

## ORIGINAL ARTICLE

## Experience of domestic violence by women attending an inner city accident and emergency department

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**Objectives:** To identify the prevalence of domestic violence (DV) (defined as physical abuse perpetrated by intimate partners) in women attending an inner city accident and emergency department and to elicit women's response about being asked routinely about domestic violence in this setting.

**Methods:** 22 nursing shifts were purposefully sampled to be representative of day, night, and weekends. A questionnaire was administered to 198 consenting women who were not intoxicated, confused, or critically ill.

**Results:** The prevalence of acute trauma in women attributable to DV was 1% (95%CI 0.14 to 3.6), the prevalence of lifetime physical abuse was 34.8% (95%CI 28.2 to 41.5), of past year physical abuse was 6.1% (95%CI 3.2 to 10.3), and of lifetime life threatening physical abuse was 10.6% (95%CI 6.3 to 14.9). Seventy six per cent of women felt comfortable about being asked about DV and 60.5% of women felt that they should always or usually be asked about DV in this setting.

**Conclusion:** This cross sectional survey adds to the body of knowledge showing that the prevalence of DV in women attending an accident and emergency department is high. Most women were in favour of being asked, and disclosure was associated with discomfort in few women. This sensitive area of history taking and referral could be undertaken by health professionals using a supportive approach.

There has been much recent debate on domestic violence and its relative neglect by health professionals in many parts of the world.<sup>1-3</sup> Few health professionals directly ask about domestic violence (DV),<sup>4</sup> and most do not consider it as part of their differential diagnosis. This is despite an increasing body of literature describing its direct effects, such as injuries and psychological distress, as well as its indirect consequences, such as poor obstetric outcomes.<sup>2,4,5</sup> In the UK the government recognises DV as an important health, social, and criminal problem. There is increasing emphasis on the need to engage health professionals in detecting DV, supporting women, and working with statutory and non-statutory agencies.<sup>6</sup> However, despite this and recommendations from professional bodies, such as the British Association for Accident and Emergency Medicine, the Royal College of General Practitioners, and the British Medical Association, little routine health information has been collected or research conducted on the extent to which abused women present to healthcare services.<sup>7-9</sup>

The lack of data is particularly true of accident and emergency (A&E) departments in the UK where only two studies of prevalence were identified. One was conducted more than 10 years ago and the study design was retrospective using computerised A&E data, and recorded a prevalence of 0.3% of acute trauma presentations resulting from violence occurring in the home.<sup>10</sup> In that study only 22% of the assaults were attributed to an intimate partner and in 41%, the perpetrator was not determined. A more recent study, also retrospective in design, where case notes were reviewed for the past year, has shown that the prevalence of acute trauma from domestic violence is 0.49%.<sup>11</sup> Studies from the USA, suggest that domestic violence (also known as intimate partner violence) is comparatively common among women attending emergency departments and ranges from a prevalence of reported abuse of acute trauma of 2.2%, to 14.4% for physical or sexual abuse in the past year, and to 36.9% for a lifetime prevalence.<sup>12</sup> Studies have shown that women will disclose their experiences of violence and abuse

when directly asked by A & E staff thereby providing an opportunity to identify the problem, define its extent, and offer information and support to women.<sup>13</sup> Victims of domestic violence might seek help more than once in A&E departments and A&E staff may therefore have a potential role in preventing further abuse.<sup>7,11</sup>

This study sought to identify the nature and prevalence of domestic violence in women attending an inner city A&E department and to elicit women's response about being asked routinely about domestic violence in this setting.

## METHODS

Ethics approval was obtained and the survey was conducted by one female researcher (SW). A pragmatic approach was taken to sampling, with time as the limiting factor. Twenty two nursing shifts to cover the early, late, night, and weekend shifts were chosen purposefully over a five week period, between mid-January and February 2001. A questionnaire was adapted from the WHO Multi-country Domestic Violence Study questionnaire,<sup>14</sup> and also included questions on abuse, validated elsewhere.<sup>15</sup> The questionnaire elicited information on sociodemographic information, the nature of violence and abuse experienced, and women's view on being asked about domestic violence in the A&E setting.

