

Interventions to reduce the risk of violence toward emergency department staff: current approaches

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Introduction: The phenomenon of workplace violence in health care settings, and especially in the emergency department (ED), has assumed the dimensions of a real epidemic. Many studies highlight the need for methods to ensure the safety of staff and propose interventions to address the problem.

Aim: The aim of this review was to propose a narrative of the current approaches to reduce workplace violence in the ED, with a particular focus on evaluating the effectiveness of emergency response programs.

Methods: A search was conducted between December 1, 2015 and December 7, 2015, in PubMed and CINAHL. Ten intervention studies were selected and analyzed.

Results: Seven of these interventions were based on sectoral interventions and three on comprehensive actions.

Conclusion: The studies that have attempted to evaluate the effectiveness of interventions have shown weak evidence to date. Further research is needed to identify effective actions to promote a safe work environment in the ED.

Keywords: workplace violence, violence prevention and control, emergency department, aggression, security, review

Introduction

Every emergency nurse and physician is aware that there exists a dark side to their job: the violence against emergency department (ED) staff.¹ The “violent acts (including physical assaults and threats of assaults) directed toward persons at work or on duty” are considered by the National Institute of Occupational Safety and Health as workplace violence (WPV),² and this phenomenon in health care settings, and especially in the ED, is so widespread throughout the world that it has assumed the dimensions of a real epidemic.^{3,4} This trend of WPV is continually growing,^{5,6} so that several international organizations, such as the International Labour Office, the International Council of Nurses, the World Health Organization, and Public Services International, have been issuing specific guidelines on this topic for a long time.⁷ A very recent study highlights that more than two-thirds of physicians experienced work-related assaults and >50% of physicians suffered WPV in the previous year,⁸ and nurses are even less safe than other ED workers.⁹ WPV affected 90% of emergency nurses in the previous year.¹⁰ Table 1 lists the incidence of WPV against emergency personnel reported in some international studies.^{11–21}

Due to this high prevalence, violence is regarded worldwide by emergency nurses and physicians as “inevitable,”²² or “part of job.”²³ Whelan⁵ stated that the first documentation

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Table 1 Incidence of WPV in the ED by year, country, profession, type of violence, and period

Reference	Year	Country	ED worker	WPV exposure	Verbal violence	Physical violence	Period
Wyatt and Watt ¹¹	1995	UK	100 physicians		(96/100) 96%	(18/100) 18%	Not indicated
Lyneham ¹²	2000	Australia	266 nurses		(154/266) 58%	(37/266) 14%	1 week
Behnam et al ¹³	2011	USA	263 physicians	(205/263) 78%	(197/263) 74.9%	(56/263) 21.3%	12 months
Lee ¹⁴	2001	USA	1,400 nurses		(1,358/1,400) 97%	(1,218/1,400) 87%	12 months
Crilly et al ¹⁵	2004	Australia	71 nurses	(50/71) 70.4%	(67/71) 94.3%	(17/71) 23.9%	5 months
Winstanely and Whittington ¹⁶	2004	UK	375 ED staff		(249/375) 66.4%	(104/375) 27.7%	12 months
James et al ¹⁷	2005	UK	ED staff	218 episodes	(196/218) 89.9%	(70/218) 32.1%	12 months
Cezar and Marziale ¹⁸	2006	Brazil	33 nurses	(33/33) 100%	(28/30) 93.3%	(5/30) 16.7%	12 months
			14 physicians	(12/14) 85.7%	(12/12) 100%	(2/12) 16.7%	12 months
Ryan and Maguire ¹⁹	2006	Ireland	37 nurses		(33/37) 89.2%	(20/37) 54.1%	1 month
Pinar and Ucmak ²⁰	2011	Turkey	255 nurses		(233/255) 91.4%	(190/255) 74.9%	12 months
Esmailpour et al ²¹	2011	Iran	196 nurses		(179/196) 91.6%	(39/196) 19.7%	12 months

