

ORIGINAL ARTICLES

Violence: the relation between seriousness of injury and outcome in the criminal justice system

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Abstract

Objective—To investigate the relation between injury severity in assault, offence seriousness, and outcome in the criminal justice system.

Methods—Prospective random sample of 93 assault victims who attended hospital were interviewed and examined and followed through the criminal justice system. Patient and police interviews were carried out at Bristol Royal Infirmary accident and emergency and outpatient departments, wards, and in Avon police stations and criminal courts. Severity of injury (injury severity score [ISS] assessed by the major trauma outcome study group), offence seriousness (Delphi panel of criminologists), and outcome in the criminal justice system were recorded.

Results—Median ISS was 4 (range 1-17). There was no significant correlation between ISS and outcome in the CJS ($r = 0.07$). There was a weak correlation between offence seriousness and outcome ($r = -0.24$, $P = 0.019$).

Conclusions—Outcome in the criminal justice system was not predictable from injury severity scores and was only weakly linked to offence seriousness. Contacts with medical services are opportunities for protecting those at risk of violence.

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Keywords: assaults; criminal justice; outcome; violence

Research on the links between offence seriousness, criminalisation, and punishment in relation to violence has recently been facilitated through access to injured victims who attend hospital accident and emergency (A&E) departments.^{1,2} Importantly, this has allowed study of the relation between violent behaviour and subsequent attempts at criminalisation. It has also allowed an investigation of the factors which—on both sides of the Atlantic—lead to underreporting and underrecording of offences. Past research on the correspondence between offence seriousness and criminal prosecution has shown that at every stage of the criminalisation process cases are filtered out. This may be because of the victim's deci-

sion not to go to the police, or because of the police response, both immediately and in subsequent investigations, or because of events in court.

In Britain, only about 25% of assaults resulting in the need for treatment in the emergency department are known to other agencies³ and substantial numbers of crimes of all types go unrecorded.⁴ The research reported in this paper was carried out as part of a project to investigate the relation between seriousness of offence and outcome in the criminal justice system. The main purpose was to quantify the relation between the severity of injury and outcome in terms of reporting, police investigation, conviction, and sentencing of assailants. This research programme has resulted in reports in the criminology literature,^{1,2} but these have not addressed the issue of injury severity, assessed using modern, objective injury severity scoring. The various drop out points identified in the previously reported research are summarised in fig 1.

Methods

Ninety three randomly selected assault victims who attended an inner city A&E department were interviewed and their cases followed through the criminal justice system. Seventy eight victims were male (median age 31 years; range 18 to 76 years) and 15 were female (median age 28 years; range 18 to 64 years). This sample was representative of the hospital catchment population in ethnic terms. The sample was necessarily limited in size because of the need to follow cases through the reporting, recording, prosecution, and sentencing process. The research required detailed interviews with all criminal justice personnel involved as well as with the victims themselves. Injury severity scoring was carried out by the United Kingdom major trauma outcome study (MTOS) group from A&E injury records, and offence seriousness was ranked by a panel of criminologists.

Medical injury severity scoring methods provide a robust and objective means of comparing those injured. A variety of scales and scoring methods is available, which are based either on anatomical or physiological variables or on a combination of these.⁵ Although there is still undoubtedly room for

