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# Bullying among siblings

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## Abstract

**Background:** Parents are often concerned about repeated conflicts between their daughters and sons. However, there is little empirical research of sibling bullying.

**Objective:** To conduct a review of existing studies of sibling bullying. Are there any associations between sibling bullying and peer bullying at school? What are the consequences of sibling bullying? Is there good justification why sibling bullying has been so neglected in research?

**Method:** Studies of sibling relationships were reviewed. Four quantitative studies were identified that report on both sibling and peer bullying.

**Results:** Sibling bullying is frequent with up to 50% involved in sibling bullying every month and between 16% and 20% involved in bullying several times a week. Experience of sibling bullying increases the risk of involvement in bullying in school. Both, bullying between siblings and school bullying make unique contributions to explaining behavioral and emotional problems. There is a clear dose-effect relationship of involvement of bullying at home and at school and behavioral or emotional problems. Those involved in both have up to 14 times increased odds of behavioral or emotional problems compared to those involved in only one context or not at all.

**Conclusions:** The empirical evidence is limited and studies are mostly cross-sectional studies. Nevertheless, the review suggests that for those victimized at home and at school behavioral and emotional problems are highly increased. Sibling relationships appear to be a training ground with implications for individual well-being. Strengthening families and parenting skills and increasing sibling support is likely to reduce bullying and increase well-being.

**Keywords:** behavioral problems; bullying; emotional problems; family; siblings; well-being.

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## Introduction

Sibling relationships are generally the most enduring relationships in a lifetime (1–3). By middle childhood children spend more time interacting with siblings than with parents (4). Siblings play an important role in each other's lives as companions, teachers, and caregivers (5, 6). Through their relationship and their interactions with each other, siblings significantly contribute to each other's development and adjustment. According to Brody (7), siblings can either have a direct (i.e., related to child-sibling interactions) or an indirect (i.e., related to one child's impact on parents and therefore on siblings) effect on each other's development. The social ties developed in sibling relationships can have wide ranging influences. Studies have found that positive quality of sibling relationships and interactions can facilitate the acquisition of skills that are important in cognitive and social development (8, 9). More specifically, it has been found that positive sibling relationships help children develop social skills and provide emotional support (10), protect children from other family adversities, such as adverse life events (11), or marital conflicts (12), or poor peer relationships (13). By contrast, negative sibling relationships intensify adjustment problems (14) and may create long-term adverse effects.

Mary, busy at her desk, did not see it coming. The assailant ran through the door, clobbered her on the head, and ran off. Mary fell to the floor screaming.

- Mary (25 years). Her co-worker reached for the phone and dialed 911.
- Mary (11 years). Her mother looked up and asked "Hey, what's going on there?" [adapted from (1), p. 1401].

Physical aggression between siblings has been reported to be the most common form of family violence and is experienced by up to half of all children in the course of a year (2). Some (15) reported that 40% of children whose parents they interviewed had hit a brother or sister with an object during the preceding year, and 82% had engaged in some form of violence against a sibling. Others report that between 30% and 98% are physically attacked or victimized by their siblings during a year (16). In many families aggression between siblings is frequent and a source of great concern to parents (17). Similarly, up to a quarter of children become victims of violence from non-sibling peers, most frequently at school (18). As the example shows violence between children in the family or children in the nursery or school is viewed differently than violence between adults or of an adult to a child (1). The same act seems to have different meaning if it occurs between siblings or peers compared to adults. If committed by an adult it would readily be

labeled an assault and treated as a crime. In contrast, if committed by one child against another it is often described as scuffles, fights, or altercations. It is so common that few people regard it as deviant behavior and within families it is often ignored.

Thus, the quality of social ties between sibling relationships may have positive, negative, or even unanticipated consequences. For example, unanticipated consequences of good sibling relationships are that if one sibling becomes obese, the chance that the other will become obese increases by 40% (95% confidence interval, 95% CI: 21, 60) (19). Thus, even a positive relationship can have unanticipated negative outcomes.

In the following sections we will explore the extent, the reasons, and the consequences of sibling bullying. Is sibling bullying different from bullying between non-sibling peers? Are there any associations between sibling bullying and peer relationships at school? Are the consequences of sibling bullying less overwhelming, less injurious, or less psychologically harmful than of peer bullying? Is there good justification why sibling bullying has been so neglected (2)?

