Employee and Staff Safety

5

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Why Employee and Staff Safety?

In nursing school, in the early 1990s and early 2000s, there was a lot of focus on patient safety and not much focus on employee safety in healthcare settings. During this time, it was very common during clinical learning shifts at local hospitals to observe nurses, technicians, respiratory therapists, environmental services workers, and physicians working long hours with few breaks. The patients were large, often immobile, and sometimes violent toward staff. When nurses were asked about these tough conditions, they often shrugged and talked about ways they coped with the physical and emotional demands. Many nurses talked about injuries and illnesses acquired at work. An observer can quickly get the sense that the staff accepted risky conditions and workplace injuries as a normal part of working in healthcare. Adapting to the status quo is often contagious. To maintain good health and

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65

minimize risks, staff took care of themselves through good self-care practices. But as we know, bubble baths, chocolate, and even the best mindfulness meditation practice aren't enough to create and maintain a safe healthcare workplace for all.

Safety in the workplace is paramount, and every employer and employee must make safety a number one priority to establish a safe and healthy work environment. Safety in the workplace can refer to both physical and psychological safety. In both instances, it means having a workplace that's reasonably free from danger to all employees and actively preventing the workplace from becoming unsafe. As hospital nursing leaders with a combined experience of over 45 years, we believe that a safe workplace in healthcare is one where employees are able to perform at their best and where systems and processes are set up to support employees' health and well-being and are continuously improved and adapted based on organizational and environmental changes. The first step is actually eliminating harm in the workplace. We argue that using quality improvement methods is an effective way to reduce and eliminate harm. Thus, employee safety and quality improvement are inherently intertwined.

Nothing illustrates this point better than when Paul O'Neil became CEO of Alcoa, the Aluminum Company of America, in 1987. As he began his tenure, he announced that worker safety would be the company's priority. O'Neil made it clear that he intended to get to zero worker injuries. This radical idea was first met with shock and skepticism. However, once O'Neil prioritized workplace safety, over the next 13 years, Alcoa's profits soared. O'Neil made workplace safety a keystone habit, one that when changed facilitates improvements in other systems and processes in the workplace [1].

In an effort to improve the work environment, employee safety became top of mind at our large urban pediatric academic medical center with a staff of 7,000 employees. As other hospitals were beginning to explore improving employee safety and its relationship with patient safety, our chief executive officer and board asked us to do the same. Leadership looked closely at its employee injury rate and found that it was higher than other pediatric

hospitals. At the urging and leadership of our chief executive officer, in 2017, the hospital decided to embark on a journey to improve workplace safety. Using quality improvement methods, we improved employee safety at our hospital over a 3-year period. Serious injuries, those that required staff to miss work or be reassigned, decreased by 37%.

Structure, Process, and Outcomes

The foundational Donabedian concepts of structure and process leading to desired outcomes in quality improvement also apply to an effective employee safety program [2]. At our pediatric academic medical center, a structure was set up to include a committee of leaders, representing many different areas from the organization who had a stake in employee safety. Leaders from nursing, occupational health, environmental services, security, safety and quality, workers' compensation, infection control, and several other departments came together to work on this issue. Each representative led a team of staff from their areas who worked on the processes they determined would improve staff safety. Just like in quality improvement projects, when the structure and processes are strong, the outcomes follow. Teams that are representative of the workforce help ease the change necessary for improvement.

With change comes anxiety and often resistance. Though change is constant, humans crave predictability and routine. We've heard nurses say many times that a practice or process is done in healthcare "because that's how we've always done it." Clinging to tradition may soothe anxious workers, but it does not help advance quality or safety in the workplace.

A safe workplace depends on the collaboration between employers and employees. A primary responsibility of an employer is to provide a safe and productive work environment for employees. Regardless of the type of work employees perform, they should never be in a position where their physical safety is in jeopardy. Employers have an obligation to protect

employees from injury and illness on the job. Protecting employees from accidents and injuries in the workplace can decrease expenses to the organization. For example, a reduction in workplace injuries and illnesses likely reduces workers' compensation claims and lost workdays.

The sole responsibility of maintaining a safe work environment not only lies with employers, the entire workforce must recognize that employee safety and health is essential to the mission and significant to the financial viability of the workplace. Employees need to assess the condition of the work environment and take the necessary precautions while performing their duties; for example, prior to handling equipment and hazardous substances that might pose a safety risk, employees should complete the necessary education and training to reduce harm and injuries. Employees should immediately report any identified hazards to management. To avoid fatigue, stress, and burnout, which are contributors to workplace accidents, employees should take scheduled breaks.