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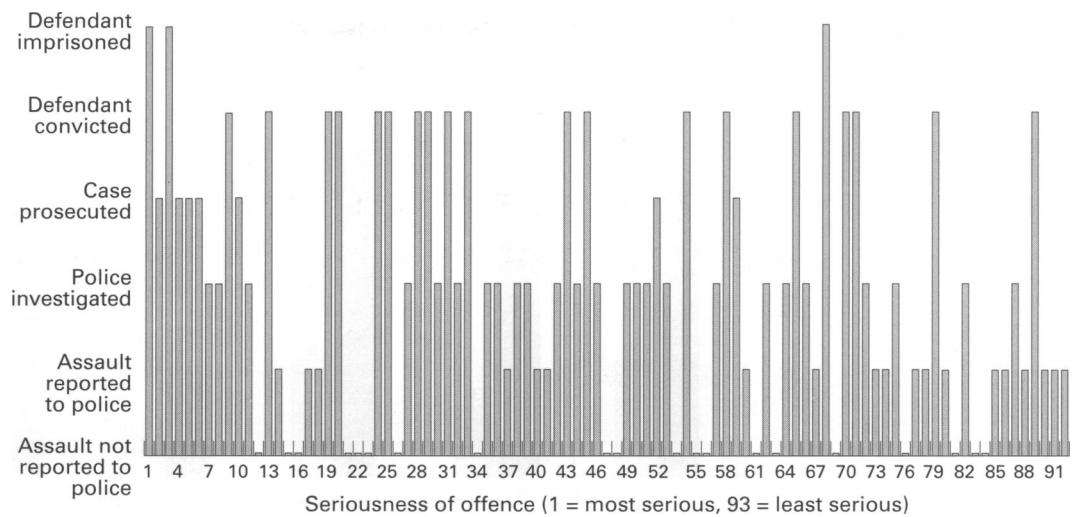


Figure 1 Criminalisation of assault cases matched against seriousness of offence.

improvement, and some scoring methods demand medical tests and information not likely to be available to the courts, injury severity scores have become an established and reliable means of assessing trauma patients in hospital and other medical settings, particularly in relation to survival. Recent applications of this scoring system have included the investigation of relative merits of large dedicated trauma centres and smaller casualty departments outside major centres⁶ and calculation of compensation awards.^{7,8}

The injury severity score was developed in an attempt to quantify severity, taking into account the number of body areas involved in individuals with multiple injuries.⁹ Examples of recent applications to forensic medicine and research are the assessment of the relation between blood alcohol concentration and injury severity in victims of violence and accidents, and investigation of the association between conscious level and injury severity.¹⁰

The ranking of offences in order of seriousness took account of physical injury (assessed by lawyers); potential for more serious injury; degree of threat; use of a weapon; likelihood of emotional or psychological harm; duration of assault; and provocation by the victim. In a preliminary validation exercise, 20 lawyers were asked to rank the assaults, taking into account the variables listed above.¹ There was consensus and high interjudge reliability in respect of assaults in the upper and lower quartiles, but less consensus elsewhere. This finding influenced subsequent grouping of data (see fig 4).

This research depended on developing a scale of offence seriousness: a difficult and controversial exercise in view of the unquantifiable nature of many of the factors listed above.¹¹ For the purpose of this research, the criminal law hierarchy of seriousness, (grievous bodily harm with intent; malicious wounding; actual body harm; battery; and assault) was too crude to be useful. Some past criminological research was helpful, however. Surveys have been conducted on the general public¹² and crime victims¹³ in which respondents were asked to rank offences by seriousness. Recent

research has investigated both the immediate impact of crime, physical injury, and emotional/psychological harm,¹⁴ and its longer term effects such as depression, distrust, and disruption of lifestyle.¹⁵ In the United States, victim assessments of harm are used in many States, where "victim impact statements" are introduced before sentencing.^{16,17} In various jurisdictions over the past decade, sentencing commissions charged with developing sentencing guidelines have attempted to rank offences in order of seriousness (for example, the Minnesota Sentencing Commission).

For the purpose of this research, the ranking system sought to reflect harm caused and at the same time to reflect the assault as an event in context. Therefore, while the location of the assault and the relation between victim and assailant were taken into account, extraneous factors such as the prevalence of a particular category of assault or the offenders' previous convictions were not taken into account.

Statistical analysis was carried out using the Spearman correlation coefficient. Because the research reported here was principally concerned with establishing the strength of any relation between injury severity, offence seriousness, and outcome, and because components reported elsewhere¹² depended on qualitative research methods, a bivariate analysis was appropriate. Clearly, other variables could be taken into account in any subsequent study to control, for example, for the victim/offender relationship.

