VIEWPOINT

Vulnerability, victims and violence

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Abstract

The burden on accident and emergency (A&E) departments of dealing with the aftermath of violence has increased substantially in the last 10 years. Both the underlying causes and the effects on the injured are multifaceted. It is important that clinicians who treat the injured know which interventions, like early family support and preschool education, are effective in preventing violence. It is also important to target those who will benefit from interventions to prevent, for example, serious psychological sequelae or further alcohol related harm. As with child protection, the organisation of services for adults needs to be built on teamwork with other agencies, particularly so that the injured are assessed for risk of future harm and are given opportunities to report offences to the police if they wish. Up to now, the contribution of A&E doctors to dealing with violence has been largely reactive. This policy paper argues that since many of the underlying causes and circumstances of violence can be modified, a more proactive, interagency approach would be effective in the fight against violence.

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In recent years, violence has been identified as an important health problem in industrialised societies.^{1,2} The reasons for this are complex, and may have less to do with absolute increases in the amount of violence than in the realisation that problems such as domestic violence exist and that the severity of injuries from assaults has increased with the increase in lethal weapons. Another reason is that the consequences of violence—fatal and non-fatal injury and psychological harm—are left to health professionals to treat. The medical response to the problem of violence has evolved beyond treatment to consideration of prevention. Research into violence, once the sole purview of criminologists and sociologists, is being increasingly conducted by health professionals, particularly in the accident and emergency (A&E) department.

This research has yielded some important findings that have major implications for how victims are treated in the A&E department and how violence can be prevented. Criminology tends to focus on offenders and “offences against society,” while health professionals focus on individual victims. Recent research by criminologists indicates that arrest and conviction of offenders can decrease the risk of violent crime.^{3–5} The falling crime statistics in the USA in the last two years have been attributed at least in part to “community policing” and aggressive police action against gun related crimes and career criminals. Because about half the victims of violence who attend A&E departments are repeat victims,⁶ the recent finding that increased rates of conviction can decrease levels of community violence are crucially important in developing an integrated approach to prevention.^{4,5,7} In essence, this approach advocates maximising the chances of the conviction of assailants in violence which leads to the need for hospital treatment.⁷ Although there are obvious and important ethical and legal constraints, this represents a new approach to the prevention of assaultive physical and psychological injury.

This article outlines the important issues that confront health professionals treating assault victims, and the rationale for the integrated criminal justice system/health approach to violence. We first review current knowledge about victims of assault treated in the A&E department and the distinction between victim and offender. Next, we examine the pattern of psychological and physical injuries due to assault, and what this tells us about the victim and perpetrator. Finally, we conclude with recommendations for a change in the strategy of the health care community in dealing with the problem of violence. Family support, preschool education, and situational prevention of crime and violence are important, as are the contributions of macro level approaches such as those involving public housing, labour/employment, and social services. However, this paper deals predominantly with individual level factors which can be addressed at a practical level in clinical practice.

Characteristics of the victims of violence

Until very recently, there has been almost no interest in the health careers (that is, patterns of health care utilisation) of assault victims. It

Table 1 Differences between A&E department attenders injured in assaults and accidents

Assault patients	Accident patients
More previous A&E department visits	Similar anxiety and depression levels at one week
More previous psychiatry outpatient visits, particularly for substance abuse/overdoses	Fewer previous convictions
More previous elective surgery	Less likely to be readmitted with new injuries
More previous trauma	
Higher levels of anxiety and depression 12 weeks later	
Often trapped in a relationship with assailant (for men as well as women)	
Afraid of reprisals	

has often been assumed that health careers after assault reflect the effects of one particular incident rather than the pre-existing, ongoing personality or lifestyle of the injured. Although the increasing concerns for victims of crime and the desire to avoid blaming the victim are entirely appropriate,⁸⁻¹⁰ this focus on victimisation has perhaps delayed identification of other health problems and needs in this group. A further reason for this omission is the lack of collaboration between criminologists and traumatologists. Recent research on the characteristics of offenders and victims indicates that such collaboration is both germane and necessary.

