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Hospital Security Director Background, Opinions, and the Implementation of Security Programs

James D. Blando[a], Marilyn Lou Ridenour[b], Daniel Hartley[b], and Maryalice Nocera[c]

[a]College of Health Sciences, School of Community and Environmental Health, Old Dominion University, Norfolk, Virginia, USA; [b]National Institute for Occupational Safety and Health, Division of Safety Research, Morgantown, West Virginia, USA; [c]Injury Prevention Research Center, University of North Carolina, Chapel Hill, North Carolina, USA

ABSTRACT

Effective security is crucial to the functioning of a hospital because it impacts patient care, employee satisfaction and turnover, and patient confidence in the healthcare facility to provide a safe environment for medical care. A survey was conducted of NJ hospital security directors to describe their security programs, assess compliance with statewide workplace violence prevention regulations, and evaluate the influence of their experience and opinions on the comprehensiveness of their security program. The surveyed security programs (n = 52) had partial compliance with the regulations, security directors (n = 35) viewed the regulations positively but also had suggestions for improvements, and having a director with law enforcement experience did not improve regulatory compliance.

KEYWORDS

Hospital security; workplace violence; healthcare; security program; law enforcement experience

Background

Many studies have shown that workplace violence and aggression in the healthcare environment are significant safety problems for employees. In response to this increased awareness and high profile violent events at hospitals, nine states have regulations for workplace violence in healthcare facilities (United States Government Accountability Office [GAO], 2016). New Jersey passed legislation regarding workplace violence in healthcare (Violence Prevention in Health Care Facilities Act of 2008) and promulgated regulations in 2011 (Violence Prevention in Healthcare Facilities, 2011). These regulations include specifications for a workplace violence prevention (WVP) program that encompasses training, policy, reporting, assessment, and worker participation components. The training requirements specifically stated in the NJ regulations require that: (a) all employees receive at least 2 hours of training on workplace violence annually, (b) interim training is offered to new

CONTACT James D. Blando jblando@odu.edu College of Health Sciences, School of Community and Environmental Health, Old Dominion University, 1014 West 46th Street, LPEI Labs, Norfolk, VA 23529, USA.
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"This findings and conclusions in this report are those of the authors and do not necessarily represent the views of the National Institute for Occupational Safety and Health."

employees who begin work between the annual training offerings, (c) employees attend training on paid work time, (d) the training should be offered in easily understandable terminology and if more than 10% of the staff speak a language other than English, the training should be offered in their native language, (e) the training must cover ethnic and cultural diversity, (f) the training must cover specified topics in the regulation such as de-escalation techniques, and (g) the training must include an overview of the most recent risk assessment survey conducted for workplace violence and details on any preventative actions taken. The policy specifications of the regulations require the establishment of a WVP committee with a designated chairperson that oversees all aspects of the WVP program, the development and distribution of a written workplace violence prevention plan, prohibition on retaliatory action against employees who report concerns, and recordkeeping requirements. Reporting and Assessment components of the regulations require investigation of any incident and written documentation of specific information required by the regulations (e.g. date, time, duties at time of incident, etc.), prevention measures should be stipulated in writing, all victim identifiers must be confidential, and an annual assessment of violence risk including a walk-through survey of all areas of the hospital. The regulations also require that the violence risk assessment contains a job-task analysis for each healthcare worker. Worker participation is encouraged through the regulatory requirement that at least 50% of the WPV committee contain direct patient care staff and that the annual violence assessment walk through surveys be conducted with at least one direct patient care staff member.

The effectiveness of hospital security regulations has been assessed (Casteel et al., 2009) and programs have been evaluated in emergency departments and psychiatric units in the United States (Peek-Asa et al., 2007; 2009), France (Touzet et al., 2014), and Australia (Downes, Healy, Page, Bryant, & Isbister, 2009). Differences in the quality and implementation of WVP programs among different hospitals were noted, but the possible influences of WVP committee chairpersons and security directors on these differences have not been assessed. Research on interventions in other working environments, such as the retail sector, suggest that interventions can be effective but that the degree of implementation is an important consideration when assessing effectiveness (Casteel, Peek-Asa, Greenland, Chu, & Kraus, 2008; Peek-Asa, Casteel, Mineschian, Erickson, & Kraus, 2004). These studies also suggest that workplace characteristics and personnel characteristics can impact the willingness to implement interventions and overall program effectiveness (Casteel et al., 2008; Peek-Asa et al., 2004).