Women sitting in the waiting room after nurse triage were asked to participate in a women's health survey. They were told this was completely voluntary, anonymous, confidential, and unrelated to the treatment they were about to receive. If agreeable they were invited to a private room to be given more information about the nature of the questions on violence, and an information sheet was given and written consent obtained. The questionnaire was administered by the researcher who assessed patients for inclusion. The following women were excluded: age under 18 years or over 80 years, too ill, distressed, intoxicated, or confused to respond to the questions, or unable to speak English. In addition women who required acute psychiatric assessment were excluded. Women were offered advice and support with regards to their

disclosure and written information for local and national domestic violence agencies. Because of the confidential nature of the questions women were questioned only if privacy was assured; women waiting in curtained cubicles could not therefore be included.

### Case definition

Definitions used were those in response to questions concerning whether women had: (a) ever experienced physical abuse in the form of being slapped, punched, kicked, having something thrown at them, burnt, or injured by a knife or weapon by the current or any partner (defined as lifetime experience of physical DV); (b) been physically abused (as above) in the past year (defined as physical abuse due to DV in the past year); (c) that the present physical injury was the cause of their visit (defined as acute trauma from DV); (d) been choked, burnt, or injured by a knife or weapon by the current or any partner (defined as lifetime experience of life threatening physical violence).

## RESULTS

### Representativeness

A total of 514 women aged 18–80 years presented during the specified 22 nursing shifts. Altogether 183 women (35.6%) were excluded for the following reasons: 107 women (20.8%) were seriously or critically ill (trolley cases), 32 (6.2%) with threatened miscarriage or other cause of vaginal bleeding, 18 (3.5%) who were intoxicated, confused, or otherwise unable to give consent, and 7 (1.4%) who presented with psychiatric complaints. Nineteen women (3.7%) were excluded because they did not speak English. A further 103 (20%) were lost to the study because they either left the department after triage without waiting for their consultation ( $n = 73$ , 14.2%) or were not available for interview ( $n = 30$ , 5.8%). Of the 228 women (44.4%) who were thus approached, 200 women agreed to participate in the women's health survey. Those who refused did so because they felt unwell or were concerned to delay medical consultation ( $n = 28$ , 5.4%). Two refused when they learned the subject of the survey and 198 of the 228 (86.8%) completed the questionnaire. Table 1 shows the age distribution of the responders compared with those who were excluded or were non-responders. There was a slight over representation of women under 30 and under representation of women over 50 among the responders.

### Prevalence

Women presented to A&E because of injuries ( $n = 80$ , 40.4%), medical problems ( $n = 59$ , 29.8%), surgical problems ( $n = 41$ , 20.7%), and obstetric or gynaecological problems ( $n = 18$ , 9.1%). Two women (1.0% 95%CI 0.14 to 3.6) attended the department because of acute trauma from a violent partner. One had sustained a fractured ankle and the other a laceration.

Table 2 shows the age profile of those questioned about DV. Most responders were between the ages of 18 and 29 years. The lifetime prevalence of physical DV was 34.8% ( $n = 69$ ,

95%CI 28.2 to 41.5). In 12 women (6.1%) this was reported to be attributable to the current partner, in 19 (9.6%) attributable to the most recent, and in 38 (19.2%) other partners. Some 6.1% (95%CI 3.2 to 10.3) of women had experienced physical abuse in the past year and this was highest in women under the age of 40 years. Physical abuse in the past 12 months was from the current partner in four women (2%, 95%CI 0.56 to 5.1) and from previous partners in the other eight.

Altogether 113 of the responders (57.4%) were in a paid job and 84 were not. Women in a paid job had a lower prevalence in the past year of physical abuse of 2.7% when compared with women with no paid job (10.7%) (OR 0.23 95%CI 0.06 to 0.87,  $\chi^2$  5.5,  $p = 0.02$ ). Twenty one women (10.6% 95%CI 6.3 to 14.9) had experienced life threatening physical abuse over the course of their lifetime. Women in paid employment were less likely to experience this form of violence (7.1%) than those who were not (15.5%) (NS). There was no association between type of job, whether manual or non-manual, and prevalence of DV.

