Risk tolerance affects workplace safety

Task familiarity, overestimating capabilities among 7 factors that increase risk

The focus on occupational health and safety risk management and the application of occupational health and safety management systems as a risk control strategy continues to grow in Canada. It is recognized that a big cause of serious — and often fatal — workplace incidents is employee error, meaning employees do something they are not supposed to do or they fail to do something they are supposed to do. The modes of error include intentional and unintentional error.

The intentional errors are, in part, a result of the employee's willingness to expose herself to risk. An employee's willingness to engage in high-risk activities or situations is related to her perception or tolerance of risk. This is also known as risk posture or appetite.

Safety professionals need to better understand employees' perception of risk and risk tolerance if they are to build effective systems to reduce risk. A major component of such a system involves competency development (education and training) and competency assessment.

A great deal of work has been done to understand the elements of employee risk tolerance. Safety consultant Dave Fennel describes seven factors that increase an employee's risk tolerance and three factors that decrease it. Understanding these 10 factors is critical to reducing risk.

Overestimating capability/experience: Workers with many years of experience overestimate their ability and, as a result, the real risk of the work is grossly underestimated. Ongoing and regular refresher training related to high-risk tasks is needed. Job observation of these tasks needs to be completed and documented to reinforce best practices. Recognition of good work habits needs to be rewarded and corrective action needs to be taken immediately when risk-taking behaviours are noted.

Familiarity with the task: Familiarity with a high-risk job or task leads to complacency and this leads to risk. Employees who repeatedly undertake work that we would all agree is high risk regularly down-rate the risk. Complacency can lead employees to take procedural shortcuts. Regular refresher training and formalized competency re-assessment will reduce this risk factor.

Voluntary actions and being in control: When exposure to a risk is seen as a voluntary action and part of an action where the employee is in control, the associated risks are more easily accepted. Formalized work planning built around solid and specific procedures creates a structure. A structured and regimented work routine reduces the sense that activities are voluntary and this reduces employees' acceptance of risk.

Confidence in the equipment: Employees come to believe that technologically advanced and otherwise sophisticated equipment is infallible. Even modern computer controlled cranes or process equipment is subject to upset and system failures. Effective training needs to include explaining the limitations of equipment and reinforcing what problems can arise with its improper use.

Confidence in protection and rescue: As surprising as it may sound, employees may consciously or subconsciously expose themselves to risk thinking that the emergency response plan and a call to 911 can "save the day" if something goes wrong. Employees' participation in emergency response training and practice drills or scenarios needs to reinforce that the protective system may fail and rescue only reduces the severity of impact — it does not prevent the incident from happening.

Potential gain or profit from actions: The implications of taking shortcuts need to be a part of every training and re-fresher training program. Strong messaging needs to come from the senior leadership and it should be incorporated into the regular communication or refresher training to create a strong connection between the senior leader's message and the need to follow the procedures.

Role models accepting risk: When an employee's supervisor or manager is seen to be taking shortcuts or intentionally taking on risk, the behaviour is "normalized." Supervisors and managers who are seen as the leaders that walk-the-talk need to be involved in ongoing training. Training programming needs to include a discussion of normalization of risk and how to prevent it.

Explain the seriousness of potential outcomes: If employees understand and can internalize the negative outcomes of exposure to risk, they are less likely to voluntarily take on the risk. Hearing the direct message from injured employees and including them in ongoing training and education programming can be an effective mechanism to help employees understand the seriousness of the potential outcomes of risky behaviours. Bringing in a speaker that can speak to and illustrate the impact of exposure to risk can be valuable.

Personal experience with potential outcome: Employees who have experienced a serious incident are most likely to manage risk and avoid all unnecessary exposure. The best example for employees is a colleague who can explain what happened to them and how they could have worked to avoid the negative outcome. Using training exercises that include re-enactment of serious incidents are effective in reducing risk-taking behaviours.

The cost of non-compliance: Helping employees to understand the total and true cost of compliance reduces risk taking. Every employee needs to participate in a program of education that incudes calculating the total direct and indirect cost of a range of incident types. The concept of the iceberg of costs related to accidents needs to be part of every employee's regular orientation and refresher education.

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