Individual worldviews and personal perspectives can impact participation by hospital staff in security programs, which has been shown to impact compliance with security programs in hospitals (Griffiths & Brooks, 2012). Griffiths and Brooks (2012) found that healthcare professionals in a hospital setting with less education tended to have worldviews that were more hierarchical and individualistic rather than egalitarian and communal. As such, chain of command and the individual with authority are seen as paramount in making decisions and taking action. Similarly, security officers (Patterson et al., 2009) tended to downplay the value of education

and were defensive about a lack of formal training. Mutual respect, status, mutual assistance, reliability, and recognition were found to be key components in the value system of security personnel working at hospitals (Patterson et al., 2009).

Many WVP committees and security programs in hospitals are influenced heavily by personnel with prior law enforcement backgrounds. Individuals who work in law enforcement as police officers have been found to be culturally distinct in their approach to problem solving, response to workload, and distinct in their worldview (Chiorri, Garbarino, Bracco, & Magnavita, 2015; Phillips, 2014) and this has similarities to hospital security staff (Patterson et al., 2009). Several studies have shown that individuals drawn to police work tend to have worldviews that value practicality, motivation, and judgement over knowledge (Steinheider, Wuestewald, Boyatzis, & Kroutter, 2012; Westera, Kebbell, Milne, & Green, 2014). For example, it has been found that although police knew they were required to fill out domestic abuse reports for every case, they often used their own judgement to determine when reports needed to be completed (Cerulli, Edwardsen, Hall, Chan, & Conner, 2015; Shields, 2008). In fact, only 60% of detectives surveyed in Australia listed knowledge as a desired skill, well after communication, motivation, decision-making, and experience (Westera et al., 2014).

The knowledge, attitudes, and beliefs of the WVP committee chair and the security director may have a significant impact on the security program's implementation and effectiveness. Barriers to effective plan implementation are numerous (Blando, Ridenour, Hartley, & Casteel, 2014) but the impact of leadership on the security program has not yet been evaluated. This study was designed to assess security programs in hospitals in New Jersey relative to the background, attitudes, and beliefs of the WVP committee chair with regard to WVP regulations and programs. The objective of this study was to examine how the experience, knowledge, attitudes, and beliefs of the chairperson may impact the implementation and effectiveness of the security program.

Methods

A cross-sectional survey using a face-to-face semistructured interview with the Chair of the WVP committee or their designee was utilized to collect information about security programs, opinions, and beliefs held by the interviewees. These interviewees typically had direct supervision of the security program. Prospective interviewees ($n = 75$) were contacted a maximum of 10 times by phone and five times by e-mail. In some cases, prospective interviewees may have served as the Chair of the Workplace Violence Committee at more than one hospital. A total of 35 interviews were successfully conducted, with 30 being completed directly with the Chair of the WVP Committee and five being conducted with the designees of the Chair. It is important to note that the designees interviewed had the functional knowledge of the WVP program and were sometimes better positioned to respond to the survey than the official committee Chair, whom in these instances served a purely administrative role. Oral informed consent was obtained at the time of the interview.

Face-to-face interviews were conducted using a semistructured interview guide and ranged in length from approximately 60 to 240 min. This study was approved by the Institutional Review Boards at Old Dominion University, the University of North Carolina, and the National Institute for Occupational Safety and Health (NIOSH).

