)



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For overall discriminative validity of the ANAM, we compared patients with cognitive impairment versus those with no cognitive impairment on 4 scores. 2) Six ANAM models using different scores were developed, and the most discriminatory subtests were selected using logistic regression analyses. The area under the receiver operating characteristic curve (AUC) was calculated to establish ANAM validity against the ACR NB. 3) ANAM composite indices and cutoffs were derived for the best models, and sensitivities and specificities were calculated. RESULTS: Patients with no cognitive impairment performed better on most ANAM subtests, supporting ANAM's discriminative validity. Cognitive impairment could be accurately identified by selected ANAM subtests with top models, demonstrating excellent AUCs of 81% and 84%. Derived composite indices and cutoffs demonstrated sensitivity of 78-80% and specificity of 70%. CONCLUSION: This study provides support for ANAM's discriminative validity for cognitive impairment and utility for cognitive screening in adult SLE. Derived composite indices and cutoffs enhance clinical applicability

**Babic A, Poklepovic Pericic T, Pieper D, and Puljak L. How to decide whether a systematic review is stable and not in need of updating: analysis of Cochrane reviews. Research Synthesis Methods. 2020; 11(6):884-890.**

<https://doi.org/10.1002/jrsm.1451>

Abstract: BACKGROUND: It is challenging to keep systematic reviews (SR) current and updated. Cochrane designated some of its SRs as "stable," that is, not in need of updating. The issue of stabilizing an SR is an important in research synthesis, because it could help reduce research waste. The aim of this study was to analyze publicly available justifications for stabilizing a Cochrane review, with the ultimate goal of helping to make decisions about whether the update of any SR is warranted. METHODS: We analyzed Cochrane reviews labeled as stable in Archie, Cochrane's system for managing the editorial/publishing process. From the "What's new" section of the reviews in the Cochrane Library, we extracted justification for stabilization. RESULTS: We included 545 Cochrane reviews labeled in Archie as stable on October 28, 2019. The most common of the five reasons for stabilization was that "last search did not identify any potentially relevant studies likely to change



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conclusions" (N = 99; 18%), followed by "research area no longer active" (N = 86; 16%), "review is or will be superseded" (N = 41; 7.5%), "evidence is conclusive" (N=35; 6.4%), and "intervention no longer in general use" (N = 34; 6.2%). For the 269 (49%) Cochrane reviews, we considered that the justification for stabilization was not clearly described, that is, sufficiently informative. CONCLUSIONS: Cochrane reviews would benefit from more transparency and consistency in publicly available justifications for stabilizing reviews. Further work in this field will help make decisions about the futility of further research and deciding on enough evidence in the field of research synthesis

**Bernburg M, Groneberg D, and Mache S. Professional training in mental health self-care for nurses starting work in hospital departments. *Work*. 2020; 67(3):583-590.**

<https://doi.org/10.3233/WOR-203311>

Abstract: BACKGROUND: Nurses working in hospitals can suffer from occupational stress due to high workloads and low job and/or personal resources. This can lead to work-related stress, exhaustion, health problems, and low quality of care. OBJECTIVE: The aim of the study was to evaluate the effectiveness of work-related self-care skill training for nurses. METHODS: A pilot study was conducted with 94 nurses in hospital departments in Germany. Nurses were either assigned to the intervention group that received competence training or to a waitlist control group. The intervention took place in groups over a period of 12 weeks. Training content included i.e. work-related stress management training, problem-solving techniques, and solution-focused counselling. The outcomes studied were changes in work-related stress, emotional exhaustion, emotion regulation, and job satisfaction. Three follow-up assessments were arranged. RESULTS: Nurses in the IG achieved a decrease in perceived job stress and emotional exhaustion as well as improvements with regard to enhanced emotion regulation skills. The intervention was evaluated with high satisfaction scores. CONCLUSIONS: This study showed first indications that training of mental health self-care skills for junior nurses could be a supportive approach for nurses starting work in hospital departments. However, replication studies are needed to verify the results



**Coledam DHC and da Silva YM. Predictors of health-related absenteeism, presenteeism and sick leave among Brazilian elementary school teachers: a cross-sectional study. Work. 2020; 67(3):709-719.**

