Reducing Violence Toward Healthcare Workers: The Value of At-Risk Patient Screening
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Introduction

The healthcare industry by its nature suffers from violence due to many factors such as behavioral health clients visiting during a mental crisis, patients’ negative reactions to painful treatment or unfavorable diagnoses, criminal activity, etc. An unfortunate fact is that the primary subjects committing violence are the very patients being cared for. In late 2015, Occupational Safety and Health Administration (OSHA) publication 3826 noted patients as being the largest source of violence in healthcare settings at 80 percent, with 12 percent being attributed to other clients or customers.¹ The factors contributing to the risk of violence in the healthcare arena include: patients with undiagnosed mental health issues, visitors comprised of a wide spectrum of persons from the surrounding area, including those needing treatment, those visiting their loved ones during a personal crisis, and others who are highly unstable, forensic prisoner patients, and those present for the express purpose of committing a crime. Healthcare facilities offer 24-hour open access to the public, many with numerous points of ingress and egress, people visiting the facility are often times in the midst of a crisis posing great unpredictability. These factors, along with staff shortages, lengthy waits and a high stress environment, present a recipe for disruptive behaviors. Healthcare professionals need to learn to identify common warning signs exhibited by would-be violent patients. In doing so, they may be equipped with the necessary skills to avoid the associated costs of routine workplace violence, and be able to mitigate negative outcomes. This material will provide healthcare workers with the knowledge base, situational awareness tools, and other necessary skills to recognize threats early, respond appropriately and avoid becoming victims themselves.

The Scope and Impact of Disruptive Behaviors in Healthcare Environments

When patients exhibit violent behaviors in healthcare facilities, the impact can have reverberating consequences. The quality of care provided may be affected when the safety of patients and staff is disrupted. The Joint Commission (TJC), the largest accrediting agency for hospitals in the United States, has stated that risk management programs should, of necessity, address disruptive behaviors as a human factor affecting the delivery of care to patients. TJC Sentinel Event Alert #57 highlighted the following:
The Joint Commission introduced safety culture concepts in 2008 with the publication of SEA #40 on behaviors that undermine a culture of safety. Further emphasis was made the following year with an alert (previously SEA #45, now supported with SEA #57) on leadership committed to safety, and the establishment of a leadership standard requiring leaders to create and maintain a culture of safety. The “Patient Safety Systems” chapter of The Joint Commission’s Comprehensive Accreditation Manual for Hospitals emphasizes the importance of safety culture. As of Jan. 1, 2017, the chapter expanded to critical access hospitals, as well as ambulatory care and office-based surgery settings.²

The costs of ignoring the issue of patient violence are massive. The Emergency Care Research Institute (ECRI) included the need for managing patient violence in acute care settings among its 2015 List of 10 Patient Safety Concerns:

1. Alarm hazards: inadequate alarm configuration policies and practices
2. Data integrity: incorrect or missing data in EHRs and other health IT systems
3. Managing patient violence
4. Mix-up of IV lines leading to misadministration of drugs and solutions
5. Care coordination events related to medication reconciliation
6. Failure to conduct independent double checks independently
7. Opioid-related events
8. Inadequate reprocessing of endoscopes and surgical instruments
9. Inadequate patient handoffs related to patient transport
10. Medication errors related to pounds and kilograms