Abbreviations: ED, emergency department; WPV, workplace violence.

of aggressive encounters from patients and the public toward nurses dates back to 1824. Violence against emergency staff has also been reported as a problem in countries such as the UK,²⁴ Ireland,¹⁹ Spain,²⁵ Italy,²⁶ Australia,¹² Canada,²⁷ and the US.²⁸ Only in the past year were studies conducted on the issue of assault against emergency staff in Taiwan,⁸ Pakistan,²⁹ Jordan,^{30,31} Italy,³² US,^{33–38} Norway,³⁹ Australia,⁴⁰ Palestine,⁴¹ Ethiopia,⁴² Iran,⁴³ Singapore,⁴⁴ Cyprus,⁴⁵ and France.⁴⁶ These studies, as well as most of those published until now, concern a review of WPV incidence and prevalence in ED, a description of precipitants and risk factors, types of violent acts (verbal or physical), or, in the qualitative studies, an analysis of the experiences and feelings of the staff suffering aggression. Of course, many studies have highlighted the need for methods to ensure the safety of staff and proposed interventions to address the problem. However, in the international literature, documentation of specific actions to address or reduce violence is lacking,⁴⁷ and when these studies do recommend possible solutions, the analysis of intervention effectiveness is often only a secondary consideration⁴⁸ or limited in scope and evaluation.⁴⁹

Purpose

The aim of our review is to propose a narrative of the current approaches to reduce WPV in the ED, with a particular focus on evaluating the effectiveness of the proposed emergency response programs.

Methods

In September 2015, a preliminary search of the international literature on the subject of this study was conducted in the PubMed database using the following search terms: “emergency department”, “aggression”, “workplace violence”, “approach”, and “intervention”. The terms were combined using the Boolean operators OR and AND. This preliminary

study allowed us to obtain useful elements for carrying out the “facet analysis” necessary to identify the key terms to be used in the search strategy. The PICO framework was used to develop literature search strategies. Table 2 shows the research question in analytical format. The MeSH terms and the search terms were combined to maximize the sensitivity of the research. In the CINAHL database, the near operators N1 and N2 were used in order to retrieve records with two terms in the same sentence or multiple words to increase the specificity of the search. Similarly, “search terms” in inverted commas were used in the PubMed database.

The final search was conducted between December 1, 2015 and December 7, 2015, in the PubMed database (the free Medline version) and the CINAHL database (CINAHL Plus with full text, using EBSCO host). Literature were included in this review if the following inclusion criteria were met: 1) the article is written in English, French, or Italian; 2) abstracts or full text is available; 3) publication date is from January 1, 2011 to December 7, 2015; and 4) workplace intervention is evaluated to prevent occupational violence in the ED.

Results

The search carried out in PubMed and CINAHL produced 26 studies in the first database and 25 in the second database. The flowchart of Figure 1 shows the selection process. Applying the inclusion and exclusion criteria, we selected ten studies examining the phenomenon of violence against ED staff by evaluating approaches or strategies for the management of aggression.

Discussion

Through the analysis of the selected publications (Table 3), some approaches to the problem of WPV in the ED emerged. Seven of these approaches are based on sectoral interventions and three on comprehensive actions.

Table 2 From PICO framework to facet analysis: search terms

Population	Problem	Intervention	Comparison	Outcome
Health professionals of emergency department	Workplace violence	Approaches to reducing violence in ED	None	Safety, violent episode decrease
Toward:	Aggression(s)	Approach		Appraisal
Doctor(s)	Aggressive patient(s)	Avoidance		Assessment
ED worker(s)	Attack(s)	Debriefing		Effectiveness
Nurse(s)	Assault(s)	De-escalation		Evaluation
Physician(s)	Threat(s)	Deterrence		Minimization
Staff	Violence	Educational		Outcome(s)
	Episodes of violence	Intervention(s)		Protection(s)
	Patient-related violence	Management		Safe working environment
Accident and emergency		Methods of managing		
Emergency service(s)	Physical violence	Policy		Safety
Emergency	Verbal violence	Zero-tolerance policy		Well-being
Department(s)	Violent behavior(s)	Prevention		
ED(s)	Workplace violence	Program		
Triage	WPV	Provision		
		Reduction		
		Security measures		
		Strategy(ies)		
		To manage		
		To prevent		
		To provide		
		To support		
		Training		

Abbreviations: ED, emergency department; WPV, workplace violence.