<https://doi.org/10.3233/WOR-203320>

Abstract: **BACKGROUND:** The health risks that usually affect teachers are already known; however, the predictors of health related absenteeism, presenteeism, and sick leave have not yet been fully described. **OBJECTIVE:** To analyze the predictors of health-related absenteeism, presenteeism, and sick leave among elementary school teachers. **METHODS:** This study involved a probabilistic sample of 519 Brazilian elementary school teachers. The outcomes were days of health-related absenteeism, presenteeism, and sick leave in the previous 12 months. Work-place and individual factors were the independent variables analyzed. **RESULTS:** Inadequate infrastructure of schools, disability, and medical consultations were positively associated with all outcomes. Teachers who reported having a chronic disease, common mental disorders, and voice disorders presented higher absenteeism and presenteeism days. Musculoskeletal pain and low job support were associated with higher presenteeism and sick leave days. Teachers who performed strength and flexibility activities presented less presenteeism, those who reported physical violence at school were more frequently absent, and teachers with depersonalization presented a higher likelihood of sick leave. **CONCLUSIONS:** The prevention of health-related absenteeism, presenteeism, and sick leave among elementary teachers should ensure adequate work conditions and prevention and monitoring of health risks

**Connor J, Madhavan S, Mokashi M, Amanuel H, Johnson NR, Pace LE, et al. Health risks and outcomes that disproportionately affect women during the Covid-19 pandemic: a review. Social Science & Medicine. 2020; 266:113364.**

<https://doi.org/10.1016/j.socscimed.2020.113364> [open access]

Abstract: **BACKGROUND:** The Covid-19 pandemic is straining healthcare systems in the US and globally, which has wide-reaching implications for health. Women experience unique health risks and outcomes influenced by their gender, and this narrative review aims to outline how these differences are exacerbated in the Covid-19



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pandemic. **OBSERVATIONS:** It has been well described that men suffer from greater morbidity and mortality once infected with SARS-CoV-2. This review analyzed the health, economic, and social systems that result in gender-based differences in the areas healthcare workforce, reproductive health, drug development, gender-based violence, and mental health during the Covid-19 pandemic. The increased risk of certain negative health outcomes and reduced healthcare access experienced by many women are typically exacerbated during pandemics. We assess data from previous disease outbreaks coupled with literature from the Covid-19 pandemic to examine the impact of gender on women's SARS-CoV-2 exposure and disease risks and overall health status during the Covid-19 pandemic. **CONCLUSIONS:** Gender differences in health risks and implications are likely to be expanded during the Covid-19 pandemic. Efforts to foster equity in health, social, and economic systems during and in the aftermath of Covid-19 may mitigate the inequitable risks posed by pandemics and other times of healthcare stress

**Denadai MS, Alouche SR, Valentim DP, and Padula RS. An ergonomics educational training program to prevent work-related musculoskeletal disorders to novice and experienced workers in the poultry processing industry: a quasi-experimental study. Applied Ergonomics. 2021; 90:103234.**

<https://doi.org/10.1016/j.apergo.2020.103234>

**Abstract:** This quasi-experimental study was conducted in a poultry processing industry with the aim of assessing the benefits of ergonomics educational training for novice and experienced workers in preventing work-related musculoskeletal disorders.

Sociodemographic and occupational questionnaires were used to evaluate age, marital status, education, time in job, musculoskeletal complaints and pain intensity, perceived effort, biomechanical exposure, and perception of ease or difficulty in adoption of ergonomics educational training. Musculoskeletal complaints in the neck, back, and wrists were reduced with training, but pain intensity was reduced only in the wrist region. A reduction in the occupational biomechanical exposure from the baseline to immediately post-training and 2 months after training both for novice and experienced workers was also observed. The novice workers group differed from



the experienced workers by presenting a higher reduction of biomechanical exposure in the cutting room. All workers in this study benefited from the ergonomics educational training in the short and medium term. However, the success of training was highly dependent on the content and approach of the training

**Di Donato M, Iles R, Lane T, Buchbinder R, and Collie A. The impact of income support systems on healthcare quality and functional capacity in workers with low back pain: a realist review. Pain. 2020; 161(12):2690-2709.**