Table 1 Site of injury by type (number of victims/patients = 93)

Site of injury	Number of injuries by type			Total
	Fractures	Lacerations	Bruises*	
Head	3	8	34	45
Face	23	24	30	77
Upper limb	8	2	13	23
Lower limb	2	0	8	10
Chest	0	2	13	15
Abdomen	3	3		3
Total	36	39	98	173

*Includes 19 brain injuries not associated with scalp lacerations or skull fractures.

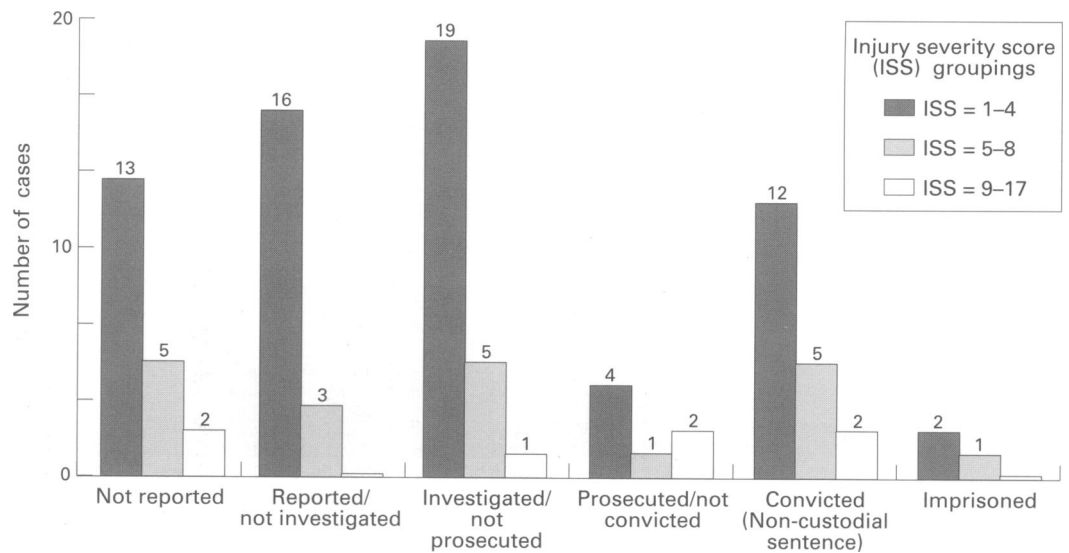


Figure 2 Relation between injury severity score and outcome.

The patients were interviewed by one of a team of three research workers during their initial attendance in the A&E department, in their hospital ward, when they returned for subsequent outpatient treatment, and at home. Where the assault had been reported to the police, the relevant police officers were interviewed, and where prosecution followed, all court hearings were attended. Of the 29 cases prosecuted, 16 (55%) were dealt with in the Magistrates Court and 13 (45%) in the Crown Court.

Results

Median injury severity score was 4 (range 1 to 17). There was no evidence of correlation between injury severity score and outcome ($r_s = 0.07$; 95% confidence interval -0.19 to $+0.27$; $P = 0.52$; fig 2), but a weak correlation between offence seriousness and outcome ($r_s = -0.24$; 95% CI -0.042 to -0.426 ; $P = 0.019$; fig 3). Offence seriousness and injury severity score were highly significantly related, however

($r_s = 0.5177$; $P << 0.0001$; fig 4). Sites of injuries are presented in table 1. Thirty seven patients sustained multiple injuries. Injuries were predominantly facial or of the head. The next most frequent site of injury was the upper limb. Not surprisingly in a British context, there were no firearm injuries and none of the injured subsequently died of their injuries, though 24 required surgical operations to repair injuries. Only seven of the 10 offences giving rise to the highest injury severity score were investigated by the police, but eight out of the 10 producing the lowest scores were not investigated.

