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Violence: Recognition, Management and Prevention

VIOLENCE AGAINST EMERGENCY DEPARTMENT WORKERS

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□ **Abstract—The purpose of this study was to describe the violence experienced by Emergency Department (ED) workers from patients and visitors during the 6 months before the survey. Two hundred forty-two employees at five hospitals who came in direct contact with patients or visitors completed a survey. The study found that most workers had been verbally harassed by patients or visitors at least once. There were at least 319 assaults by patients and 10 assaults by visitors. Sixty-five percent of subjects assaulted stated that they did not report the assault to hospital authorities. Sixty-four percent of subjects had not had any violence prevention training during the previous 12 months. There were significant relationships among violent experiences, feelings of safety, and job satisfaction. ED workers are at high risk for violence, and efforts are needed to decrease the incidence of violence. Such efforts are likely to have a positive impact on job satisfaction and retention of ED workers.**

□ **Keywords—workplace violence; emergency department; healthcare workers; assaults; violence**

INTRODUCTION

Epidemiological studies have identified emergency departments (EDs) as high risk settings for violence against healthcare workers (1–4). ED workers are thought to be at increased risk of violence due to a number of factors: increased numbers of patients and visitors using drugs and alcohol, or having psychiatric disorders or dementia; presence of weapons; inherent stressful ED environment; open access of the ED 24 hours a day; and the flow of violence from the community into the ED. In addition, many EDs today face overcrowding and prolonged waiting times for patients and visitors that adds stress to those already having difficulty coping with their situations.

Recently, researchers found that nurses who work in the ED reported the highest incidence of physical and verbal violence of all nurses working in hospitals (4).

Other studies have documented the risk of violence against physicians who work in the ED (1–3). However, the literature seems lacking in research that describes the violence experienced by other ED workers, including social workers, patient care assistants, and various ancillary staff.

Purpose and Aims of the Study

The purpose of this study was to describe the violence experienced by ED workers from patients and visitors during the 6 months before completing the survey. The specific aims were: 1) identify the frequencies of nonphysical and physical violence against ED staff, 2) describe the physical injuries and lost work time that resulted from violence, 3) identify factors related to incidents of assaults, 4) identify the reporting frequency for assaults, 5) identify staff's perceptions of safety and suggestions to improve safety, and 6) determine if there

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is a relationship among employees' job satisfaction, feelings of safety, and violence experiences.

MATERIALS AND METHODS

Study Population

This study took place at five hospitals in a Midwestern city during 2004. One hospital was a Level 1 Trauma center with separate medical, psychiatric emergency, and air care departments; the other four hospitals had general EDs that do not separate medical and psychiatric patients. The target population consisted of approximately 600 ED workers who worked at least 8 hours per month and who interacted directly with patients and visitors during the 6 months before their taking the survey.

Data Collection Instrument

A survey was developed by the investigators and included multiple choice, open-ended, and Likert-type items. Participants were asked to report their job title, area worked (medical, psychiatric, air care, or general), previous violence prevention education, and frequency of physical and non-physical violent acts against them during the previous 6 months from ED patients and visitors. Other survey items asked about injuries and lost workdays due to physical assaults, frequency of reporting assaults, and variables related to the assaults. Likert-type items were used to measure participants' feelings of safety and levels of satisfaction with their job, the ED, the hospital, and security. Definitions for the study variables were included on the survey as follows:

Verbal harassment: Cursing, cussing, yelling at or berating a person in front of another, racial slurs, humiliating and patronizing actions, and offensive pictures.

Sexual harassment: Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature, insulting gestures, whistling, jokes or humor about gender-specific traits, offensive contact such as patting, pinching, and brushing against another.

Verbal threats: Expressions of intent to cause harm, including verbal threats, threatening body language, and written threats.

Physical assaults: hitting with body part, slapping, kicking, punching, pinching, scratching, biting, pulling hair, hitting with an object, throwing an object, spitting, beating, shooting, stabbing, squeezing, and twisting.