At our pediatric academic medical center, the employee safety program was intended to be a large organization-wide project; the hospital's leadership commissioned a steering committee to oversee the subcommittees who would perform the analysis and intervention implementation. The project was divided into five subcommittees: overexertion; sharps; blood and body fluids; verbal and physical violence; slips, trips, and falls. Specific stakeholders from each area comprised the leadership and membership in each subcommittee. Each subcommittee used the same quality improvement methods, primarily, the Institute for Healthcare Improvement's Model for Improvement, to execute their project [3]. They all focused on establishing strong structures and processes. They created key drivers, conducted literature reviews, and researched best practices from industry experts. They used Plan-Do-Study-Act cycles to test interventions and then scale them up. As expected, despite using the same methods, each subcommittee has a unique improvement story.

Overexertion Injuries and Safe Patient Handling

Alan's Story

Alan*, a seasoned nurse, was taking care of a very ill 18-year-old girl in an intensive care unit who could not move on her own. She was a large patient, and when he was turning her in bed, he felt a pop in his back. Unable to move because of excruciating pain, he went to the nearest emergency department. He ended up needing back surgery for a disk injury.

At home and out of work for many months experiencing back pain, Alan became depressed. He had a hard time weaning off of his opioid pain pills after surgery. In addition to the chronic pain, he was constantly worried about his lost income and not being able to support his family. His family encouraged him to seek mental health support and suggested addiction treatment. At first, he was resistant to ask for help. He couldn't understand how in 1 day he went from being a healthy, active, 48-year-old nurse to being unable to provide for his family, depressed, and dependent on pain pills.

Two months after his injury, his wife and best friend sat down with him for an intervention. They convinced him to get help for his depression and pain pill use. With mental health support, addiction treatment, and physical therapy, Alan slowly began to feel better. He still had chronic back pain but was able to wean off the opioids. He worked hard to develop other coping strategies and regain some of his self-confidence. He was lucky that his family and friends supported him through his difficult journey. When Alan finally returned to work, he had a lift restriction that prevented him from doing any manual lifting of patients. Alan began to tell his story to colleagues, to encourage them to use lift equipment to move patients instead of moving them manually. In situations where lift equipment is not available, Alan urged his colleagues to ask for assistance to avoid injury to themselves and the patient.

According to the National Safety Council, overexertion injuries are caused by [4]:

- Directing excessive physical effort at an object (lifting, pulling, carrying, throwing)
- Repetitive motion (typing, using tools or instruments)
- Free bodily motion (bending, crawling, twisting, kneeling)

Overexertion is a leading cause of injury for all age groups. In 2014, hospitals treated 3,132,271 overexertion-related injuries [6]. Industries are impacted financially from employees that experienced overexertion injuries. For example, the consequences of work-related musculoskeletal injuries among healthcare employees are substantial, along with higher employer costs due to medical expenses, disability compensation, and litigation [4–7].

Overexertion causes 35% of all work-related injuries and is the #1 reason for lost workdays. By far, it is the largest contributor to workers' compensation costs, more than $15 billion or 25% of the total cost in 2012, according to Injury Facts 2016®. More than 322,000 people missed work that year due to overexertion. In 2014, there were 68,720 work-related injuries in the health services and education industry [6].

The types of movements that can lead to strains and sprains (the most often reported nature of injuries) often seem harmless, but excessive physical efforts account for nearly half of overexertion injuries occurring in the trunk of the body, primarily the back. Another large portion occurs in the shoulder. These injuries often result from a single, intensive use of force while trying to lift, pull, or throw an object.

Safe Lifting

In the workplace, musculoskeletal injuries from lifting and moving patients are common. Using unsafe or careless lifting techniques can put employees at risk for a serious back injury. Proper safe lifting techniques are recommended to avoid injuries [6].

Basic best practices for lifting:

- Stabilize your body by keeping your feet shoulder-width apart.
- Squat and let your leg muscles do the heavy lifting.

- Avoid bending and relying on your back muscles.
- Avoid twisting while lifting.
- Seek assistance when lifting heavy patients or equipment.
- When possible, use safe lift assistive devices or equipment for heavy lifts.

These best practices work well for lifting and moving objects, but lifting and moving people is quite different. It is a myth that using proper body mechanics alone will prevent an overexertion injury when lifting or moving patients [5]. Safe patient handling and movement programs are helpful to prevent risk of injury to patients and healthcare workers. Rather than using people to lift, move, reposition, or transfer patients, it is recommended that healthcare facilities provide and train employees on the proper use of safe patient handling equipment to decrease injuries. Implementing safe patient handling practices will also reduce a healthcare facility's financial burden with regard to patient claims and workers' compensation claims [7].

