The roles of doctors and health services in community violence prevention

Violence control and prevention have traditionally been led by criminal justice services. During the last decade, tackling violence has become a multi-agency effort supported by government and regulated according to new legislation, reflecting recognition that health services and local government can contribute uniquely to this.

There were 773 homicides in England and Wales in 2007/2008 (Povey et al, 2009). For every death resulting from interpersonal violence there are hundreds more victims who survive and who need medical attention: in England and Wales alone the associated costs of annual health care, absenteeism from work and lost productivity are estimated to be around £21 billion (Economic and Social Research Council, 2007). In addition to the direct and indirect financial costs, violence results in psychological costs, such as fear of violence, which are much harder to measure. In most countries, violence prevention has traditionally been led by criminal justice agencies which focus on offences and punishment. Since the mid-1990s, however, tackling violence has become a multi-agency effort in the UK and some other countries supported by governments and regulated by to new legislation, reflecting recognition that health services and local government can contribute uniquely. Health sector leadership is both appropriate and essential.

Until this collaborative approach was adopted, health services tended to respond independently to violence, through emergency services, without thinking about how they should interact with other public services or contribute to prevention. Furthermore, violence has been thought of, apart from estimating morbidity, as something for the police and the courts to prevent, rather than doctors. There has therefore been reluctance in medicine to consider the injury prevention effectiveness of such steps as disclosure of information or referral of the injured to other services. This is despite substantial evidence, some of it from epidemiology, that criminal justice interventions, such as civil protection orders, arresting domestic violence suspects and supporting women through justice processes, decrease repeat victimization and that doctors can also contribute to primary prevention (Holt et al, 2002; Robinson, 2006).

Violence, when viewed as a cause of injury and mental health disorders, is amenable to systematic, science-based, multidisciplinary and sustained prevention. This has many advantages. A science-based approach is now taken for granted in health care but is in its infancy in those public services responsible for crime prevention and the management of offenders. For example, police, probation and prison services are not underpinned by recognized scientific disciplines or structures – university schools, research and development schemes and excellence institutes, for example – to support them. There is little or no epidemiology or public health expertise in police services. Perhaps the major contribution of medical science to violence prevention is sharing its science-based approach with criminal justice services.

Health service-led violence surveillance

National injury surveillance systems based in emergency departments have been developed in many countries, including Australia, Canada, United States and England and Wales, as a measure of morbidity. None of these are used for local prevention, however, because the great extent to which violence resulting in injury is not detected (ascertained) by the police has been discovered comparatively recently. Data matching in England and Wales has shown that only about 25–30% of violence which results in emergency department treatment is represented in police records and that police recording varies substantially by age and gender of those injured in violence (Sutherland et al, 2002).

These rates of under-recording are consistent with under-recording rates identified in national doorstep crime surveys such as the British Crime Survey. Recognizing that crime is a problem not just for the police but also for health services and local authorities, the UK 1998 Crime and Disorder Act mandated partnerships between these agencies to audit and reduce crime. The major reason for including health as a statutory partner in this legislation is that NHS-derived data can add much to police intelligence, allowing much better targeting of police resources and enhanced prevention.

Collection of these data in emergency departments has facilitated targeting of particular bars, nightclubs and streets, identification and targeting of particular weapons

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such as bar glasses and bottles, and greater cooperation with municipal, transport and leisure industries. Evaluations have found significant enhancement of violence prevention over that achieved by police work alone (Warburton and Shepherd, 2006).

Importantly, the information which is crucial for prevention does not comprise personal data under the provisions of data protection legislation such as the 1998 UK Data Protection Act. Health-care providers should therefore commission data collection in emergency departments and capitalize on local expertise – particularly that of crime reduction partnerships and analysts – to combine these data with police data. To this end, the College of Emergency Medicine published guidance (Boyle et al, 2009) to encourage and prompt emergency physicians in the UK to collect and share data on victims of assaults and work in and with crime reduction partnerships (community safety partnerships in Scotland and Wales). Furthermore, local alcohol licensing regulation is enhanced by contributions from health services about assaults and other effects of intoxication which results in emergency care. Collaborative emergency medicine, police and local authority effort is more effective than the police and local authority work alone (Warburton and Shepherd, 2006). Emergency departments are the only source of objective estimation of violence-related harm.

