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A prospective study of assault victims attending a suburban A&E department

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SUMMARY

This prospective study was undertaken to assess demographic and social factors, assault characteristics and injuries sustained by assault victims attending a suburban A & E department. A total of 214 men and women who admitted to having been assaulted were entered into the study, information being obtained by patient questionnaire and from A&E records.

The assault victims made up 3·3% of the total new patients seen in the study period. The majority of victims were employed, single young men (72%) who had been drinking alcohol prior to assault (66%). They were assailed late at night in the street, in pubs and clubs. Female domestic assault was two times more common in this population than in previous British studies, and women were more extensively injured than men. Injuries were mostly to the face, caused by punches and kicks. Overall, 72% of fractures were facial. Most patients were referred to their G. P. for follow up (41%).

The available evidence suggests that personal violence is on the increase, and is not confined to inner-City areas. As victims seeking help will usually attend an A&E department, staff should be alerted to recognize and advise these patients on possible psychological seqelae, as well as treating their physical injuries.

INTRODUCTION

Assault is an increasingly common cause of injury in Britain, but there have been only four previously published studies of assault victims presenting to A&E departments, all situated in inner-City areas (Driscoll *et al.*, 1988; Richmond *et al.*, 1988; Shepherd *et al.*, 1988; Hocking, 1989). To date there has been no published

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study of assault victims attending an A&E Department in a suburban area. This prospective study was therefore undertaken to identify any differences in demographic and social factors, assault characteristics and injuries sustained in this population.

SUBJECTS AND METHODS

During this study period of 34 days from December 1988, information was obtained from 214 consecutive assault victims attending the A&E Department of the Mayday Hospital. Subjects were identified either by the A&E Reception staff or by Casualty Officers when questioning the patients on the cause of their injuries. After agreeing to take part in the study, each patient was asked 15 questions by the attending A&E doctor, including details of alcohol consumption prior to assault, location of assault, details of assailants and weapons used by them. The remaining information was retrieved from the A&E records after the patient had left the Department. Whether single or multiple, lesions in one area of the body were recorded as a single injury.

RESULTS

During the study period 6504 new patients were seen in the A&E Department, of whom 214 (3·3%) reported to have been victims of assaults and agreed to enter the study: 2 refused.

Victims

The age range of victims is shown in Table 1. In both sexes there was a progressive reduction in the number of victims with increasing age from the modal range of 15–24 years. Of both male and female victims, three-quarters were unmarried.

Table 1. Age of assault victims.

Age Range in Years	Men	Women
10–15	3	2
15–24	77	23
25–34	42	22
35–44	19	8
45–54	12	3
55–64	1	0
65–74	0	1
75+	0	1
Totals	154	60

Information on employment status was obtained from 161 patients (75%), of whom three-quarters were in employment.

There was a progressive daily increase in the number of patients who were assaulted throughout the week from Monday (16 patients, 8%), to Sunday when one-quarter of assaults occurred. The peak time for assaults was between 2000 and 0400 hr, during which two-thirds of male victims and 35 (58%) female victims were attacked.

Three quarters of the victims presented to the A&E Department within 12 h of the assault, there being no difference in time to presentation between men and women or between victims of domestic and non-domestic assaults.

One third of male victims and almost two-thirds of female (36 patients) stated that they had drunk no alcohol in the 6 hours prior to the assault. Of those who said they had taken alcohol, men had most commonly drunk 6–10 units (one-quarter of male victims), and women 1–5 units (one-third of female victims). Four men (3%) estimated that they had drunk over 21 units; no woman had drunk more than 10.

Men were most commonly assaulted in the street (61 patients, 40% of male victims), and women at home, where almost half of them were attacked (28 patients, 47%). Forty-one men (26%) were assailed in pubs and clubs, as were a minority (13%) of women. One-third of women were assailed in the street.

One-quarter of men assaulted at home and almost two-thirds of women (64%) had been assailed previously. Of victims assailed elsewhere, around two-thirds of men and a quarter of women had been assaulted before. Over half the patients (54%) knew why they had been assaulted.

Most victims of assault were male (78%) and received 233 out of a total of 344 injuries (68%). Women comprised 28% of victims and received 111 injuries (32%). Of the 344 injuries, the commonest were bruises (181), lacerations (100) and fractures (31). Half of all male injuries and 42% of female were to the face. The majority of fractures were facial in both men (67%) and women (78%). Most victims were injured at one site only (143 patients), but a higher proportion of female victims were injured at three sites (12%) than male victims (7%), and 5 female victims (8%) sustained injuries to four sites, whereas no men were this extensively injured. Two women were raped. Two men lost the sight in one eye as a result of their injuries.

After initial assessment, over half the victims required dressings and reassurance only (128 patients); 69 required sutures. Eleven per cent of men (17 patients) and 3% of women were admitted to Hospital, and 4 underwent urgent surgery. Overall, 25% of those discharged from the A&E Department were referred for follow up in A&E or other Hospital clinics. Forty-one per cent of patients were referred to their General Practitioner, most commonly for removal of sutures.