The anecdotal experience of many physicians working in the A&E department is that there is often only a fuzzy distinction between victim and offender. Recent data indicate that there is a link between risk of victimisation and the risk of offending, including violent offending. One investigation has provided strong evidence that many individuals who are treated for assault related injuries are much more likely than those treated for accident related injury to have been convicted of delinquency, including violent offences.¹¹

Longitudinal studies suggest that the development of delinquency is associated with greater risk of hospital admission, the development of particular disease patterns, injury from assaults, and increased demand for medical care in childhood, compared to non-delinquent individuals. The Cambridge study in delinquent development found that one of the independently important predictors of antisocial personality at age 32 was a history by age 18 of hospital treatment.¹² Such a history predicted drug use, poor marital relationships, and self reported delinquency by age 32. In another longitudinal study of health and offence histories of young offenders in Saskatoon, Canada, clear differences between offenders and non-offenders in terms of previous contacts with health professionals were found, particularly those related to mental disorders.^{13 14} Thus, A&E department treatment for an assault related injury may be an indicator of delinquency and an offending history.

In addition, injuries from assault may be indicative of underlying mental health problems, indicating the need for services far beyond those delivered for the treatment of the acute injury. A comparative study of victims of assaults and unintentional injuries treated in A&E departments in Britain showed that

victims of assault had higher levels of anxiety, depression, and psychiatric symptoms 12 weeks after injury than victims of unintentional injury.¹⁵ This may reflect ongoing psychological problems associated with either personality or lifestyle, and not due to the injury per se (table 1).

These findings were further explored by Shepherd *et al* in a more detailed case-control study of hospital contacts in the 10 years before assault.¹⁶⁻¹⁹

In contrast to the group of relatively frequent hospital attenders identified in this study, frequent attenders in primary healthcare services are more often female, children, and the elderly. Assault victims share some of the characteristics of primary care attenders, however: both groups have been shown to have higher neuroticism scores, suffered recent stress, more feelings of vulnerability, social problems, and weak social networks.²⁰ More elective surgical operations in assault patients may reflect family culture, impulsivity or dependence on physical intervention in those exposed to violence in childhood.^{17 18} Impulsive people give relatively more weight to immediate rather than long term outcome. A surgical solution to minor illness/symptoms may therefore be more attractive to these individuals (whether parents or young adults) than longer term solutions, just as violence seems the solution to other of life's problems.

Substance abuse is strongly related to risk of offending and risk of victimisation.^{21 22} Individuals injured in assaults have been differentiated from the uninjured on the basis of heavier binge drinking in the six hours before injury. Alcohol dependence appears to be a risk factor only in those over 25 years of age.^{23 24} Individuals who drink more than five drinks a day have a sevenfold increased risk of homicide.²⁵ Research on violent offenders indicates that they have higher rates of alcohol problems than the general population and are more likely than persons convicted of other offences to report drinking just before their offence.²⁶ In terms of treatment, key prerequisites are a recognition on the part of the alcohol abuser that there is a problem, and a willingness to change. In these circumstances, brief counselling can be effective in reducing alcohol related harm.

Overall, patients injured in assaults make disproportionate but specific demands on health services and should be a particular target for prevention programmes.¹⁷ This previously unrecognised association of disorders of young adults has been designated DATES syndrome, comprising a history of Drug Abuse, Trauma, and Elective Surgery.^{16 17}

Characteristics of the injuries

There have until recently been few investigations of overall injury patterns, the incidence of injury requiring admission to hospital, or the use of different types of weapon in relation to adult victims of violence who attend hospital. Such information is crucial in terms of properly treating the physical injuries and understanding the implications of the assault.²⁷

The face is a particular target in assault, though more so in men than in women.²⁸ Assault has become the most frequent cause of fractures of the facial bones in Britain.²⁹

In the USA, facial injuries from assault are also common. In a series of mandibular fractures treated at Harlem Hospital, the vast majority were due to assaults; motor vehicle crashes accounted for only 1%.³⁰ In a study of assault injuries in Vermont, most injuries were to the head and upper extremities and were delivered by fists.³¹ The importance of eye injuries from both blunt and penetrating trauma has been well documented.³² In an inner city population, eye injuries from assault were more common than from sports or occupation related trauma.³³

