A RETROSPECTIVE STUDY OF RISK TO SIBLINGS IN ABUSING FAMILIES

Catherine E. Hamilton-Giachritsis, PhD
Kevin D. Browne, PhD

Centre for Forensic and Family Psychology, School of Psychology, University of Birmingham

‘The final, definitive version of this paper has been published online first in Journal of Family Psychology, Vol. 19, p.619-624, 2005 by Sage Publications
DOI: 10.1037/0893-3200.19.4.619

Abbreviated title: retrospective risk amongst sibling groups

Key words: child maltreatment, sibling groups, risk

Requests for re-prints: Dr Catherine Hamilton-Giachritsis
Address for correspondence:
Dr Catherine Hamilton-Giachritsis
School of Psychology
University of Birmingham
Edgbaston
Birmingham
B15 2TT

Tel: 0121 414 4925
Fax: 0121 414 4897
e-mail: c.hamilton.1@bham.ac.uk
A Retrospective Study of Risk to Siblings in Maltreating Families

Abstract
Relatively little research has considered the risk to siblings within maltreating families. The sample in the present study consisted of the 795 siblings from a cohort of 400 “index” children who had been referred to police child protection units in England for abuse and/or neglect. In 44% of families (valid cases), the index child was scapegoated, in 37% maltreatment was nonspecific to all siblings, and in 20% maltreatment was specifically directed at some but not all siblings. Scapegoated children were more likely to be older and to experience physical or sexual abuse, whereas younger children and index child referrals for neglect, emotional abuse, or mixed abuse were associated with risk to some or all siblings. Parental difficulties and family stressors increased the risk of maltreatment to all siblings. There was no evidence of increased risk to stepsiblings or children with difficulties, suggesting that the special victim model has limited application.
Introduction

Early studies of abused and neglected children showed that their siblings were also at risk for maltreatment. In a British study (Baldwin & Oliver, 1975), 72% of siblings were recorded as also abused in some way, 63% of which experienced moderate or severe abuse. A Canadian study of fatal child abuse found that 16% of the dead children had siblings who had been severely injured or killed through child maltreatment (Greenland, 1987). Therefore, when a child has been identified as a victim of abuse and/or neglect in the family, it is often assumed that any brothers or sisters will also be at risk of physical or sexual maltreatment. This is particularly relevant to court proceedings where difficult decisions have to be made in relation to placements and contact of children from maltreating families. Risk to siblings has long been debated in family courts based on factors such as gender of the victimized child (compared with his or her siblings), age at risk period, and relationship to perpetrator (Wilson, 2004a, 2004b). However, these debates are based on little systematic evidence.

Most additional research on this topic has considered the risk of incestuous offenders to their other children (e.g., Bagley & King, 1990; Bolen, 2001; Faller, 1990; Studer, Clelland, Aylwin, Reddon, & Monra, 2000). Rates for risk of sexual abuse to siblings in incestuous families vary considerably, depending on the method of data collection and the sample used. From the victim perspective, 42% of elder daughters with a sister firmly believed that their father had also sexually abused their younger sister (Herman & Hirschman, 1981). From an offender perspective, 80 – 82% of incestuous biological fathers acknowledge abuse of more than one child in the family (Faller, 1990; Phelan, 1986; Wilson, 2004a).

Official data in the United Kingdom (National Society for the Prevention of Cruelty to Children; Creighton, 1992) report the percentage of cases where at least one sibling was on the Child
Protection Register in England and Wales for the same type of abuse as the index child. The highest joint registration was for neglect cases (60%), followed by emotional abuse (39%), sexual abuse (24%), failure to thrive (14%), and physical injury (11%). However, these percentages neither reflect those cases where the sibling experienced a different form of abuse and/or neglect nor provide a comparison point in the form of those siblings who did not experience any form of maltreatment at all. Thus, the question of which factors are associated with the maltreatment of siblings in addition to the “index” child needs to be addressed.

Previous literature has found increased risk to children who are premature or low-birth-weight babies, have physical or intellectual disabilities, and/or with emotional or behavioral difficulties (Browne & Saqi, 1988; Hamilton & Browne, 2002). Further, risk of maltreatment has been associated with parental characteristics such as mental health difficulties, learning disability, substance misuse, and prior history of being maltreated. This is also true of some family characteristics, for example, family size, unemployment, social isolation, family violence, financial difficulties, and criminality (Belsky, 1993; Dixon, Browne, & Hamilton-Giachritsis, 2005; Dixon, Hamilton-Giachritsis, & Browne, 2005; Krugman, 1986).