In 2016 and 2017, ECRI continued to emphasize this by identifying behavioral health issues in non-behavioral health settings as an arena wherein healthcare staff often become frustrated when faced with violence from patients, stating, “We’re very reactive, and that’s part of the problem.” It was suggested that a thorough assessment of risks of violence from patients, as well as appropriate training on identifying early warning signs and consistent training and drills, could mitigate the consequences of unpreparedness. U.S. Department of Labor and OSHA 3148 reported that, in the healthcare and social assistance sector, 13 percent of injuries and illness were the result of violence and the incidents of violence in healthcare was 16.2 cases per 10,000 workers, which is roughly four times the rate of all other cases in the private sector in the United States. “Between 2011 and 2013, workplace assaults ranged from 23,540 and 25,630 annually, with 70 to 74% occurring in healthcare and social service settings.” In 2016, OSHA 3826 released a supplement to its previous findings, Workplace Violence in Healthcare – Understanding the Challenge.” It noted that, from 2002 to 2013, incidents of serious workplace violence requiring days off for the injured worker to recuperate were four times more common in healthcare than in private industry, on average. Since 2012, OSHA has officially designated workplace violence as a known and recognizable hazard for the skilled, residential and long-term care healthcare industry (OSHA Special Directive 03-00-016). While healthcare workers may not be able to predict every incident of violent behavior, studies report common warning signs to foster situational awareness and vigilance among staff.

Early Warning Signs and Indicators of Potentially Violent Behavior
A number or reputable sources, including: OSHA’s Guidelines for Preventing Workplace Violence for Healthcare and Social Service Workers, the Emergency Nurses Association’s Workplace Violence Toolkit, and the American Organization of Nursing Executives, report a laundry list of signs which might indicate someone is on the verge of committing a violent act. These signs can be categorized from possible to imminent, and in stages of behavior from 1 through 3:
**Stage 1:** Representing early indicators of violence (i.e. challenging authority, defensiveness, excessive swearing, angry outbursts, and frequent signs of frustration. **Stage 2:** Representing increased risk for hands-on violence (i.e. frequently argumentative, blatant disregard and disrespect, disruptive behavior in interactions with staff, suicidal threats, verbal threats towards other, displays of force through objects, offensive body posturing). **Stage 3:** Representing extreme violent behavior, hands-on (i.e. physical assaults, display and use of weapons, prior criminal record of assaultive behavior, threats toward staff and erratic behavior). By identifying characteristic behaviors, staff can better prepare themselves should violence occur.8

Sharp (2015), suggested a brief overview of static factors common to the elevated risk of violence, including the following:

- Male
- Late adulthood
- Low Socioeconomic Status
- Instability in housing or gainful employment
- History of violence or destruction of property
- Mental or personality disorder
- History of alcohol and/or substance abuse

A brief overview of dynamic factors indicating elevated risk of violence included:

- Intoxication
- Withdrawal from alcohol, opioids or other substances
- Delirium
- Psychosis, or paranoid delusions
- Physical agitation, verbal aggression
- Anger
- Unmet pain management needs
Tools and Measures Used to Predict Violence

The Emergency Nurses Association’s 2011 Emergency Department Violence Surveillance Study reported that the greatest risk of violence in healthcare occurs in patient rooms, then corridors, halls, stairwells and elevators. The riskiest period is during the triage process, closely followed by patient restraint and/or invasive procedures.

In SEA #45, human resources-related factors, such as the increased need for staff education and competency of assessment processes, were noted in 60 percent of the causal factors of criminal events such as assaults in the workplace. Communication failures and deficiencies in safety and security procedures and practices were also cited. Assessments were noted in 58 percent of the events, particularly in the areas of flawed patient protocols, inadequate assessment tools, and a lack of behavioral health assessments. While many factors contributing to violence in healthcare may be beyond our control, assessments tools are not. There are a variety of tools and instruments available for clinicians to assess risks of violence from patients. The Clinical, Risk Management 20, as well as the Short-Term Assessment of Risk and Treatability tool, provide criteria for assessing risks. There is also a broadly used assessment known as the Bröset Violence Checklist, which uses key criteria to determine the level of risk that a patient may act violently within a relatively brief period. This one will be discussed in more detail. Many studies indicate that clinicians often overlook assessment tools, relying instead on gut feelings and personal intuition, which have been shown to result in grossly inaccurate assessments due to cognitive bias, confirmation bias, and human error.