In 19 cases (22%) there was a failure to inform the police in the first instance; in a further 20 cases (23%) no formal complaint was made. In 11 cases (17%) the assault was brought to the attention of the police but the police were unable to identify the assailant or amass sufficient evidence against him. Forty five per cent of those investigated were not prosecuted, 18% of those prosecuted were not

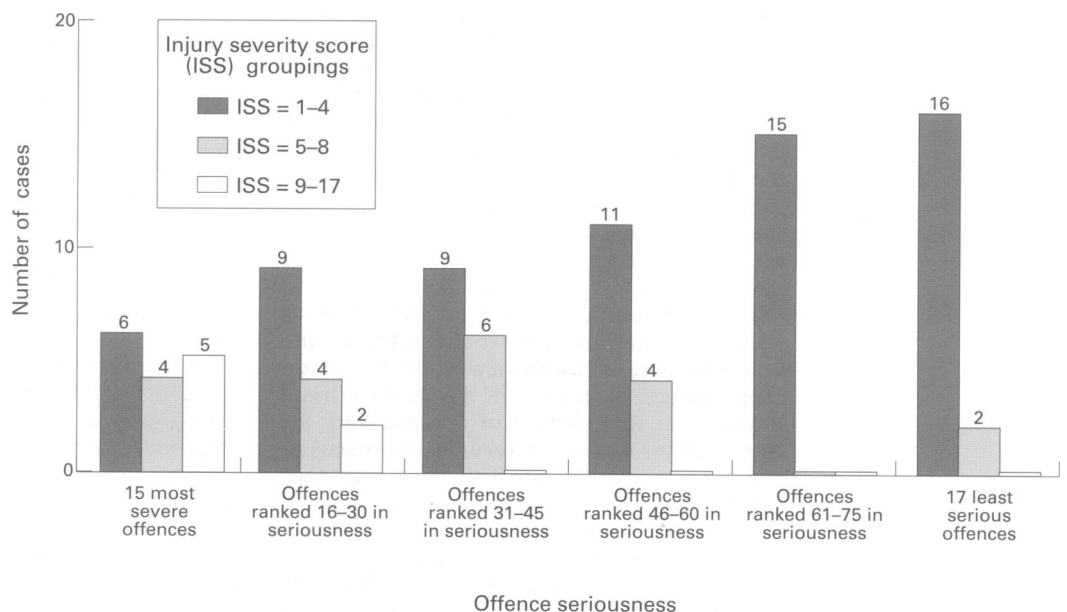


Figure 3 Relation between severity of offence and injury severity score.

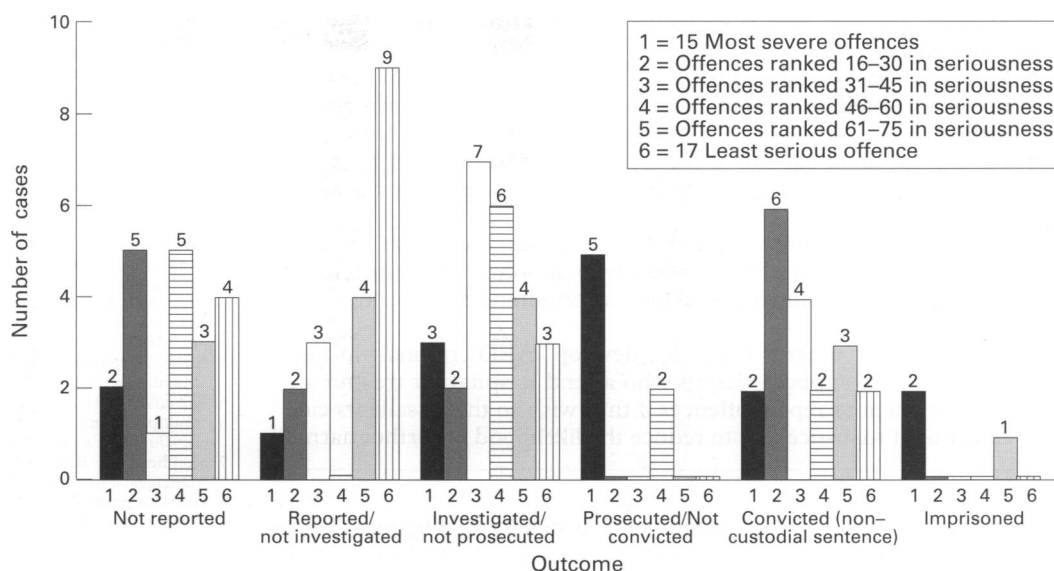


Figure 4 Relation between offence seriousness and outcome.

convicted, and in only three cases (5%) were assailants imprisoned (fig 1).