WVP directors at all general acute care hospitals, trauma hospitals, and in-patient psychiatric hospitals located in New Jersey were eligible for inclusion in this study. Hospitals eligible for inclusion in the study were drawn from a list of licensed facilities provided by the state Department of Health and interviewees were identified by calling the hospital operator directly or the security department and asking for the correct contact person. The health department list included a total of 93 eligible facilities, including General Acute Care hospitals (n = 63; 68%), Acute Care Psychiatric hospitals (n = 20; 21%), Level II Trauma Centers (n = 7; 8%), and Level I Trauma Centers (n = 3; 3%). Hospitals were also characterized by the number of patients seen in their emergency department following the Center for Medicare and Medicaid Services (CMS) categories of Low (0–19,999 patients per year), Medium (20,000–39,999 patients per year), High (40,000–59,999 patients per year), and Very High (60,000 or more patients per year).

The face-to-face semistructured interview was based on survey tools used and tested previously by Peek-Asa and colleagues (2007) and contained a total of 39 questions. Data analysis was conducted utilizing each of the 35 interviewees' responses. New Jersey was selected because it currently has legislation in place that requires hospitals to have a WPV program that contains training, policy, reporting, assessment, and worker participation components. Questions on the semistructured interview asked about the WVP chair's opinion, beliefs, background, and their implementation of the WPV program across all legislatively required components (Violence Prevention in Healthcare Facilities, 2011). The interview guide included questions about the WVP chair or their designee and their work history, their awareness of the NJ Workplace Violence Prevention in Healthcare Facilities regulations, their opinion of the strengths and weaknesses of the regulations, descriptions of their programs and training, specifics about their security officers and the WVP committee, and their beliefs about the major contributors to violence in the facility. Additional open-ended questions focused on the attitudes and beliefs of the WVP chair or their designee regarding the definition of workplace violence, what factors contribute the most to workplace violence in their facility, whether police are increasingly using the emergency room to "dump" substance abuse and mental health patients, and the most helpful components of their security program in the prevention of workplace violence. An example of one of these open ended questions concerning attitudes would be, "The regulations require that committee members have experience or expertise in violence prevention. What does that mean to you?" Answers to open-ended questions were manually inspected by the first author of this article and conceptual similarities among interviewee responses were noted. An iterative process was used as responses to interview questions were reviewed multiple times and shared with all research team members. Any concept repeated by at least two interviewees were coded as a common theme.

The semistructured interview also included detailed responses about each security program component. The security components required by the regulations that were assessed included the comprehensiveness and frequency of their security assessments, the use of data to evaluate trends, whether 2 hrs of training was provided to all employees, frequency of WVP committee meetings, and whether the committee functioned comprehensively as intended by the regulations. Crude frequency values were tabulated for all interviewee responses. The interviewee responses about the security components were also manually inspected and coded using dummy variables for compliance with the minimum requirements of the regulation. The dummy variables used were yes and no, where "Yes" meant the security component reported complied with the intent of the regulations and "No" meant that the security component did not meet the regulatory intent. For example, the regulations require that the WVP committee comprehensively and systematically evaluate reported incidents, assess trends, update training material, conduct security assessments, evaluate reporting procedures, develop a comprehensive security plan, recommend preventative actions, and assess environmental design as a contributor to violence risk. If the interviewee reported that the committee meets without any agenda or plan and essentially only haphazardly discusses whatever topic happens to come to mind, the dummy variable for the comprehensiveness of the security committee component would be coded as "No."

The comprehensiveness of the security program was measured by a quality summary score that was benchmarked to the New Jersey Violence Prevention in Healthcare Facilities Act requirements. This quality summary score was a composite metric that gave one point for each of the following six attributes; security assessments were conducted annually, security assessments were comprehensive, data was used to assess trends in incidents, at least 2 hrs of training was provided to all employees each year, the WVP committee met at least quarterly, and the WVP committee functioned in a comprehensive manner. The total maximum quality score was six if all of these required attributes of the regulations were implemented. Descriptive cross tabs and Fisher's Exact tests were used to assess the distributions obtained.

Results

Semistructured interviews were successfully conducted with 35 WVP chairs or their designees, representing 47% of the potential interviewees contacted. Most frequently, the hospital security department director was the WVP committee chair (77%). Among the 35 participants; 88% (n = 31) had greater than 3 years of experience in their current position, 34% (n = 12) were responsible for multiple hospitals within a healthcare system, and roughly half (n = 17) had a law enforcement background. All but one interviewee were male and all interviewees were hospital employees.