Upper limb injuries, second in frequency in most United Kingdom and US studies, may reflect a tendency on the part of victims to defend themselves by using their arms, or simply that "victims" struck their assailants and injured themselves in so doing. This is particularly likely in the case of phalangeal or metacarpal fractures. Clearly, the distinction between victim and assailant may be difficult to determine among males involved in interpersonal violence. However, true victimisation of males is more frequent than has hitherto been realised,¹⁹ particularly in relation to people who seek treatment at an A&E department, where physicians have a tendency to blame them for their plight.³⁴

The type of weapon affects the type and severity of injuries sustained in an assault. One particularly common blunt weapon in the USA is a baseball bat, which may cause severe injuries to the head and face.³⁵ One fourth of victims assaulted with baseball bats sustain intracranial haemorrhage as well as multisystem trauma.³⁶ Gender differences in wound patterns may reflect differences in types of weapons used in assaults against men and against women. For example, in the United Kingdom study described above, proportionately more men than women sustained lacerations in assaults.²⁹ This is consistent with the cause of injury, in that more men report assault with sharp weapons or drinking glasses. In domestic violence in the United Kingdom, about 70% of face injuries in women are due to hands or fists.^{37 38}

An understanding of factors influencing weapon selection is important, not least because of effects on injury outcome: in the USA, firearm associated family and intimate assaults were found to be three times more likely to result in death than those involving other weapons or body force.³⁹ Linking injury and type of weapon has shown that attacks with fists or a combination of fists and feet give rise to fractures significantly more often than attacks with other blunt weapons.⁸ Surprisingly, one study of blunt head trauma from assault found that victims beaten with bats were *less likely* to have a poor outcome than those beaten with fists or feet.⁴⁰ These findings confirm that, for these categories of violence, expert witnesses can at best give an indication only of likely causes of injury and cannot be

expected to give categorical opinions concerning precise cause.

The application of injury severity scales has shown that in those victims who can remember this detail, the number of blows broadly correlates with outcome of blunt trauma.⁸ For example, those who report less than three blows are less likely to have a fracture than those who report more than three blows. Interestingly, data concerning falls tend to confirm this: fewer of those who fall during an assault involving bodily force have multiple injuries compared with those who have not fallen, who are presumably more likely to continue to be assaulted. The exceptions are victims who are subsequently kicked, who are much more likely to require hospital admission.⁸

In the United States, injury patterns are different from those observed in Britain and this largely reflects firearm violence, which has reached epidemic proportions.⁴¹ Each year in the past three decades, 30 000 Americans have lost their lives through firearm violence.⁴² Firearms are the leading cause of death in black men aged 15–34 years and are surpassed only by motor vehicles as the leading cause of all American injury related deaths.⁴³ A&E department and public health physicians have collaborated to identify the risks associated with home ownership of firearms.^{44–46} Gunshot wounds in recent years have increased at a rate far higher than stab wounds, are more severe, lead to higher case fatality, and are associated with higher costs for care, including public expenditure.⁴⁷

Repeat victimisation, regardless of the mechanism, is also a serious problem both for men and women. In relation to domestic violence, women are at highest risk of further violence immediately after initial assault. After a first incident, 33% of women suffered a second assault within five weeks in one study.⁴⁸ These findings suggest that rapid short term prevention initiatives are most likely to prevent further domestic violence.⁴⁹ Repeat assault is also a problem among men. In one study in Detroit, 44% of men were readmitted for trauma over the subsequent five year period, with those index admissions due to assault having the highest rate of readmission.⁵⁰ Rivara *et al*⁵¹ also found that assault victims, especially those with chronic alcohol abuse, were much more likely to be readmitted to the hospital with new injuries than were patients with other types of trauma.

