Given this under-reporting, it is difficult to be precise about the degree of violence and aggression in emergency departments. However, a telephone survey of 233 emergency departments found that 50% estimated that verbal abuse occurred daily or several times a day, and 33% that it occurred weekly. More than half the departments surveyed reported that physical violence occurred on a monthly basis, with 12% estimating that it occurred weekly and 2% daily (Jenkins et al, 1998).

The emergency department is a high-pressure environment; patients present in pain and are often emotionally distressed. Indeed, poorly controlled pain may be a major trigger of violence from both patients and accompanying adults who feel that a clear need is not being addressed. This is one of the reasons why the UK College of Emergency Medicine has set standards for the timely management of pain, and audits these nationally on an annual basis (Clinical Effectiveness Committee of the College of Emergency Medicine, 2010).

**Causes of violence**

Emergency department staff are working under pressure to meet the needs of patients and to fulfil the current quality indicators of seeing, assessing, treating and ‘disposing of’ 95% of patients within 4 hours. In addition to this, an eclectic mix of patients with minor injuries or illness, mental health needs, substance abuse problems and immediately life-threatening conditions are thrown together in a department with limited space and resources. This complex interaction of the demands on staff and the needs of patients is likely to elicit unpredictable behaviour.

Individuals have a ‘tolerance threshold’; there is a point at which they are unable to cope with circumstances and the environment, and will resort to extreme behaviour. Complex interactions between a range of factors are used to account for the occasions that this behaviour manifests as violence and aggression. Pain and discomfort, fear and anxiety, over-crowding of waiting areas and frustration with waiting times are commonly cited (Jenkins et al, 1998; Stirling et al, 2001). Some individuals are more predisposed than others to violence and aggression, and biological, psychological and socioeconomic variables interact with environmental factors to modify the likelihood of an incident occurring.

Research suggests that those under the influence of alcohol and/or drugs and those with dementia or mental health needs are specific groups of patients likely to be pushed to their tolerance threshold by the emergency department environment (James et al, 2006; Linsley, 2006). The confusion and fear experienced and displayed by these groups can have a proliferative effect on others in the waiting room. However, several studies suggest that although alcohol may often be a factor in violence and aggression in the emergency department, extreme behaviour in intoxicated people is exacerbated by many of the limitations of the environment. One article reports that while 98% of emergency department consultants believe alcohol contributes to violence, waiting times and patient expectations are also very frequently cited: 86% and 82% respectively (Jenkins et al, 1998). Media portrayals of emergency departments tend to sensationalize the frequency of intoxicated patients presenting late at night and being violent towards staff and other patients. However, the association between violence and alcohol is not inevitable, and most people never become aggressive when they drink.
The role of design

Approaches to addressing emergency department violence have typically concentrated on increasing security. While appropriate security is an important part of maintaining safety, tyrannical measures can antagonize individuals by providing them with an obvious opponent. High presence security adds an oppressive dimension to the already volatile environment. An alternative approach is to improve the patient experience and customer satisfaction: the implication being a reduction in frustration and aggressive behaviour. The Department of Health is currently working with the Design Council to explore how design can be used to reduce aggression and violence in emergency departments.

Following an extensive literature review and benchmarking exercise, a competition was launched for multidisciplinary teams to identify and develop potential design solutions.

Our team is working to address these design challenges. The team is led by the design consultancy PearsonLloyd, who have formed partnerships with the Helen Hamlyn Centre for Design, the Tavistock Institute, Tavistock & Portman NHS Foundation Trust, the University of the West of England, Bristol and the University of Bath. We are working closely with three sites currently engaged in re-builds of their emergency departments. Periods of observation, workshops with management and front-line clinical staff and consultation with expert advisers and service users have informed the interpretation of needs and the development of concepts. Strategies for evaluation are also being developed. It is hoped that these new design solutions, which were launched in November 2011, can deliver a strong return on investment to NHS staff and patients by making emergency department environments safer and more efficient.

Conclusions

The prevention and mitigation of violence and aggression in emergency departments needs to be approached from a multitude of perspectives. Sudden and unexpected violent assaults on staff are rare, and most incidents are preceded by mounting tension with opportunities for de-escalation (Morrison et al, 1998). Patients become frustrated by the waiting time, lack of information and inadequate facilities. Frustration can quickly escalate into threatening language, behaviour and violence. As well as addressing physical and design aspects of the emergency department to increase comfort, reduce crowding, improve information flow and alleviate boredom there is scope to modify patient and public perceptions of the environment and the processes. There is little doubt that there are lessons to be learned from the experiences of business, psychology and marketing. Bjhm

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KEY POINTS

- Violence towards NHS staff refers to any incident where the employee is abused, threatened or assaulted; this may be physical or non-physical.

- Individuals have a ‘tolerance threshold’, and violent and aggressive behaviour is often a result of a build up of frustrations.

- Patients attending the emergency department are likely to be in pain, vulnerable and emotionally distressed and therefore already have reduced tolerance to external factors.

- The environment of the emergency department can escalate frustration – waiting times, noise and over-crowding are all factors that may give rise to extreme behaviour.

- The Department of Health is working in partnership with the Design Council to explore ways that re-design of emergency departments can reduce violence towards staff.

- Rather than increasing security, an alternative approach to reducing violence is to improve the patient experience of the environment and emergency department processes.

- A multidisciplinary team are working on design solutions to tackle aggression against staff, and these were launched in November 2011.