Assailants

Over 80% of male assailants were estimated to be aged between 15 and 34 years old, and a similar proportion of female assailants to be between 15 and 24 years. Eleven victims were unable to identify the sex of their attacker. In 85% of assaults

the assailant was a man, in 8% a woman, and in 2% men and women. Men were assaulted by one attacker in half the cases, to a maximum of 15 (one patient). Overall, 69% of women were assaulted by a single attacker, and all female domestic assaults were single handed. Less than half of the assaulted men knew their attacker whilst almost 70% of women knew theirs. Forty-two per cent of male assailants were thought by the victims to be of same age, sex and race as themselves.

The majority of assaults were carried out with fists and feet alone. Nine per cent of men and 3% of women were stabbed, and other weapons were used against 29% of men and 13% of women.

DISCUSSION

The much publicized Home Office bulletin on notifiable offences recorded by the police in England and Wales in 1988 showed a fall of 5% in criminal offences, the largest drop since 1954 (HMSO, 1988). However, the level of violent crime has risen by 9%; minor woundings represented 144 000 of the 160 000 total of violent offences against the person. These figures rely on victims reporting their assault to the police, and both this study and the British Crime Surveys have shown that only half of the victims do so (HMSO, 1983). The surveys also show that only 30% of assault victims seek medical advice, so hospital based studies such as this are only reflecting a small proportion of the true incidence of assault in the community.

In this study, the proportion of new patients attending the A&E Department having been assaulted was 3·3%, which is more than that seen in the four other British studies carried out in Inner-City Departments, where assault may be expected to be more prevalent. In these studies, 1·2% to 2·3% of new patients were assault victims. This difference may simply reflect the rising incidence of personal violence, a greater tendency of our patients to seek medical advice and admit to assault, or a real difference in the incidence of assault in this suburban population. Croydon may be one of the 'prosperous, densely settled semi-rural, semi-urban areas so characteristic of the South East', in which late night alcohol related street violence seems to be a growing and wide spread problem (HMSO, 1989).

As in previous British, Scandanavian (Honkanen *et al.*, 1986) and American (Sumner *et al.*, 1987) studies, the majority of victims were single young men, assailed late at night during the weekend in the vicinity of, or inside, pubs and clubs. The majority of these victims had drunk alcohol prior to the assault, and its role as a causative factor in assault is generally recognized (Bute, 1988; HMSO, 1989). The Bristol assault study showed good broad correlation between stated recent alcohol intake and blood ethanol levels, and although the majority of 'street assault victims' had been drinking, attention was drawn to the fact that one-third of them had not been rendered more aggressive or more prone to attack through alcohol consumption (Shepherd *et al.*, 1988a).

Previous reports have shown a high rate of unemployment amongst assault victims, and the correlation between this, social deprivation and a tendency to be

assailed has been discussed (Shepherd *et al.*, 1986; Pearson, 1988). Most of our victims were employed, as were those in the Home Office study of non-metropolitan violence (HMSO, 1989).

American studies show around 15% of non-domestic assaults to have racial implications (Sumner *et al.*, 1987). In our study, 73% of male non domestic victims were assailed by someone of the same race as themselves. In the remaining 27% we did not specifically enquire whether racial difference was thought to be implicated in the attack.

Proportionately more women were seen in this population than in the previous British studies, the ratio being 2·5 men to 1 women (3·1 to 6·1 in other studies). Most women were assaulted at home, had been assaulted before and knew their assailant. Women were most commonly punched and kicked and received proportionately more wide spread injuries than men.

Overall, 26% of assaults were domestic, over twice that seen in any other study, but similar to the 25% of personal violence reported to the Police (HMSO, 1988). Domestic assault is known to be seriously underestimated in all studies of assault, and although the problem has been assessed in America, it has received little attention in Britain (Knopp, 1984).

Two women were raped. There was a 16% annual rise in reported rape in 1988. Although this may represent a real increase in the incidence of rape, more women are now reporting the crime to the Police. In turn, police are recording a higher proportion of alleged rapes as crimes (HMSO, 1988).

Elderly people fear personal violence (HMSO, 1988). The fact that 42% of men were assailed by someone matching in age, sex and race, and the reduction in the number of victims with increasing age from the modal range of 15–24 years confirms all other reports that the elderly are actually at little risk from assaults.

The pattern of injuries with a preponderance of facial trauma is found in other British studies. In comparison with North America a much smaller proportion of British assault victims are stabbed or shot. Available data show that death very rarely results from personal violence in Britain (Norton *et al.*, 1989). The physical injuries were mainly soft tissue, but represent an appreciable workload.

If personal violence is really on the increase, as Police and Home Office statistics suggest, then A&E departments throughout the Country should expect to see more assault victims. Those assaulted however, do not always freely admit to the cause of their injuries, and in the majority of cases it may be the responsibility of A&E staff actively to seek them out.

Apart from the two rape victims, no patients were referred for counselling. Attention has been drawn to the need for doctors to make links with local Victim Support Schemes, which currently help self-referred patients who have been directed to them by the police (Shepherd, 1988b). These schemes are run by non-professional volunteers who offer advice and support but not long term counselling.

Victims should be made aware that they may need to seek medical help for anxiety and depression which may follow an assault, as the symptoms of the post-traumatic stress syndrome can be protracted and disabling. Work at St. George's Hospital, London, has shown that the syndrome may affect patients more seriously after personal assault than after involvement in a major incident, such as a train

crash (Stevens, 1989).

Non accidental injury of children has received much attention from the medical profession, and the growing problem of personal violence against adults warrants further investigation.

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