

University of Washington

Abstract

The Validity of Supervisor Assessments in Identifying Ergonomic Risk Factors

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Work-related musculoskeletal disorders (WMSDs) are associated with ergonomic factors present in the workplace. The enormous costs, high rate of incidence, and public awareness of WMSDs has drawn increasing attention to the need for intervention. Whether in response to regulation or acting independently to reduce exposure of their workers, employers who assess the jobs in their workplace for WMSD hazards often assign supervisors or other employees without formal ergonomics training to the task. This cross sectional study examined the ability of supervisors to accurately and reliably assess the presence of ergonomic risk factors in the jobs they supervise. A variety of industries were chosen to identify jobs within each of the five primary categories of ergonomic risk. Thirty-seven supervisors in five different industries assessed the jobs they oversee through a sixteen-item questionnaire assessing posture, force, repetition, impact, lifting, and vibration. Their assessments were compared to detailed ergonomist job analyses to determine supervisors' accuracy in identifying ergonomic risk. Fifty-four workers also assessed the jobs they perform and their findings were compared to their supervisors and the ergonomist analysis. Three risk factors (posture, repetition, and lifting) were identified by the ergonomist in at least one of the five jobs. Agreement between supervisors and ergonomist when risk was present ranged from 59% to 89% in

recognizing the presence or absence of the three risk factors. In assessing the absence or presence of all risk factors, supervisors agreed with the ergonomist 80% of the time.

Supervisors over-estimated the presence of risk in assessing the jobs overall. In conclusion, supervisors appear promising in their ability to accurately recognize risk in initial ergonomic assessments.

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