## Sibling bullying

Bullying victimization refers to children being exposed repeatedly, and over time, to negative actions on the part of one or more other children who are or perceived to be stronger (20). It is intentional harm doing and systematic abuse of power (21). Bullying can be physical or direct including verbal abuse, hitting, kicking, destroying others' belongings, or blackmail. By contrast, relational bullying refers to deliberate social exclusion of children, such as ignoring, excluding them from games or parties, spreading gossip, or humiliation (22). Direct bullying is more frequent at younger ages and decreases with age. It has been suggested that relational bullying increases in adolescence. Those subjected to both direct and relational bullying on a regular basis appear to be at the highest risk for adverse outcomes (23, 24).

Surprisingly, when abuse researchers report about violence between siblings they very rarely use the term "bullying", although it is often clear that they are referring to bullying as defined above (25). Sibling relationships have similar characteristics that are associated with bullying in the peer group. Unlike friendships and similar to peer relationships in the classroom, sibling relationships are involuntary, i.e., children cannot choose their siblings they live with but they were born into these relationships. Siblings are rarely equal in terms of age, size, and physical or psychological strength; therefore, there is an imbalance of power. Furthermore, the direct or indirect attacks are not single events but are frequent and repeated. Finally, similar to peers confined in the same group, siblings spend considerable amounts of times together often in the absence of an adult, which provides significant opportunities for the bullying of one sibling by another. Time spent together leads to familiarity that can breed contempt. This means they know exactly how to provoke or upset their siblings (17). Sibling interactions are emotionally charged relationships defined by strong, uninhibited emotions of positive, negative, and sometimes ambivalent quality (7).

## Studies of sibling bullying

A range of previous studies, mainly in the 1970s and 1980s, looked at family violence and reported on physical attacks or sexual abuse between siblings (25, 26). Others have used retrospective designs on sibling aggression between siblings (27). Thus, there has been awareness of violence between siblings but these studies did not include the repetitive nature of harmful acts that define bullying and only included one-time events (16, 28).

Table 1 provides an overview of four studies that systematically investigated bullying between siblings. The studies are from the USA (29), Israel (26), Italy (30), and the UK (31). All studies are cross-sectional and assessed both sibling and peer bullying with self-report scales completed by the children. In addition, three of the studies investigated behavioral or emotional problems, and some additionally well-being (31); personality and other sibling relationship areas (30) or loneliness (29). All four studies studied children in early adolescence, i.e., between 10 and 15 years of age and sample sizes ranged from 195 to 2163 adolescents; between 87% and 100% of these adolescents had siblings. The median number of siblings was one in the UK (32.8% had two and 15.9% three or more siblings) (31), whereas the median was three siblings in Israeli Jewish, or Arab families (26). Only the UK study (31) provides detailed information on the family composition with just over half the adolescents (57%) living with both biological parents (Table 1). Most siblings were biological siblings (87%), 10% had half-siblings and 3% step-siblings. All but one study (31) are based on convenience samples drawn from schools in the USA, Israel, or Italy. In contrast, the UK sample is drawn from a household panel study with 40,000 households and is representative for the whole of the UK (England, Wales, Scotland, and Northern Ireland) (31) (<http://www.understandingsociety.org.uk/>).

## Prevalence and trends

### Sibling bullying

Three of the studies have information on the prevalence of sibling bullying and the fourth study (30) used a questionnaire (26) to construct scales of sibling or peer victimization and bullying with confirmatory factor analysis. Thus, the Italian study does not allow for estimation of prevalence. The US study (29) considered those who answered pretty often/very often in relevant items of the Peer Relations Questionnaire (adapted for siblings) as involved in bullying. Only 3% were found to be pure victims, most were bully/victims (28.6%), and 14.6% pure bullies (total involvement in sibling bullying: 46.2%) (Table 1). The study in Israel (26) counted only those who were frequently victimized (every week or several times a week), i.e., used a more stringent criterion, and did not ask about sibling bullying perpetration. They found that 16.5% were victims with verbal and both verbal and physical bullying (e.g., hitting) most frequent (Table 1). The most recent study in the UK considered bullying if it was reported as quite

**Table 1** An overview of four studies that systematically investigated bullying between siblings in the USA (29), Israel (26), Italy (30), and the UK (31).