Characteristics of the child, the parent, and the family have been used as risk factors, where high numbers of these risk factors identify families that are likely to use punitive parenting styles (Greenwald, Bank, Reid, & Knutson, 1997) and potentially engage in child maltreatment (Hamilton & Browne, 2002). However, these risk factors have been shown to be mediated by parental discipline and behavior (Dixon, Hamilton-Giachritsis, et al., 2005; Greenwald et al., 1997).

The model presented in Figure 1 applies the association of child, parent, and family characteristics to the risk of siblings being maltreated, recognizing that the referral characteristics
of the incident perpetrated against the index child may also be important in assessing the risk to
siblings. Therefore, it was hypothesized that:

1. Child characteristics are more likely to be associated with the maltreatment of only one child
within the family (“special victim”/scapegoat).

2. Parent characteristics are more likely to be associated with the maltreatment of some
(“specific”) of the children in the household.

3. Family characteristics are more likely to be associated with the maltreatment of all
(“nonspecific”) of the children in the household.

4. Characteristics of the incident against the index child (such as sex of the offender) are
associated with risk to siblings (i.e., scapegoat, specific, nonspecific).

Method

Sample

The sample consisted of the 795 siblings from a cohort of 400 children (“index” children) who
had been referred to the 10 police child protection units (CPUs) in the large, metropolitan city of
Birmingham, England. This was approximately 5% of the total number of cases referred to these
units in 1 year. To obtain a representative sample, the methodology used was to sample 40 cases
(the first 40 over a 1-month period) from each of the 10 CPUs. On occasions where the whole
family was referred, the first named child was taken as the index child, and the remainder were
taken as siblings. These 400 index children were part of a wider research project into recurrent
maltreatment (e.g., Hamilton & Browne, 1999).
Of the 400 index children, 42% were boys and 58% were girls, with an average age of 8.5 years (range of prebirth referral to 18 years). The referrals were for physical abuse (43%), sexual abuse (30%), neglect (11%), mixed types (11%), and emotional abuse (5%). Overall, 78% were maltreated by a family member, 15% were maltreated by an acquaintance or stranger, and 7% were maltreated by an unknown person or were included because of concerns specific to the index child (e.g., referral about sexualized behavior).

Procedure

Data were collected on these 400 children in terms of demographics, the current referral details (e.g., type of maltreatment, severity), family situation (e.g., household composition, size of family, family violence), parental factors (e.g., substance misuse, mental health problems, learning disabilities, etc.), child variables (e.g., gender, age, learning disability, severe medical complaints, behavioral difficulties), perpetrator variables (e.g., gender, relationship to index child, criminal record) as well as number and details of prior referrals to a police CPU. All information was gathered from the files. These were characteristics reported by the police in their involvement with and assessment of the child and family and may have come from observation, parent report, and/or information obtained from other agencies in the course of the investigation.

Information about siblings included the number of siblings, their gender, and their date of birth. In addition, two records of prior maltreatment were kept: (a) the number of siblings suspected or known to have been abused and (b) whether any siblings were currently in the house who had not been abused.

For a sibling to be recorded as “actual or suspected maltreatment,” details had to come from a previous referral to a child protection agency (e.g., police, social services), information from a
child protection conference, or a notation on the index child’s referral form. “Suspected maltreatment” referred to families where a previously convicted child offender was living in the house, child disclosure, or a report from a child protection professional. In addition, type and perpetrator of the sibling maltreatment, as well as whether the siblings were registered on the child protection register was recorded. Most important, data were recorded regarding the number of times these 795 siblings had previously been referred to a CPU.

Definitions and reliability
The police register type of abuse according to definitions in *Working Together to Safeguard Children* (Home Office et al., 1999): physical abuse, sexual abuse, emotional abuse, and neglect. If a child was referred for more than one form of abuse and/or neglect, all of them were recorded and classified as “mixed.” The data collected from files of victims held in CPUs were entered onto a pro forma data sheet by one researcher. Intrarater reliability for six files had 99.5% agreement; the high reliability reflects the factual nature and structured instrument to guide the collection of objective information.

Treatment of data
In many cases, there was only a 50% availability rate for the family, parent, and child characteristics. However, child protection conferences (CPCs) provide detailed background information on the family circumstances due to increased time spent with the family and reports from relevant professionals (including community nurses, doctors, teachers, and social workers). In those cases where no conference was held, police reports of family and child difficulties were frequently brief and were sometimes missing. Therefore, a decision was taken that, in instances
where a CPC had taken place, it was possible to classify all the nonmentioned family, parent, and child problems as “no.” The only questions for which this was not done were those relating to financial difficulties (due to the lack of information) and previous abuse to or by the mother and father in the past. It could not be assumed that they had disclosed this to anyone in authority. There was no significant difference between the number of missing variables in families where the index child was a scapegoat, some siblings or all siblings were at risk.