Table 1. Subject Characteristics (n = 242)

Characteristic	n	%
Gender (n = 241)		
Female	177	73.1
Male	65	26.9
Job title (n = 241)		
Physician	49	20.3
Registered Nurse	95	39.4
Paramedic	3	1.2
Patient care assistant	27	11.2
Social worker	12	5.0
Physician assistant	11	4.6
Unit clerk	22	9.1
Registration clerk	14	5.8
Additional ancillary staff	8	3.3
Type of ED worked (n = 240)		
Medical only	88	36.7
Psychiatric only	28	11.7
Air care only	4	1.7
Medical and psychiatric	120	50.0

Procedures

After obtaining approval by the institutional review boards, the anonymous survey was placed in employees' work mailboxes along with a cover letter that described the study purpose, directions for participation, and information about informed consent. Subjects returned completed surveys in provided envelopes and placed them in the data collection box in the ED. The investigator's address was also provided on the envelope and some subjects elected to mail the surveys. An investigator emptied the collection box daily. Reminder notices were posted 1 week after the mailings throughout the EDs.

Data Analysis

Analysis began with basic descriptive statistics to describe the subjects and their experiences with violence during the previous 6 months. Bivariate analysis was done to identify relationships among feelings of safety, job satisfaction, and violent experiences.

RESULTS

Table 1 describes the gender, job title, and type of ED worked for the 242 participants who completed the survey. Ancillary staff included patient representatives, intake workers, and clinical schedulers.

Incidence of Non-Physical Violent Experiences

Verbal harassment by patients reported by survey was highest among paramedics (100%), nurses (98%) and

Table 2. Non-Physical Violence (n = 242)

	Never		1–5 times		6–10 times		11–15 times		16–20 times		>20 times	
Type of Violence	n	%	n	%	n	%	n	%	n	%	n	%
Verbal harassment												
Patients	15	6.2	86	35.5	50	20.7	25	10.3	11	4.5	55	22.7
Visitors	39	16.1	109	45.0	46	19.0	12	5.0	15	6.2	21	8.7
Verbal threats												
Patients	82	33.9	108	44.6	22	9.1	9	3.7	9	3.7	12	5.0
Visitors	138	57.0	82	33.9	14	5.8	3	1.2	1	0.4	4	1.7
Sexual harassment												
Patients	147	61.1	68	28.1	11	4.5	5	2.1	4	1.7	6	2.5
Visitors	193	79.7	37	15.3	6	2.5	4	1.6	0	0.0	2	0.8

physicians (96%). Most nurses (98%) had also experienced verbal harassment from visitors. Physicians and nurses also represented the highest percentage of workers who had experienced at least one incident of verbal threat from a patient, 83% and 78%, respectively. Nurses were the greatest percentage (67%) of workers who had experienced at least one incident of verbal threat from visitors. Patient representatives and patient care assistants (PCAs) were the greatest percentage of workers who experienced at least one incident of sexual harassment from patients, 60% and 54%, respectively. Forty-four percent of nurses and 42% of social workers had experienced at least one incident of sexual harassment from patients. Patient representatives and registration clerks were the greatest percentage of workers who experienced at least one incident of sexual harassment from a visitor, 60% and 36%, respectively. Twenty-one percent of nurses and 13% of physicians had experienced sexual harassment from visitors at least once (Table 2).

Incidence of Physical Violence

There were at least 319 assaults by patients and at least 10 assaults by visitors. Note that those subjects with more than seven assaults were included in the response of "seven or more assaults." Sixty-seven percent of nurses, 63% of PCAs, and 51% of physicians had been physically assaulted by a patient at least once. Fifty percent of workers in the psychiatric ED and in the air care ED, 48% in the general ED, and 44% in the medical-only ED had experienced at least one assault by a patient. Workers in the psychiatric ED had the highest percentage (11%) of being assaulted seven or more times by a patient. Twenty percent of patient representatives, 11% of PCAs, and 9% of unit clerks were assaulted by a visitor at least once. Eight percent of nurses and 6% of physicians were physically assaulted by visitors at least once (Table 3).