The participants represented a total of 52 hospitals, with participating hospitals distributed by their CMS-rated emergency department volume as 21% medium,

30% high, and 49% very high. Participating hospitals ranged in bed size between 44 to 775 beds, with 45% having more than 300 beds and 55% having less than 300 beds. Of those who participated, 78% were general acute care hospitals, 10% were acute care psychiatric hospitals, 10% were Level II Trauma hospitals, and one (2%) was a Level I trauma center. The sampling distribution is similar to the distribution in New Jersey with the exception that the overall statewide distribution has more general acute care hospitals and fewer acute psychiatric hospitals.

Security program characteristics

Security department staffing patterns

Of the 35 interviewees, 26 (74%) indicated that they use in-house guards exclusively, while only 4 (11%) indicated exclusive use of contract guards and 5 (14%) responded that they use a hybrid model of in-house and contract guards. Interviewees who were responsible for only a single site used in-house guards more frequently (78%) and contract guards less frequently (9%) than interviewees who were part of multihospital systems (66% and 17%, respectively).

Single hospital security programs had an average of 25 security guard full-time equivalents (FTEs) and a range of 4 to 60 FTEs, typically covering three shifts 24 hr per day 7 days per week. This included 24 single hospitals and based on CMS data were evenly distributed among very high, high, and medium volume emergency departments. Security programs that covered multiple hospitals often had security guards that were system wide, so they could shift manpower to another hospital when needed. System-wide security programs ranged from a mean security guard force of 76 FTEs with a minimum of 12 FTEs and a maximum of 200 FTEs, typically spread out among all the hospitals in the system and among three shifts covering 24 hr per day 7 days per week. There were three interviewees from corporate systems with multiple hospitals that did not know how many security guard FTEs they had in their program. These system-wide programs covered 28 hospitals, and included a majority of emergency departments that were considered very high volume emergency departments by the CMS. Night shifts were generally staffed with fewer guards than the day shifts.

Location of security staff

Of the 35 interviewees, security guards were reported to be most often assigned to the emergency department (27), roaming guard duty (27), main entrance/lobby (22), and the security command center to observe camera surveillance (19). Guards were only stationed in the lobby when it was open to the public, which was typically during standard daytime hours. Hospitals also occasionally stationed guards in behavioral health units and maternity wards if those services were offered by their hospital. Only four interviewees reported that they permanently stationed guards in the parking areas. All 35 interviewees reported that guards could be dispatched to any location as needed.

Table 1. Program components or characteristic implementation (total n = 35).

Program component or characteristic	Yes (n)	No (n)	Unknown (n)*
Comprehensive security assessment	74% (26)	17% (6)	9% (3)
Evaluate data	69% (24)	11% (4)	20% (7)
Conduct annual assessment	66% (23)	23% (8)	11% (4)
Use web-based training	66% (23)	26% (9)	8% (3)
Quarterly WVP committee meetings	63% (22)	20% (7)	17% (6)
Cost biggest barrier to training implementation	31% (11)	69% (24)	0% (0)
Cost biggest barrier to plan implementation	29% (10)	71% (25)	0% (0)
Train all employees (not contractors) for at least 2 hrs annually	20% (7)	60% (21)	20% (7)
WVP Committee functions as required in regulations	20% (7)	66% (23)	14% (5)
WVP Committee composition (>50% patient care staff)	63% (22)	26% (9)	11% (4)
WVP committee members attend >80% meetings	49% (17)	40% (14)	11% (4)
WVP committee clinical members attend >80% meetings	40% (14)	43% (15)	17% (6)

Note. WVP = workplace violence prevention.
*Unknown means the interviewee was either not asked (e.g., ran out of time during interview) or interviewee did not know.

