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Author manuscript

*ED Manag.* Author manuscript; available in PMC 2018 January 29.

Published in final edited form as:

*ED Manag.* 2017 April ; 29(4): 41–44.

## In Search of Effective Solutions to Curb Workplace Violence

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### Abstract

Investigators note that a unit-based, worksite intervention requires few resources, but there must be a database and a uniform reporting system to drive improvements

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There is no question that hospitals are concerned about the rising incidence of violent events in health-care settings.<sup>1</sup> Indeed, many facilities have deployed techniques and interventions designed to curb such incidents — or at least protect staff and patients from injury. However, investigators note that accurately gauging the effectiveness of such measures has been hampered by a lack of scientific rigor related to the fact that most studies in this area are based on questionnaire responses.

Determined to get around this problem, a team of investigators, led by **Judith Arnetz, PhD, MPH, PT**, who is now a professor and associate chair for research in the department of family medicine at Michigan State University, endeavored to set up a randomized, controlled study in conjunction with the Detroit Medical Center (DMC), a health system that utilizes a comprehensive electronic reporting mechanism in which roughly 15,000 employees document all types of adverse events, including incidents of workplace violence.

In preliminary work, Arnetz and her collaborators delved into the database, specifically looking at the workplace violence events. “Here, we had documented incidents, which gave us the ability to link up with the human resources database so we could get data on paid productive hours, so we were the first to calculate rates of violence, based on the population at risk,” Arnetz explains. “In other words, rather than counting numbers of incidents, we were calculating rates. We were applying epidemiological principles to the study of workplace violence.”<sup>2</sup>

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To learn even more about how to prevent violence in the workplace, be sure to check out AHC Media’s on-demand webinar “Violence Prevention in Healthcare: OSHA Requirements” at: <http://bit.ly/2dd2rKk>.)

The results of this work are getting a lot of buzz among clinicians and hospital administrators focused on developing new solutions to the problem, and some believe the findings present a pathway forward in boosting safety for hospital staff.

## Share Unit-level Data

With DMC's centralized reporting system available for data collection and monitoring, Arnetz set out to evaluate the effect of a unit-based workplace violence intervention in a randomized, controlled trial. "I had been working to design and implement an intervention that would be sustainable and that we could also translate to other healthcare organizations," Arnetz explains.

Specifically, the intervention consisted of a worksite visit by one or two members of the research team and a stakeholder representative from the hospital system. "The project was carried out in very close collaboration with security, human resources, nursing, quality and safety, and occupational health services, so we always had one stakeholder with us on the worksite visit," Arnetz recalls. "We met with a unit supervisor, and that person could bring one or two people with him or her."

When designing the intervention, Arnetz explains that it was a priority to make sure that unit operations were not disrupted to a large extent. "It was a short visit, limited to 45 minutes, and we never exceeded that," she says.

The purpose of the visit was to present unit-level data on work-place violence, Arnetz explains. "We presented data directly from the database that would give the unit its rates of violence for the previous three-year period, and the rates were compared to rates for the entire hospital system," she says. "Then, we broke down the data into details about where the incidents occurred, who was involved — the bare facts."

At the conclusion of the visit, the study team provided the unit supervisor with a checklist of possible intervention strategies that originally was developed by OSHA and then adapted for the healthcare workplace by the study team. "The unit supervisor and his or her team could look at environmental strategies, administrative strategies, or behavioral strategies," Arnetz says. "They were then supposed to come up with an action plan as to what exactly they were going to do."

The basic idea behind the intervention was that unit leaders would glean specific data from their own work setting that they could then use to customize appropriate strategies for curbing or preventing workplace violence events. "They were not given any direction by the research team," Arnetz adds. "They were given the flexibility to come up with what they thought would work best and be most effective."

## Identify High-risk Units

To identify which hospital units would be most relevant for such an intervention, investigators used what's called the hazard risk matrix.<sup>3</sup> At the time, the DMC system included nine hospitals, Arnetz explains. "We used this hazard risk matrix to identify the

high-risk units, and we came up with 41 units, and all of the EDs across the system were, of course, included,” she says. “We had 21 units in the intervention group and 20 controls.”

Consequently, the investigators did not just measure the intervention units both before and after the intervention; they also had the control units for comparison purposes. “The beauty of that is that it gives much greater statistical power, and it is a more rigorous design when you can compare to a reference or a control group,” Arnetz observes.

What investigators discovered was that at six months post-intervention, there was a clear difference between the intervention units and the control units with respect to the incident rate ratios of violent events. “There was a reduction in rates [in the intervention units] that we did not see in the control group units,” Arnetz observes. “After six months, [those results] did not hold, but at 24 months we saw that rates of injury were significantly lower in the intervention units compared to the control units.”

Investigators concluded that the intervention had an effect both on the occurrence of violent events as well as on the severity of events as measured by injuries, Arnetz says. Further, while investigators have conducted no additional follow-up to see whether the hospital units have continued with the methodology, Arnetz has begun to work with at least one other health system that is interested in participating in similar work.