Guiding principles for mitigating WPV

In presenting the current approaches to the problem of WPV in the ED, we believe that it is important to start with the guiding principles and priority focus areas recently developed jointly by the American Organization of Nurse Executives and the Emergency Nurses Association and published in the July

editions of both the *Journal of Emergency Nursing*³³ and the *Journal of Nursing Administration*.³⁴ Many studies have in fact shown that health professionals often feel unsupported by their institutions and leaders.^{32,44,50,51} For the first time, 13 participants (members of the American Organization of Nurse Executives and Emergency Nurses Association) at the

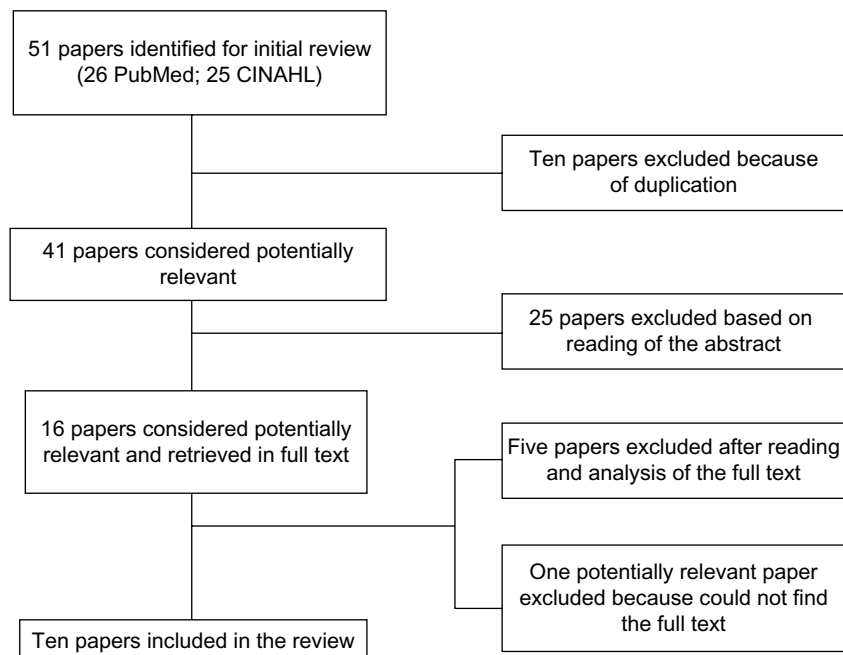
**Figure 1** Flowchart of selection process.