Injuries and Workdays Lost Due to Physical Attacks

Thirty-two injuries resulted from the physical attacks by patients during the previous 6 months. Injuries included bruises, bites, abrasions, and scratches. Four of the subjects responded that they received medical care for their injuries and one subject received psychiatric care. There were 3 lost workdays due to the injuries. One injury from a visitor's attack resulted in 1 lost workday.

Frequency of Reporting

For those 115 subjects who had experienced at least one assault by a patient, 65% said they never reported the incident to hospital authorities. Forty-five percent of the 11 subjects who had experienced at least one assault from a visitor never reported the incidents to hospital authorities.

Contributions to Physical Assaults

Factors identified by the subjects as contributing to the assaults were organized by the following categories:

Table 3. Physical Attacks from Patients and Visitors

	Patients (n = 242)		Visitors (n = 235)	
Number of Attacks	n	%	n	%
Never	127	52.5	224	95.3
Once	35	14.5	6	2.6
Twice	36	14.9	3	1.3
Three times	16	6.6	0	0.0
Four times	4	1.6	0	0.0
Five times	6	2.5	0	0.0
Six times	8	3.3	0	0.0
Seven or more times	10	4.1	2	0.8

Table 4. Contributing Factors for Physical Assaults (n = 115)

	n	%
Patient and visitor factors		
Alcohol use	92	80
Drug use	87	76
Psychiatric diseases	73	63
Organic brain syndrome/dementia	64	56
Inability to deal with crisis situation	58	50
Gang involvement	11	10
Staff factors		
Lack of adequate staff	37	32
Working between 7 p.m. and 7 a.m.	32	28
Lacks information about patients and visitors with prior violence history	22	19
Being alone with patient or visitor	17	15
Lack of violence prevention training	13	11
Working long hours	5	4
Hospital and environmental factors		
Long waiting times for patients	69	60
Lack of security or police presence	41	36
Patient areas and triage open to public	37	32
Security/police do not respond in a timely manner when called	31	27
Ease of ability to bring weapons into ED	29	25
Lack of metal detectors and alarms	25	22
Security are present but not helpful	24	21
Lack of polices/procedures for handling known violent offenders	20	17

patient and visitor factors, staff factors, and hospital and environmental factors (Table 4).

Violence Prevention Training

Participants were questioned regarding their violence prevention training during the previous 12 months. Of note, 64% responded that they had not had any violence prevention training during that time frame (Table 5).

Relationships among Feelings of Safety and Job Satisfaction and Violent Experiences

Participants were asked to circle a number on a 5-point Likert-type scale (never to always) that best describes "how often they feel safe (free from violence) while working in the ED." Six percent reported that they never felt safe, 12% responded that they seldom felt safe, 21% responded that they occasionally felt safe, 54% stated that they often felt safe, and 7.2% always felt safe. Patient representatives had the highest percentage (60%) of workers who responded that they never or seldom feel safe.

Thirty-three percent of social workers and 26% of nurses responded that they never or seldom feel safe.

The reported group mean on the Likert scale for feelings of safety was 3.45; the job titles with the lowest means were patient representative (2.6), intake worker and clinical scheduler (3.0), social worker (3.25), and nurse (3.26). Those with the highest means included registration clerk (3.93), unit clerk (3.86), and physician (3.70).

Subjects were asked to circle a number on a 5-point Likert-type scale (very dissatisfied to very satisfied) that best described their satisfaction with their job, the ED, the hospital, and the security in the ED. The means ranged from a low of 3.2 for hospital security to a high of 3.78 for satisfaction with their job. Significant inverse relationships were found among feelings of safety, all types of violence, and satisfaction (Table 6).