Safe patient handling and movement programs can help prevent what happened to Alan from happening to other healthcare workers. The foundation of a safe patient handling and movement program is a clear policy and procedure detailing when and how to use assistive equipment like mechanical patient lifts and friction reducing slider sheets.

Making the change to using equipment to assist with lifting and moving patients can be a difficult transition for healthcare staff if they have been manually lifting and moving patients for a long time. Many myths exist in healthcare about patient lifting. Some of these myths are that using equipment to lift patients takes more time and is less safe for patients. In fact, safe patient handling practices and equipment actually save time and are safer for patients than manual lifting. Both formal and informal leadership are necessary for safe patient handling practice changes to occur successfully. Formal leaders can advocate for and purchase safe patient handling equipment and can support and guide staff in using it. Informal leaders can readily support the change and influence their peers, by sharing their confidence in using equipment to safely move patients.

When the culture in an organization changes and staff consistently use safe patient handling equipment to move patients, employee overexertion injuries decrease. Attention to general workplace ergonomics is also important for preventing overexertion injuries.

Sharps and Blood and Body Fluids

Carol's Story

Carol*, a surgical fellow, was performing an appendectomy on a 9-year-old boy. Carol was nearing the end of a long shift after a stretch of several back-to-back days working at the hospital. Carol had not slept much the night before because she was on call. The appendectomy surgery had gone smoothly, and Carol was suturing the wound closed. She was humming along as she sutured, when suddenly she felt a sharp stick through her glove in her finger. The curved suture needle stuck her. She froze and told the team what just happened. The other surgeon present took over, and Carol left to wash her finger and report the injury. Both Carol and the patient had to undergo testing for blood-borne pathogens, and Carol had to take prophylactic medications until she found out if she had contracted any infections. The experience was incredibly stressful for Carol, her family, and the operating room staff.

Sharps and needlestick injuries are injuries to the skin that are caused by sharp instruments and hollow-bore needles (lancet, scalpels, glass, hypodermic needles, butterfly needles, suture needles, syringe needles, IV catheter stylets) that accidentally penetrate the skin in a healthcare setting [8–10].

According to the Centers for Disease Control and Prevention (CDC), the most common causes that are related to sharps and needlestick injuries include but are not limited to [8, 13]:

- Recapping needles after use
- Failure to use sharps container to dispose needles after use
- Lack of sharps disposal containers

- Overfilled sharps disposal containers
- Lack of safety needles and safety devices
- Passing of sharp instruments from hand to hand in the operating room
- Patient movement during procedures
- Lack of staff education, training, and awareness
- Underreporting of sharps and needlestick injuries

Most exposure to sharps and needlestick injuries are known to occur in the patient's room, the emergency department, and the operating room [14]. As a result of a lack of surveillance and underreporting of sharps and needlestick injuries, incidence rates and national benchmarked data are insufficient and difficult to obtain [12]. Sharps and needlestick injuries are underreported by 58–90% [18, 19]. Several reasons why sharps and needlestick injuries are underreported are due to "time constraints, perception that the percutaneous injury does not represent a significant exposure, lack of knowledge about the reporting mechanism and concern about confidentiality and professional discrimination" [17].

Health concerns including patient's blood and body fluid (BBF) exposures to healthcare workers from sharps and needlestick injuries can cause infectious diseases, such as human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV) [9, 16]. If healthcare workers become infected and are not treated, they can develop serious acute and chronic diseases that can potentially lead to death [9, 17].

Sharps and needlestick injuries can have a financial impact to the healthcare organization and to the healthcare worker. Medical treatments, missed time at work, work productivity, workman's compensation payouts, and litigations are financial consequences that can occur as a result of sharps and needlestick injuries in the workplace [14].

A complete approach using a blend of various strategies should be used to reduce sharps and needlestick injuries to avoid blood and body fluid exposures. Preventative strategies include [16–20]:

- Use of safety needles/devices and needleless connectors
- Reduce recapping of needles
- Proper patient holding technique
- Availability of sharps disposal container
- Immediate disposal of sharps and needles after use
- Frequent emptying of sharps disposal container to reduce overfill
- Eliminate unnecessary injections
- Increase reporting of sharps and needlestick injuries
- Frequent staff education, training, and awareness

A multidisciplinary team with physicians and surgeons, nurses, ancillary staff, infection control, and materials management is necessary to make a lasting impact on sharps injuries and blood and body fluid exposures. Since these types of injuries occur during patient care or surgical procedures, tackling both problems with one team can be effective in driving improvement.