- Cognitive bias is a mistake in reasoning, evaluating, remembering, or other cognitive process, often occurring as a result of holding onto one’s preferences and beliefs regardless of contrary information
- Confirmation bias is the tendency to seek only information that matches what one already believes

Cognitive biases can greatly hamper a healthcare worker’s ability to more accurately assess the risk of violence from patients. Confirmation bias is one such example, whereby there is a tendency to focus heavily on details aligned with what a person already expects or perceives to be a known threat, while ignoring the elephant in the room. A second kind
of cognitive bias is when one assigns more weight to a particular event (i.e. multiple casualty events), while assigning a lesser value to another event (i.e. falls during inclement weather), which can lead to a marked oversight in judgement and proper assessment of risks. In other words, when you hear hoofbeats, think horses not zebras.\textsuperscript{10}

The Bröset Violence Checklist (BVC) is an instrument that has been used to assess the short-term risk of violent attacks in behavioral health areas. In its application, the following variables are noted in patients:

- Confused
- Irritable
- Boisterous
- Physically or verbally threatening
- Attacking inanimate objects

Using a measure to record observed behavior over time, a risk of violence score is assigned from 0 to >2 equating to risks from small to moderate to high:

- Score of 0 indicates the risk of violence is small
- Score of 1-2 indicates the risk of violence is moderate; preventative measures should be taken
- Score of >2 indicates the risk of violence is high. Preventative measures should be taken and plans should be developed to manage the potential violence

Equipped with a record of information and logs of a patient’s exhibited behaviors, staff are able to put appropriate safety measures, staffing, and other resources in place to mitigate the effects of patient violence over a 24-hour period following the previous assessment.\textsuperscript{11, 12}

The following data has been reported on the use of the BVC toolkit:

- Introducing twice-daily staff measures on risk assessment (BVC Swiss version)
  - 41 percent reduction in severe violent incidents
  - 27 percent reduction in the use of coercive measures
- Implementing regular risk and violence assessment
68 percent reduction in aggressive incidents
45 percent reduction in time in seclusion
48 percent reduction in violent incidents

Spectrum of Violence Broad and Varied

Violence against healthcare workers may commonly include verbal disturbances, physical assaults, and countless instances of other dangerous behaviors. It is vital that healthcare staff understand that the risks of violence from patients should not omit the potential for active assailant events. While findings from the FBI’s Active Shooter Incidents Study from 2000-2013 revealed only four active shooter incidents occurring in healthcare settings, with two additional incidents occurring between 2014-2015, the potential for this type of violence is not zero. According to a study in Annals of Emergency Medicine, from 2000-2011, the United States had 154 hospital-related shootings:

- 91 (59 percent) inside the hospital and 63 (41 percent) outside on hospital grounds
- 235 injured or dead victims
- The Emergency Department environs were the most common site (29 percent), followed by the parking lot (23 percent) and patient rooms (19 percent)
- Most events involved a determined shooter with a strong motive defined by a grudge (27 percent), suicide (21 percent), “euthanizing” an ill relative (14 percent), and prisoner escape (11 percent)
- Ambient society violence (9 percent) and mentally unstable patients (4 percent) were comparatively infrequent
- Hospital employees composed of 20 percent of victims. Physicians (3 percent) and nurses (5 percent) were relatively infrequent victims
- In 23 percent of shootings in the Emergency Department, the weapon was a security officer’s gun that was taken by the perpetrator (FBI Active Shooter Planning – Response in Healthcare Setting, 2017).13

Since workplace violence is a global concern, it is important to consider the work of noted organizations such as the International Association for Healthcare Security and Safety (IAHSS), which has worked with multiple countries around the world. In an effort to predict
violence from psychiatric patients, Canada has developed a real-time analytics tool that uses computer software and coding to evaluate the risk of patient violence and communicate it through a database. From the results, employers are able to prescribe appropriate measures and treatment.  

