Presentation to accident and emergency with crying or screaming and likelihood of child protection registration

A K Fletcher, D P Burke

Objectives: To determine whether children aged less than 2 years who present to accident and emergency (A&E) with crying or screaming as the only complaint, are more likely to be placed on the child protection register in later years than children who do not attend with crying or screaming alone.

Methods: The Sheffield Children's Hospital A&E database was examined for five years from 1 January 1992. Children who presented at triage with crying or screaming as their sole complaint were identified. Controls were taken from children who presented with any other complaint. Matches were made for sex, postcode and date of birth. All names were checked against against files that contained dates of past or present child protection registration. In January 2000, the children's age ranged from 3 to 10 years. The mean follow up period was six years (SD one year seven months).

Results: From 1 January 1992 until 31 December 1996, 450 children made 462 attendances to A&E with crying or screaming as their only complaint. Of these, 12 had been placed on the child protection register. Ten of the 450 control children had been registered. The odds ratio of subsequent child protection registration if a child presents in Sheffield with crying or screaming alone is 1.21 (95% confidence intervals 0.52 to 2.82).

Conclusions: Presentation of young children who cry or scream for no clear reason is relatively common. Although child protection registration is not the same as abuse, it is the closest surrogate marker we have. This study shows there is no evidence of increased likelihood of child protection registration for children who present with crying or screaming alone and prejudices against parents of these children, if held, are inappropriate.

METHODS

The Sheffield Children's Hospital Accident and Emergency Department database was examined for a period of five years from 1 January 1992. The database was established with effect from this date and before this useful information concerning triage cannot be obtained. Children under 2 years of age only were studied as very few greater than this age attended with crying as their sole complaint. A search was conducted to identify those children whose presenting complaint to the triage nurse was crying or screaming. Children who had additional complaints (for example, “screaming and abdominal pain”) were excluded from the study because it was felt the study ought to focus on those children who presented with screaming or crying for no apparent reason.

A control group was formed from all other children who attended A&E with complaints other than crying or screaming alone. Those patients who presented with crying or screaming apparently linked to other conditions were excluded from the control group to avoid contamination. Matches were made for sex, postcode of residence and date of birth for each of the study children.

All names were then checked against the files that contained the names and dates of birth of all Sheffield children who had ever been placed on the child protection register. These files contain details of children who are presently listed on the register and those who have previously been registered but later removed.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Characteristics of study and control children</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Screaming/crying</td>
</tr>
<tr>
<td>Male [%]</td>
<td>238 [52.9]</td>
</tr>
<tr>
<td>Female [%]</td>
<td>212 [47.1]</td>
</tr>
<tr>
<td>Mean age at presentation (SD)</td>
<td>5.5 months (4.6 months)</td>
</tr>
<tr>
<td>Median age at presentation</td>
<td>3.6 months</td>
</tr>
<tr>
<td>Male presentation age (SD)</td>
<td>5.6 months (4.5 months)</td>
</tr>
<tr>
<td>Female presentation age (SD)</td>
<td>5.5 months (4.6 months)</td>
</tr>
</tbody>
</table>
All children under 2 years were included in the initial database search from 1 January 1992 until 31 December 1996 to ensure an adequate sample size. At the time of study, on 4 January 2000, these children’s age ranged from 3 years to 10 years. The mean follow up period was six years (SD one year seven months) for both study and control children.

The probability of being included on the child protection register of children who attended A&E with screaming or crying as their only complaint was calculated using odds ratios.

RESULTS
From 1 January 1992 until 31 December 1996, 450 children under 2 years made 462 attendances to the Accident and Emergency Department at the Sheffield Children’s Hospital with crying or screaming only as their sole complaint. The mean age at presentation was 5.5 months (SD 4.6 months) and there were no substantial differences between male and female children (table 1). Twelve children had been registered on the Sheffield child protection register at some point during their lives on checking in January 2000. Among the 450 control group children 10 had been registered. These results are summarised in table 2. The odds ratio of subsequent placement on the child protection register in Sheffield if a child presents to A&E with crying or screaming is calculated as 1.21 (95% confidence intervals 0.52 to 2.82). Of the 12 children who attended more than once with crying or screaming, only one had been placed on the register.

DISCUSSION
Presentation of young children who cry or scream for no clear reason to A&E departments is a relatively common event. Such children and parents provide a considerable challenge for diagnosis and management. Value judgements are frequently made subconsciously in medicine and it is our belief that negative opinions may be formed about parents who bring their child to A&E because of excessive crying or screaming and it has been suggested that such children are at increased risk of abuse.1-11 There is no information in the literature that specifically answers the question of whether attendance at A&E with crying or screaming alone is linked to child protection issues. Child protection registration is not the same as child abuse. We do not have a reliable method of identification of children suffering the abuse, however, and the best surrogate marker available for this study was the record of child protection registration. This method has been applied in another study examining the association between child protection registration and spiral fractures of the tibia.9 This study was conducted to establish whether child protection issues ought to be at the forefront of one’s mind when assessing these patients. Very many possible diagnoses exist in these circumstances, yet often all that is required is reassurance that all is well with the child. Nevertheless, child protection issues still form part of the differential diagnosis when a child presents with crying or screaming for no apparent reason, and the clinician should deal with the patient in the context of other, known risk factors.

It may be felt by both parents and health care practitioners that the child’s screaming is a reflection of poor parenting and previous studies have shown links with parenting difficulties and child abuse and neglect.10-12 This study has shown that there is no evidence of increased likelihood of inclusion on the child protection register among children who attend with crying or screaming for no clear reason, and that prejudices against parents of such children, if they are indeed held, are inappropriate.

The proportion of children who died after their original presentation or moved away from Sheffield, thereby potentially affecting the results, is not known. The numbers of such children are likely to be very small and the chance therefore of there being appreciable differences between the control and study groups also small.

It is possible that there are other indirect modes of presentation that are linked to children’s inclusion on the child protection register, but this study was conducted to focus only on those children who were brought by their parents because they had no idea why they were crying. We accept that some children who cry or scream have another reason attributed by a parent or at triage and therefore will not have been included in the initial database examination. The 95% confidence intervals though relatively broad, are evenly spread, providing at least some evidence to this area of A&E medicine that hitherto had very little indeed. We acknowledge that our study has limitations. The possibility of type II statistical error exists, but the numbers of screaming children that would be required to eliminate the possibility of a small statistically significant difference is very large, and a study that sought to resolve this would be unfeasible.

In summary, there is no evidence of increased risk of a child in later years being placed on the child protection register if he or she presents at age less than 2 years with crying or screaming as his or her sole complaint.

ACKNOWLEDGEMENTS
Contributors
AKF collected the data for the paper, undertook the statistical analysis and wrote the paper. AKF is the guarantor for the paper. DPB had the initial idea for the paper, devised the methodology and edited the paper.

Funding: none.

Conflicts of interest: none.

Authors’ affiliations
A K Fletcher, D P Burke, Department of Accident and Emergency, Sheffield Children’s Hospital, Sheffield, UK

REFERENCES

Table 2  Child protection registration and presentation with screaming

<table>
<thead>
<tr>
<th>Children who present with screaming or crying alone</th>
<th>Matched controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placed on child protection register (%)</td>
<td>12 (2.7)*</td>
</tr>
</tbody>
</table>

*Odds ratio 1.21 with 95% confidence intervals 0.52 to 2.82.