Emergency department violence: a local scene

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Objectives: To study the nature, frequency and magnitude of violence in a local emergency department. ***Design:*** Prospective epidemiological study in a three-month period, during which involved staff filled in a survey form immediately after violence incidents. ***Setting:*** Accident & Emergency Department of a public general hospital in the northeastern New Territories. ***Population:*** Assailants and victims of violence in the emergency department. ***Main outcome measures:*** Nature of violence, frequency, cause, morbidity, epidemiological characteristics of assailants and victims. ***Results:*** There were 25 incidents with 26 assailants in the three-month period. The great majority was verbal abuse only (64%). No weapon was involved. Long waiting time (36%), deranged mental condition (28%) and dissatisfaction with service (20%) were the leading causes of violence. Assailants showed a predominance of male (69%) and age between 21-50 years. They were either patients (69%) or accompanying persons (31%). Nurses (59%) and to a lesser extent doctors (23%), were the main victims. ***Conclusion:*** The incidence of emergency department violence (0.08%) was low and the majority was verbal abuse only. Nurses bore the brunt of the violence. Long waiting time, confused patients and dissatisfied patients were high risk factors. (*Hong Kong j.emerg.med.* 2003;10:24-29)

Keywords: Emergencies, emergency service, hospital, hostility, violence

Introduction

Violence is an epidemic in modern societies, and healthcare workers are not exempted.[1-3] It has been shown that more assaults involve healthcare workers than any other profession.[1,3,4] In the United States, the emergency department was the commonest hospital location for physical assaults and the second commonest site (after psychiatry) of homicide.[3,5-7] In the United Kingdom, the Government is planning to pass legislations to block patients with frequent history of violence from access to hospitals. In addition, it also proposes hospital staff education in self-defence and installation of alarms or closed circuit televisions.[8]

The emergency department is uniquely vulnerable because of its intrinsic risk factors:[1,2,9-12] 24-hour unrestricted 'open-door' access, high attendance, low staffing levels, long waiting time, especially at meal times, limited security design and control, isolated work with patients during examination and treatment. Staff are busy and often under mental and physical stress. Patients and accompanying persons are under stress of unanticipated illness and its acuteness. Patients and visitors are from all walks of life. High-risk individuals such as alcoholics, substance abusers, gang members,[10,13] prisoners, victims of violence or suicide and psychiatric patients[3] are frequent visitors, often in close proximity in a crowded, noisy and chaotic environment.[10] Even though there were sporadic high-profile reports of emergency room violence,[14] very little data have been formally collected in Hong Kong. In fact, violence in emergency departments is a problem that is under-reported and inadequately researched worldwide as evidenced by the paucity of up-to-date studies published in the emergency medicine literature.[3,7,10,11,15-17] Moreover, most of the studies were only retrospective questionnaire or subjective opinion surveys.[10,11,16,17] There is a need for more prospective research in the

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field of violence in emergency departments, especially in Hong Kong.

An epidemiological study was carried out in the accident and emergency department of North District Hospital, which was a public general hospital in the northeastern corner of Hong Kong under the Hospital Authority and serving a mixed rural and urban population of around 270,000. The aim was to obtain an idea of the scale of violence in a local emergency department in order to get a baseline to guide future strategies.

Methods

Emergency department violence was defined as 'any incident in which a person in the emergency department is verbally abused, threatened or physically assaulted or property violated by a patient or member of the public'. For a three-month period from 1st February to 30th April 2001, all episodes of violence in the accident and emergency department of North District Hospital were recorded prospectively. The staff involved filled in a survey form immediately after the incident and then sent it to the researcher. The following data were entered: date, day of week, time, place, type of violence, nature, site and severity of injury, cause of violence and action taken by staff. The characteristics of both assailants and victims were also recorded, including role, sex, age, race and outcome. Age was entered or estimated in intervals of 10 years. The emergency department records were also attached, if available. Attendance statistics of the emergency department were retrieved from hospital computer through the Accident & Emergency Information System of the Hospital Authority. Data were entered into Statistical Package of Social Science computer software version 10.0. Descriptive statistics were used to characterize the distribution of the variables.