Initially, frequencies were ascertained for maltreatment of siblings. Variables with a lot of missing data (e.g., maternal and paternal histories of maltreatment, financial difficulties) were excluded from analysis. Categorical variables were converted into binary data, and nonparametric analyses (cross-tabulations) were undertaken. For variables with interval data, correlations were carried out.

Results

Of the 400 families, 64 had a single child (16%), and information regarding siblings was unknown in a further 26 (6.5%) of the families. This left a sample size of 310 families (77.5%), with knowledge about previous abuse and/or neglect available on 779 siblings (range: 1–12, including the index child). This breaks down to 477 siblings within 175 families where at least one sibling was classed as maltreated and 302 siblings in 135 families where this was not the case. The known mean for the whole sample was 2.1 siblings ($SD = 1.8$), but this rose to 2.6 ($SD = 1.6$) when families with only a single child were removed. Overall, the average family size (including the index child) was 3.1 children.

On the basis of this retrospective data, 135 (44%) index children had neither a male nor female sibling who had previously been maltreated and could be identified as a scapegoat. For the
remaining 175 families with siblings (56%), “nonspecific” concern about 114 families had already been expressed by professionals in relation to all siblings experiencing abuse and/or neglect. However, in 1 out of 5 families with siblings ($n = 61$), only some of the siblings were of “specific” concern to child protection agencies, and this ranged between 20% (i.e., 1 in 5) and 87.5% (i.e., 7 in 8) of siblings.

**Child characteristics**

Where concern existed for over half of either male or female siblings, there were very few families who had siblings of the same gender who had not been maltreated, minimum $x^2 = 47.665, p < .00001, df = 4$. However, there was no significant difference in the gender of the index child in situations where he or she was scapegoated or where one or more siblings were maltreated. Considering the age differences between scapegoated, specific, and nonspecific children, perpetrators were significantly more likely to scapegoat older children (see Table 1). With regard to child difficulties that might trigger maltreatment to one particular scapegoated child (i.e., behavioral problems, medical conditions, self-harm, violent/aggressive behavior, or learning disability), no significant differences relating to sibling maltreatment status were found across the three groups. Therefore, there was no evidence of child-related variables leading to scapegoating.

**Parent characteristics**

Mental health difficulties, self-harm, alcohol and drug misuse, and intellectual disability were all associated with increased risk to all the siblings in the household (see Table 2). Severe health difficulties showed no differences between the groups.
Family characteristics

The family situation (step parent, single parent, both biological parents) was not associated with risk to siblings. However, family size did show significant differences ($t = 2.4, p < .05$), with larger family sizes having a greater likelihood of prior sibling maltreatment. In the 135 families with no history of sibling maltreatment, there were 302 siblings with a mean of 2.31 ($SD = 1.4$; range = 1–8, including the index child). By contrast, in the 175 families with a history of sibling maltreatment, there were 477 children, with a mean of 2.73 per family ($SD = 1.8$; range = 1–12, including the index child). Family difficulties were significantly associated with the presence of all siblings for whom there were prior concerns, with the exception of unstable lifestyle, which increased risk to some or all siblings (see Table 2). However, severe medical problems showed no significant differences between the groups.

Characteristics of incident against index child

There was a significant difference in the index child type of referral between families where one child was a scapegoat and families where some or all children were maltreated, $\chi^2 = 44.913, df = 8, p < 0.001$. When the index child was referred for neglect, emotional abuse, or mixed maltreatment, concern had been raised about all the siblings in 61%, 64%, and 62% of the cases, respectively. However, a referral for physical or sexual abuse was more likely to relate to the index child only (53% and 54%, respectively). In terms of degree of abuse, 23.8% of referral families with a scapegoat index child were classed as experiencing moderate or severe abuse, as compared with 50.9% where maltreatment was specific to some children and 40.3% where it was nonspecific to all children, $\chi^2 = 20.964, df = 6, p < 0.002$. 
Male perpetrators were more likely to scapegoat an individual child, female perpetrators were more likely to maltreat all children in the family, and both male and female perpetrators together were more likely to maltreat some or all children in the family, $\chi^2 = 12.648$, $df = 4$, $p = 0.05$. In 47 of the 310 cases (15.2%), the index child had been maltreated by more than one person. This included 8.1% ($n = 11$) of the scapegoated children, 19.7% ($n = 12$) of the families where only some siblings were maltreated, and 21.1% ($n = 24$) of those families where all siblings were maltreated, $\chi^2 = 9.203$, $df = 2$, $p < 0.01$. The index child was abused by a nonfamilial perpetrator (i.e., acquaintance, stranger, unknown or concern) in only 6.1% of families where all the siblings were maltreated, compared with 9.8% of families with maltreatment of only some specific siblings and 19.3% when the index child was the sole concern, $\chi^2 = 10.192$, $df = 2$, $p < 0.01$.