**Preparation, Training and other Efforts to Mitigate Violent Behaviors**

While no program or methodology can boast foolproof success, there are some standard considerations for mitigating the risk of violence by patients against healthcare workers. OSHA 3148 Guidelines propose the following:

**Preparation and Situational Awareness**

Staff should be trained to recognize hazards and common cues related to workplace violence early on. Upon noting potential violence, staff should have a plan for what to do to avoid being victimized, as well as to communicate the potential of violence to other teammates. Additional points to consider include:

- Risk factors that cause or contribute to assaults
- Policies and procedures for documenting patients’ or clients’ change in behavior
- The location, operation and coverage of safety devices such as alarm systems, along with the required maintenance schedules and procedures
- Early recognition of escalating behavior or recognition of warning signs or situations that may lead to assaults

**Training**

Formal training of healthcare staff should be conducted by qualified trainers. Effective training should be provided to all staff who interact with patient and should involve role-playing, simulations and drills. Frequent and ongoing refresher training should be emphasized for staff members in high-risk settings. Training should consider:

- Ways to recognize, prevent or diffuse volatile situations and aggressive behaviors, manage anger and appropriately use medications
- Ways to deal with hostile people other than patients and clients, such as relatives and visitors
• Proper use of safe rooms – areas where staff can find shelter from a violent incident
• A standard response action plan for violent situations, including the availability of assistance, response to alarm systems and communication procedures
• Self-defense procedures where appropriate
• Progressive behavior control methods and proper application of restraints
• Ways to protect oneself and coworkers, including use of the “buddy system”

_Patient Sitters_

Hendrickson (2017) suggests that another consideration for mitigation of patient violence is the use of patient sitters. These staff are trained to observe, on a one-to-one basis, patients who are at high risk for falls, elopement, behavioral health issues, or homicidal or suicidal inclinations. Their training may include elements related to de-escalation techniques, identification and management of aggressive patient behaviors, fall and suicide prevention, etc. The inclusion of such staff could provide another level of situational awareness concerning high-risk patients.15

_Documentation and Communication_

A Sentinel Event Alert Supplement (TJC Publications Issue 57) emphasized key characteristics for staff to maintain a culture of safety:

1. Leaders demonstrate commitment to safety in their decisions and behaviors
2. Decisions that support of affect safety are systematic, rigorous and thorough
3. Trust and respect permeate the organization
4. Opportunities to learn about ways to ensure safety are sought out and implemented
5. Issues potentially impacting safety are promptly addressed and corrected commensurate with their significance
6. A safety-conscious work environment is maintained where personnel feel free to raise safety concerns without intimidation, harassment, discrimination, or fear of retaliation
7. The process of planning and controlling work activities is implemented so that safety is maintained

**Regulatory and Legal Issues to Consider**

There are a number of regulatory and legal issues to consider in regard to workplace violence. ECRI (2017) noted:

Federal Law – The general-duty clause of the Occupational Safety and Health Act (OSH Act) broadly addresses a multitude of workplace safety issues by requiring employers to furnish employees with employment and with a place of employment free from recognized hazards that cause or are likely to cause death or serious physical harm (29 USC § 654[a][1-2]).

In 2014, California Bill 1299 required the state’s Occupational Safety and Health Standards Board to adopt, no later than July 1, 2016, “standards developed by the Division of Occupational Safety and Health that require specified types of hospitals, including a general acute care hospital or an acute psychiatric hospital, to adopt a workplace violence prevention plan as a part of the hospital’s injury and illness prevention plan to protect health care workers and other facility personnel from aggressive and violent behavior.” It further mandated the following:

- A requirement that the workplace violence prevention plan be in effect at all times in all patient care units, including inpatient and outpatient settings and clinics on the hospital’s license
- (2) A definition of workplace violence that includes, but is not limited to, both of the following:
  - (A) The use of physical force against a hospital employee by a patient or a person accompanying a patient that results in, or has a high likelihood of resulting in, injury, psychological trauma, or stress, regardless of whether the employee sustains an injury
  - (B) An incident involving the use of a firearm or other dangerous weapon, regardless of whether the employee sustains an injury
- (3) A requirement that a workplace violence prevention plan include, but not be limited to, all of the following:
(A) Personnel education and training policies that require all healthcare workers who provide direct care to patients to, at least annually, receive education and training that is designed to provide an opportunity for interactive questions and answers with a person knowledgeable about the workplace violence prevention plan. The education and training shall cover topics that include, but are not limited to, how to recognize potential for violence, and when and how to seek assistance to prevent or respond to violence.\textsuperscript{17}

