Beyond Safety: Integration of Health Promotion Into Occupational Safety and Health

Hazards are ever-present in the steel plant environment, and a heightened awareness and emphasis on safety is a necessary priority for our industry. This monthly column, coordinated by members of the AIST Safety & Health Technology Committee, focuses on procedures and practices to promote a safe working environment for everyone.

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Comments are welcome. If you have questions about this topic or other safety issues, please contact safetyfirst@aist.org. Please include your full name, company name, mailing address and email in all correspondence.

Protecting employees from workplace hazards is critical to the health of the workforce and fundamental for operational effectiveness. There is growing recognition in the Occupational Safety and Health (OSH) profession that risk factors in the workplace can contribute to physical and mental health problems that can affect worker well-being and that may have historically been considered unrelated to work. Additionally, behaviors and well-being outside of work can also impact worker performance on the job and affect operational outcomes. Therefore, shifting to an approach that integrates OSH with health promotion, and addresses both workplace and non-workplace risk factors that may compromise worker well-being, is essential for a sustainable workforce as work organization and the nature of work continue to change globally in modern industry.

Risk Factors That May Affect Worker Well-Being

Efforts to increase awareness of workplace hazards and reduce the incidence of occupational injury and illness in the steel industry have shown promise. In fact, safety data from World Steel Association (WSA) indicate a steady reduction in the lost-time injury frequency rate (LTIFR) over the past 10 years.[1] However, many safety and health-based programs may focus solely on commonly recognized causes of safety incidents, when other organizational and environmental factors can also contribute to the risk of injury and illness and affect health outcomes.

Job-related factors such as hours of work, interactions with coworkers, stress levels, job insecurity, high job demands and low control are risk factors for obesity, cardiovascular disease, depression and other health conditions.[2–6] These conditions, along with factors outside of work such as financial security, life satisfaction and support outside of work, can affect worker well-being and can influence worker performance, engagement and impact direct and indirect costs for employers. Additionally, safety-related behaviors can be affected[7] and should also be considered outside of the workplace. For example, if employees are active participants in a hearing conservation program at work but take no precautions to promote hearing health at home when using a chainsaw or lawnmower to do yard work, the hearing loss that may result over time can impact their ability to work safely and productively and further impact overall health and well-being.

Safety and occupational injuries and illnesses are often tracked with metrics such as the number of incidents and near misses, trainings conducted, inspections and audits completed, and key performance indicators including LTIFR. Conversely, worker well-being has historically been perceived as more challenging to conceptualize and quantify, which can make implementation of programs that integrate health protection and health promotion to improve worker well-being challenging to evaluate.

Worker Well-Being Defined

The National Institute for Occupational Safety and Health (NIOSH) Total Worker Health (TWH)® Program is an example of a U.S.-based program focused

on advancing worker well-being through integration of protection from safety and health hazards with promotion of injury and illness prevention efforts. Fundamentals of the TWH approach include the following defining elements:[8]

- Leadership commitment to safety and health at all organizational levels.
- Design work to eliminate or reduce hazards and promote well-being.
- Engage workers in design and implementation of programs.
- Ensure confidentiality and privacy for workers.
- Integrate systems to advance well-being.

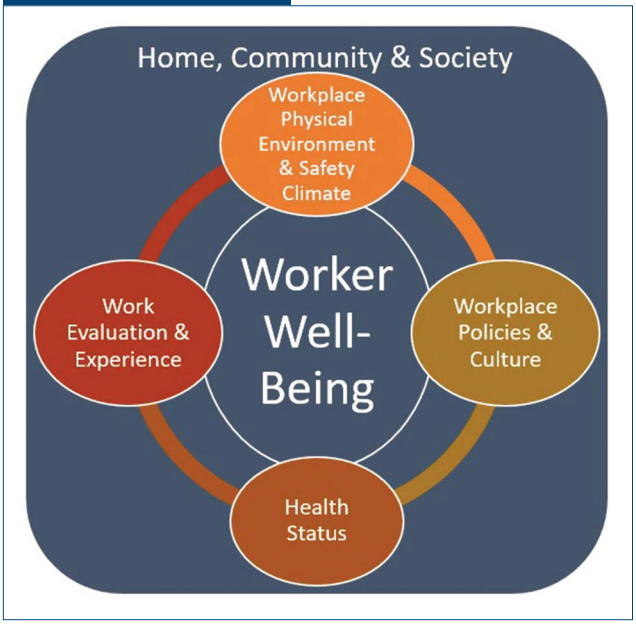
NIOSH has worked collaboratively to develop a conceptual framework defining worker well-being and create a Worker Well-Being Questionnaire that can be used to assess the status of worker well-being, establish targets and evaluate the effectiveness of interventions.[9]