Video surveillance system use

Thirteen interviewees reported a range of 20 to greater than 200 cameras in use in their facility. An innovative video surveillance strategy reported by two interviewees involved the ability to remotely access camera video feeds so that supervisors could observe a situation in real time when not on-site. One interviewee indicated that this also allowed them to eliminate the need to staff a command center at a satellite location during the night shift because the feed could be routed to the hospital system's main command center.

Security program comprehensiveness

Table 1 is a summary of many of the program components classified using dummy variables. All of the interviewees reported that they had multiple program components with deficiencies, with some program components having as low as 4% and others having as high as 71% of the interviewees reporting that a given program component did not meet the minimum required by the New Jersey Violence Prevention in Healthcare Facilities Act standard. This included, 17% of interviewees who did not conduct security assessments meeting minimum comprehensiveness requirements, 11% did not assess data for trends, 60% did not provide the required 2 hr of annual training to all employees, and 66% did not have comprehensive WVP committees. The majority of interviewees also indicated that cost was not a barrier to training or the implementation of their plans (69% and 71%, respectively).

Director attitudes & beliefs

The majority of interviewees indicated that they felt their security program was excellent or very good 83% (n = 29), while 17% (n = 6) felt their program was just adequate. Information about the interviewees' opinion regarding the most helpful features of their programs was collected. Training was identified as a helpful feature

Table 2. Most helpful components of security program (multiple responses allowed).

Reported most helpful features of security program in prevention	Number of affirmative responses from interviewees (multiple answers allowed)
Training	49% (17)
Increased awareness	37% (13)
Quality security guards	20% (7)
Involvement of outside groups (law enforcement, social services, etc.)	14% (5)
Environmental controls/design	14% (5)
Reporting	8% (3)
Debriefing after incident	6% (2)

by the largest percentage of interviewees (49%), while 37% of the interviewees indicated that the increased awareness that their program brought to the hospital staff and administration was one of the most helpful features of their program (Table 2). Of the 13 who positively indicated awareness as one of the most helpful features (Table 2), roughly 30% (n = 4) had a law enforcement background and 70% (n = 9) did not have a law enforcement background. Unexpectedly, reporting and incident debriefing were not identified frequently as one of the most helpful features (3% and 2%, respectively). More than half (n = 18) specifically reported that violence is inherently difficult to define and very contextual, which adds to the challenge of effective reporting and training. Sixteen interviewees expressed their opinion about in-house and contract security guards. Fourteen of those who expressed their opinion felt that in-house security staff performed much better than contract security services, while two had mixed opinions. One of these interviewees suggested that while in-house security has the best performance, budget and administrative needs still must be factored into the final decision about whether the security program should be contracted or in-house.

Many interviewees (49%) believed that one of the strengths of the regulation is that it compelled hospitals to develop and address workplace violence issues and this regulatory requirement resulted in increased awareness (29%), required training (29%), and required documentation of incidents (26%; Table 3).

Paradoxically, many of these same characteristics that were identified as positive were also identified as weaknesses of the regulations (Table 3). The mandated training was felt to be ineffective or too time consuming (23%), required documentation was too intensive (23%), and there was limited availability of staff to participate in program activities (26%). Interviewees also indicated the requirements of the regulation were too costly (23%) and too broad (31%).

Security director beliefs about potential causes of the escalation of anger and tension in their facility were attributed to several primary reasons (Figure 1), with 56% of the interviewees attributing one of the primary causes to be a result of mental health, drug addiction, and social or family issues. Anecdotally, 15 of those interviewed reported that police "dumping" of substance abuse and behavioral health patients in the emergency department was a problem and six interviewees indicated that they believed dumping was increasing. Many interviewees suggested that dumping occurred because municipal police departments are stretched too thin and

Table 3. Strengths and weaknesses of workplace violence regulation (multiple responses allowed).