Table 3 Selected studies

Title, authors, (publication year)	Study design	Sample description	Interventions	Results	Conclusion
AONE and ENA Develop Guiding Principles on Mitigating Violence in the Workplace, American Organization of Nurse Executives and Emergency Nurses Association (2015) ³³	Guidelines	13 (members of AONE and ENA) at the Day of Dialogue on Mitigating Violence in the Workplace	Eight guiding principles on mitigating violence in the workplace and five priority focus areas	The development of guidelines and a toolkit to assist nurse leaders in reducing patient and family violence in hospitals.	The partnership between hospital leaders and staff is crucial to create an environment where health care professionals, patients, and families feel safe
Active shooter in the emergency department: a scenario-based training approach for health care workers, Kotora et al (2014) ⁵²	Pre- and post-test survey	32 residents, nurses, and medical students participated in a disaster drill onboard, a military base (USA)	Completed a ten-item pretest, each participant was exposed to a single active shooter scenario followed by a didactic lecture. The training concluded with a post-test and debrief	Student's t-tests confirmed a statistically significant difference between the pre- and post-test scores for the subjects ($P < 0.002$ [$-0.177, -0.041$]).	Didactic lectures, combined with case-based scenarios, are an effective method of teaching health care workers how to best manage an active shooter incident
Implementation of a comprehensive intervention to reduce physical assaults and threats in the emergency department, Gillespie et al (2014) ⁵⁸	Quasi-experimental study	209 participants from two level I trauma centers, two urban tertiary care EDs, and two community-based suburban EDs (USA)	The intervention had three components: environmental changes, policies and procedures, and education and training. Implementation of the intervention took place over a 3-month period (June 2010 to August 2010)	The intervention groups experienced a significant decrease in the rate of assaults from pre- to post-intervention. Similarly, the comparison groups. The hypothesis (decrease in WPV events in the intervention sites compared with the comparison sites) was not supported	The effectiveness of WPV prevention programs is predicated not only on strategies examining risk factors related to patients, employees, and the employer but also on programs with employee involvement and management commitment and endorsement
Reducing violence in the emergency department: a rapid response team approach, Kelley (2014) ⁵⁷	Descriptive study	One ED with >90,000 patients/year (USA)	"Code S" is a rapid response team that provide the care of an escalating individual with aggressive behavior	Since instituting the code procedure, the use of restraint and seclusion in ED decreased from 30% of behavioral health hours to 1%	The protocol, developed to fulfill the mission of the de-escalation team to provide the best possible care of behavioral health patients, can facilitate the management of violent events
The outcome of a rapid training program on nurses' attitudes regarding the prevention of aggression in emergency departments: a multi-site evaluation, Gerditz et al (2013) ⁵³	Mixed methods: pre- and post-test survey, individual interview	471 participants from 18 metropolitan and regional EDs located in Victoria (Australia). 28 managers and trainers	MOCA-REDI is a 45-minute educational program to promote the use of de-escalation techniques and effective communication skills to prevent patient aggression	Participants were undecided if it was possible to prevent patient aggression and continued to be unsure about the use of physical restraint. Statistically significant shifts were only observed in five of 23 items	Although the managers and trainers who were interviewed about the program did perceive qualitative changes in the way some staff worked to prevent patient aggression in practice, the study found limited evidence to demonstrate the MOCA-REDI effectiveness