Results

General epidemiology

There were 25 incidents during the three-month period (10 in February, 7 in March and 8 in April). During the same period, the total emergency department attendance was 32,634 (daily average: 366 in February, 375 in March and 358 in April). Hence, violence occurred about once in every 1,300 attendance or 0.08%. There were altogether 1,731 (5.3%) patients found missing before medical consultation, as the average waiting times were quite long – 47 minutes in February, 69 minutes in March and 68 minutes in April. The relation with the day of the week is shown in Figure 1. However, one Monday, two Tuesdays and one Friday were public holidays. Seven incidents (28%) occurred on Sundays or public holidays, while 18 (72%) occurred on weekdays or Saturday. The majority of the incidents occurred between 08:00-11:00 hours and 20:00-23:00 hours, while there was no incident between 03:00-07:00 hours. The sites where violence occurred are shown in Figure 2. As expected, the triage station and consultation areas were the leading sites

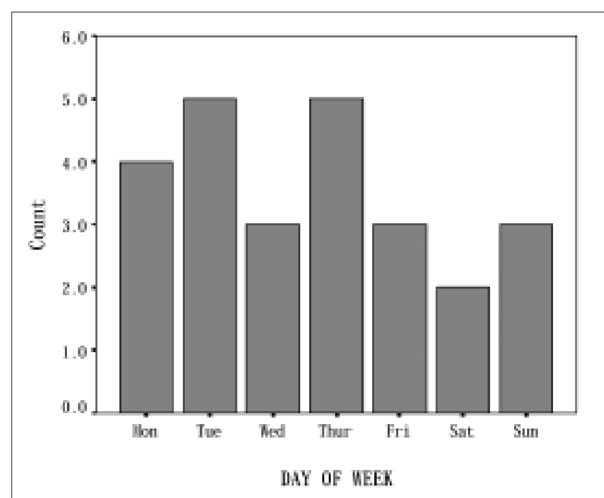
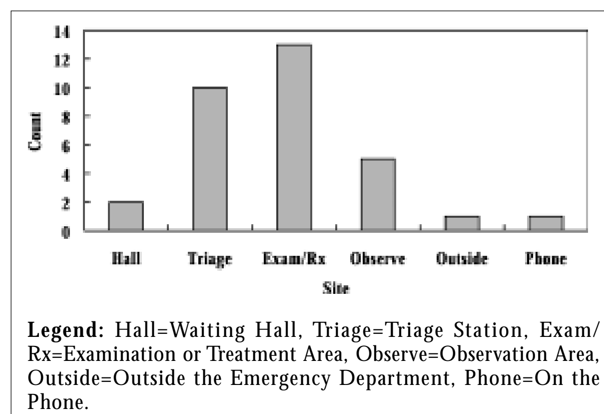


Figure 1. Incidents of violence in relation to day of week.



Legend: Hall=Waiting Hall, Triage=Triage Station, Exam/Rx=Examination or Treatment Area, Observe=Observation Area, Outside=Outside the Emergency Department, Phone=On the Phone.

Figure 2. Sites of violence.

of violence. A psychiatric patient attempting to escape was stopped outside the emergency department. One verbal abuse occurred when nurses contacted the patient by phone for the return of a borrowed walking frame. The majority of the incidents were verbal abuse only (64%), consisting of verbal hostility, foul languages, threatening or intimidation. There were four incidents (16%) of physical assault without weapon and involved five staff, resulting in minor soft tissue injury to three of them. Damage or attempts to damage hospital property (20%) occurred in five incidents, including one setting fire in the mental seclusion room. The underlying causes for violence are shown in Figure 3. In summary, long waiting time (36%), deranged mental condition (28%) and unhappy hospital encounter (20%) were the main culprits. The Glasgow Coma Score of all assailants was rated as 15/15 (fully conscious). The actions taken by staff are shown in Figure 4.

