



Safety & Job Burnout

Understanding Complex Contributing Factors

By Beth Genly

Burnout is widespread and detrimental to employees and organizations. Four decades ago, studies suggested that burnout existed primarily in professions that are especially emotionally challenging, such as medicine, social work and law (Maslach & Jackson, 1987). Research has since documented burnout in nearly every field (see sidebar, “Who Is At Risk for Burnout?” on p. 47).

Burnout is characterized by three traits, often measured using a version of the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981):

- Emotional exhaustion: Often accompanied by physical exhaustion and cognitive weariness.
- Depersonalization: Others are perceived as or treated as objects. Depersonalization can manifest as social withdrawal, flat or irritable responses to others or as cynicism.
- Inefficacy: One’s efforts are felt to no longer have value or to make a difference.

Emotional exhaustion and depersonalization are the most important symptoms of burnout as they are associated with various adverse outcomes, both for the individual and the enterprise for which s/he works.

The cause of burnout is complicated. It is the result of an individual’s attempt to cope with excessive and prolonged stress. Because burnout is caused by both individual and work/life factors, an ideal approach to prevention includes not only organizational systems but also strategies to address personal skills for managing stressful work/life environments.

Burnout & Severe Injury

Burnout increases the rates of severe injury, both on and off the job. Ahola, Salminen, Toppinen-Tanner, et al. (2013), examined the rate of severe injuries (leading to hospitalization or death) in more than 10,000 forest products workers in Finland. All citizens in Finland have one national health registry number throughout their lives, which allows researchers to collect data on severe injuries occurring both at work and else-

where over a period of 8 years. These injury rates were then compared to the workers’ MBI scores.

Ahola, et al. (2013), found that for each unit increase in the MBI score, there was a 10% increase in the risk for severe injuries. This association held true for both the exhaustion and cynicism ratings. Even more concerning is that when the results were divided into groups based on how frequently burnout symptoms were experienced, those who experienced burnout symptoms at least once a month saw a 19% increase in their risk of serious injury as compared to people who experienced burnout symptoms less often. The researchers concluded that “burnout is a risk factor for future severe all-cause injuries.”

Burnout & Errors

Workplace errors in healthcare have a significant potential for harm, both to the patient and healthcare provider. Some studies have documented that medical errors occur more frequently due to burnout, which occurs at a high rate among doctors and nurses.

Errors are also related to organizational issues such as staffing levels and overtime. A multi-industry review concluded that “overtime was associated with poorer perceived general health, increased injury rates, more illnesses or increased mortality in 16 of 22 studies” (Caruso, Hitchcock, Dick, et al., 2004).

IN BRIEF

- Professional burnout plays a significant role in workplace safety.
- As the details of this relationship emerge, so do risk management opportunities for safety professionals.
- This article provides the medical definition of burnout, highlights pertinent connections between workplace safety and professional burnout, and outlines interventions to improve both.

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A 1-year study of 161 hospitals in Pennsylvania, however, analyzed the results of improving the patient-to-nurse ratio by increasing staffing (Cimiotti, Aiken, Sloane, et al., 2012). At the same time, researchers examined two phenomena: nurse burnout and patients' hospital-acquired infections (those that arise while a patient is being treated for other conditions). A multivariate analysis, controlling for patient severity and nurse and hospital characteristics including staffing levels, found that "only nurse burnout remained significantly associated with urinary tract infections and surgical site infections."

Cimiotti, et al. (2012), theorized that the improvement in staffing levels reduced nurse burnout by reducing nurses' patient caseload. For patients, the results were highly significant. By improving nurse staffing and nurse-patient ratios, which in turn was documented to reduce nurse burnout by 30%, hospitals reported 30% fewer hospital-acquired infections in patients. This led to an estimated cost savings of up to \$68 million.

Given that insurance providers nationwide often deny payment for costs associated with these infections, these savings are especially significant. Cimiotti, et al., concluded, "By reducing nurse burnout, we can improve the well-being of nurses while improving the quality of patient care [at] a much lower cost than those associated with health-care associated infections."

Sometimes, however, the cause of burnout cannot be so directly tied to workload. For example, a recent study of major medical errors made by surgeons found no relationship between errors and the number of hours worked per week or the number of nights on call per week (Shanafelt, Balch, Bechamps, et al., 2010). In that study of 7,905 U.S. surgeons, 700 doctors (9%) reported having made a "major error" in the previous 3 months. These errors were strongly associated with physician distress, specifically burnout. Thus, as the study's authors point out, addressing system issues such as coordination of care, teamwork, electronic systems and similar factors, while necessary and useful, are not adequate unless amelioration strategies also incorporate efforts toward reducing physicians' degree of emotional distress and burnout.