Discussion

This study is the first to correlate objective injury severity scores with outcome in the criminal justice system. There was no statistically significant relation between injury severity and outcome of the criminal justice process and only a weakly significant link between offence seriousness and outcome. The former finding is perhaps not surprising in view of other important and legitimate dimensions of offence seriousness. This means that many assailants were not brought to justice and, presumably, rarely deterred from causing future injury. Therefore, as with other non-accidental injury, mechanisms involving A&E departments need to be developed to ensure that victims, if they wish, are protected from further harm and are allowed to report violence at an early stage. Although the study reported here did not investigate the roles of A&E department staff, it appeared that they maintained a passive role.

Through gaining access to victims of violent crime in a setting outside the criminal justice system, this study provides evidence that injury severity plays little part in determining criminal justice response to violence. Although the "injury against society" model is pre-eminent in the criminal law, this research found little evidence that injury severity per se was influential. Although this research has shown that injury severity has little influence in the criminal justice system, it has found that throughout the criminal justice process there is great dependence on the victim to make a complaint.^{1,2} The distinction between the need to complain and the need to report offences is often lost on victims. In police recording, prosecution, and conviction, the people who carry injuries and their physical and psychological scars are crucially important. In this context, from a medical perspective it is surprising that the importance of injured victims is not acknowledged. One eminent lawyer has re-

cently written that "whether the particular victim's interest should count for more than those of any other member of the community must remain open."¹⁸

The findings of this research have important implications, in particular relating to the rights and responsibilities of the injured. In parts of the United States, the burden of taking their cases through the justice system has been taken from the shoulders of victims in cases of domestic violence, though whether this change is increasing deterrence and victim protection is still being debated.¹⁹ In Britain the national charity Victim Support has introduced victim/witness support in many Crown Courts, which victims have found effective. A comprehensive support service based in A&E departments might help increase the rate of conviction of offenders, empower those who find it hardest to seek the law's protection, and also result in the "injury against society" concept being more consistently applied.

There are parallels here between the criminal justice system and public health medicine. Both are concerned with deterrents (health warnings) incapacitation (isolation) and rehabilitation. Both are concerned with future as well as past behaviour. Although it is easy to take the parallel too far, it does suggest ways in which reporting might be enforced. Although doctors have a legal and ethical responsibility to report some diseases, so that the public health and individual citizens can be benefited, there is no such legal responsibility in relation to the reporting of injuries, however serious. The research reported here has shown how some injuries which were not reported, or the assailants prosecuted, are nevertheless life threatening. In public health terms, if the causes of other such serious illnesses were not compulsorily reported and investigated there would be a public outcry. It is surprising in this context that similar procedures—underpinned with appropriate legislation—do not apply to the reporting of serious physical and psychological injuries occasioned by violence, particularly where there is a risk of future harm.

Key messages

- Violence which results in the need for hospital treatment is often not investigated by the police and assailants are rarely brought to justice.
- For this group of patients there is a poor correspondence between injury severity, offence seriousness, and outcome in the criminal justice system.
- This is because the criminal justice process depends almost entirely on the injured themselves, who are often afraid of reprisals, habituated to violence, and have a continuing relationship with their assailant.
- There is an urgent need to develop AED/criminal justice approaches to support victims who attend hospital for treatment, to allow them to report offences if they wish so that assailants can be brought to justice and to reduce the likelihood of further harm.