Characteristics of assailants

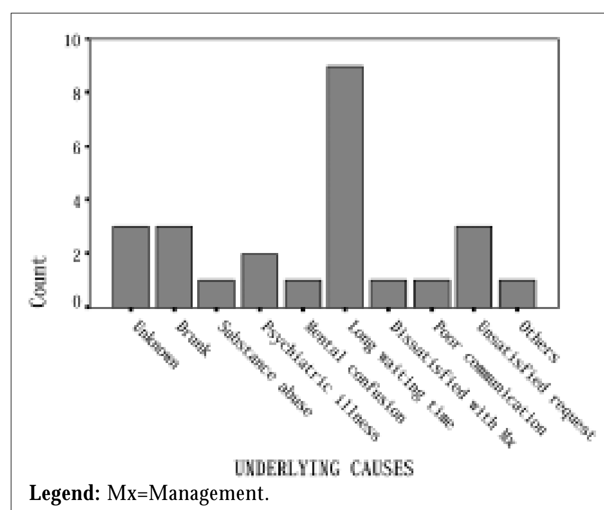
There were 26 assailants in the 25 incidents – 18 males and 8 females (ratio 2.25:1). The age distribution is shown in Figure 5. Twenty-five were Chinese and one Indian. In one episode, two male ward patients of substance abuse intruded into the emergency department, disturbed patients and equipment, and quarreled with a baby patient's father in the waiting hall. Of the others, sixteen were emergency department patients and the rest (31%) accompanying persons – four mothers, two fathers, one aunt and one old age home staff. The outcome of the assailants is shown in Figure 6. Of the five admissions, two were into medical unit, one into surgical unit and two to psychiatric hospitals. No further news was heard for the two assailants arrested by police.

Characteristics of victims

The distribution of the types of victims is shown in Figure 7, including the baby and his father as 'others'. Nurses ranked highest (59%) and followed by doctors (23%). All were Chinese. The overwhelming majority was in the 21-40 year age group. There was a male predominance. Although seven claimed to suffer psychologically, only one victim needed counseling. None of them required hospitalization or sick leave of more than one day.

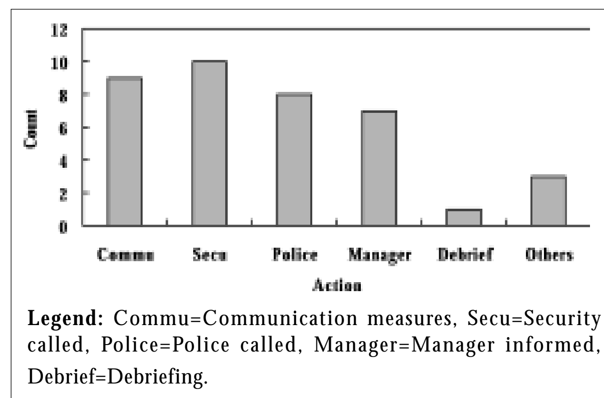
Discussion

Violence is defined as aggressive or destructive behaviour that intends or threatens to hurt or injure people, including verbal threats, display of weapons, physical or sexual assault, which would produce in



Legend: Mx=Management.

Figure 3. Underlying causes of violence.



Legend: Commu=Communication measures, Secu=Security called, Police=Police called, Manager=Manager informed, Debrief=Debriefing.

Figure 4. Action taken by staff.

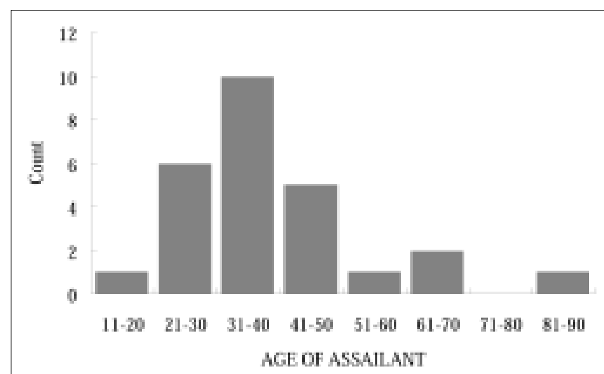


Figure 5. Age distribution of assailants.