Table 5. Training During the Previous 12 Months

	Yes current employer		Yes somewhere else		No	
	n	%	n	%	n	%
Job title						
Physician (n=48)	4	6.4	1	2.1	44	91.5
Nurse (n=94)	46	48.9	1	1.1	47	50.0
Paramedic (n=3)	3	100.0	0	0.0	0	0.0
Patient care assistant (n=26)	12	46.2	2	7.7	12	46.2
Social worker (n=12)	11	91.7	0	0.0	1	8.3
Unit clerk (n=22)	3	13.6	1	4.5	18	81.8
Physician's assistant (n=11)	0	0.0	0	0.0	11	100.0
Registration clerks (n=14)	0	0.0	0	0.0	14	100.0
Additional ancillary staff (n=8)	3	37.5	0	0.0	5	62.5
Type of ED						
Medical only (n=88)	39	44.3	2	2.3	47	53.4
Psychiatric only (n=28)	23	82.1	0	0.0	5	17.9
Air Care only (n=4)	1	25.0	0	0.0	3	75.0
Medical and psychiatric (n=118)	9	16.1	3	2.5	96	81.4

Table 6. Relationships among Violence, Feelings of Safety and Satisfaction

	Feelings of Safety	
	r	p
Verbal harassment		
Patients	−.338	.000
Visitors	−.359	.000
Sexual harassment		
Patient	−.320	.000
Visitor	−.248	.000
Threats		
Patient	−.324	.000
Visitor	−.378	.000
Assault		
Patient	−.196	.002
Visitor	−.238	.000
Satisfaction		
Hospital security	.324	.000
Job	.281	.000
Hospital	.334	.000
ED	.286	.000

Suggestions to Increase Safety

Participants were asked to respond to an open-ended question asking "what would make you feel safer while working in the ED?" One hundred two participants wrote that they would like to see increased police in the ED. Fifty-one participants responded that they wanted more environmental barriers in the ED and 34 specifically wanted metal detectors. Sixteen subjects would like to see a policy for visitors concerning violence, 12 wanted increased staffing, and nine wanted less waiting time for patients and visitors.

Discussion

The results of this study support other studies that found that nurses, physicians, and patient care assistants are at high risk for verbal and physical violence from patients and visitors (1–12). The study results also suggest the possibility that other ED workers, including paramedics, patient care representatives, registration clerks, and social workers, are being overlooked in terms of their risk for physical and non-physical violence and their concerns about their safety. Patient representatives, intake workers, and clinical schedulers actually felt less safe than nurses and physicians.

This study found that feelings of safety were related to job satisfaction. Feeling unsafe much of the time is likely to increase stress and influence a worker's decision whether to remain in a job. The fact that 26% of the nurses in this study never or seldom felt safe (free from violence) while working, and that only 1% always felt safe has important implications for staff retention and patient care (11,13,14).

The reporting rates for assaults by patients support other studies that found low reporting rates (4,9,11). Staff report that they don't have time to fill out the required paperwork to report assaults (11). As many of these assaults did not result in injury, it is likely that the staff accepted the assaults as part of the job or believed that reporting would not make a difference. Because many of the involved patients have dementia, psychological illness, or are under extreme stress, verbal and physical abuse of workers by patients has traditionally been termed aggressive or problem behavior and not considered violent by workers and administrators (5,11). However, research has found that many healthcare workers do consider such incidents as "violent," which suggests that the emotional, physical and financial costs to employers, employees, and patients are significant (11,15,16). Employers incur the costs of medical and psychological care for employees' injuries, as well as the costs related to lost workdays, turnover, workers' compensation, and litigation (12,15,16). Healthcare workers who experience physical assaults report short-term and long-term emotional reactions, including anger, sadness, frustration, anxiety, depression, irritability, fear, apathy, self-blame, and helplessness (4,11). Gerberich et al. found that the adverse consequences from non-physical violence were greater than those from physical violence (4). Workplace violence can lead to job-related burnout (11,13,14,17,18). Healthcare workers with burnout suffer from physical and emotional symptoms, lose joy in providing care, distance themselves from others, view their patients as objects, and spend less time with patients who are abusive.

