



What Facilitators and Barriers Predict Adoption of Ergonomic Innovations in Construction?

Facilitators and barriers to the adoption of ergonomic solutions in construction

Ann Marie Dale, Lisa Jaegers, Laura Welch, Ellen Barnidge, Nancy Weaver and Bradley A. Evanoff. American Journal of Industrial Medicine, March 2017.

Overview

Although many available tools and technologies promise to reduce the risk work-related musculoskeletal disorders (WMSDs), WMSD rates in construction remain high. Researchers described barriers and facilitators to adoption of available ergonomic solutions using a model developed by Weinstein (2007) and rooted in Rogers' Diffusion of Innovations framework. Analysts rated 16 proposed ergonomic solutions from a prior participatory study involving sheet metal workers, and tested the association between adoption and six characteristics of the tool or technology (relative advantage, usability, compatibility, complexity, trialability, and observability).

Key Findings

- Solutions that were adopted were rated positively for characteristics of relative advantage, compatibility with existing work processes and trialability (the ability to “try before buying”).
- Locus of control was not related to adoption – both solutions under the control of the worker and those controlled by the employer were adopted.
- Simple solutions faced fewer barriers to adoption than those rated as complex.
- Analysis of potential interventions using this framework can help predict successful adoption of new ergonomic solutions in construction.
- Adoption of complex solutions must involve multiple stakeholders, more time, and shifts in culture or work systems.

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See abstract:

<http://bit.ly/2qg5qYG>

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