Psychological consequences of assault

In addition to treating the acute physical consequences of injury, health professionals must also deal with the acute psychological response accompanying trauma (table 2).⁵² Four classic sequential reactions to violence have been described⁵³: initial shock and denial, followed by fright and fear; apathy and anger; guilt and depression; and finally, resolution or repression. Reactions to victimisation have been compared to the reactions to any other loss and have been found to be similar.⁵⁴ Assaults often result in loss of self esteem, appearance, trust in primary relationships, and

Table 2 Psychological consequences of violence (from reference 52)

Irritability
Bad dreams
Depression
Anxiety
Distressing thoughts
Fear
Anger
Loss of self esteem
Substance abuse/dependence

Table 3 Risk factors for post-traumatic stress disorder in assault patients

Acute stress reaction
Threat to life
Threat to physical integrity
Physical injury
Exposure to grotesque sights
Death of a loved one
Perception of threat
Completed rape

particularly the macho self image characterising many young males, for whom violence and its associated lifestyle had previously seemed exciting. The similarities between reactions to this loss and the normal grief reaction are obvious.⁵⁵ On the other hand, for victims in which this is but one violent episode in a continuously violent lifestyle, there may be no apparent acute psychological response.⁵⁴ Telescoping of the classic stages described by Symonds has also been found in victims with previous experience of assault.⁵⁴

This normal grief reaction to violence can produce psychiatric illness at any stage. An acute distress disorder can occur if the initial response is exaggerated. Post-traumatic stress disorder (PTSD), depression, substance abuse, and dependence or anxiety disorders may develop. The impact of the psychological injuries and the psychiatric illness which can develop should not be underestimated: victims' lives can be devastated by an assault.⁵² The psychological impact of rape has been a particular focus for research, and the incidence of PTSD in this group has been found to be 35–50% three months after the attack.^{56 57} The incidence of PTSD after other kinds of assault has not been precisely defined and the varying incidence (from 3% to 23%) almost certainly reflects the heterogeneous nature of victim groups studied.^{56 58} Fairly minor injury may produce serious psychological consequences, and uninjured witnesses of traumatic incidents may suffer psychological stress.

A comparative study of assault and unintentional injury victims by Shepherd *et al* found that overall, half the patients were distressed one week after injury, perhaps because of temporary disfigurement, fear of permanent disfigurement, or disability and loss of self confidence.¹⁵ Social maladjustment and preoccupation with physical symptoms were more common in the assault group. The higher levels of anxiety and other emotional problems in the victims of assault at three months suggest that vulnerability in an assault is more difficult to deal with than vulnerability in an unintentional injury. Sustained psychological disturbance may result from fear of further violence, lack of emotional support, or the victims blaming themselves. This may predate particular assaults. However, the reasons for an unintentional injury can be externalised in terms of, for example, the state of the road or someone else's carelessness.

This study showed that psychological support is important for all victims of trauma during the first week but that long term support is needed more for victims of assault than for victims of unintentional injury. Victims of assault need prompt referral to health professionals if psychiatric illness is suspected.¹⁵

Other risk factors for PTSD are relevant as well. Overall, the incidence of PTSD in men and women appears to be similar; only those women who witness someone being killed or seriously hurt in an assault suffer more psychological sequelae than men.⁵⁶ The more serious the stressor, the more likely serious psychologi-

cal injury becomes.⁵⁹ Risk factors for PTSD are given in table 3.

Physical disability and deformity, though often of a minor nature such as lip numbness or a small facial scar, can nevertheless act as a powerful trigger of psychological symptoms and a reminder of the original trauma.⁵⁴ There remains very little evidence that brief early psychological interventions are effective.⁶⁰ It has been shown that an acute stress reaction to trauma predisposes to later serious psychological sequelae and that non-medically qualified health professionals can identify those at risk of these. Psychiatric illness can be missed and treatment withheld because the sequelae are mistakenly thought of as normal.⁶¹

There are few studies of effectiveness of various treatments but both exposure therapy and stress inoculation training can be beneficial.⁶² The recognition of those likely to experience, or who already have, severe psychological injury is one potential benefit of a more comprehensive, interagency approach, because mental health professionals are involved at an early stage.