Authors	Country	Sample	Age	Instruments <sup>a</sup>	Sibling bullying	Peer bullying	Associations with behavioral or emotional problems																																
Duncan (29)	USA	Total, n=375 Females, n=178 Males, n=194  With siblings, n=336 (89.6%)	Mean=13.4 years (7–8th graders)	<ul style="list-style-type: none"> <li>Adapted Peer Relations Questionnaire (Rigby and Slee, 1992)</li> <li>Multiscore Depression Inventory for Children (MDIC) (Berndt and Kaiser, 1996)</li> <li>Children's Loneliness Questionnaire (CLQ – Asher and Wheeler, 1985)</li> </ul>	<p>Total, n=336</p> <p>Not involved, n=186 (55.4%)</p> <p>Involved: Victim, n=10 (3%) Bully, n=49 (14.6%) Bully/victim, n=91 (28.6%)</p> <p>Classifications: pretty often/very often</p>	<p>Total, n=373</p> <p>None, n=207 (55.5%)</p> <p>Victim, n=60 (16.1%) Bully, n=72 (19.3%) Bully/victim, n=34 (9.1%)</p> <p>Classification: pretty often/very often</p>	<p>As most siblings were bully/victims, all subgroups collapsed into sibling involved in bullying, n=150</p> <p>Siblings involved:</p> <ul style="list-style-type: none"> <li>had higher scores in all MDIC scales, e.g., anxiety or overall depression</li> <li>higher loneliness scores in CLQ</li> <li>a significant sibling involvement by peer involvement interaction was found:</li> </ul> <p>a) those who were bully-victims at school and involved in bullying at home had the highest level of psychopathology</p> <p>b) those not involved at home or at school had the lowest psychopathology and loneliness</p> <ul style="list-style-type: none"> <li>SDQ factor analyzed and standardized for sample. Scales: total problems, hyperactivity/conduct problems defined borderline/clinical range as &gt;80th percentile</li> <li>analyzed close-response relationship of sibling bullying and SDQ scores</li> <li>a) severity of victimisation: none, physical or verbal, both</li> <li>b) across contexts: neither, home or at school, both</li> </ul>																																
Wolke and Samara (26)	Israel	Total, n=921 Females, n=473 Males, n=448 Jews, n=449 Arabs, n=472  With siblings, n=898 (97.5%)  Median number of siblings, n=3	Mean=13.7 years SD=0.9 years (7–9th graders)	<ul style="list-style-type: none"> <li>Adapted Bullying Questionnaire (Olweus, 1991; Wolke et al., 2000)</li> <li>Assesses physical, verbal and relational bullying</li> <li>Strength and Difficulties Questionnaire (SDQ, Goodman, 2001)</li> </ul>	<p>Total, n=898</p> <p>Victim, n=152 (16.9%)</p> <ul style="list-style-type: none"> <li>Physical only: 3.3%</li> <li>Verbal only: 6.6%</li> <li>Both: 5.4%</li> </ul> <p>Classifications: every week/several times a week</p>	<p>Total, n=921</p> <p>Victim, n=145 (15.8%)</p> <p>Bully/bully-victim, 120 (13.1%)</p> <p>Classification: every week/several times a week</p>	<ul style="list-style-type: none"> <li>SDQ factor analyzed and standardized for sample. Scales: total problems, hyperactivity/conduct problems defined borderline/clinical range as &gt;80th percentile</li> <li>analyzed close-response relationship of sibling bullying and SDQ scores</li> <li>a) severity of victimisation: none, physical or verbal, both</li> <li>b) across contexts: neither, home or at school, both</li> </ul>																																
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Table 1 (Continued)