<https://doi.org/10.1097/j.pain.0000000000001978>

Abstract: Low back pain (LBP) is a leading cause of work disability. While absent from work, workers with LBP may receive income support from a system such as workers' compensation or social security. This study examines how and in what contexts income support systems impact the healthcare quality for people with work disability and LBP and their functional capacity. We performed a realist review. Five initial theories about the relationship between income support systems and outcomes were developed, tested, and refined by acquiring and synthesising academic literature from purposive and iterative electronic database searching. This process was supplemented with gray literature searches for policy documents and semistructured interviews with experts in income support, health care, and LBP. Income support systems influence healthcare quality through funding restrictions, healthcare provider administrative burden, and allowing employers to select providers. They also influence worker functional capacity through the level of participation and financial incentives for employers, measures to prove the validity of the worker's LBP, and certain administrative procedures. These mechanisms are often exclusively context-dependent, and generate differing and unintended outcomes depending on features of the healthcare and income support system, as well as other contextual factors such as socioeconomic status and labour force composition. Research and policy design should consider how income support systems may indirectly influence workers with LBP through the workplace

**Ewald H, Klerings I, Wagner G, Heise TL, Dobrescu AI, Armijo-Olivo S, et al. Abbreviated and comprehensive literature**



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**searches led to identical or very similar effect estimates: a meta-epidemiological study. Journal of Clinical Epidemiology. 2020; 128:1-12.**

<https://doi.org/10.1016/j.jclinepi.2020.08.002> [open access]

**Abstract:** OBJECTIVES: The objective of this study was to assess the agreement of treatment effect estimates from meta-analyses based on abbreviated or comprehensive literature searches. STUDY DESIGN AND SETTING: This was a meta-epidemiological study. We abbreviated 47 comprehensive Cochrane review searches and searched MEDLINE/Embase/CENTRAL alone, in combination, with/without checking references (658 new searches). We compared one meta-analysis from each review with recalculated ones based on abbreviated searches. RESULTS: The 47 original meta-analyses included 444 trials (median 6 per review [interquartile range (IQR) 3-11]) with 360045 participants (median 1,371 per review [IQR 685-8,041]). Depending on the search approach, abbreviated searches led to identical effect estimates in 34-79% of meta-analyses, to different effect estimates with the same direction and level of statistical significance in 15-51%, and to opposite effects (or effects could not be estimated anymore) in 6-13%. The deviation of effect sizes was zero in 50% of the meta-analyses and in 75% not larger than 1.07-fold. Effect estimates of abbreviated searches were not consistently smaller or larger (median ratio of odds ratio 1 [IQR 1-1.01]) but more imprecise (1.02-1.06-fold larger standard errors). CONCLUSION: Abbreviated literature searches often led to identical or very similar effect estimates as comprehensive searches with slightly increased confidence intervals. Relevant deviations may occur

**Heidarimoghadam R, Mohammadfam I, Babamiri M, Soltanian AR, Khotanlou H, and Sohrabi MS. Study protocol and baseline results for a quasi-randomized control trial: an investigation on the effects of ergonomic interventions on work-related musculoskeletal disorders, quality of work-life and productivity in knowledge-based companies. International Journal of Industrial Ergonomics. 2020; 80:103030.**

<https://doi.org/10.1016/j.ergon.2020.103030>



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**Hemati K, Darbandi Z, Kabir-Mokamelkhah E, Poursadeghiyan M, Ghasemi MS, Mohseni-Ezhiye M, et al. Ergonomic intervention to reduce musculoskeletal disorders among flour factory workers. Work. 2020; 67(3):611-618.**

<https://doi.org/10.3233/WOR-203275>

Abstract: **BACKGROUND:** Work-related musculoskeletal disorders are the most common occupational health hazards. In the flour production industry, the fast pace of work, high frequency of repetitive movements, manual handling of loads, and awkward postures put a lot of pressure on the worker's body. **OBJECTIVE:** Given the high exposure of the workers of the flour production industry to ergonomic risk factors, this study aimed to reduce the rate of musculoskeletal disorders among a group of flour factory workers through ergonomic interventions. **MATERIALS AND METHODS:** This interventional study was performed using the census method on the eligible workers of a flour factory. An ergonomic intervention program was planned and implemented with the goal of reducing musculoskeletal disorders. The effectiveness of the program was evaluated by measuring the prevalence of musculoskeletal disorders before and six months after the interventions. **RESULTS:** Before the intervention, musculoskeletal disorders were most prevalent in the lower back, arms, shoulders, legs, thighs, knees, neck and wrists, respectively. Evaluation of the prevalence of musculoskeletal disorders after the intervention showed the positive effect of the ergonomic intervention program on musculoskeletal disorders in the neck, shoulders, lower back, thighs, knees, and legs ( $P < 0.05$ ). **CONCLUSION:** Engineering and management interventions implemented in this study led to a significant reduction in the level of ergonomic risk factors and a reduced rate of musculoskeletal disorders among workers of different units in the flour factory