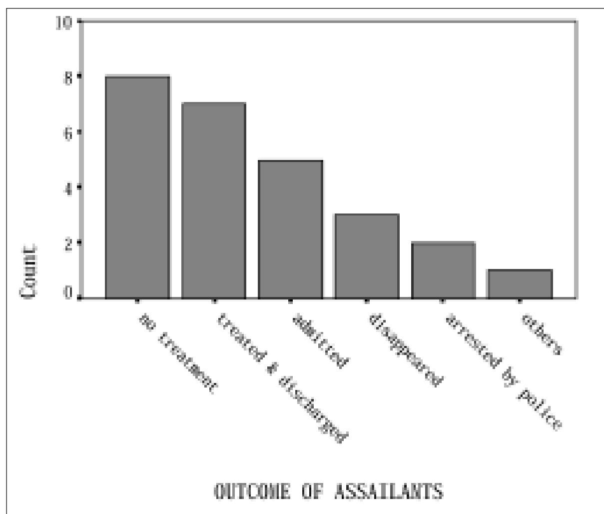
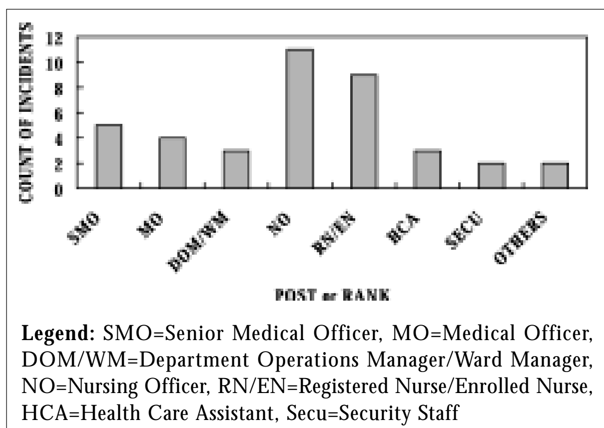


Figure 6. Outcome of assailants.



Legend: SMO=Senior Medical Officer, MO=Medical Officer, DOM/WM=Department Operations Manager/Ward Manager, NO=Nursing Officer, RN/EN=Registered Nurse/Enrolled Nurse, HCA=Health Care Assistant, Secu=Security Staff

Figure 7. Types of victims.

any reasonable person fears about their personal safety. On the Overt Aggression Scale,[18] aggression is divided into four categories:

- 1st stage: verbal aggression – shout, insult, foul language, and threat of assault
- 2nd stage: physical aggression against objects or property
- 3rd stage: physical aggression against self – self harm
- 4th stage: physical aggression against others – overt assault

Our findings confirmed that violence was not uncommon in our emergency department. Fortunately, the majority was verbal abuse. No weapon was involved in the physical assaults, which resulted in minor closed soft tissue injury only.

It was shown that the incidence of violence was highest at night or during evening and night shifts.[3] However, our findings revealed that violence occurred more frequently at periods of high attendance at our local emergency department setting – 8-11 am and 8-11 pm. One study showed that 36% of violent incidents in emergency departments was associated with long waiting time.[19] Another study showed an association with increased patient volume and a waiting period greater than two hours.[11]

Most violence in the emergency department was perpetrated by patients and, to a lesser extent, visitors.[10] The majority were young or middle-aged men, sober, of low socio-economic status, low self-esteem, antisocial personality disorder, impatient, with a bad previous hospital experience, dissatisfied with treatment, unmet demands or expectations or who insisted on being admitted to hospital.[2,9,10] Language that displeased the patient or impolite staff was suggested as possible contributory factors.[2] Alcohol and drug users and psychiatric disorders were main contributors in some[10] but were only a minority in others.[2] The most reliable predictor of violence was suggested to be a history of violence.[3] Environmental or circumstantial factors include inadequate staff, change shift, mealtime, unsatisfactory waiting room conditions and weapons available. Our findings essentially concurred with the above suggestions. The majority of the assailants were adult male between 21-50 years of age. In our study, mental confusion – both organic and psychiatric, and including substance abuse – had an important association with physical assault or damage to property (28%). Understandably, long waiting time was the underlying reason for most of the verbal abuse. Efforts should be made to provide a more efficient patient service, whether by adding more staff or by re-engineering patient flow.[20]

Nurses and to a lesser extent, doctors, were verbally abused, threatened or physically assaulted at higher rates than other professionals.[2,6,10] It has been suggested that younger, less experienced staff members are more likely to be victims of violence.[7] Our result was on the contrary, and our senior staffs were actively involved in the incidents of violence. Emergency physicians are traditionally not prepared for addressing

the issue of violence in the emergency department. In general, a doctor does not expect that a patient seeking treatment will react violently to a caregiver.[9] Naturally, nurses were vulnerable to verbal abuse at the triage station when waiting time was long. On the other hand, both doctors and nurses were vulnerable in examination or treatment areas when dealing with mentally deranged patients. Interestingly, our findings indicated that the male gender was abused more than the female. Whether this is related to culture has to be confirmed by further studies.