The framework consists of the five domains represented in Fig. 1 and is grounded in two main points:[9]

- Worker well-being should include both work and non-work settings.
- Worker well-being should incorporate both subjective and objective aspects.

Given NIOSH's comprehensive framework and approach to well-being that incorporates both work and non-work settings, there are many areas of focus for integrated, multi-faceted approaches to worker safety, health and well-being. The evidence base supporting the value of integrated approaches to protect workers from hazards and advance well-being is growing and demonstrates benefits for workers and businesses.

Figure 1



Adapted from: R. Chari, C. Chang, S. Sauer et al., "Expanding the Paradigm of Occupational Safety and Health: A New Framework for Worker Well-Being," J. Occup. Environ. Med., Vol. 60, No. 7, 2018, p. 589–593.

Value of Advanced Worker Well-Being

Research indicates that improving worker well-being not only impacts worker health that can enhance overall quality of life, but can also contribute to worker engagement, morale and professional longevity.[10,11] Employers benefit from more motivated and productive employees, which may enhance retention, company reputation in the community and corresponding recruitment. This can result in the creation of a sustainable workforce culture, reduced direct costs such as health care expenditures, and impact indirect costs such as those related to absenteeism, shortages, turnover and reduced worker productivity.[10–13]

A worker who is engaged and believes their safety is valued by management is more likely to participate in practices aligned with operational improvement, such as quality management,[7] and demonstrate commitment to pursuing organizational goals and objectives.[14] Alternatively, workers who do not believe their safety is valued are less likely to engage in these practices which can erode production and safety.[14]

In addition to improving the safety and health of workers, OSH leaders can leverage the growing body of evidence to position investment in worker well-being as a strategic differentiator and innovative way to deliver value and increase economic viability of an organization.

The Path Forward

As socioeconomic uncertainty grows and the nature of work continues to evolve, so must employers' approach to occupational safety and health. Investment in not only health protection but also health promotion is critical to help advance the well-being of the workforce and drive business results. The evidence supporting comprehensive approaches to worker well-being is growing and industry leaders, including WSA and SSAB, are prioritizing employee well-being as fundamental priorities for high-performing organizations.[1,15] It is time to consider the impact of investing in employee well-being more broadly than financial indicators alone and recognize the extensive value of investment this emerging strategy can create for employers competing to maintain a sustainable workforce in a dynamic global economy.

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Did You Know?

ArcelorMittal Granted EUR280 Million EIB Loan for Decarbonization R&D

The European Investment Bank (EIB) funding, backed by the Investment Plan for Europe, will support ArcelorMittal's European research and development activities through 2023.

The steelmaker in September announced the loan, which will cover capital expenditures at the company's R&D facilities in France, Belgium, Luxembourg and Spain.

ArcelorMittal Europe has set a goal to reduce CO_2 emissions intensity by 35% by 2030.

"This funding will help Global R&D to further enable ArcelorMittal's ambitions to reduce its environmental footprint in terms of its operations and its products," said Greg Ludkovsky, vice president of ArcelorMittal and head of research and development.

"We will be able to expand our work to develop environmentally sustainable, high-added value, cost-effective, and disruptive products and manufacturing processes."

Ambroise Fayolle, EIB vice president, added, "The signing of this agreement between the European public bank and ArcelorMittal will support a major European player in the steel industry with a deep focus on higher value-added steel products. These investments will play a key role in ArcelorMittal's carbon footprint reduction strategy and therefore contribute to the European green deal, aligned with the terms of the 2015 Paris Agreement on climate change."