	Number of interviewees who reported regulatory feature (n = 35)
Strengths	
Requires regulatory compliance	49% (17)
Raises awareness	29% (10)
Requires training	29% (10)
Requires documentation	26% (9)
Weaknesses	
Too broad & labor intensive	31% (11)
Staff are not available to participate in training, meetings, or assessments	26% (9)
Too much documentation/ineffective documentation	23% (8)
Training: too much/all staff/ineffective	23% (8)
Too costly	23% (8)
Regs don't really address healthcare industry needs	11% (4)
Will not be enforced	6% (2)
Nothing can be done to prevent violence	6% (2)

can't afford to tie up their officers by asking them to deal with societal problems like alcohol abuse. In addition, interviewees also suggested that substance abuse must be treated as a disease requiring medical treatment and, therefore, officers are prohibited from letting substance abusers "sleep it off or sober up in a jail." As such, substance abuse cases are then brought to the hospital. Mentally ill patients often have nowhere to go and, therefore, the only option is frequently the emergency department.

Security director background comparison to program characteristics

Approximately 30% of those interviewees with a law enforcement background reported utilizing a hybrid security guard system, where both in-house and contract guards were used. Table 4 demonstrates that differences in the presence of WVP program components were observed between those who had a law enforcement background and those that did not. Interviewees with a law enforcement background represented a higher percentage of those who cover multiple hospitals, but they also represented a smaller percentage of those who analyze data, use web-based training,

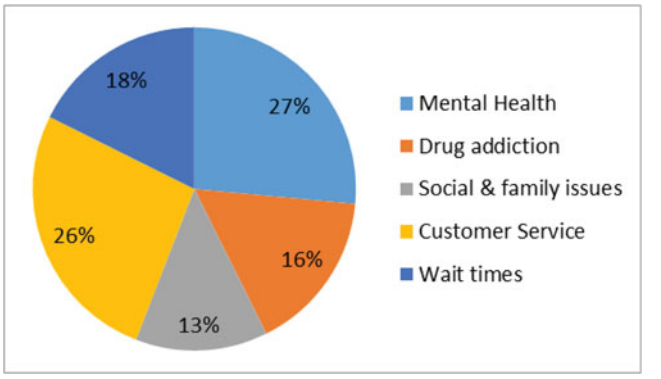

Figure 1. Interviewees' beliefs about primary reasons for escalation of anger (n = 35).

Table 4. Comparison of characteristics by WVP chair or designee background.

	Law Enforcement Background (n = 17)			No Law Enforcement Background (n = 18)		
WVP component	Yes	No	Not reported*	Yes	No	Not reported*
Covers multiple hospitals	47% (8)	53% (9)	0% (0)	22% (4)	78% (14)	0% (0)
Analyze data	64% (11)	18% (3)	18% (3)	72% (13)	6% (1)	22% (4)
Web-based training	41% (7)	41% (7)	18% (3)	89% (16)	11% (2)	0% (0)
Provide required 2 hr training	12% (2)	65% (11)	23% (4)	28% (5)	56% (10)	16% (3)
Committee functions as required in regulations	6% (1)	71% (12)	23% (4)	33% (6)	61% (11)	6% (1)

*Not reported means that the interviewee did not state if they implemented the component when prompted in interview with an open ended question. "For example, for the analyze data component the prompt was: How are violent events reported, how are violent events investigated, and are trends in violent events examined and how?"

provide 2 hrs of training to all employees, and have a comprehensive WVP committee (Table 4).

The quality summary score, as described in the methods section, is benchmarked to the NJ regulations such that a higher quality score indicates better implementation of the major components of the regulatory requirements. It was found that although some differences could be observed between different security program and director characteristics when evaluating the dummy variables by the quality summary score, none of these observations were statistically significant based on the Fisher's Exact test (Table 5).

Discussion

Individuals that participated in this survey represented hospitals that had security programs with varying compliance with the New Jersey Violence Prevention in Healthcare Facilities Act regulations. There were a notable percentage of interviewees who described programs that fell short of the regulatory minimum. This

Table 5. Distribution of quality summary scores for security characteristics benchmarked to the regulatory requirements.