Other studies have documented the relationship of medical errors with burnout, although it must be noted that a French study of ICU doctor-nurse teams showed depression, rather than burnout, was more likely the factor driving medical errors in this setting. Nevertheless, burnout was documented as high in this environment as well (Garrouste-Orgeas, Perrin, Soufir, et al., 2015).

Burnout & Absenteeism, Turnover Intent & Life Satisfaction

Numerous studies suggest that burnout leads to absenteeism and turnover. Since absenteeism and turnover lead to staffing challenges that create safety concerns, these business problems are also a concern for the safety engineer. Such staffing challenges are a major safety concern in a maximum security prison.

Many studies show that job burnout is a problem among correctional staff. Researchers are now beginning to turn to the consequences of burnout in corrections. A study in a maximum-security prison extends the data on the outcomes of burnout:

Increases in the emotional burnout index were associated with decreased levels of life satisfaction and support for treatment of inmates. Conversely, increased levels of emotional burnout were related to increased support for punishment, absenteeism, views that sick leave is an entitlement and turnover intent. (Lambert, Barton-Bellessa & Hogan, 2015)

The authors called for further research to determine whether burnout could also be leading to staff mistakes in correctional institutions (as it did for surgeons and by inference, for nurses).

Burnout Affects Safety

An increasing number of companies are taking steps to reduce stress and burnout, especially given the recent emphasis from NIOSH (2015) on Total Worker Health. The business case for doing so includes cost reduction, employer reputation and lower legal risk. Safety is another major motivational factor. In fact, NIOSH asserts that "keeping workers safe is fundamental to Total Worker Health" (Burton, 2008; Virgin Pulse, 2015).

Measuring burnout within the organization need not be complicated or expensive. As noted, the MBI is the gold standard test. The 22-item test is easy to license. If an organization does not require as much detail, research has demonstrated that a simpler two-question survey showed a high degree of correlation with MBI (West, Dyrbye, Satele, et al., 2012). Researchers evaluated responses to two items:

- "I feel burned out from my work."
- "I have become more callous toward people since I took this job."

Safety-Oriented Burnout Interventions

Many burnout interventions focus on the organizational level, using Leiter and Maslach's (2004) six areas of work life: workload, control, community, reward, fairness and values. From the individual perspective, more than 4 decades of medical literature on burnout have produced at least 60 personal skills and behaviors that can also help to mitigate burnout. Loomis (2015) categorizes these skills and behaviors into five broad areas:

- 1) self care;
- 2) reflection and recognition;
- 3) community;
- 4) coping styles;
- 5) structure.

The relative strength of the factors and skill levels found in each of these areas can then be assessed and targeted for interventions designed to reduce the individual's vulnerability to burnout. Following are examples of factors or skills in each area that have been documented to reduce burnout and improve safety.

Self Care

Self-care studies show that when inadequate sleep is chronic, the worker is at great risk of burn-

out. The safety professional is certainly no stranger to the risks of error and injury in the presence of sleep deprivation, and burnout can be added to that list of risks. American College of Occupational and Environmental Medicine's guidance statement, "Fatigue Risk Management in the Workplace" offers a definitive stance on sleep deprivation.

If the work culture includes employee expectations for work interactions (such as e-mail) during nonwork hours, or if employees work in shifts, evening, night and especially rotating shifts are at particular risk for inadequate sleep and burnout.

Reflection & Recognition

Mindfulness, categorized under reflection and recognition, is well-recognized to confer benefits that improve stress, attention, cognitive judgment and emotional volatility. For example, Flook, Goldberg, Pinger, et al. (2013), documented success in reducing burnout of public elementary school teachers through a mindfulness-based stress reduction course. And, according to a recent meta-analysis, mindfulness meditation programs provide some benefit in reducing psychological distress (Goyal, Singh, Sibinga, et al., 2014). However, authors of the meta-analysis note that mindfulness likely requires ongoing training and practice to yield benefits.

Community

Burnout can drain one's feeling of connection to others, as well as one's finding meaning in that connection; recovering community connections actively fights burnout. Training in mentoring and providing organizational support to mentor programs that minimize emotional exhaustion can help to reduce burnout (Thomas & Lankau, 2009).

Osatuke, Leiter, Belton, et al. (2013), and Leiter, Laschinger, Day, et al. (2011), published several reports on a 6-month civility training intervention implemented at VA institutions (mostly in healthcare) in 109 locations and more than 1,100 work groups. Each work-group customized the definitions and implementation of civil behaviors locally, on a case-by-case basis.

While this intervention did not directly target burnout, the authors documented significant—and operationally meaningful—improvements in job satisfaction, trust in management, as well as a decrease in cynicism, and a 38% drop in absenteeism. Most of these improvements remained 1 year later; some continued to improve.