Towards interagency procedures to prevent assault and protect victims

Up to now a public health approach to the steadily increasing problem of violent crime has stopped short of collaborating with the criminal justice system to protect victims and prevent future injury by maximising the chances of assailants being convicted. Yet there is now strong evidence of a link between rates of violence and conviction of offenders^{4 5} and therefore that increasing rates of conviction is an effective way of preventing injury. A public health approach has focused so far on risk factors such as alcohol consumption,⁶³ firearm availability,⁴⁵ and links between deprivation and crime but has yet to include bringing violent offenders to justice.⁶ Recent criminological research has found a negative correlation between changes in the crime rate and changes in the probability of an offender getting convicted. This has been shown in the USA, England and Wales, and Sweden.^{4 5} This emphasises how important it is for injury prevention that violent offenders are dealt with.

Criminal justice and public health approaches already have much in common.^{64 65} For example, both criminal law and public health share the objectives of deterrence (health warnings), incapacitation (isolation), and rehabilitation. Criminal law and public health are both concerned with future as well as past behaviour—both influence the individual and society. Furthermore, the two approaches complement each other because a public health approach focuses on the injured and can therefore be concerned with the very large number of violent incidents which, on both sides of the Atlantic, are neither reported to nor recorded by the police.^{66 67}

Although criminal law treats all assaults as offences against society, research has found that the initiation and maintenance of the prosecution process depends little upon

personnel in the criminal justice system but nearly totally on the injured themselves.⁵² Many of these individuals are repeatedly injured by assailants in whose "web of power" they remain trapped.^{6 19} This applies not just to women who are injured in domestic violence, but to a wide spectrum of other people, for example youths assaulted at school and those who are dependent on drugs.¹⁹ Many victims do not report violence or make the complaints which trigger police action because they are incapacitated by their injuries, afraid of reprisals, habituated to violence, or have a continuing relationship with their assailants. Furthermore, because many who do not report offences are assessed by the police as unlikely to be committed to the prosecution process, investigations are often perfunctory or abandoned at an early stage, with little regard to injury severity or likelihood of future injury.¹⁹ It is in these areas that health professionals have opportunities to help increase the chances of offenders being convicted and increase protection for victims.

Medical policies concerning disclosure of information about crime have largely been developed only to deal with requests from the police (for example, "Police requests from information from medical practitioners in hospital unintentional injury and emergency departments: guidance for consultants." British Association for Emergency Medicine, 1991). At present, the management of adult victims of violence in family medical practice and in the A&E department is largely reactive and concerned almost exclusively with the management of physical injuries. A much wider, proactive, interagency approach is necessary, particularly so that protection and support of vulnerable people can be improved. The surprisingly frequent psychological sequelae need to be recognised and dealt with. Furthermore, the responsibility for making official complaints to the police needs to be taken from the shoulders of the seriously injured, and assailants prevented from causing further injuries. As urban communities become less cohesive there is a need for A&E departments to be more involved in violence prevention, through integration with community policing. In parts of the USA, this collaboration is much more developed than in Britain, and doctors in some states are obliged to report not only cases of suspected child abuse, but also suspected spouse abuse, firearm injuries, and intentional knife wounds. The development of formal interagency procedures would also improve links with victim support agencies, like Victim Support in Britain and victims of crime groups in the USA. This is important since so much violence is not recorded by the police, who are the principal source of referrals.

The injured often do not realise that the police act on complaints rather than mere reports of offences.¹⁹ This means that, where it is in the medical interests of the injured in relation to preventing future physical and psychological harm, doctors should counsel the injured to report offences and make complaints or to allow them to do so on their

behalf. This will also be in the public interest in communities where violent crime and the fear of crime⁶⁸ are increasing. In some circumstances, however, it will not be in the medical interests of the injured to report offences and might even be traumatic for them to be involved in criminal proceedings.

Clearly, however, many of the injured are, or feel, to blame for what has happened and will not consent to reporting. While medical staff are unlikely to turn all reluctant complainants and prosecution witnesses into staunch, public spirited citizens, consultations provide opportunities to initiate the investigation of those many crimes which are not reported for fear of reprisals. It is certainly a mistake to assume that all, or most, of the injured are somehow responsible for their own injuries.