Discussion

In the 310 families where sibling numbers and maltreatment status were known, it was found that in just over 2 in 5 (44%), the index child was made a scapegoat; approximately another 2 in 5 families (37%) had all the siblings of concern, and 1 in 5 (20%) had at least one, but not all, siblings of concern to child protection professionals. With respect to the model that identified factors from the literature that are associated with children maltreatment, it was proposed that child characteristics would be more often associated with children who are scapegoated. By contrast, it was proposed that parent and family characteristics would be more associated with risk to some or all siblings.

*Child characteristics*
Surprisingly, there was little evidence to support the “special victim” concept, as gender, behavioral difficulties, intellectual disability, and severe medical conditions did not show any significant differences between the three groups. Only age of the index child was found to show differences, with older children significantly more at risk of being scapegoated. Therefore, Hypothesis 1 was not confirmed.

**Parent and family characteristics**

All parental characteristics measured were significantly associated with risk to all siblings, except severe medical problems. A similar pattern was observed for family characteristics measured, except for unstable lifestyle, which was associated with increased risk to some or all siblings. Therefore, Hypotheses 2 and 3 were supported. Nevertheless, we acknowledge that family composition showed no difference between the three groups, and there was insufficient data to consider parental history of maltreatment, financial difficulties, or social isolation.

The finding that scapegoated children came from smaller families supports previous findings that larger families had an increased risk of maltreatment (Belsky, 1993; Starr, 1988), although risk to siblings was not measured in these studies. Indeed, all the parental and family characteristics identified are consistent with previous research showing that their presence increases the risk of maltreatment to children in general (Browne & Herbert, 1997; Chaffin, Kelleher, & Hollenberg, 1996). However, this research has uniquely confirmed that the presence of parental and family risk factors increases risk to all siblings in the family and that it is unlikely that these factors will be associated with the index child only (i.e., scapegoat). By contrast, risk factors related to family composition (e.g., single parent, step parent, cohabitee) did not distinguish between the groups and are equally associated with risk to a scapegoated child or a family where some or all siblings
are maltreated.

It would seem, therefore, that most parental and family difficulties may be a major consideration for risk to siblings. This extends the concept and use of risk factors associated with child abuse and neglect. In particular, research demonstrating linkages of child maltreatment with parental learning disability, spouse abuse, alcohol abuse, and mental illness (e.g., Carroll, 1994; Falkov, 1997; McGaw & Sturmey, 1994; O’Keefe, 1995; Ward, Shepherd, & Emond, 1992; Wolfe, 1993) should raise questions regarding the safety of all children in the home when a single case of child maltreatment is found to exist.

Characteristics of the incident for the index child

A number of factors related to the incident of abuse and/or neglect of the index child were found to be associated with the risk of maltreatment to siblings. Therefore, Hypothesis 4 was supported. Specifically, scapegoated children were more likely to be physically or sexually assaulted by a male, nonfamilial perpetrator acting alone. By contrast, siblings were more likely to be at risk from neglect, emotional abuse, or mixed abuse by a female family perpetrator acting alone or in partnership with a male perpetrator. Where the index child experienced moderate or severe levels of maltreatment, siblings were also more at risk.

Conclusion

In conclusion, abusers in the family and the presence of family stressors all increased the risk of maltreatment to siblings. There was no evidence of increased risk to children with difficulties, suggesting that the special victim model has limited application. In the majority of families, either the index child was being made a scapegoat (44%) or all the children in the family were
maltreated (37%). Only 1 in 5 families maltreated some but not all siblings. Parental and family factors were found to distinguish between families where no sibling was at risk and families where all the siblings were at risk. However, no factors were identified that distinguished families where some, but not all, siblings were maltreated. Thus, further investigation is required to enable professionals to establish whether, in the presence of risk to siblings, this applies to some or all.
Table 1: Association between age of index child and sibling status (scapegoat, some siblings maltreated, all siblings maltreated) N = 310a