Screening for domestic violence

Routine screening of all female patients for violence by intimate partners has been endorsed by many public health and health-care professional associations including the American Medical Association, the American College of Emergency Physicians and the UK Department of Health, and concerted efforts have been made to increase rates of routine enquiry in health-care settings (Department of Health, 2005). Unfortunately, studies show that in most countries, doctors and nurses rarely ask women whether they are being abused, or even check for obvious signs of violence (Caralis and Musialowski, 1997). Training is clearly required, since health-care professionals need to be taught not only how to identify abuse, but also how to question patients about abuse safely and sensitively. Furthermore, they need to be familiar with effective locally available services, e.g. women's safety units and multi-agency risk assessment conferences. Pregnant women should be routinely questioned by doctors and midwives during appointments in early pregnancy, such as for fetal scans, about whether they have experienced domestic violence at the hands of their partner, and those who require help should be referred to appropriate services or to the police if there is a risk of repeated harm, or harm to children in the same household or to someone else (Department of Health, 2004).

Although research on the effectiveness of early identification of those at risk from interpersonal violence and targeted intervention is limited in health-care settings, there is no doubt that agencies to which those at risk can be referred have effective violence-reduction interventions at their disposal. Permanent exclusion orders, arrest of suspects and increasing conviction rates have all been found to be associated with decreased repeat victimization (Langan and Farrington, 1998). More strategically, pre-school education and early family support which can be delivered in nurse-family partnerships, for example, have been shown in a series of randomized experiments to decrease not only domestic violence but also drug misuse, bullying and a range of other offending behaviours (Olds et al, 1986). Such interventions are cost effective and best delivered by health professionals such as health visitors.

Alcohol misuse interventions

Emergency department research has shown that binge alcohol consumption and low alcohol prices are major risk factors for violence-related injury and that injury severity is directly related to dose of intoxication (Shepherd et al, 1998; Sivarajasingam et al, 2006). Nurse-led brief alcohol interventions in clinical settings during 'teachable moments' reduce hazardous drinking and alcohol-related problems including injury (Smith et al, 2003). This approach is particularly cost effective since alcohol misuse motivational interviews can be combined with standard wound care in trauma clinics such as maxillofacial outpatient facilities where most victims of violence are treated. This trauma patient-centred approach seems likely to reduce alcohol-related violence as much as an offender-centred approach since there is strong evidence that alcohol intoxication increases vulnerability to violence at least to the same extent as it increases the propensity to be violent (Shepherd et al, 2006).

Weapons control

Traditionally, gun control laws are primarily concerned with deterrence by means of punishment, for example of gun use in robbery, assault and homicide. While criminal justice systems focus more on negative interventions such as incapacitation, public health interventions are more concerned with modifying risk factors and promoting health. A public health or epidemiological model for gun and violence research has been proposed by the medical community with the concept of guns and bullets as virulent pathogens that need to be eliminated by limiting gun availability and ultimately eradicating guns from the civilian population through legislation on gun sales and ownership, programmes to collect and decommission illegal weapons, and measures to improve safe storage of weapons.

Medical and public health communities continue to support gun control measures which reduce the availability of firearms and gun violence, for example the Boston Gun Project (Braga et al, 2001). Intermittent public

health-led citywide bans on the carrying of firearms in Cali and Bogota, two Columbian cities, led to substantial reductions in homicide rates in both cities. Taking a contrasting example from Europe, bar glasses and bottles were first recognized formally as weapons not in the criminal justice system but in emergency medicine. A community randomized trial has demonstrated the injury reduction effectiveness of increasing the impact resistance of glasses (Warburton and Shepherd, 2000). Reflecting this, alternative materials with very high impact resistance, such as polycarbonates and multi-layer plastic bottles, are now used – although they are not mandatory in certain circumstances.

Conclusions

Doctors and health services have a significant role to play in efforts to prevent community violence. The treatment of victims in health services and reliance on and expertism in science-based approaches to prevention are important and underused assets in tackling violence. However, health sector engagement is still tentative and piecemeal. Emergency physicians, trauma surgeons, paediatricians and public health specialists particularly could do much more in local crime reduction partnerships, as envisaged in the College of Emergency Medicine guidance, especially in leadership roles, implementing data sharing and referring people injured in violence to crime reduction agencies like women's safety units. In this context, all should be concerned with prevention as well as clinical care. **BJHM**

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KEY POINTS

- Community violence prevention is high on the public health agenda.
- Doctors and health services can contribute distinctively and effectively to multi-agency effort to prevent community violence.
- This article discusses ways in which the health sector can tackle community violence and looks at the evidence which supports this.