It was shown that most victims of physical violence called hospital security personnel, but only a minority of the victims called the police.[2] Though the primary purpose of the local practice of having police stationed at all emergency departments was for gathering information rather than maintaining order, our findings suggested a more active involvement of our law enforcement colleagues in the latter aspect.

Violence may result in significant short or long lasting negative effect on emotions, well-being and job satisfaction of caregivers. There may be lower morale, dissatisfaction, frustration, irritability, anger, loss of confidence, despair, burnout, time off work, disability, feeling of powerlessness, impaired job performance, patient phobia, job phobia, avoiding identification on duty, under-reporting and resignation.[1,10] The internal reaction can range from an aversive feeling at having to deal with one of these patients, to anger, either at the patient, the job, oneself or the World. One may even feel disgusting toward the patient. More actively, the caregiver may even threaten the patient, do a perfunctory job in evaluating and treating the patient, or simply avoid the patient altogether and let someone else handle the patient instead.[9] The relationships with coworkers and family may also change. Physical exercise, sleep and the company of family, friends and colleagues were found to be the most preferred coping strategies of staff victims, rather than official support mechanisms such as manager interview, counseling or debriefing.[10] Our finding concurred as only one out of the seven victims with psychological 'trauma' required formal counseling. However, it might be due to the fact that our incidents of violence were essentially of minor nature.

Under-reporting of violent events by hospital staff occurs frequently because of fear of being blamed by supervisors, under-estimation of the seriousness, immunity, excessive self-confidence, distress from the conflict or self-blame, the perception of risk as a professional hazard, lack of clarity or consistence in definitions and protocols, peer pressure, time, paperwork, incomplete information and disbelief on the benefit of reporting. Intentional underreporting by institutions was attributed to legal, financial and public relation concerns. Management should be committed to employee safety and encourage suggestions and reporting without fear of reprisal.[3] A prospective study will partially solve some of these problems of under-reporting.

Violence in the workplace is a well-recognised concern of frontline health care workers.[10] Emergency department violence has become a problem of frequent occurrence and potentially serious magnitude and has to be addressed with risk management measures.[21] Management commitment and staff involvement are vital for the success of such programs.[1] Risk management requires assessment of the frequency of occurrence and magnitude of adverse outcome. Identifying the demographic and clinical characteristics of high-risk persons is the initial step. Understanding the etiologies of violence in the emergency department will help prevention and mangement.[18] Incident reporting of workplace violence is essential to prevent future occurrence. It provides data on trends and patterns of violence occurrence and facilitates recognition, solution and prevention.[22] Physical design changes include limited control access, 24-hour security – armed or unarmed, police, bullet proof glass window, locked entries, deep service counters, video-cameras with or without sound recording, convex mirrors, metal detectors, panic buttons, personal alarms, direct phone line, radio and 'violence team'.[1,3,7,15] Certainly, some of the above tight security measures are not necessary in our comparatively 'peaceful' local setting. Open design of registration counters and triage stations may be particularly vulnerable, especially after the introduction of fees and charges for emergency services. Interestingly, none of our clerical staff was involved in the violence.

There is also a particular need for educating and training doctors and nurses working in emergency departments about the proper approaches to aggressive patients including preventing, recognizing and managing violence, communication skills, techniques for breaking away from physical assaults, methods of chemical and physical restraints, potential hostage and bomb threat.[1,7,10] Warning signs should be recognized such as flushing, heavy or rapid breathing, clenched fists, rigid body, restlessness, glaring, increased vocal volume, threats, anger, negativism or lack of response, suspicion, and delusions or hallucinations.[3] Guidelines for emergency departments in tackling workplace violence should be in place.[1,23] All the above measures may help staff in better self-control, patience, understanding, compassion, job satisfaction, job retention, reduced fear and better staff-patient relationships. Moreover, effective safety and health programs are known to improve both morale and productivity and reduce workers' compensation costs.[1]

In conclusion, violence in emergency department is not uncommon in Hong Kong. However, the majority was verbal abuse only. Nurses bore the brunt of the violence. Long waiting time, mentally deranged patients and dissatisfied patients were high risk factors. An efficient emergency service, staff training in proper handling of 'confused' patients and a quality and caring patient service would hopefully avert this potentially disastrous problem.

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