<table>
<thead>
<tr>
<th>Age of index child</th>
<th>Scapegoat: no siblings maltreated n (%)</th>
<th>Specific: some siblings maltreated n (%)</th>
<th>Non-specific: all siblings maltreated n (%)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1 year</td>
<td>3 (16.7)</td>
<td>2 (11.1)</td>
<td>13 (72.2)</td>
<td>18</td>
</tr>
<tr>
<td>1-5 years</td>
<td>27 (35.1)</td>
<td>15 (19.5)</td>
<td>35 (45.5)</td>
<td>77</td>
</tr>
<tr>
<td>6-12 years</td>
<td>51 (39.5)</td>
<td>34 (26.4)</td>
<td>44 (34.1)</td>
<td>129</td>
</tr>
<tr>
<td>13 plus years</td>
<td>52 (65.8)</td>
<td>10 (12.7)</td>
<td>17 (21.5)</td>
<td>79</td>
</tr>
</tbody>
</table>

a 7 missing cases; $\chi^2 = 32.251$, df = 6, p<0.001
Table 2

Associations between the presence of family difficulties and risk to other siblings

<table>
<thead>
<tr>
<th>[No. of families with difficulty/no. of families where information was available]</th>
<th>Scapegoat: no siblings maltreated n (%)</th>
<th>Specific: some siblings maltreated n (%)</th>
<th>Non-specific: all siblings maltreated n (%)</th>
<th>$\chi^2$ ($df=2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent alcohol misuse ($n=47/169$)</td>
<td>6 (12.8)</td>
<td>9 (19.1)</td>
<td>32 (68.1)</td>
<td>$\chi^2=25.107^{**}$</td>
</tr>
<tr>
<td>Child witnessed family violence ($n=82/110$)</td>
<td>10 (12.2)</td>
<td>19 (23.2)</td>
<td>53 (64.6)</td>
<td>$\chi^2=23.698^{**}$</td>
</tr>
<tr>
<td>Parent with learning disability ($n=31/193$)</td>
<td>3 (9.7)</td>
<td>8 (25.8)</td>
<td>20 (64.5)</td>
<td>$\chi^2=13.071^{**}$</td>
</tr>
<tr>
<td>Parent self-harm ($n=31/180$)</td>
<td>2 (6.5)</td>
<td>10 (32.3)</td>
<td>19 (61.3)</td>
<td>$\chi^2=13.909^{**}$</td>
</tr>
<tr>
<td>Spouse abuse ($n=14/176$)</td>
<td>14 (15.6)</td>
<td>23 (25.6)</td>
<td>53 (58.9)</td>
<td>$\chi^2=24.354^{**}$</td>
</tr>
<tr>
<td>Parent psychiatric ($n=41/178$)</td>
<td>5 (12.2)</td>
<td>12 (29.3)</td>
<td>24 (58.5)</td>
<td>$\chi^2=14.448^{**}$</td>
</tr>
<tr>
<td>Family criminality ($n=86/184$)</td>
<td>20 (23.3)</td>
<td>24 (27.9)</td>
<td>42 (48.8)</td>
<td>$\chi^2=15.100^{**}$</td>
</tr>
<tr>
<td>Unstable lifestyle ($n=37/249$)</td>
<td>6 (16.2)</td>
<td>15 (40.5)</td>
<td>16 (43.2)</td>
<td>$\chi^2=15.664^{**}$</td>
</tr>
<tr>
<td>Parent drug misuse ($n=22/170$)</td>
<td>5 (22.7)</td>
<td>3 (13.6)</td>
<td>14 (63.6)</td>
<td>$\chi^2=6.559^*$</td>
</tr>
<tr>
<td>Parent severe health difficulties ($n=34/185$)</td>
<td>7 (20.6)</td>
<td>10 (29.4)</td>
<td>17 (50.0)</td>
<td>$\chi^2=4.425$ N/S</td>
</tr>
</tbody>
</table>

* $p<0.05$
** $p<0.001$
Figure 1. Proposed model of risk to siblings

Child factors, eg,
• Age of child
• Behaviour difficulties
• Physical or intellectual disability
• Gender

Parent factors, eg,
• Mental health difficulties
• Substance misuse
• Intellectual disability
• Health difficulties
• Parent abused as child

Family factors, eg,
• Size & composition
• Criminality
• Financial difficulties
• Violent family environment
• Social isolation
• Unstable lifestyle

Scapegoated child (special victim model)

Risk to some or all siblings

Risk to some or all siblings

Characteristics of incident against index child
• Number of offenders
• Offenders relationship to child
• Type of maltreatment
• Severity of maltreatment
References