Although the reporting rate for assaults by visitors was higher, it is difficult to explain why workers would not report all acts of physical violence by visitors. Although this study did not identify rates of reporting for non-physical violence, it is reasonable to expect that this type of violence has an even lower reporting rate. The lack of reporting is an important issue that needs to be addressed by management in order to document risks, plan interventions, and reduce such incidents. Tolerance for violence in the healthcare setting by workers and administration must end.

It was discouraging to find that only 36% of the participants had any violence prevention training during the previous year. This was particularly true of physicians, with only 8% having had any training. Physicians and nurses are the most likely workers in the ED to encounter a potentially violent situation due to the sheer numbers of patients and visitors with whom they interact closely. Only 11% of the subjects believed that the lack of violence prevention training was related to the assaults

they experienced during the previous 6 months. It is important to determine the reasons for the lack of education, and why most workers do not view violence prevention education as a way to increase their safety. One possible reason is that violence prevention training is often provided in a format that does not address the unique situations encountered by staff working in the ED, and thus is not valued by employees. ED workers need education that provides them with strategies to use in dealing with the unique scenarios in the ED. The education needs to go beyond a traditional didactic approach and provide opportunities to engage in role-playing and simulation exercises. These approaches will increase the staff's confidence in their abilities to recognize potentially violent individuals, and to use strategies to prevent and manage violence. Education should involve all staff, managers, security, and local police.

Of the contributing factors identified by subjects to be associated with assaults, five of the six responses that were most frequently chosen were related specifically to the patient or visitor. These included alcohol use, drug use, psychiatric conditions, organic brain syndrome, and the inability to deal with crises. Providing care for these types of patients can be extremely complex. Although it may not be possible to prevent all violence against workers dealing with these high-risk patients, it can be decreased using a variety of strategies. As described above, ED workers need training specific to their work setting. Also, hospital management should develop strict policies and procedures for staff to follow when interacting with these types of patients and visitors.

The other contributing factor identified by 60% of the respondents to be associated with previous assaults was the long waiting times in the ED for patient and visitors. Hospital management needs to provide emotional and physical support for persons in the ED who are having difficulty coping with the stress of their situations. Often, social workers are used in the ED to counsel patients and visitors dealing with stressful situations. Management needs to strive continually to decrease the waiting times in the ED. When this is not possible, the hospital should at least provide positive waiting environments and assign a staff member with counseling skills to maintain communication with patients and visitors.

A cause and effect analysis of violent events in the ED is needed to identify risk factors, and provide the basis for preventive efforts, including environmental changes, policies, and training. Giving workers data about the risks in their specific workplaces will enhance their confidence in preventing violence. As noted above, the lack of reporting makes it difficult to highlight actual contributing factors and make appropriate changes. Attention should be paid to improving reporting rates of workplace violence.

Media attention to school and workplace shootings in the last several years has brought attention to the risk of violence for U.S. workers. Much of the public focus has been on occupational settings exclusive of healthcare sites. However, the Occupational Health and Safety Administration (OSHA) has recognized healthcare as a high-risk work setting for violence and has written violence prevention guidelines for employers to follow (19).

Limitations

This study was based on self-reported data and there was no way to verify the accuracy of the data. The investigators chose to collect data about assaults during the previous 6 months vs. 12 months to decrease the chances of recall bias. In addition, because the survey was anonymous there was no way to identify whether the survey participants were similar to the non-participants in relation to their violent experiences.

CONCLUSIONS

Physical and non-physical violence against ED workers are common occurrences. Although it is not expected that violence will be eliminated in this high-risk setting, it is possible that it can be reduced with education, procedures, policies, and environmental changes. OSHA states that all facilities must show efforts to prevent violence if they have employees at risk, and has provided written guidelines for health care facilities to follow to reduce that risk. It is critical that health care workers and administrators realize that violence should neither be accepted nor tolerated, and that increased efforts are needed to decrease the incidence of violence. Such efforts are likely to have a positive impact on job satisfaction and retention of ED workers.

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