

For Your Insight: Research and Practice From the Field Vol. 28

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This monthly update highlights relevant research for RETAIN states and summarizes key takeaways that may benefit program implementation. Each summary includes a link to an article, a resource, or a formal abstract. An accessible version of For Your Insight is attached to this email.

Economic Evaluations of Ergonomic Interventions Preventing Work-Related Musculoskeletal Disorders: A Systematic Review of Organizational-Level Interventions

Sultan-Taib and colleagues (2017) conducted a literature review to assess the cost-benefit of organizational-level ergonomic workplace-based interventions that help prevent work-related musculoskeletal disorders. The authors grouped the nine studies into four types of interventions:

1. *Reducing lifting hazards for healthcare workers*—Five studies focused on reducing lifting hazards for healthcare workers through staff training and an organizational policy aimed at risk reduction. All of these studies showed cost savings for the employer as well as a significant reduction in workers' compensation claims.
2. *Participatory ergonomic interventions*—Two studies analyzed participatory ergonomic interventions in which workers were involved in analysis of work factors contributing to musculoskeletal problems, the selection of solutions to address these problems, and implementation of the solutions. One study showed that the intervention was not cost effective and that the intervention's benefit was negative from an employer's perspective. The other study found the intervention to be both beneficial and cost effective for the employer.
3. *Meetings between employees and supervisors*—One study involved computer workers meeting with supervisors to improve work style (i.e., body posture). This study showed that the work style intervention was cost effective at reducing pain and improving recovery in the neck and shoulders.
4. *Reducing workload for construction workers*—One study involved ways for construction workers to reduce their workload through sessions with physical therapists, promoting rest breaks, and empowerment sessions with workers and supervisors. This intervention was not cost effective, even though the intervention succeeded in reducing absenteeism.

All of the interventions reviewed that showed an economic benefit also had strong support from supervisors and a high rate of employee participation. The authors concluded that employers looking to invest in preventive interventions need management support and high employee participation.

Full text available: [Sultan-Taïeb, H., Parent-Lamarche, A., Gaillard, A., Stock, S., Nicolakakis, N., Hong, Q. N., Vezina, M., Coulibaly, Y., Bezina, N., & Berthelette, D. \(2017\). Economic evaluations of ergonomic interventions preventing work-related musculoskeletal disorders: A systematic review of organizational-level interventions. *BMC Public Health*, 17\(1\), 935.](#)

Tags: Musculoskeletal disorders, ergonomic evaluation

Expanding the Paradigm of Occupational Safety and Health: A New Framework for Worker Well-Being

Chari and colleagues (2018) described the development of a conceptual framework of worker well-being designed by the National Institute for Occupational Safety and Health. Well-being is often characterized by “constructs such as happiness, flourishing, or the ability to live well.” The goal of the framework is to establish definitions for measures of well-being that can inform workplace interventions and increase workers’ quality of life. These definitions will support the measurement of worker well-being and create tools that will help workers. The authors conducted a literature review to inform five major domains:

1. Home, community, and society examines factors outside an individual’s work life that nonetheless influence their well-being at work.
2. Workplace physical environment and safety climate focuses on factors that are part of the physical and safety features of the work environment.
3. Workplace policies and culture focuses on organizational policies and practices that influence worker well-being.
4. Health status focuses on aspects of workers’ lives involving physical and mental health.
5. Work evaluation and experience describes workers’ self-assessment of the quality of their work life.

The domains of the framework accounts for both work and nonwork settings. In addition, the framework includes both subjective (i.e., a worker’s perceptions) and objective (i.e., aspects of a worker’s environment) factors of well-being. Assessing subjective factors helps capture how workers view their own preferences about what a good life means for them. Assessing objective factors helps explore whether workers have opportunities to achieve well-being as it applies to physical health, material well-being, physical safety, and social relationships. The authors conclude that the worker well-being framework helps us to understand, measure, and assess worker well-being.

Full text available: [Chari, R., Chang, C-C., Sauter, S. L., Petrun Sayers, E. L., Cerully, J. L., Schulte, P., Schill, A. L., & Uscher-Pines, L. \(2018\). Expanding the paradigm of occupational safety and health. *Journal of Occupational and Environmental Medicine*, 60\(7\), 589–593.](#)

Tags: workplace interventions, worker well-being

Initial Return to Work and Long-Term Employment Patterns: Associations With Work-Related Permanent Impairment and With Participation in Workers' Compensation-Based Return-to-Work Programs

Sears and colleagues (2020) examined whether long-term employment outcomes for injured workers are affected by the degree of whole-body impairment (WBI) and participation in types of workers' compensation (WC) programs in the state of Washington. The authors classified WBI by three groups: (a) permanent partial disability (PPD) award for individuals with significant WBI, (b) PPD award for individuals with less significant WBI, and (c) no PPD award. The authors looked at employment outcomes for individuals who participated in the Stay at Work program, which is a WC-based financial incentive program that reimburses employers for providing temporary light-duty or transitional jobs for injured workers. The authors also looked at outcomes for individuals who completed a WC-based vocational retraining program compared with individuals who were enrolled in the program, but they did not complete it. The authors found that long-term employment outcomes differed significantly by degree of impairment. Compared with individuals who did not have a PPD award, individuals with significant WBI were 43% less likely to return to work (RTW), 15% more likely to have an RTW interruption, and had larger gaps in employment. Compared with individuals who did not participate in or complete their program, the Stay at Work program and the WC-based vocational retraining program were associated with significantly better employment outcomes for individuals with WBI. The authors concluded that workers with WBI are at higher risk of poorer employment outcomes and that WC-based retraining programs may improve employment outcomes.

Abstract available: [Sears, J. M., Fulton-Kehoe, D., & Hogg-Johnson, S. \(2021\). Initial return to work and long-term employment patterns: Associations with work-related permanent impairment and with participation in workers' compensation-based return-to-work programs. *American Journal of Industrial Medicine*, 64\(5\), 323–337.](#)

Tags: RTW, compensation-based return-to-work programs, whole-body impairment

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