		Quality Summary Score			
Characteristic		1–2	3–4	5–6	Fisher's P value
Security covers multiple hospitals	Yes	8% (1)	8% (1)	84% (10)	0.85
	No	13% (3)	17% (4)	70% (16)	
Security director has law enforcement background	Yes	12% (2)	18% (3)	70% (12)	0.86
	No	11% (2)	11% (2)	78 (14)	
Security director has greater than 7 yrs of experience	Yes	0% (0)	19% (3)	81% (13)	0.17
	No	21% (4)	11% (2)	68% (13)	
All guards are in-house hospital employees	Yes	8% (2)	15% (4)	77% (20)	0.57
	No	22% (2)	11% (1)	67% (6)	
Cost was barrier to implement plan	Yes	0% (0)	20% (2)	80% (8)	0.58
	No	16% (4)	12% (3)	72% (18)	
Cost was barrier to implement training	Yes	9% (1)	18% (2)	73% (8)	1.0
	No	12% (3)	12% (3)	76% (18)	

in part may be due to the comprehensive nature of the NJ regulations and practical difficulties encountered. Regardless of the background of the WVP chair or Security Director, a number of programs did not evaluate data (11%), did not conduct comprehensive assessments as intended by the regulations (12%), did not conduct annual assessments (23%), or did not hold quarterly committee meetings (20%).

Training was frequently listed as a strength of the regulations and as one of the most beneficial aspects of security programs. However, interviewees often pointed out that while training is highly valued, the training required by the regulations was felt to be too burdensome because it required all staff members receive training and the 2 hr annual requirement was too lengthy. Most interviewees felt that more targeted training to those staff felt to be at the highest risk would be more effective. For example, many interviewees felt that covering a basic 20 min awareness training as part of the orientation for all new employees and then following up with the 2 hr training for direct patient contact staff in the emergency department, behavioral health, and security guards was sufficient. The majority of programs reported use of web-based training in whole or in part, but there was still a significant percentage (25%) that did not use any web-based training. Web-based training was felt to be a cost-effective way to reach the largest number of employees, track those who have been trained, and document training. One such web-based training that could be used is a free online course developed by NIOSH, Workplace Violence for Nurses, which offers the opportunity to earn 2.6 free continuing nursing education units and takes 2–3 hrs to complete (Workplace Violence for Nurses, 2013). Those who did not use web-based training may have been influenced by a worldview that security is an activity best learned through conveying experiences and not by "book knowledge." Cost was not cited as a barrier to implementation of the training by roughly 70% of the survey participants. This suggests that any lack of compliance with the training requirements could be a result of other factors beyond cost, which may include the attitudes and beliefs about training among the Chair of the Workplace Violence Prevention Committee or their designee, the goals of their training program, and their view of the type of training that they consider effective.

Although it seems logical to hire a security director with a law enforcement background to chair the WVP committee and direct security, it might be reasonable to ask if security in a hospital is significantly different than a police officer's role in law enforcement and whether this might negatively impact the comprehensiveness or effectiveness of a WVP program. Participants with a law enforcement background were more likely to work for corporate systems containing multiple hospitals than single-site hospital organizations. They reported that their WVP programs were less likely to use data to analyze violence trends, less likely to use web-based training, less likely to provide the required 2 hrs of WVP training at their hospital, and were less likely to have a comprehensive WVP committee compared to those interviewees without a law enforcement background (Table 4). These findings may represent the value that security and law enforcement professionals place on pragmatic, experience-driven, and intuitive problem solving. When looking at the analysis of data, 64% of those with law enforcement backgrounds analyzed data versus 72%

of the interviewees without a law enforcement background (Table 4); however, a significant percentage of interviewees (18% and 22% respectively) did not report whether they analyzed their data making interpretation tentative. This high percentage of unknowns in the Table 4 data resulted in keeping the analysis descriptive and not analyzing this data using statistical techniques. This potential deficiency may be influenced in part by the world view reported in the literature typical of many security and law enforcement professionals on an intuitive solution to problems rather than on knowledge gained from data and data collection.

Of the seven interviewees who reported that one of the most helpful features of their program was the high quality of their security guards, six had a law enforcement background (Table 2). It is not surprising that those with law enforcement experience highly valued the quality of the security guards and were keenly aware of their importance. This could be related to their professional identity, much of their past experience is in direct enforcement interaction with people, and they also have the experience and knowledge to know the difference between a good security officer and a poor performing officer. The types of personalities that have been identified among law enforcement professionals (Griffiths & Brooks, 2012; Patterson et al., 2009; Phillips, 2014) could be a factor in the development of their world view.