### Acceptability to women about being asked about DV in A&E

Overall about three quarters of women felt comfortable when asked about domestic violence. Of those that felt some discomfort, about 18% felt slightly uncomfortable and a smaller proportion (4.6%) of women said that they felt uncomfortable and only 1% felt very uncomfortable being asked about domestic violence (table 3). The proportion that felt uncomfortable was higher in those who had previously experienced DV when compared with those who had not (10.1% versus 3.1%,  $p = 0.02$ ). When questioned about how often they should be asked about domestic violence in the A&E department, 34.7% felt that this should be always and 25.8% felt it should be usually asked, 37.9% felt it should be seldom asked, and only 1.6% felt that they should never be asked. Interestingly, a higher proportion of women who had been abused (42.6%) suggested that women should always be asked about experience of domestic violence, compared with 30.3% among those who had not been abused. Many women justified their answers by commenting on the need for privacy and safety, but felt that it would be acceptable and appropriate to ask direct questions in women presenting with injuries.

## DISCUSSION

To our knowledge, this is the first cross sectional study to quantify the prevalence of DV in an A&E department in the United Kingdom. Our results show that 1% of women presented because of acute trauma from DV, that the prevalence of lifetime physical abuse was 34.8%, of past year physical abuse was 6.1%, and of lifetime life threatening physical abuse was 10.6%. If the prevalence of DV in A&E departments throughout the UK is similar to this range, then heightened awareness of DV by health professionals is warranted for patients presenting to A&E. These figures are

**Table 1** Age distribution of responders, non-responders, and those excluded among women attendees age 18–80 years

Age	Responders (%)	Excluded and non-responders (%)	Total (%)
18–29	100 (50.5)	126 (39.9)	226 (44.0)
30–39	47 (23.7)	68 (21.5)	115 (22.4)
40–49	14 (7.1)	37 (11.7)	51 (9.9)
50≥	37 (18.7)	85 (26.9)	122 (23.7)
Total	198 (38.5)	316 (61.5)	514 (100)

**Table 2** Prevalence of intimate partner violence by age and employment

Lifetime experience of physical intimate partner violence			
Age	Violence (%)	No violence (%)	Total (%)
18-29	30 (30.0)	70 (70.0)	100 (50.5)
30-39	21 (44.7)	26 (55.3)	47 (23.7)
40-49	5 (35.7)	9 (64.3)	14 (7.1)
50≥	13 (35.1)	24 (64.9)	37 (18.7)
Total	69 (34.8)	129 (65.2)	198 (100)
	$\chi^2=3.0$ p=0.39		
Employment	Violence (%)	No violence (%)	Total
Paid job	41 (36.3)	72 (63.7)	113
No paid job	28 (33.3)	56 (66.7)	84
Total	72	125	197
	$\chi^2=0.2$ p=0.7		
Past year's experience of intimate partner physical violence			
Age	Violence (%)	No violence (%)	Total
18-29	8 (8.0)	92 (92.0)	100
30-39	3 (6.4)	44 (93.6)	47
40-49	0 (0)	14 (100)	14
50≥	1 (2.7)	36 (97.3)	37
Total	12 (6.1)	186 (93.9)	198
	$\chi^2$ 2.3 p=0.5		
Employment	Violence (%)	No violence (%)	Total
Paid job	3 (2.7)	110 (97.3)	113
No paid job	9 (10.7)	75 (89.3)	84
Total	12 (6.1)	185 (93.9)	197
	$\chi^2=5.5$ p=0.02		
Lifetime experience of life threatening intimate partner physical violence			
Age	Violence (%)	No violence (%)	Total
18-29	9 (9.0)	91 (91.0)	100
30-39	7 (14.9)	40 (85.1)	47
40-49	0 (0)	14 (100)	14
50≥	5 (13.5)	32 (86.5)	37
Total	21 (10.6)	177 (89.4)	198
	$\chi^2$ 3.2 p=0.37		
Employment	Violence (%)	No violence (%)	Total
Paid job	8 (7.1)	105 (92.9)	113
No paid job	13 (15.5)	71 (84.5)	84
Total	21 (10.7)	176 (89.3)	197
	$\chi^2=3.6$ p=0.06		

as high as those described in the USA and elsewhere.<sup>3 12</sup> The exception to this was the prevalence of acute trauma in women attributable to DV; this was only 1%, which is lower than that reported from some centres in the USA. These range from 2.2% at smaller community hospital

emergency departments,<sup>12</sup> to 2.7% at a larger inner city emergency department.<sup>16</sup> A study from New Zealand reports that 2.6% of women who presented to an emergency department did so because of DV.<sup>17</sup> Our study sample however was small, and the period under study short, so