Who's at Risk for Job Burnout?

The medical profession has drawn the most interest from researchers of job burnout, but those in social work, mental health professions, public service occupations and customer service report the problem as well.



Healthcare Professionals



Up to 65% of **physicians** suffer from burnout, with more reporting being stressed every year.



Studies show that one-third of all **nurses** are burned out.



Among mental health workers, up to 67% are burned out, with **community social workers** at the highest risk.



With doctors and nurses stressed, it is no surprise that 68% of **front-office staff** also suffer from job burnout.

Professional Occupations



In one study, **mining incident investigators** averaged a "moderate" level of burnout, which is more concerning than "average" burnout.



Research has found that burnout among **teachers** ranges between 5% and 20%, and may even exceed 40% in some settings.



Law enforcement is highly stressful, with **officers** in towns of fewer than 100,000 showing higher levels of burnout than those who serving more than 250,000 people.



Among parish-based **clergy**, burnout rates range between 18% and 46%.

Customer Service Occupations



Burnout is rated moderate to high by 15% of **hotel frontline workers**.



Studies also show that burnout prevalence is a growing concern among **hotel middle managers**.



Burnout is the leading reason for high turnover in the **grocery industry**.

Knowledge Workers



Overall, 40% of **office workers** feel burned out, especially IT workers who report having very low personal efficacy.



In the **financial services** arena, research indicates that nearly half of all workers are partially burned out, while 13% say they are totally burned out.



Burnout is on the rise among **journalists**, especially young copy editors and page designers at small newspapers.

For a list of the sources used to create this infographic, see the end-of-article reference list.

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Professional burnout has many implications for worker safety and its prevention requires a sophisticated approach.

The authors emphasize that the changes in organizational culture could not be achieved without interest and commitment from management and workers. In a review of interventions for physician burnout, Montgomery (2014) underscored this last point, noting that “a bottom-up participatory approach is the most likely to succeed, as top-down approaches have exacerbated the problem.”

Coping Styles

Coping skills refers to a knowledge base and facility in a variety of problem-solving styles. For example, Michie and Williams’s (2003) literature review of studies in a range of industries examined various interventions that increased problem-solving skills and involvement in decision making at work. The authors concluded that many of these interventions “successfully improved psychological health [at work] and reduced sickness absence.”

In response to overwhelming physician distress, Meltzer-Brody (2014) and colleagues established the “Taking Care of Our Own” program at the UNC School of Medicine. They quickly found themselves inundated with daily referrals, noting a 200% increase in demand for the program over 6 months. The program offers educational programs about burnout and mental health for resident physicians, and strategies for avoiding and/or addressing it. It also offers mental health evaluation and “triage,” which refer to multiple treatment programs for burnout, depression and anxiety. Research on outcomes is in preparation.

A similar approach has been taken in several Scandinavian countries. In a review of these programs, which focused on coping strategies, Hättinen, Mäkikangas, Kinnunen, et al. (2013), reported improvements in emotional exhaustion, but no improvement in cynicism or the sense of personal efficacy.

Structure

One area in the structure skills cluster that helps reduce burnout risk is in the organization’s culture around multitasking. Many people take pride in their ability to multitask, although research suggests that it reduces most people’s ability to function on any specific task and may also add to their stress. Further research indicates that while some “supertaskers” may multitask well, only an estimated 2.5% of the population are supertaskers, or 1 in 40 (Strayer & Watson, 2012). In an environment where multitasking is a job requirement, such as in emergency medicine, this skill must be carefully taught and evaluated (Heng, 2014) to reduce burnout and increase safety along multiple dimensions.

Safety Culture & Burnout

Not surprisingly, studies that specifically examine safety culture and burnout, and the opposite of burnout, engagement, have found links between them. In a study of 1,425 doctors and nurses, Welp, Meier and Manser (2015) concluded:

At least in the short-term, clinicians seem to be able to maintain safety despite high workload

and low predictability. Nevertheless, burnout poses a safety risk. Subjectively, burnt-out clinicians rated safety lower and objectively, units with high emotional exhaustion had higher standardized mortality ratios. In summary, our results indicate that clinician psychological health and patient safety could be managed simultaneously.

In a meta-analysis of 206 studies across industries, Nahrgang, Morgeson and Hofmann (2011), found that burnout reduces the ability to work safely, but that engagement motivates employees and supports working safely.

Conclusion

Professional burnout is complex. It has many implications for worker safety and its prevention requires a sophisticated approach. Burnout reduction and prevention fits well into the Total Worker Health paradigm, which requires both organizational and individual approaches to ensure worker safety and health. **PS**

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