

THE PSYCHOSOCIAL SIDE OF RSIs

Since psychosocial risk factors are known contributors to repetitive strain injury and other musculoskeletal disorders, ignore them at your peril.



Illustration: Giovannina

A typical definition of ergonomics runs, “Ergonomics is the science of matching work and the work environment to the people who are doing the work.” When people think of “work and the work environment,” they tend to think of identifying potential *physical* hazards, such as force, posture, repetition, or vibration, which may create risk of injury. But ergonomics includes consideration of more than just the physical — it includes cognitive and psychosocial risk factors in the work environment as well. If you’re planning an ergonomic intervention, taking these risk factors into consideration can boost your success rate.

What exactly are psychosocial hazards or risk factors? Other terminology could be work organization factors, or workplace stressors. Some examples are:

- work overload and time pressure
- lack of influence or control over day-to-day work
- lack of respect or appreciation for the effort put into the job
- lack of supervisor or coworker support
- lack of training or preparation to do the job
- too little or too much responsibility
- ambiguity in job responsibilities, and
- poor communication, or too little communication.

There are decades of research into the health and safety effects of some of these factors. The conclusion is that some of them are particularly important, such as the demands of the job (workload and time pressure), control over the job (decision latitude, or influence over how the job is done, and input into decisions that affect you) and an appropriate level of respect and appreciation for the amount of effort put into the job (effort/reward balance). Health Canada reports that high demand/low control con-

ditions and high effort/low reward conditions are associated with and up to three times higher incidence of back pain and excess rates of up to 150 percent of repetitive strain injuries.¹

Recent research done in Ontario by the Institute for Work and Health (IWH) and the University of Waterloo looking at the risks of lower back pain (LBP) in autoworkers found that while shear forces, hand force and disc compression (physical biomechanical factors) were important, a number of psychosocial factors were also significantly related to reporting low back pain. Specifically, the social environment, over-education for the job (effort/reward imbalance), job satisfaction and co-worker support were among the main risk factors for reporting back pain.² Their conclusion was that “both biomechanical and psychosocial factors contribute substantially and independently to risk of reporting LBP to occupational services.” Their recommendation, then, was to focus prevention efforts on both types of factors.

So how does one do that, exactly? Which should be looked at first — the biomechanical or the psychosocial? And how do you address psychosocial risks anyway?

The solution lies in the approach used to effectively implement ergonomics within an organization. For example, if a company experiences a high number of back injuries, some managers may respond by simply buying a video on back care and showing it to all employees. Alternatively, some companies have purchased a hoist to lift heavy items, only to find that it does not get used because employees are under too much time pressure or lack the training to use it safely and efficiently.

Considering that lack of control over one’s job is a major psychosocial risk factor, trying to force people to work safely can be counter-productive.

This “top-down” approach often proves ineffective because the real cause of the injuries and accidents cannot be determined without input from the employees themselves. Furthermore, solutions, even if they would be very beneficial to the staff, may be met with skepticism and the natural resistance to change. Considering that lack of control over one’s job is a major psychosocial risk factor,

trying to force people to work safely can be counter-productive.

Some firms are finding more success implementing ergonomics using a more participatory approach based on the IAPA Integrated Management System™ and “Blueprint for Ergonomics” developed by the University of Waterloo and the Institute for Work and Health. With this approach, IAPA ergonomists facilitate a cross-functional team of employees to identify the hazards themselves. Through a series of workshops, the team gets practical training in ergonomics and is empowered to develop their own solutions using the best current evidence to improve the workplace and reduce injury. The team can identify and address both bio-mechanical and psychosocial risk factors at once.

A participative team can be considered a psychosocial intervention in itself, by giving employees a chance to influence the decisions that affect them on the job. Involving workers and managers from different departments or units in the workplace, and giving them sufficient knowledge and power to influence both processes and outcomes, will have the following advantages:

- the problem will be more clearly defined
- change effectiveness will be enhanced
- change implementation will be easier and better accepted by the employees
- communication will be enhanced
- psychosocial risk factors are addressed to some extent by the process itself, and
- measurable results that show the effectiveness of the solutions.

The solutions you develop for the problems you identify will be very specific to your particular situation. They might include such elements as:

- training supervisors in communication skills or emotional intelligence
- instituting employee satisfaction surveys on a regular basis, with a commitment to follow up on results
- instituting 360° feedback for performance appraisals
- developing mechanisms to encourage input and suggestions from employees
- ensuring that recognition and rewards are distributed fairly
- setting and enforcing standards for behaviour on the job, including management behaviour and feedback tactics
- setting and enforcing standards for a harassment-free workplace, and
- instituting flexible work options (giving employees more control over their work and their work/family balance).

For examples of specific solutions

Successful Ergonomic Interventions

Below are real examples of ergonomic problems that IAPA member firms have resolved by addressing physical and psychosocial risk factors

Hazard or Problem Identified	Ergonomic Intervention
Boxes were packed too full of product, making them too heavy for the next person to lift	<ul style="list-style-type: none"> ■ Improved communication between work groups ■ Employees set standards and supervisors enforce them
Staff do not adjust their workstations properly after they rotate to the next job	<ul style="list-style-type: none"> ■ Training provided for staff to understand the importance of good posture and how to adjust their workstation ■ Supervisors trained to identify awkward static postures and to coach employees
Several new RSI injuries reported in an advanced stage of illness	<ul style="list-style-type: none"> ■ Health survey administered to all staff to determine if there are many people working with pain, but have not reported it ■ Psychosocial factors are evaluated with the survey showing a high correlation between the reports of pain and job satisfaction indices ■ Workstation modifications, as well as manager training in communication skills and emotional intelligence required
High rate of injuries among an aging production staff	<ul style="list-style-type: none"> ■ Employees participate in an ergonomics workshop, where they brainstorm ways of making the job easier and more efficient ■ Management supports the initiative and implements selected recommendations

implemented by IAPA member firms, see “Successful Ergonomic Interventions.”

Adjusting the physical parameters of a workstation or task may result in an immediate and impressive reduction in back pain or musculoskeletal injuries. But psychosocial hazards are not only risk factors for back pain or RSIs. They’re also linked to higher rates of heart disease, certain cancers, violence in the workplace, substance abuse and mental health. Consequently, addressing psychosocial hazards as part of the process of reducing ergonomic hazards will likely have a far wider range of benefits than simple reduction of soft tissue injuries.

1. Health Canada: *Best Advice on Stress Risk Management in the Workplace*, 2000. Available at <http://www.hc-sc.gc.ca/hecs-sesc/workplace/publications.htm>

2. *Canadian HR Reporter* Jan 15/01, “Ergonomics debate rages as US passes new law: Psychosocial factors contribute to work-related injuries: study.”



IAPA Ergo Support

IAPA’s team of ergonomic consultants offers workplace assessments, customized training sessions and workshops, and other solution-oriented services. For more information on how IAPA can help your workplace reduce or eliminate the risk of repetitive strain injuries, or to arrange an on-site visit, call 1-800-406-IAPA (4272).

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