**Table 3** Proportion of women who felt comfortable and the desirable frequency of asking women about domestic violence

	How comfortable women felt about being asked about domestic violence			Total
	Comfortable (%)	Slightly uncomfortable (%)	Uncomfortable or very uncomfortable (%)	
Lifetime physical violence	45 (65.2)	17 (24.6)	7 (10.1)	69
No violence	104 (81.9)	19 (15.0)	4 (3.1)	127
Total	149 (76%)	36 (18.4)	11 (5.6)	196
	$\chi^2$ 7.8 p=0.02			
	Desirable frequency of being asked about domestic violence			Total
	Always (%)	Usually (%)	Seldom or never (%)	
Lifetime physical violence	29 (42.6)	9 (13.2)	30 (44.1)	68
No violence	37 (30.3)	40 (32.8)	45 (36.8)	122
Total	66 (34.7)	49 (25.8)	75 (39.5)	190
	$\chi^2=9.0$ p=0.01			

this requires confirmation in a larger study. Although not all women were included because of language constraints, or because of an incapacitating condition, the results for the prevalence of domestic violence experienced in the past year or the lifetime experience are similar to those published elsewhere.<sup>12 16</sup>

How do these results compare to studies in healthcare settings in the UK? Two previous retrospective studies in A&E in the UK have shown a prevalence of domestic violence presenting as acute trauma of 0.3% and 0.49%.<sup>10 11</sup> In a study in women attending women's services, the prevalence of lifetime DV was 17%, but varied from 24% among women attending a community gynaecology clinic to 10% for those consulting for antenatal care.<sup>18 19</sup> The prevalence of physical violence in the previous year was 5.2% and 2% had experienced this since being pregnant. Surveys from general practice suggest a lifetime prevalence of physical violence of 41%, with 17% having experienced it in the past year.<sup>20 21</sup> The prevalence in A&E was equally high, emphasising its importance as a site for potential health professional intervention.

Being in a paid job was associated with a reduced prevalence of physical abuse over the previous 12 months (OR 0.23; 95%CI 0.06 to 0.87). This could be explained by the fact that these women have the financial means to be able to leave.<sup>12</sup> However, potential confounders were not adjusted for, the numbers are small, and the confidence intervals wide. In our study younger age and being in a manual occupation was not significantly associated with DV. Others in emergency rooms from the USA have found the following factors associated with an increased odds of domestic violence: age under 40 years, lower income groups, the presence of children under the age of 18 years at home, and ending a relationship in the past year.<sup>12</sup> It is probable that our sample size was too small and there was insufficient power to identify all risk factors.

Our study design may have some other limitations. The use of self reported behaviour because of the sensitive nature of DV may underestimate the true prevalence and the use of recall over one year or lifetime may introduce further bias. The possibility of selection bias also needs to be borne in mind as the responders may have different rates from non-responders and those excluded. Our definition of life threatening physical violence, (defined as being choked, burnt, or injured by a knife or weapon) may have misclassified some cases of burns as life threatening when they were not. The proportion of patients excluded on clinical grounds was 35.6%, those lost to the study 20% and 5.4% women refused to participate. The age distribution was similar between responders and non-responders. Nineteen (3.7%) non-English speakers were excluded and women in these populations may experience different levels of abuse. Another possible limitation may be that rates in the patients who were not eligible for inclusion because they were too ill, intoxicated, or mentally ill, may actually be higher. For example, there is evidence from other studies suggesting that there are associations between alcohol misuse and DV and depressive illness and DV.<sup>22 23</sup> Work in the same A&E reported elsewhere suggests that DV is under-reported in the A&E notes,<sup>19</sup> and studies from the USA report that DV is often undetected.<sup>21</sup> This is also true of two studies from the UK, which have also shown that details on the perpetrator were under recorded, leading to under estimates of incident cases of DV.<sup>10 11</sup>

Our survey has highlighted the practical difficulties encountered in conducting such a study about DV in a busy A&E department. This has also been the case in general practice settings where recruitment has ranged from 55% to 65%, confirming that research in this sensitive area is

difficult, but possible.<sup>21 24</sup> This is principally because there was a need to ensure the safety of the respondents in a context in which many live with their abuser, by observing confidentiality, which if breached could provoke an attack, and by ensuring that the interview process did not cause distress. When these conditions could not be satisfied, women were excluded from our study. Such an approach is also recommended by others.<sup>25</sup>