Evaluation of a comprehensive ED violence prevention program, Gillespie et al (2013) ⁴⁹	Mixed methods: descriptive and qualitative study	The program was initiated at three EDs: one urban level I trauma center, one urban hospital, and one suburban hospital. 53 ED workers have evaluated the program. A program evaluation meeting was held with nurse managers and educators from the three EDs. 315 employees completed the educational component (USA)	A multicomponent intervention including: written policies and procedures, an education program (online training), environmental changes	53 employees rated the overall program as moderately beneficial. Nurses evaluated the benefit highest, the physicians lowest. 315 employees provided positive and constructive feedback about educational component. The action research was very positive for nurse managers and educators	WPV occurs against all health care workers, and the prevention of incidents will continue to be dependent on the involvement of all disciplines. It is critical that all employees know what to do in specific situations and how to communicate risk among themselves so that all employees remain safe. Whereas certain settings have unique environmental and training needs, a facility-wide approach addressing prevention strategies is highly recommended
A workplace violence educational program: a repeated measures study, Gillespie et al (2014) ⁵⁵	Quasi-experimental study	The program was initiated at two EDs: two pediatric ED, one adult/pediatric ED (USA). 120 ED workers completed study procedures	Three online modules: the WPV prevention; the safely managing WPV through a coordinated team approach; the post-incident response. Two-hour classroom	A repeated-measures analysis of variance, conducted to determine whether individual test scores increased significantly between baseline, post-test, and 6-month post-test period, indicated a significant time effect	The use of a hybrid modality increases the probability that significant learning outcomes and retention will be achieved
Workplace violence in emergency medicine: current knowledge and future directions, Kowalenko et al (2012) ⁵⁹	Literature review	32 articles about: individual-level interventions; modification in the physical structure and security; policy-level interventions; interventions and approaches to decrease WPV; management commitment; worksite analysis; interventions to decrease WPV in the ED	Three levels of interventions: 1) training of individual medical staff; 2) modification in the ED physical structure and security; and 3) changes to local and national policy	No clear statistics to support the interventions analyzed are available; a reduction in assaults is not demonstrated; no published studies have evaluated the effectiveness	Further ED-specific research is needed to identify essential, effective components of training, best practices for ED-specific security measures, and effectiveness of potentially violent patient "alert systems"
Emergency department workers' perceptions of security officers' effectiveness during violent events, Gillespie et al (2012) ⁵⁶	Qualitative, descriptive study	31 health care workers from an urban pediatric ED (USA)	The security officers rules: responding in WPV episodes; assisting in the restraint and observation of violent patients; managing visitor access into the main treatment areas of the ED; following-up on violent event reports; participating in interdisciplinary WPV prevention and management training	Six themes were identified: 1) a need for security officers; 2) security officers' availability and response; 3) security officers' presence or involvement; 4) security officers' ability to handle violent situations; 5) security officers' role with restraints; and 6) security officers' role with access	It is important that early communication between security officers and ED workers takes place before violent events occur. A uniform understanding of the roles and responsibilities of security officers should be clearly communicated to ED workers
Using action research to plan a violence prevention program for emergency departments, Gates et al (2011) ⁶⁰	Qualitative study	97 ED workers participated in one of the 12 focus groups (USA)	Three types of actions before, during, and after assault concerning the employee, the patient/visitor, and the physical/ social environmental factors	The focus groups' data showed that the planned intervention strategies were relevant, acceptable, feasible, and comprehensive for the employees and managers	The intervention's success depends on successful collaboration of all stakeholders, support from administration, and a hospital culture that violence against health care workers will not be expected, tolerated, or accepted

Abbreviations: AONE, American Organization of Nurse Executives; ED, emergency department; ENA, Emergency Nurses Association; MOCA-REDI, Management of Clinical Aggression – Rapid Emergency Department Intervention; WPV, workplace violence.

Day of Dialogue on Mitigating Violence in the Workplace proposed eight guiding principles for mitigating WPV (Table 4) and five focus areas for health care organizations: encouraging respectful communication and behavior, establishing a zero-tolerance policy, ensuring ownership and accountability, offering training and education on WPV, and creating outcome metrics of the program's success. This toolkit and the guiding principles can assist health

care professionals (ED managers, nurses, or physicians) in implementing and applying useful approaches for systematically reducing patient and family/caregiver violence in hospitals.

Scenario-based training methods

Kotora et al,⁵² in-line with the fifth point of the fourth priority focus area (Table 4), recently proposed a simulation

Table 4 Guiding principles on mitigating violence in the workplace and five priority focus areas