One promising aspect of the approach is that the intervention does not require significant resources or an inordinate amount of time to carry out, Arnetz observes. “We have not conducted any formal evaluations of what the intervention costs, but it was designed to be as sustainable as possible; it was a single, 45-minute visit,” she advises. “Individual hospital units worked with their supervisors to develop whatever their action plan was, but that was also a very important part of the intervention. The ownership of the problem belonged to the unit. Those are the people who know the violence problem best because they live with it day in and day out.”

However, Arnetz stresses that it is important to create a database and a reporting system that is uniform through the organization. “It [depends on] this structure of having a central reporting system and then using the unit-level data to drive improvements,” she says.

## Prioritize Awareness

**Jane Lipscomb**, PhD, RN, FAAN, a professor in the University of Maryland Schools of Nursing and Medicine and director of the Center for Community-Based Engagement and Learning at the University of Maryland, has been looking into the prevention of occupational injuries in the healthcare workplace for more than 20 years, and sees Arnetz’s work as a game-changer. “This is the evidence we have been waiting for and wanting for a long time,” she says. “An [effective] workplace violence prevention program or intervention is based on principles of continuous quality improvement, and it is a data-driven approach.”

**Joanne Ogaitis**, RN, a member of the legislative committee of the Maryland Nurses Association based in Owings Mills, MD, echoes these sentiments, noting that in the years she and her colleagues have spent looking for legislative proposals to address workplace

violence, they have come to the conclusion that a legislative fix may not be the best way to go about resolving this very complex issue. “We started a work-group with different types of nurses who are interested in this issue ... and we have been more focused on awareness and best practices as a way to combat the problem,” she says.

In Ogaitis’s experience as a nurse working both at the corporate level and on the front lines, verbal threats to staff happen as often as every two days. Physical incidents, such as punching, biting, or kicking, happen less often, but they still happen regularly, she says.

“We understand that the violence that we see is secondary to something else that is going on with the patient, so we approach it in a compassionate way, but it is very disruptive to care,” she says. “It can involve the primary nurse, the physician, and the charge nurse; the whole care team can get involved in these incidents.”

Ogaitis believes such violence is reflective of what is going on in the community, but it is heightened in the hospital setting. “If there is a violent person in a shopping center or a university or some other community-based setting, a lot of times that person will end up in the hospital ... but in the hospital setting, because of all the different comorbidities, we see more of this,” she says.

Given the prevalence of violence in hospital settings, every hospital should have a plan for how to deal with it, Ogaitis observes. “What is effective is doing drills and making sure all the key people — both day shift and night shift — know what their roles are,” she says. “The key people need to know what the parameters are around the regulations and the law, and they need to be able to act quickly, promptly, and correctly.”

The issue needs to be dealt with in a multidisciplinary, collaborative way, Ogaitis adds. “It takes the entire care team to address it, but if there is a plan and it is rehearsed and everybody knows their roles, these things can be mitigated,” she says. “One of the things we work on is de-escalation training so that you never get to the violent point. You can recognize it, and you can bring the volume down several notches before it gets to a violent place. at is the goal.”

There is a tremendous amount of work to be done in this area, Lipscomb advises. “I just continue to be shocked that organizations, nurses themselves, and management just don’t understand that violent incidents and related injuries are preventable,” she says.

Lipscomb relates that too many of the organizations that she consults for see violence as just one of the hazards that goes along with the job of caring for patients. at attitude must change, she says.

Further, she notes that healthcare organizations must appreciate the costs and the consequences associated with workplace violence. For example, she points out that verbal abuse severely affects the patient-nurse interaction, but it is tough to monetize that. “We all know what it does to your level of compassion toward someone when they have just threatened or cursed you out,” she says. “Imagine being in a shared room with someone who is acting up like this. at has consequences.”

Ogaitis adds that there also can be a significant expense related to turnover. “When something happens again and again, or an incident is really bad, people just say they have had enough,” she says. “A lot of these incidents happen either in an ED or a behavioral health setting where getting quality staff is challenging.”

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### EXECUTIVE SUMMARY

Investigators have applied epidemiological principles to the study of workplace violence, producing results that offer intriguing information to hospitals struggling for a way forward on this issue. In a randomized, controlled trial, the researchers found that a one-time, unit-based intervention can reduce the incidence of violent events, and that the approach offers some lasting effect over time.

- The intervention consisted of a 45-minute discussion with unit supervisors in which unit-specific data regarding violent incidents in their workplace were shared along with an array of improvement strategies.
- Unit supervisors then were directed to work with their teams to develop action plans to address violence, although they were free to adopt whatever solutions they deemed best.
- At six months post-intervention, there was a clear reduction in the incident rate ratios of violent events on the intervention units as compared with control units that did not conduct an intervention.
- Experts note that the study demonstrates that an effective workplace violence intervention or program must be data-driven and based on principles of continuous quality improvement.