Authors	Country	Sample	Age	Instruments <sup>a</sup>	Sibling bullying	Peer bullying	Associations with behavioral or emotional problems
Menesini et al. (30)	Italy	Total, n=195 Females, n=97 Males, n=98  Selected from n=562; all had siblings ±4 years of age	10–12 years (middle school)	<ul style="list-style-type: none"> <li>Bully questionnaire (Wolke and Samara, 2004)</li> <li>Applied confirmatory factor analysis (four scales)</li> <li>Sibling bullying</li> <li>Sibling victimization</li> <li>School bullying</li> <li>School victimization</li> <li>Big five questionnaire for children (Barbaranelli et al., 2008)</li> <li>Sibling inventory of behaviour (Hetherington et al., 1999)</li> </ul>	<ul style="list-style-type: none"> <li>No report on prevalence</li> <li>Males were more often bullies of younger siblings</li> <li>Females bullied older siblings more often</li> <li>Younger siblings of older male siblings were more often victimized</li> </ul>	No report of prevalence	Not assessed
Wolke and Skew (31)	UK	Representative sample from Household Panel, n=2163  Females, n=1078 Males, n=1085  1872 (87%) had siblings  Both biological parents: 57% One biological parent: 29% Step-parent: 13% No biological parent: 2%  Biological siblings: 87% Half-sibling: 10% Step-sibling: 3%  Oldest: 40% Middle/co-twin: 23% Youngest: 38%	Median=12.5 years  Range=10–15 years	<ul style="list-style-type: none"> <li>Sibling bullying questionnaire (Wolke and Samara, 2004)</li> <li>Peer bullying questionnaire (Sapouna et al., 2010)</li> <li>Strength and Difficulties Questionnaire (SDQ, Goodman, 2001)</li> <li>Child Happiness (Chan and Koo, 2010)</li> </ul>	<p>Total, n=1829 (43 completely missing data on sibling bullying questions)</p> <p>Bully: 4.5% Bully/victim: 33.6% Victim: 16%</p> <p>Quite a lot (every month) or a lot (a few times every week)</p> <ul style="list-style-type: none"> <li>Boys were more often bullies or bully/victims</li> <li>Girls were more often pure victims</li> <li>No association found with family or sibling type</li> <li>Older siblings more often bullies</li> </ul>	<p>Total, n=2156 (7 completely missing data on school bullying questions)</p> <p>Victims: 12% Of these:</p> <ul style="list-style-type: none"> <li>Physical only: 1.2%</li> <li>Relational only: 7.1%</li> <li>Both: 3.8%</li> </ul> <p>Bullies: 1%</p> <p>Victimization</p> <ul style="list-style-type: none"> <li>No gender difference</li> <li>Reduced with age</li> <li>More often in children living in step-parenting households</li> </ul>	<p>Relationship between sibling bullying roles and SDQ total difficulties (clinical range (&gt;90th percentile) (adjusted for school bullying))</p> <p>Bully: Adj. OR: 2.1 (0.9, 5.0) Bully/victim: Adj. OR: 3.2 (2.2, 4.7) Victim: Adj. OR: 1.7 (0.9, 3.0)</p> <p>Relationship between bullying victimization (victims, bully/victims) at home and/or school and SDQ total difficulties (clinical range) and unhappiness (see Figures 1 and 2)</p> <p>Sibling or school: Adj. OR: 2.7 (1.8, 4.1) Adj. OR: 2.2 (1.5, 3.0)</p> <p>Sibling and school: Adj. OR: 14.1 (8.4, 23.5) Adj. OR: 10.5 (6.6, 16.7)</p>

<sup>a</sup>See the original articles on sibling bullying (26, 29–31) for references to the instruments used in these studies.

a lot (at least four times in the past 6 months) or a lot (at least every week or several times a week). Results revealed that 16% were pure victims, 33.6% were bully/victims (i.e., were victimized and bullied at other times), and 4.5% were pure bullies (31). Physical bullying (hitting, kicking, pushing) and verbal abuse were the most frequent types of sibling bullying and victimization. No age trend in sibling bullying or victimization was found.

### Peer bullying

The rates of peer victimization across the studies were fairly similar with between 12% (31) and 16% (26, 29) of adolescents reporting that they are targets of peer bullying. By contrast, large variation in the prevalence of bullying perpetration was apparent with between 13.1% (26) and 28.4% (29) reporting to be bullies (pure bullies or bully/victims) in Israel and the USA, but only 1% reporting bullying in the UK (31). Thus, very few children admitted to bullying others, a finding replicated in other recent cohorts in the UK (23, 32). It may indicate that efforts to combat bullying in school (33) have resulted in adolescents being less willing to admit to being perpetrators of bullying in schools in the UK. Both the UK study and US study looked at age trends and found that peer victimization reduced with age (29, 31).

To summarize, firstly, sibling bullying involvement (as victim or bully) appears to be more frequent with rates as high as 46%–54%, compared to bullying between peers (29, 31). This is consistent with retrospective reports (27). Secondly, where assessed, most of those involved in sibling bullying are both perpetrators and victims (bully/victims). In contrast, peer bully/victims are less frequent than pure victims in early adolescence (34). Thirdly, all types of peer victimization reduced with age with older adolescents less likely to become victims of either physical or relational victimization, a finding reported previously (34, 35). By contrast, no changes according to age were found in sibling bullying although this was only investigated systematically in one study (31).