Guiding principles	
1.	Violence can and does happen anywhere
2.	Healthy work environments promote positive patient outcomes
3.	All aspects of violence, including those involving patients, families, and colleagues, must be addressed
4.	A multidisciplinary team is needed to address WPV
5.	Everyone in the organization is accountable for upholding behavior standards
6.	When members of a health care team identify an issue that contributes to WPV, they have an obligation to address it
7.	A culture shift requires intention, commitment, and collaboration of nurses with other health care professionals at all levels
8.	Addressing WPV may increase the effectiveness of nursing practice and patient care
Five priority focus areas	
1.	Foundational behaviors to make this framework work: <ul style="list-style-type: none"> • Respectful communication, including active listening • Mutual respect demonstrated by all (ie, members of the multidisciplinary team, patients, visitors, and administrators) • Honesty, trust, and beneficence
2.	Essential elements of a zero-tolerance framework: <ul style="list-style-type: none"> • Top-down approach supported and observed by an organization's board and C-suite • Enacted policy defining what actions will not be tolerated, as well as specific consequences for infractions to the policy • Policy is clearly understood and equally observed by every person in the organization (ie, leadership, multidisciplinary team, staff, patients, and families) • Lateral violence is prohibited, regardless of role or position of authority (ie, the standard of behavior is the same for physicians, nurses, staff, and administration)
3.	Essential elements to ensuring ownership and accountability: <ul style="list-style-type: none"> • Personal accountability, meaning everyone in the organization is responsible for reporting and responding to incidents of violence • A zero-tolerance policy is developed with input from staff at every level in the organization, thus ensuring staff co-own the process and expectations • Universal standards of behavior are clearly defined and every person in the organization (including patients and families) is held equally accountable • Incidents of violence are reported immediately to persons of authority, through the chain of command, to ensure immediate enforcement of the zero-tolerance policy
4.	Essential elements of training and education on WPV: <ul style="list-style-type: none"> • Organizational and personal readiness to learn • Readily available, evidence-based and organizationally supported tools and interventions • Skilled/experienced facilitators who understand the audience and specific issues • Training on early recognition and de-escalation of potential violence in both individuals and environments • Health care-specific case studies with simulations to demonstrate actions in situations of violence
5.	Outcome metrics of the program's success: <ul style="list-style-type: none"> • Top-ranked staff and patient safety scores • Incidence of harm from violent behavior decreases • Entire organization (staff) reports feeling "very safe" on the staff engagement survey • Patients and families report feeling safe in the health care setting • Staff feels comfortable reporting incidents and involving persons of authority • The organization reflects the following culture change indicators: employers are engaged, employees are satisfied, and HCAHPS scores increase

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Abbreviations: WPV, workplace violence; HCAHPS, Hospital Consumer Assessment of Healthcare Providers and Systems.

training approach using health-care-specific case studies with simulations to enhance behavioral awareness in situations of violence which they see as an essential element of training and education on WPV. The authors constructed a comprehensive training experience to better prepare health care workers for an active shooter (an extreme situation that may occur in the ED) using didactic and scenario-based training methods. After completing a ten-item pretest developed by the Department of Homeland Security's IS:907 Active Shooter course, 32 resident nursing and medical students participated in a single shooting scenario simulation followed by a lecture on hostage recovery and crisis negotiation. They were then exposed to simulated multiple shooting. A post-test and debrief concluded the stage. Didactic lectures combined with case-based scenarios have proven effective in teaching health care workers how to best manage an active shooting incident. In fact, the paired Student's *t*-tests confirmed a statistically significant difference between the pre- and post-test scores for all the participants ($P < 0.002$ [$-0.177, -0.041$]).

Rapid training program

Educational interventions that aim to promote effective communication skills and use of de-escalation techniques to prevent patient aggression are certainly a useful strategy (the fifth point of fourth priority area in Table 4). The approach proposed by Gerdtz et al⁵³ aims to provide this type of expertise quickly and widely. Their study published in 2013 was conducted to evaluate the effectiveness of their proposed intervention, based on the theoretical model of Duxbury,⁵⁴ that divides the causal factors for patient aggression into three categories: internal (patient/biomedical causes), external (environmental causes), and interactional (situational causes). The Management of Clinical Aggression – Rapid Emergency Department Intervention is a rapid training course, which is delivered over a 45-minute staff in-service session. The Australian authors have tested this program with a mixed approach: both with a pre- and post-test administered to trainee participants immediately before and 6–8 weeks after training, and with individual interviews of managers and trainees 8–10 weeks after the intervention. This involved three key learning activities: 1) viewing of a 3.5-minute DVD simulation of an episode of patient aggression in the ED; 2) discussion on research evidence regarding the prevention of aggression in health care settings, risk factors for WPV, and early warning signs for aggression; and 3) review of the current approaches used to manage episodes of aggression in the workplace and discussion on the ways in which practice may be improved. A total of 471 participants from 18 EDs