A recent ethical debate highlights some of the problems associated with A&E departments taking a more proactive role.²⁰ Increased violence in the A&E department itself, however, and the realisation that many of the injured also have criminal records,²¹ is leading to a more organised police presence—albeit for the protection of staff—giving rise to increased opportunities for patients to report offences affecting them. It is important, however, that the development of police outposts in A&E departments is accompanied by safeguards to protect patients' interests and confidentiality. This is an opportunity to revisit guidelines about the reporting of violence to the police and, with police liaison, develop codes of practice to fit local needs, particularly in relation to knife wounds, firearm injuries, and life threatening injuries. Since so many violent offences are not recorded and since the police depend on the injured making a complaint, it is important for A&E department receptionists and nurses to give patients an opportunity to report offences at an early stage if they wish to, perhaps by means of a police "hot line" situated in the A&E department waiting area.

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- 1 Clarkson C, Cretney A, Davis G, Shepherd JP. Assaults: the relationship between seriousness, criminalisation and punishment. *Criminal Law Review* 1994;Jan:4–20.
- 2 Cretney A, Davis G, Clarkson C, Shepherd JP. Criminalising assault. *Br J Criminol* 1994;34:15–29.
- 3 Shepherd JP, Shapland M, Scully C. Reporting of violent offences to the police. *Med Sci Law* 1989;29:251–7.
- 4 Mayhew P, Elliot D, Dowds L. *The 1988 British crime survey*. Home Office research supplement. London: HMSO, 1989; 111:16.
- 5 Ali T, Shepherd JP. Injury severity assessment. *Br J Oral Maxillofac Surg* 1994;32:13–18.
- 6 Gustafson DH, Fryback DG, Rose JH. An evaluation of multiple trauma severity indices created by different index development strategies. *Med Care* 1983;21:674–91.
- 7 Shepherd JP, Richmond P, Miers D. Assessing criminal damages: a medical model. *New Law J* 1994;4 Feb:162–4.
- 8 Law Commission. *Damages for personal injury: non-pecuniary loss*. London: HMSO, 1995:122.
- 9 Baker SP, O'Neil B, Haddon W. The injury severity score: a method for describing patients with multiple injuries and evaluating emergency care. *J Trauma* 1974;14:187–96.
- 10 Brickley MR, Shepherd JP. Relationship between alcohol intoxication, injury severity and Glasgow coma score. *Injury* 1995;26:311–4.
- 11 Von Hirsch A. *Past or future crimes: deservedness and dangerousness in the sentencing of criminals*. Oxford: Oxford University Press, 1985.
- 12 Sellin T, Wolfgang M. *The measurement of delinquency*. New York: John Wiley, 1964.
- 13 Sparks R, Genn H, Dodd D. *Surveying victims*. Chichester: John Wiley, 1977.
- 14 Lurigio A, Resick P. Healing the psychological wounds of criminal victimisation. In: Lurigio A, Skogan W, Davis R, eds. *Victims of crime*. Newbury Park, CA: Sage, 1990.
- 15 Miers D. The responsibilities and the rights of victims of crime. *Modern Law Rev* 1992;55:2–14.
- 16 Henderson L. The wrongs of victims' rights. *Stanford Law Rev* 1985;37:956–99.
- 17 Kelly D. Victim participation in the criminal justice system. In: Lurigio A, Skogan W, Davis R, eds. *Victims of crime*. Newbury Park, CA: Sage, 1990.
- 18 Ashworth A. Punishment and compensation. *Oxford J Legal Stud* 1986;6:1–8.
- 19 Morley R, Mullender A. Hype or hope? The importation of pro-arrest policies and batterers' programmes from North America to Britain as key measures for preventing violence against women in the home. *Int J Law Fam* 1992;6:265–88.
- 20 Shepherd JP, Morley R, Ashead G, Gillett G, Knight MA. Ethical debate: should doctors be more pro-active as advocates for victims of violent crime. *BMJ* 1995;311:1617–21.
- 21 Rivara FP, Shepherd JP, Farrington DP, Richmond P, Cannon P. Victim as offender in youth violence. *Ann Emerg Med* 1995;26:609–14.