Interestingly, when evaluating an overall quality score for the security program benchmarked to the NJ regulations, there did not appear to be a qualitative or statistical difference among the distribution of the quality scores of those with a law enforcement background compared to those without this background (Table 5). Table 5 shows that security directors with less than 7 years' experience and fewer in-house guards had lower quality scores; however, these were not statistically significant differences. This suggests that having a law enforcement background does not necessarily assure a higher quality security program if the benchmarks used are the comprehensive requirements of the NJ regulations. In fact, Table 4 suggested that some components of the regulations such as data analysis, had lower compliance when the director had a law enforcement background. Perhaps it is not surprising that these hospitals were not in compliance with every component of the NJ regulations because many people drawn to law enforcement and security have been shown to prioritize personal judgement and pragmatism over strict compliance (Cerulli et al., 2015). Although interpretation of these data is tentative because of low statistical power, this suggests that the background and characteristics related to the WVP program director may influence the security program.

Strengths and limitations

The strengths of this study include participation of interviewees from a wide variety of hospital types and inclusion of detailed information on WVP program characteristics and interviewees' attitudes and beliefs. New Jersey's regulations are comprehensive and while specific details vary, the major components of New Jersey's regulations are similar to six of the eight other states that have implemented

regulations (GAO, 2016). This study also has limitations. Due to the voluntary nature of the study, interviewees that volunteered to participate in the study may have been more likely to have implemented a comprehensive WVP program compared to facilities that declined to participate. For example, if an interviewee had not designated a chairperson of the WVP committee they may not have consented to an interview because this lack of designation of a chair would be a clear violation of the regulations and highlight poor implementation.

Data were collected using a semistructured interview, questions were also open ended and as such were significantly affected by interpersonal communication styles and exhibit a great deal of variability in what a person chooses to mention during an interview. There were instances documented in the tables where the percentage of unknown values in the data were significant and, therefore, makes interpretation tentative. For example, 11% of the interviewees reported that they did not analyze their security data, but analysis of data was unknown for 20% of the interviewees. It is also possible that social desirability bias could have occurred if the interviewee was inclined to give answers that they thought would be viewed favorably by the person conducting the interview, as there was no way to verify the accuracy of their responses. In addition, the results are limited because the data were self-reported and, therefore, subject to any bias that may have been held by the interviewees. The coding of open-ended responses was also completed by only one researcher due to resource limitations, which opens the possibility of bias among the coder impacting the interpretation of the results. We had less than half of our eligible sample agree to participate, which while typical of these types of studies, does limit the applicability of the results to the larger population of hospitals both inside New Jersey and in other states that also have workplace violence regulations in hospitals. As such, this analysis is most directly relevant to hospitals in New Jersey and may only be indirectly relevant to hospitals in other states. Therefore, these data must be interpreted carefully and in the context of the open-ended interviewing technique used to collect the data with the semistructured survey.

Conclusion

Based on the responses from those interviewed, it appears that hospitals had achieved partial compliance with the NJ Violence Prevention regulations but there were areas where some deficiencies were noted. Some of these deficiencies may be due to the comprehensive nature of the regulations and the corresponding belief by those implementing the regulations that there are impractical requirements, but may also be due in part to the characteristics and traits of the WVP chairs or their designees. Those with a law enforcement background did not have better performance with regards to compliance than those directors without a law enforcement background. Interviewees felt that the regulations resulted in an overall positive impact and improved safety from violent assaults in their hospital, especially with regard to training and awareness, but there were also improvements that could be made. In particular, most interviewees felt that the training requirements would be

more effective and practical if a brief awareness training was offered to all employees at orientation and more comprehensive training was targeted to those employees at highest risk of violence. Overall, the regulatory approach appears to be viewed positively and influenced by many factors, including the attitudes and beliefs of the security director.

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