located in Victoria completed the pre- and post-test after training. Twenty-eight managers and trainers provided their perceptions of the impact of the program. Despite undergoing training, the participants reported feeling unsure about whether or not it would be possible to prevent episodes of patient aggression (statistically significant shifts were only observed in five of 23 items). However, qualitative changes were reported by managers in the way some members of staff worked to prevent episodes of patient aggression during practice.

Hybrid educational intervention

Prevention-focused education is considered by many authors to be a major strategy in reducing the risk of violence in the ED. The likelihood of achieving significant learning outcomes and retention by the use of a hybrid (online and classroom) educational program was recently demonstrated by Gillespie et al.⁵⁵ In this study, the authors tested an educational approach that covered the topics usually proposed in programs of this kind with three online modules: the prevention of WPV (environmental safety, risk assessment, and communicating effectively with patients and visitors), the safe management of WPV through a coordinated team approach, and the post-incident response (incident reporting and caring for victimized workers). After a 2-hour interactive classroom session, the participants held a discussion with their colleagues on how to best manage the WPV events. Thanks to a quasi-experimental study, which enrolled 143 nurses (120 of whom formed the study sample) from the two US EDs, the effectiveness of the educational program was evaluated by three tests (at baseline, post-test, and 6-month post-test). A significant time effect was observed in the results obtained from a repeated-measures analysis of variance carried out to determine whether individual test scores increased significantly over time. The authors concluded that this type of educational prevention program on WPV tailored to the needs of ED employees can be a useful strategy for the achievement of satisfactory learning outcomes.

Rapid response teams

The presence of security guards in the ED is widely considered effective in reducing violent episodes, but few studies have evaluated the role and the impact of security officers to contrast WPV. Gillespie et al⁵⁶ in their qualitative study published in 2012 tried to fill this gap. An alternative approach is proposed by Kelley⁵⁷ in her study, where the security officers are placed in a rapid response team consisting of physicians, nurses, social workers, technicians, human resources personnel, members of administration, and risk management personnel. According to

the study by Gillespie et al, the support offered by the security officers (not only limited to the rapid actions required when a patient or visitor becomes violent but also including assisting in the restraint and observation of violent patients, managing visitors on arrival in the ED, following-up on violent event reports, participating in interdisciplinary WPV prevention, and management training) is perceived by the emergency staff as valid and useful, although their effectiveness in maintaining a safe work environment is not perceived.⁵⁶ Similarly, Kelley's research highlights the usefulness of introducing a multidisciplinary de-escalation team to provide the best response to violent behavior of patients and visitors.⁵⁷

Comprehensive approach

Gillespie et al,⁵⁸ who have carried out a lot of pertinent research, suggest that an effective approach to reduce physical assaults and threats in the ED must be based on comprehensive intervention. Implementing any necessary environmental changes, laying down policies and procedures, and offering education and training are the three fundamental interventions benefitting all staff members, no matter what their role is (physicians, nurses, social workers, security officers, registrars, psychologists, and risk managers). Continuous feedback from employees, managers, and administrators, and the advice of experts in WPV prevention and management

are crucial for the success of this type of preventive action. Although, in their study, the hypothesis that the intervention sites would have a significantly greater decrease in WPV episodes compared to control sites was not supported, the authors note that two out of three intervention sites recorded a significant decrease in violent events.

Similarly, in the overview of interventions for WPV in the ED recently proposed by Kowalenko et al,⁵⁹ multiple approaches are suggested: training individual medical staff members; modification of the physical structure and security of the ED, and changes to local (institutional/regional) and national policies or action plans aimed at reducing violence in the ED. Unfortunately, this review of the literature shows that there is still no evidence of effectiveness for any of the proposed actions.