**Kahan BC, Ahmad T, Forbes G, and Cro S. Public availability and adherence to prespecified statistical analysis approaches was low in published randomized trials. Journal of Clinical Epidemiology. 2020; 128:29-34.**

<https://doi.org/10.1016/j.jclinepi.2020.07.015>

Abstract: **BACKGROUND AND OBJECTIVE:** Prespecification of statistical methods in clinical trial protocols and statistical analysis plans can help to deter bias from p-hacking but is only effective if the



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prespecified approach is made available. **STUDY DESIGN AND SETTING:** For 100 randomized trials published in 2018 and indexed in PubMed, we evaluated how often a prespecified statistical analysis approach for the trial's primary outcome was publicly available. For each trial with an available prespecified analysis, we compared this with the trial publication to identify whether there were unexplained discrepancies. **RESULTS:** Only 12 of 100 trials (12%) had a publicly available prespecified analysis approach for their primary outcome; this document was dated before recruitment began for only two trials. Of the 12 trials with an available prespecified analysis approach, 11 (92%) had one or more unexplained discrepancies. Only 4 of 100 trials (4%) stated that the statistician was blinded until the SAP was signed off, and only 10 of 100 (10%) stated the statistician was blinded until the database was locked. **CONCLUSION:** For most published trials, there is insufficient information available to determine whether the results may be subject to p-hacking. Where information was available, there were often unexplained discrepancies between the prespecified and final analysis methods

**Kraus A, Awoniyi O, AlMalki Y, Bardeesi ASA, Edwards B, AlHajjaj F, et al. Practical solutions for healthcare worker protection during the COVID-19 pandemic response in the ambulatory, emergency, and inpatient settings. Journal of Occupational & Environmental Medicine. 2020; 62(11):e616-e624. <https://doi.org/10.1097/JOM.0000000000002008>**

**Abstract:** **OBJECTIVE:** Protecting healthcare workers is an essential component of a successful response to the COVID-19 pandemic. The resource intensive nature of infectious disease protection, budgetary constraints, and global shortages of personal protective equipment (PPE) make this a daunting task. Practical, easily implemented strategies for healthcare workers (HCW) protection are needed. **METHODS:** We cross-reference the "Systems, Space, Staff, and Stuff" paradigm from disaster management and the "Hierarchy of Controls" approach to infection prevention from the Center for Disease Control and Prevention (CDC) to generate a narrative overview of worker protection strategies relevant to COVID-19. **RESULTS:** Alternative types of PPE, management of hazards, and reorganizing how people work can optimize HCWs protection. **CONCLUSIONS:** A comprehensive PPE strategy can utilize the



"systems, space, staff, stuff" paradigm of disaster management to identify new or underutilized solutions to HCWs protection

**Lai R, Tan L, Lai X, Zhang X, and Zhou Q. Help-seeking behavior of returning to work in healthcare workers and its influencing factors during COVID-19 subsiding. Journal of Occupational & Environmental Medicine. 2020; 62(11):898-903.**

<https://doi.org/10.1097/JOM.0000000000001959>

Abstract: OBJECTIVES: To explore the level and influencing factors of help-seeking behavior of returning to work in healthcare workers (HCWs). METHODS: A total of 861 HCWs were surveyed. A structured self-administered questionnaire was used to collect data. Multivariable logistic regression was performed to examine the influencing factors of help-seeking behavior. RESULTS: HCWs sought help with respect to COVID-19-diagnosed problem most. Help-seeking intention, problems encountered after return, test for return, work condition during COVID-19, relatives or friends diagnosed or suspected as COVID-19, and socio-demographic characteristics such as occupation, education, title, and marriage status are predictors of help-seeking behavior. CONCLUSIONS: Education and intervention should lay particular stress on HCWs featured rest at home before return, doctor, lower education and lower title to ensure the safety, accuracy, and quality of work after they return to work for a better occupational environment