Research suggests that although large numbers of women passing through A&E have experienced DV, this is not being detected and recorded.<sup>3 12 19 23 26</sup> The British Crime Survey reported that 47% of violent injuries in women are caused by DV.<sup>27</sup> In the USA 37% of women treated in A&E have been injured by their partners.<sup>3</sup> Studies also suggest that women attending A&E who had been exposed to abusive relationships were more likely to have more hospital admissions for traumatic injuries, medical, gynaecological, and mental health problems.<sup>26 28 29</sup> Cases of trauma attributable to domestic violence have been shown to have the following markers: delay in presentation, referral by a general practitioner, pregnancy, history of head injury, multiple injuries, abdominal injuries, injuries to the arms and face, and fractures.<sup>7 11</sup> Such information could be used in training staff about clinical markers of domestic violence.<sup>7 11</sup>

A&E health professionals need to be aware of the high prevalence of DV and need to establish protocols that initiate appropriate detection and recording of DV, in order to set about timely referral of patients to prevent further healthcare problems.<sup>7</sup> In the acute phase assessment should include homicide risk, assessment for depression, children at risk (if appropriate), advice about legal options, safety plans, and referral to other agencies such as Women's Aid, police, and social work.<sup>7 17</sup> They are well placed to be part of a local multi-agency response to DV, in keeping with guidance from the British Association of Accident and Emergency Medicine and the Department of Health.<sup>6 7 19</sup>

There is current debate about whether women should be routinely asked about domestic violence. This study has shown that two thirds of women feel comfortable when asked about DV and that only 4.6% of women felt uncomfortable and 1% very uncomfortable. The proportion who felt uncomfortable was higher if there was previous experience of abuse. Our findings show, however, that 60.5% of women are in favour of routine inquiry in A&E. In particular, women who have experienced abuse in this study were more likely to say that women should "always" be asked about domestic violence. Work from the USA suggests that 43%–85% are supportive of this.<sup>30–32</sup> From A&E in the UK, routine questioning about violence was found to be acceptable in 67% of all attendees.<sup>33</sup> Studies from primary care in the UK and Ireland suggest that 77%–80% are in favour of routine inquiry by their general practitioner.<sup>16 20</sup> Overall, our results suggest that asking about DV is acceptable in the A&E department but also emphasise the sensitive nature of the questions and the need for support and counselling during disclosure. Health staff will require extra training and support, including referral systems, if detection of DV is going to be undertaken more proactively in an A&E setting, as is being proposed by recent policy initiatives.<sup>6</sup> This is also true of other healthcare settings.<sup>35 36</sup> Most of the interventions that are currently on offer are legal, or offer general support in the form of telephone helplines, refuges, and support groups and A&E staff need to be aware of these elements of the multi-agency response. A recent systematic review recommends that a screening programme for domestic violence should not be implemented in the UK because of the lack of evidence from well designed studies of the benefits of intervention.<sup>36</sup> However, the weakness of the evidence, should not mean that health professionals ignore

the problem of DV, a point argued by the authors.<sup>37</sup> There is an increasing consensus that health professionals need to be actively engaged.<sup>6 35 38</sup> This study has shown the large scale nature of the problem in A&E attendees, and the acceptability to women of being asked about DV. It has also shown that some women face some discomfort when asked about abuse, but most women were favourable to being asked in this setting. Researchers elsewhere have emphasised the importance of tackling the “unvoiced agendas” of those seeking health care; this should also be extended to A&E.<sup>39</sup> Clinicians need to be aware not only of the scale of the problem, but also of the sensitivities around exchanging information with victims of violence.

There is little evidence for the effectiveness of health interventions and there seems to be a reluctance for A&E staff to engage in this important arena of research.<sup>3 6 19 23 29</sup> Although many may be unwilling to be involved, for reasons such as fear of offending women, fear of opening up a complex set of problems, and feeling powerless or unskilled to deal with these, women who are victims of abuse are high users of hospital (A&E, medicine, gynaecology, and psychiatry) and primary care services.<sup>40 41</sup> This survey has confirmed the high prevalence of domestic violence in women attending A&E in this country. Research is urgently needed to build up the evidence base for healthcare interventions and effective interagency working in the A&E setting, as well as of the perceptions of affected women on how the health service can assist them better.

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## Contributors

DS took part in the design, led on the analysis, interpretation, and writing of the paper. SW collected the data and contributed to the design, interpretation of results, and to writing the paper. JW, CM, and AZ contributed to the design, interpretation of results, and to writing the paper.

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