Interventions that can prevent injuries and exposures like Carol's from happening again include programs to reduce fatigue and to reinforce standardized sharps handling guidelines. Purchasing needleless devices to replace needles, whenever possible, and making needleless equipment like blood transfer devices, needleless connectors, and vial access devices accessible and available to staff are also effective interventions.

Blood and body fluid exposures occur when a patient's blood or body fluids come into contact with a healthcare provider's skin or mucous membranes, such as the eyes, nose, or mouth. Employees are at risk for the same communicable diseases, like hepatitis and HIV, from these exposures as they are from sharps injuries. The best way to prevent a patient's blood or body fluids from coming into contact with an employee's skin or mucous membranes is to use personal protective equipment (PPE), like gowns, gloves, masks, and face shields, properly and consistently when performing any procedure at risk for a fluid exposure.

Increasing availability of PPE close to the point of care and auditing staff compliance of properly wearing PPE can be effec-

tive strategies to prevent blood and body fluid exposures. Employees need regular feedback on their PPE compliance, as well as ongoing training and reinforcement of correct PPE usage.

Sharps injuries and blood and body fluid exposures are preventable. With a quality improvement and multidisciplinary team approach, organizations can be successful in reducing these injuries and the impact they have on staff and patients.

Slips, Trips, and Falls

Marcia's Story

Marcia* is an emergency department physician with 20 years of experience. As she entered the building on a rainy day one October, she slipped and fell on the slick floor of the entryway and landed on her tailbone. She got up slowly with help from other employees. She was a bit embarrassed, as she had prided herself on maintaining her fitness. Her tailbone felt quite painful, and she realized she should get an x-ray and get examined by a doctor. She was diagnosed with a small tailbone fracture from her fall and needed to miss a substantial amount of work. It took 12 weeks for her tailbone fracture to heal.

In terms of severity, slips, trips, and falls (37%) are leading causes of workplace injuries [21, 22]. The most common hazards that lead to workplace falls in healthcare include spills, trip hazards, weather conditions, inadequate lighting, and problems with stairs and stair rails. Slips and trips can lead to strains and sprain injuries to the shoulders, back, and neck. A slip is caused by a loss of friction between your footwear and the floor, and a trip is caused by a physical obstacle like a loose tile, objects in a walk path, cracked sidewalk, or floor surface that prevents an individual from completing a step [21].

For healthcare and other industries, fall injuries create a considerable financial burden: workers' compensation and medical costs associated with occupational fall incidents have been estimated at $70 billion annually in the United Sates [22].

Occupational slips, trips, and falls are preventable. Evidence suggests that facility-wide programs targeting common slip, trip, and fall hazards can reduce a facility's injury rate. Wet floor signs should be used when floors are slippery and wet, spills should be cleaned up immediately, and during the winter fast removal of ice and snow from walkways and sidewalks [23].

Tips to prevent falls from slips [21, 23]:

- Inspect floor surfaces often and clean up hazards.
- Place warning signs in damp or wet areas.
- Maintain good lighting in dark areas.
- Wear proper footwear for the environment.
- Take extra care during icy or snowy weather.

Tips to prevent falls from trips [21, 23]:

- Keep walkways clear of hazards.
- Maintain good lighting in dark areas.
- Pay attention and avoid texting while walking.
- Repair significant cracks and gaps in concrete.
- Inspect work areas for loose cords and cables.
- Keep your path of vision clear when carrying items.
- Use handrails on stairs.

A multidisciplinary team for falls should include diverse stakeholders, like environmental services supervisors and frontline workers, facilities staff, safety personnel, security staff, and regulatory/accreditation representatives. Analyzing the causes of falls in an organization can help determine where to concentrate improvement efforts. For example, if wet floor transitions are the most frequent cause of falls, then targeting interventions to address wet floors would be a good strategy.

Effective interventions to prevent falls from wet floor transitions include deploying long walk-off mats and plastic umbrella bags placed in entrances when it is raining. Pop-up wet floor signs are great because they are stored in tubes on the wall, are easily accessible, and can be used by anyone. Installation of pop-up wet

floor signs, along busy hallways and outside of elevators, helps make it easy for staff or visitors to prevent a fall immediately after noticing a wet floor.

Environmental services or facilities leaders need to consistently round in the hospital and parking areas anticipating slips, trips, and falls risks. Equipment in crowded hallways, loose cords in office areas, and dimly lit parking lots are potential injury hazards that should be remedied.

Slips, trips, and falls are preventable in the healthcare environment. With a multidisciplinary team structure, processes and interventions that address the biggest causes of falls in an organization, slips, trips, and falls among healthcare workers can be drastically reduced.