Action research approach

The complexity of the phenomenon of WPV can be addressed with an actions research approach. This is the strategy proposed by Gates et al.⁶⁰ The researchers have used the Haddon matrix,⁶¹ which combines the epidemiologic concepts of host, vehicle, agent/vector, and environment with the concepts of primary, secondary, and tertiary prevention, to identify and categorize their intervention strategies for reducing episodes of aggression in the ED (Table 5).

Table 5 The Haddon matrix applied to ED violence prevention

	Host (employee) factors	Vector and vehicle (patient/visitor) factors	Physical/social environmental factors
Before assault	<ul style="list-style-type: none"> – Education and training – Policy and procedures – Preventing aggressive – Behaviour de-escalation and conflict resolution – Managing aggression 	<ul style="list-style-type: none"> – Communication to patients and visitors of policy that violence will not be tolerated and potential consequences of violent behavior – Minimize anxiety for waiting patients and visitors by communicating with them every 30 min 	<ul style="list-style-type: none"> – Develop and communicate policy to employees and management that violence is never acceptable – Development and implementation of violence policies and procedures – Manager education – Security/police response/policies and education – Monitor access to emergency department – Develop mechanism to alert staff when patients and visitors who were previously violent visit the emergency department again – Quiet environment/areas – Special area for aggressive individuals/safe room for criminals – Enforce visitor policies (ie, number of visitors)
During Assault	<ul style="list-style-type: none"> – Education and training – Nonviolent crisis intervention 	<ul style="list-style-type: none"> – Isolate perpetrator from others 	<ul style="list-style-type: none"> – Security/police plan – Implement procedures for dealing with violent event
After Assault	<ul style="list-style-type: none"> – Critical incident debriefing – Mandatory reporting of all physical assaults and physical threats 	<ul style="list-style-type: none"> – Reporting to security/police – Maintain patient's/visitor's name for alerting staff upon return visit 	<ul style="list-style-type: none"> – Create procedure for investigating physical threats – Create procedure for reviewing violent event

Note: Reprinted from *The Journal of Emergency Nursing*; 37(1); Gates D, Gillespie G, Smith C, Rode J, Kowalenko T, Smith B. Using action research to plan a violence prevention program for emergency departments; 32–39; Copyright © 2011 Emergency Nurses Association. Published by Elsevier Inc. All rights reserved; with permission from Elsevier.⁶⁰

Abbreviation: ED, emergency department.

The results of the qualitative study conducted by the authors with 97 members of staff who participated in 12 focus groups showed that the planned intervention strategies were relevant, acceptable, feasible, and comprehensive for both employees and managers.

Conclusion

The phenomenon of WPV in the health sector, and in the ED in particular, is the subject of numerous international studies. Interesting theoretical models^{54,62} and explanatory frameworks⁶³ have been developed. Understanding the types of violent acts (verbal or physical) and the perpetrators (patients, their relatives, or their friends), highlighting the precipitants and risk factors, and quantifying the phenomenon are among the main objectives of many papers. These studies are generally analytical and descriptive, usually with a mixed qualitative/quantitative methodology.⁶⁴ Some of these have focused on intervention strategies to address the violence against health care workers. Moreover, the few studies that have attempted to evaluate the effectiveness of interventions have shown weak evidence to date. Further research is needed to identify effective training content, best practices, and security measures designed to promote a safe work environment in the ED. We think that the complexity of the phenomenon and the strong interrelation between various factors suggest that the problem of violence in the ED could be effectively faced only with multiple strategies based on “multidimensional” analysis of the operating ambiances and interventions.⁶⁵ Global¹⁰ and interdisciplinary⁶⁶ approaches for managing aggression in the ED will allow us to find effective solutions. The biggest challenge is to ensure that violence against health professionals does not “come with the job”⁶⁷ and ceases to be considered “part of our job”.⁶⁸

Disclosure

The authors report no conflicts of interest in this work.

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