In April 2017, California OSHA released regulations requiring employers of healthcare workers to address:

Procedures to identify and evaluate patient-specific risk factors and assess visitors or other persons who are not employees. Assessment tools, decision trees, algorithms, or other effective means shall be used to identify situations in which patient-specific Type 2 violence [workplace violence directed at employees by customers, clients, patients, students, inmates, or visitors or other individuals accompanying a patient] is more likely to occur and to assess visitors or other persons who display disruptive behavior or otherwise demonstrate a risk of committing workplace violence. Patient-specific factors shall include, as applicable, but not necessarily be limited to, the following:

(A) A patient’s mental status and conditions that may cause the patient to be non-responsive to instruction or to behave unpredictably, disruptively, uncooperatively, or aggressively
(B) A patient’s treatment and medication status, type, and dosage, as is known to the health facility and employees
(C) A patient’s history of violence, as is known to the health facility and employees
(D) Any disruptive or threatening behavior displayed by a patient

This requirement set forth a standard for employers to ensure they provide for a safer environment and interactions with patients who present common signs of a recognizable threatening behavior.\textsuperscript{18}
At the federal level, OSHA has been discussing the idea of a specific standard to protect healthcare workers from workplace violence. In 2016, OSHA published a request for information in the Federal Register “seeking public comments on the extent and nature of workplace violence in the healthcare industry as well as the nature and effectiveness of interventions and controls for violence prevention.”\(^\text{21}\) The American Hospital Association (AHA) has shown a commitment to helping healthcare facilities with violence prevention and reduction and stated that OSHA should “focus its efforts on sharing best practices that have a demonstrated effectiveness in workplace violation prevention with the health care and social assistance sectors.”\(^\text{22}\)

Although it does not yet have regulations specifically related to workplace violence, OSHA has addressed the issue through its general duty clause. As ECRI explained:

> The courts have interpreted OSHA’s general duty clause to mean that an employer has a legal obligation to provide a workplace free of conditions or activities that either the employer or industry recognizes as hazardous and that cause, or are likely to cause, death or serious physical harm to employees when there is a feasible method to abate the hazard. An employer that has experienced acts of workplace violence, or becomes aware of threats, intimidation, or other indicators showing that the potential for violence in the workplace exists, would be on notice of the risk of workplace violence and should implement a workplace violence prevention program combined with engineering controls, administrative controls, and training.\(^\text{23}\)

In a recent article on workplace violence in hospitals, Warren (2017) highlighted pertinent Joint Commission information: “The Joint Commission has begun to interpret several existing standards to better relate them to workplace violence issues, such as several Environment of Care Standards (EC 02.01.01 – The hospital identifies safety and security risks associated with the environment of care; EC 02.01.01 – The hospital has written procedures to follow in the event of a security incident; EC 03.01.01 – Staff and licensed
independent practitioners can describe or demonstrate actions to take in the event of an environment of care incident), Human Resources Standards as related to training (HR 01.05.03 – Staff participate in education and training that is specific to the needs of the patient population served by the hospital. Staff participation is documented; HR 01.06.01 – The hospital defines the competencies it requires of its staff who provide patient care, treatment, or services) and even Leadership Standards.” Additionally, LD 03.01.01 EP 5 requires that leaders create and implement a process for managing behaviors that undermine a culture of safety.24