Verbal and Physical Violence

Robert's Story

A teenage patient with a history of behavioral health issues and substance use was admitted to the emergency department with agitation and disorientation. There were multiple caregivers involved in de-escalating the patient and caring for him. Despite the team's best efforts at de-escalation, the patient continued to escalate and required restraint by security and other staff. In the process of restraint, the patient hit Robert*, one of the security officers, knocking him backward off of his feet. He lost consciousness, sustained a closed head injury, and needed 10 months of intensive medical treatment before being able to return to work. The injury was devastating for Robert, his family, and the department. Robert's story demonstrates the challenge of caring for patients with violent behaviors while keeping staff safe. Healthcare workers come to work, wanting to help their patients and families. The impact of fear of getting hurt at work and of injuries from violent patients and families is profound.

Workplace violence, described as any physical assault, verbal abuse, or threatening disruptive behavior in the workplace, can occur anywhere, but certain industries such as healthcare are

prone to increase physical and verbal violence from patients, visitors, and employees [24]. In 2018, workplace assaults resulted in 20,790 injuries and illnesses involving days away from work and 453 fatalities [25].

Ways in which organizations can address workplace violence include [24, 26]:

- Employee training and creating an emergency action plan
- Conducting mock training exercises with local law enforcement
- Adopting a zero-tolerance policy toward workplace violence
- Creating a system that allows employees to report violent activities
- Reporting unusual employee behavior to human resources
- Implementing enforcement procedures to protect employees
- Identifying appropriate resources to support injured healthcare workers

Perhaps the most complex and challenging of all the employee safety areas is violence prevention in the hospital and healthcare environment. Most hospitals struggle with this challenge and are working to reduce violence in the workplace. Patients with behavioral health issues can unfortunately escalate and harm themselves or their caregivers. They do not have a moral problem; rather, their illnesses can increase their volatility. People with behavioral health challenges deserve compassionate and specialized care while maintaining a safe environment for everyone involved. Stress of the healthcare environment itself can trigger violent behaviors in staff, patients, and families. Parents of hospitalized children can quickly become overwhelmed and do not always have robust support systems. At times mounting family frustrations and stressors can facilitate verbal or physical violence toward hospital staff or other family members.

Patients often cause about 70% of violent events toward staff. Parents, visitors, and caregivers cause about 30% of violent events. Parents and caregivers tend to cause the majority of verbal violence incidents, and patients cause the majority of physical

violence incidents. Strategies that work to prevent violence from both patients and their families are imperative to keep the hospital environment safe.

An interprofessional team approach to prevent violence toward employees is essential due to the complexity of the problem. Teams should include hospital leadership, security, nurses, psychiatry representatives, physicians, and social workers. Analysis of violent events can help lead the team to target the highest risk areas in the hospital, likely the emergency department, psychiatry units if there are such areas, or other specific areas that care for patients with behavioral health problems.

Finding the right combination of tools to reduce workplace violence is difficult and unique to each healthcare setting. Crisis prevention programs that train staff in physical and verbal de-escalation can be very effective in preventing violence, as verbal violence can escalate to physical violence. Personal protective equipment like cut-resistant sleeves work to prevent bites, scratches, and cuts can be worn as part of a healthcare worker's uniform. Using simulations and tabletop response drills for staff to practice responding to patients in behavioral health crises can help prepare staff to respond to violent situations.

Ultimately, healthcare organizations need to invest in enough resources and support for staff to prevent and manage violent situations in the workplace.

Conclusion

Quality improvement and employee and staff safety are inherently intertwined. Employees need a safe work environment in order to do their jobs efficiently and effectively. Like patient safety, when employee safety is emphasized, it fosters a collective and continuous commitment by employers and employees in the workplace. Employee safety serves as a foundation for a culture of safety and a culture of continuous quality improvement. Our hospital created a centralized Employee and staff safety program, using quality improvement methodologies that led to measurable improvements in several key areas.

From the beginning, the Employee and Staff Safety Steering Committee realized that in order to successfully strengthen employee safety as a quality improvement initiative, we needed to have a holistic end-to-end view, and it must be at the top of leadership's agenda. Our success was aided by establishing a structure with the right stakeholders in the form of a steering committee and subcommittees.

Executive leadership support and commitment to employee safety, along with interprofessional partnerships, were essential to the success of these initiatives. Leveraging the use of safe devices, safe techniques, safe equipment, and resources has helped to decrease employee injury and harm, and has increased awareness ultimately resulting in a positive shift in our healthcare system's culture of safety.

*Names of injured employee have been changed to protect the privacy of the individuals. However, the employee injury stories included in this chapter are based on real events.

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