A closer relationship between the police and the medical community must be approached cautiously. One danger is that victims of violence, who may themselves be on the edge of the law, might be dissuaded from seeking medical help. Delinquent behaviour gives rise to both offending and injury and from time to time, every A&E department will be called upon to treat people who have been injured while committing a crime. An important principle of the law of confidentiality is that, save in exceptional circumstances, patients should themselves determine when and to whom information should be disclosed. Nevertheless, involvement of other agencies should be considered when treating anyone injured in an assault. These patients should all be given an opportunity to report it at an early stage so that an effective police investigation can take place. Victim assistance programmes are rarely available in A&E departments, though where they do exist utilisation tends to be by victims of domestic violence rather than victims of youth violence, who numerically are most important. The needs of the patient for confidentiality and anonymity must be balanced with the need of society to decrease violence and victimisation of its citizens.

In the context of the new government's Crime and Disorder Bill, making available to the police anonymous details of violence which has resulted in the need for hospital treatment would help deal with the very large number of bar assaults and fights which do not come to the police attention. At a local level, licensing officers could be provided with information about time and site of street and bar violence, number of assailants, weapons, and abuse of drugs. This information can be obtained from people who accompany the injured to hospital as well as from the injured themselves.⁶³ The communication of this information would not be time consuming and would bring A&E departments into community crime prevention and increase the effectiveness of any new penalty point system for bars. Importantly, only about one in nine violent offences which occur in bars and lead to A&E department treatment are recorded by the police.⁶⁸ The problem of under-reporting of crime to the police, when both victimisation surveys and A&E department reports^{69 70} are compared with police

Table 4 Policy proposals

New joint Home Office-NHS initiative to tackle unrecorded violence
Opportunities for early police reporting for all assault patients
Medical advice to all assault patients to report if there is a risk of further harm
Incorporation of A&E departments into community policing/crime prevention
Links between local victim support schemes and A&E departments
National A&E department violence surveillance to complement crime statistics
Screening and treatment for acute stress reactions and alcohol misuse
Making drinks licensing responsive to A&E derived injury rates as well as crime rates

records, indicates that much additional information on crime in the community can be learned from examination of A&E department data.

Some important lessons have already been learned in the organisation of interagency child protection which are applicable to the care and protection of adult victims. One of the most relevant is the difficulty of assessing risk of future harm. This should not be underestimated particularly as precipitate action can compound harm. Interagency collaboration to protect children has been developed in a legal and ethical framework which could also serve as the starting point for a similar collaboration to treat and protect adults. Of course, child protection laws are necessary because children are minors, whereas best practice in relation to adults needs to take account of their rights and responsibilities. Importantly, interagency procedures can be developed to avoid compromising the relationship between health professional and patient.

Public confidence in any protection arrangement depends on a balance between avoiding unnecessary intrusion and protecting people at risk of serious harm. The treatment and protection of adult victims of crime remains fragmented. In this context, there is almost no contact between A&E departments, the police, and substance abuse agencies. Except for isolated instances, no attempts have yet been made to bring together agencies responsible for the care and protection of adults who have been assaulted. There is a need for local forums to develop, monitor, and review policy, driven by a new NHS-Home Office initiative. An agenda for reform is set out in table 4.

In relation to adults injured in assaults, efforts of health professionals to avoid accusations of wrongfully disclosing confidential information can work against the interests of patients and of society and to the benefit of assailants. In the context of the many violent offenders who remain in the community and in the home, the increasing use of firearms, and rising crime rates, the duty to report crimes which result in serious injury should not be neglected. The non-reporting of violence means that patients remain at risk of further assault, that violent offenders go undeterred, and that physicians risk being seen as uncaring and blind to the needs of vulnerable people in violent environments. Health care should be organised not only to provide treatment for individuals injured in assaults, but to reduce the risks of further injury in the communities and families from which they come. Importantly from a public health perspective, it is increasing the chances of violent offenders

being brought to justice that will deter potential offenders and help to reduce rates of intentional injury. Where the patient or someone else continues to be at risk of serious harm, reporting offences should be a part of responsible care.

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