The Value of Reducing Incidents of Workplace Violence

Financial costs to the healthcare industry can add up fast as a result of unmitigated workplace violence. A Bureau of Labor Statistics report noted, “Over half of the approximately 2.9 million private industry injury and illness cases reported in 2015 involved days away from work, job transfer, or restriction (DART). These cases occurred at a rate of 1.6 cases per 100 full-time workers (BLS, USDL-16-2056).” One hospital system had a total annual cost of more than $94,000 for treatment and lost wages for employees who were victims of workplace violence. While that number may seem negligible to large systems, the costs may be direct, with self-insured hospitals, or indirect, causing increases in insurance premiums.25

The costs associated with workplace violence are varied in nature. In addition to medical expenses, lost wages, legal fees, insurance administrative costs, lost fringe benefits, and household production costs, workplace violence can also lead to increased turnover and attrition of valuable workforce employees. AHA (2017) reported the cost of replacing a nurse to be between $37,700 and $58,400. Emotional and psychological impacts, such as an increased prevalence of post-traumatic stress disorder (PTSD), has been noted among clinical workers assigned to emergency departments, with incidences of symptoms reported at rates between 12 percent and 20 percent, as compared to rate in the general adult population of 3.5 percent. Diminished ability to focus, lack of attention to detail, and difficulty managing the demands of the job were just some of issues experienced by nurses suffering from PTSD as a result of workplace violence. The
treatment and care required for affected staff to return to optimal performance can take time, and all of this can bear heavily on work performance and availability of valuable staff.\textsuperscript{26}

In July 2017, the AHA estimated that U.S. hospitals spent $233 million a year on emergency preparedness training, with approximately $174.6 million of that amount being focused on violence-related issues. In addition, the cost for hospitals to provide uncompensated or insufficiently compensated care and treatment to victims of violence totaled $852.2 million in 2016.\textsuperscript{27} Fines assessed as a result of OSHA findings that employers did not provide adequate levels of protection for staff have totaled as much as $100,000, while state fines can be as much as $5,000 for each incident.

**Impact on Branding and Reputation**
Workplace violence in a healthcare setting can have consequences beyond the victims. The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) is a survey used to assess patients’ satisfaction based upon the perception of quality of care received from healthcare facilities. Since consumers are generally afforded the luxury of choice as to where they seek healthcare, hospitals must compete for their business. Low HCAHPS scores reported by patients, particularly in the area of disruptive behaviors and a hospital’s failure to adequately address such concerns, may cause damage to a healthcare system’s finances and reputation.\textsuperscript{28}

The intangible costs of negative branding can greatly reduce a healthcare system’s public trust. Consider the effects of press coverage for events such as an infant abduction or an Ebola breakout. While the initial effects may be contained in a relatively brief period of weeks or months, the lasting effects can damage a hospital’s reputation for years. Similarly, a hospital’s failure to address known or recognizable risks of violence from patients can negatively affect the perception of patients who witness violence.

Workplace violence in healthcare is a complex and continuing issue with many approaches attempting to resolve the problem. Healthcare workers continually find
themselves vulnerable to the hazards of disruptive behaviors and assaults, suffered at the hands of the patients they serve. OSHA regulations, Joint Commission standards, and various state laws have emphasized that the onus is on healthcare leaders to provide for a safe environment for workers. Data from the U.S. Bureau of Labor Statistics reflects increased DART scores and incidents of workplace violence against healthcare workers far exceeds the rate in other private industries, creating high financial and reputational costs. It is vital that healthcare leaders invest the time and resources to educate staff regarding early warning signs, predictive tools, and appropriate responses to alleviate the effects of violence when it occurs. While the value of at-risk patient screening may be considerable, the costs of doing nothing are immeasurable.
Endnotes


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Phillip is certified as a senior instructor in nonviolent physical crisis intervention and is a certified advanced healthcare security officer with the International Association for Healthcare Security and Safety. He holds a master’s degree in marriage and family therapy, specializing in cognitive behavioral therapy and systems theoretical approaches for teaching clients healthy coping habits to deal with agitation and stress.