**Renberg J, Wiggen OW, Tvetene POS, Farevik H, Van Beekvelt M, and Roeleveld K. Effect of working position and cold environment on muscle activation level and fatigue in the upper limb during manual work tasks. International Journal of Industrial Ergonomics. 2020; 80:103035.**

<https://doi.org/10.1016/j.ergon.2020.103035>

**Taylor TK, Mueller KL, Blink RC, McKinney DW, Silverman W, and Das R. Workers' compensation elements in different jurisdictions in the United States. Journal of Occupational & Environmental Medicine. 2020; 62(12):e760-e769.**

<https://doi.org/10.1097/JOM.0000000000002047>

Abstract: : Over the decades, the workers' compensation system has provided many injured workers with a significant guarantee of both



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medical and financial support when they have been injured on the job. To be effective, workers' compensation systems at a minimum should include principles that require the addressing of medical causation, determination of an individual's functional ability both pre- and post-injury to include activity restrictions, return-to-work capability and disability, meeting jurisdiction-specific reporting requirements of the workers' compensation reporting requirements, and having knowledge of other perspectives of the various authorities and jurisdictions present in the United States. ACOEM lays out a description of various aspects of workers' compensations systems in the United States, with recommendations for minimal standards and best practices. This paper limits itself to the discussion of jurisdictions within the United States and ACOEM strongly recommends that providers consult directly with the states in which they are working as there are state variations in workers' compensation

**Urhammer C, Grynderup MB, Appel AM, Hansen AM, Hansen JM, Kaerlev L, et al. The effect of psychosocial work factors on headache: results from the PRISME cohort study. Journal of Occupational & Environmental Medicine. 2020; 62(11):e636-e643. <https://doi.org/10.1097/JOM.0000000000002023>**

Abstract: OBJECTIVE: To investigate the cross-sectional and longitudinal association between psychosocial work factors, assessed as work-unit averages, and headache. For comparison, we also applied individual exposure measures. METHODS: We used questionnaire-data on headache and psychosocial work factors (PWF). In total, 2247 employees were included in the cross-sectional analyses and 553 in the longitudinal analyses using work-unit averages. The corresponding numbers for the analyses using individual exposure measures were 4261 and 942 employees. RESULTS: Low skill discretion and low decision authority were most consistently associated with higher odds of headache across all analyses. Role conflicts, bullying, and effort-reward imbalance were associated with headache in some analyses. All PWF were associated with headache in cross-sectional analyses with individual exposure measures. CONCLUSION: This study partly supports the hypothesis of an effect of PWF, as a source of psychological stress, on the risk of headache



**Xia N, Xie Q, Griffin MA, Ye G, and Yuan J. Antecedents of safety behavior in construction: a literature review and an integrated conceptual framework. Accident Analysis & Prevention. 2020; 148:105834.**

<https://doi.org/10.1016/j.aap.2020.105834>

Abstract: There has been no scarcity in the literature of suggested antecedents of employee safety behavior, and this paper brings together the disaggregated antecedents of safety behavior in the construction field. In total, 101 eligible empirical articles are obtained. Bibliometric and context analyses are combined to identify the influential journals, scholars, keywords, use of theory, research methods, and countries or regions of the empirical samples. The 83 factors that are identified are divided into five groups, namely (a) individual characteristics, (b) workgroup interactions, (c) work and workplace design, (d) project management and organization, and (e) family, industry, and society. This indicates that the causes of safety behavior are manifold. Various factors from different systems likely work in concert to create situations in which an individual chooses to comply with safety rules and participate voluntarily in safety activities. Given this, we propose that safety behavior is only an ostensible symptom of more complex "The Self-Work-Home-Industry/Society" systems and establish a safety behavior antecedent analysis and classification model. Based on this model, we develop a resource flow model, illustrating why, how, and when the flow of resources between the five systems-namely the self system, work system, home system, work-home interface system, and industry/society system-either promotes or inhibits safety behavior. The safety behavior antecedent analysis and classification model and resource flow model are based mainly on bioecological system theory and resources theories. Avenues for future theoretical development and method designs are suggested based on the reviewed findings and the two conceptual models. The intention with this systematic review together with the two integrated conceptual models is to advance theoretical thinking on how safety behavior can be promoted, or instead, inhibited

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