

Patterns of presentation of abused children to the accident and emergency department

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SUMMARY

A search of accident and emergency department records showed that 61% of 85 children registered as being physically or sexually abused by the Department of Community Paediatrics at St James's University Hospital, Leeds, England, were found to have visited the accident and emergency department an average of 2.9 times before the diagnosis was made. Fifty-two per cent of the attendances were because of problems other than injuries. Staff of accident and emergency departments should be aware that abused children present with medical diagnoses as well as trauma. Increased awareness may result in earlier diagnosis of abuse in some of these children.

INTRODUCTION

The early diagnosis of child abuse relies on the recognition of the signs by a wide variety of people who come into contact with children during the course of their work (e.g. health visitors, social workers, nursery and school teachers, as well as general practitioners and hospital doctors). At least 20% of new patients at accident and emergency (A&E) departments are children, so staff in these departments need to be aware of the problem of child abuse. The purpose of this study was to analyse the pattern of presentation to A&E departments of children with a diagnosis of physical or sexual abuse.

METHOD

The names of 85 children who had been diagnosed as physically or sexually abused were obtained from the Department of Community Paediatrics at St James's University Hospital, Leeds, England. The diagnoses were first made between January and October 1987. The A&E Department records at St James's University Hospital were searched to discover whether these children had presented at the department during their lives and, if so, how many times. Because the records were destroyed after 6 years, only children aged 6 or under were studied.

The record of each presentation of each child was analysed and the diagnosis categorized as trauma or non-trauma.

The diagnoses of trauma were subdivided according to whether the injury was a burn, a fracture or a soft-tissue injury.

The non-trauma group was divided into the following diagnostic categories: diarrhoea and vomiting, febrile convulsion, poisoning, foreign body, and a miscellaneous group including chest and upper respiratory tract infections.

From the information on the A&E record card, if it was considered that a diagnosis of abuse should have been suspected but was not, this was noted. The number of cases where abuse had been suspected was also noted. Where an injury was unwitnessed or unexplained according to the record, this was noted.

Almost all the children lived within the health district served by St James's University Hospital but it was possible that they may have presented at other A&E departments in adjacent health districts. The extent of such out of district presentations was tested in two ways. Firstly, the A&E department records of the other health district in Leeds were searched for the last 2 years. Secondly, the residential addresses of some of the children made presentation to an A&E department in an adjacent health district more likely. In these cases, the appropriate A&E department was asked to search their records.

RESULTS

Eighty-five children were studied. Twenty-nine had suffered physical abuse and 53 sexual abuse. Two had suffered both physical and sexual abuse, and in one the diagnosis was failure to thrive. These last three children's results are dealt with separately below, so results in the tables refer to a total of 82 children.

The age of the children at diagnosis of abuse ranged from 2 months to 6 years and 2 months.

There was little difference between physically and sexually abused children when the percentage who visited the A&E department and the average number of visits per child were considered (Table 1). The children who had been brought to the A&E department had made between one and 16 visits and a total of 145 visits were recorded.

The proportion of patient visits falling into each diagnostic category, whether trauma or non-trauma, was similar in the physically and sexually abused groups (Table 2).

At 14 of the visits, child abuse was suspected either because the history and

Table 1 The number of new visits made to the Accident and Emergency Department at St James's University Hospital

	Physical abuse	Sexual abuse	Total
Children in study	29 (35%)	53 (65%)	82 (100%)
No. who visited A&E department	17 (34%)	33 (66%)	50 (100%)
No. of visits	50 (34%)	95 (66%)	145 (100%)
Average no. of new visits per child attending	2.9	2.9	2.9

examination suggested the diagnosis or an accompanying adult had raised the question.

In four cases, after studying the records, it was considered that a diagnosis of child abuse should have been entertained but it was not. For example, an 8-month-old child presented with a torn upper lip frenulum and bruising of the forehead. The explanation given for the injuries was that the child had been knocked out of her pram by a dog, and this was accepted by the doctor. Another 6-month-old girl presented with a vulval rash said to have been present for 4 months.

In many cases, there was not enough information on the record card to form an opinion about the cause of the injury.

Nine visits, three of which were made by children in the sexually abused group, were prompted by an injury that the accompanying guardian was unable to explain. Thus, unexplained injury occurred in 22% of the trauma related visits in physically abused children and in 9% in sexually abused children, but the difference was not statistically significant.

Fifteen visits by nine children were recorded at neighbouring A&E departments, although this is likely to be an underestimate as there were considerable difficulties extracting some of the records. Two of the patients had attended more than one department.

The child diagnosed as failure to thrive presented on two occasions with non-trauma problems. One of the children who had been both physically and sexually abused presented only once at the age of 5 months when she was dead on arrival as a result of trauma. The other child did not visit the A&E department.

Table 2 Analysis of the visits made by the children

	Physical abuse	Sexual abuse	Total
Burn	3 (6%)	4 (4%)	7 (5%)
Fracture	3 (6%)	2 (2%)	5 (3%)
Total trauma visits	27 (54%)	43 (45%)	70 (48%)
Foreign body	2 (4%)	2 (2%)	4 (3%)
Poisoning	3 (6%)	3 (3%)	6 (4%)
Total non-trauma visits	23 (46%)	52 (55%)	75 (52%)
Total visits	50 (100%)	95 (100%)	145 (100%)
Total children	29	53	82

DISCUSSION

The results show that the majority of children who are eventually diagnosed as having suffered abuse make use of the A&E department. Clearly, most of these visits are not made directly as a result of abuse but Holter & Friedman (1968) found that about 10% of childhood accidents seen in an A&E department were inflicted injuries. In the present study, approximately half of the visits made were with problems other than trauma emphasizing the fact that children presenting to A&E departments with medical problems may also be suffering maltreatment. It is, therefore, necessary to consider the possibility of abuse in all children who visit A&E departments as it may be possible to detect a background of ongoing maltreatment in some.

A few children in the present study attended a hospital outside their district and when the presenting condition is acute this should not be a cause for concern. A child presenting with a non-acute condition should, at least, prompt a communication with the child's general practitioner or health visitor.

Patterns of injury are often of help in alerting the physician to the possibility of abuse. In a study of fractures in children, it was concluded that multiple fractures, fractures of the ribs and spiral fractures of the humerus were strongly associated with abuse (Worlock *et al.*, 1986). The present study found only 3% of visits resulted in the diagnosis of a fracture. The A&E service has the opportunity to diagnose abuse at a stage before more serious injury is inflicted.

Sexual abuse may present to the A&E department and a review of the treatment was undertaken (Ricci, 1986). Presentation may be overt, with an accusation of sexual assault, or covert, with genital and anal soreness or bleeding and genito-urinary infection. Hobbs & Wynne (1987) found that genital or anal signs and symptoms had prompted referral of 12% of a group of sexually abused children to them. Such signs and symptoms discovered in the A&E department must, therefore, result in prompt, appropriate referral. The present study demonstrated that this was not always achieved. An example of this was a child, the brother of a child included in the study with a diagnosis of probable sexual abuse, who presented to the A&E department with warts on the penis and buttocks more than 3 years before his brother came to the attention of the community paediatrician. No referral was made by the A&E department.

Johnson *et al.* (1986) conducted an audit of the records in a paediatric emergency department in the U.S.A. A physician there, who fails to report a case of child abuse, may be subject to criminal prosecution. Despite this, none of the records reviewed contained all the information considered necessary by the authors. They suggested that a standard form for evaluating injuries should be used. The present study did not directly tackle this problem, but it is tempting to speculate how many diagnoses of abuse would have been made earlier if a fuller history and examination had been conducted and recorded.

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