### Factors associated with sibling bullying

Duncan (29) found that boys were more often victims of sibling bullying but no gender differences in bullying perpetration were found. Others found that boys were often sibling bullies or bully/victims, whereas girls were found to be more often pure victims (31). It appears that boys more often bully younger siblings, whereas females are more often perpetrators of bullying towards older siblings (30). Overall, younger siblings of older brothers are at increased risk of victimization (30, 31). In particular, older brother/younger sister dyads have been found to be characterized by higher levels of conflict and less support (36). Furthermore, those with low empathy are more likely to bully their sibling (30). In contrast, no relationship of sibling bullying to family type or sibling type (biological or step-siblings) was found (31).

### Bullied at home/bullied at school?

Arguments that familial and extrafamilial relationships are linked come from several theoretical orientations. Social learning theorists have suggested that children learn particular behaviors in relationships with their parents and siblings, and that these behaviors then generalize to their interactions with peers and friends (37, 38). Attachment theory proposes that children's relationships with peers and siblings are influenced by internal working models of relationships which are carried forward from their earliest relationships with attachment figures (39, 40). Another process, which has been suggested as linking familial and extrafamilial relationships, is that children's enduring characteristics, such as temperament, elicit similar responses from different relationship partners (41). Each of these theories suggests that there are connections between children's relationships with siblings, friends, and peers; however, the proposed mechanisms linking relationships differ according to theory (26).

There is also reason to expect few associations between children's familial and extrafamilial relationships. Firstly, siblings growing up in the same context only share, on average, 50% of their segregating genes and they are subject to non-shared experiences in the family and to parental differential treatment (42). Secondly, two children in a friendship or peer relationship are from different families and may have different temperamental characteristics, interests, and talents. Their previous experiences in relationships vary and their beliefs and expectations about how to behave in relationships are also likely to differ. Apart from different characteristics that individuals bring to their relationships, societal norms and culturally held beliefs about how one should behave in particular relationships, such as sibling relationships compared to best friendships, encourage differences and decrease the likelihood of associations between them (43). Associations between children's sibling relationships and their friendships have been reported in several studies, but the pattern of findings is inconsistent. For example, no simple 'carry-over' from sibling relationships to friendships have been found (43).

The four studies reviewed here indicate significant carry-over from sibling victimization to peer victimization. The Israeli study (26) found that of 152 children that were victims at home, 77 (50.7%) were also victims at school, in contrast to only 95 of 769 non-victims at school (12.4%, odds ratio: 7.3, 95% CI: 4.9, 10.6). However, this study could not separately investigate pure victims vs. bully/victims. Duncan (29) found that the majority of peer bully/victims (60%) reported being bullied by their brothers or sisters. Similarly, most of peer/bully victims (76.7%) and peer bullies (56.4%) reported that they bully their siblings. The UK study (31) found that victims at home were more likely to be also victims at school (odds ratio: 1.7, 95% CI: 1.3, 2.2). However, when the study examined pure victims and bully/victims separately, the relationship was mainly carried by sibling bully/victims (odds ratio: 1.9, 95% CI: 1.4, 2.5) (31). The Italian study found that sibling victimization was significantly associated with school victimization with standardized path coefficients of 0.35 and

0.38 (boys and girls, respectively) after control for a range of individual differences and other sibling relationship factors. Sibling bullying predicted school bullying at a similar level (boys: 0.30, girls: 0.35).

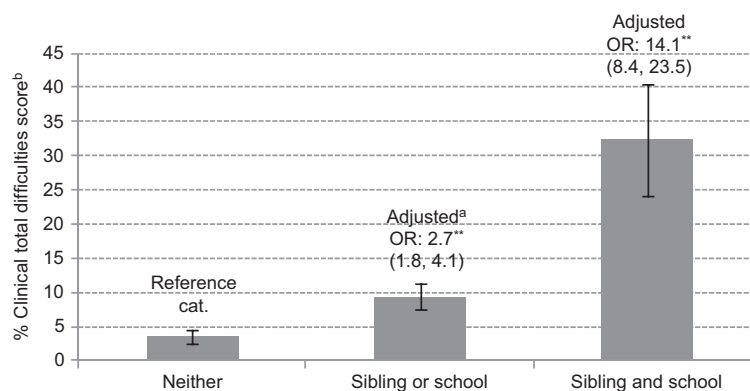
All sibling relationships involve conflict occasionally; however, when the conflicts are severe, repetitive, and intentional (bullying), then it appears that these have a profound effect on peer relationships. The reviewed studies are all cross-sectional and thus cannot provide evidence for the direction of influence. However, Ensor and colleagues (17) recently reported on an innovative study that combined direct observation of sibling directed antisocial behavior in the family's homes at 3 and 6 years and interaction of unfamiliar peers in an experimental setting. The laboratory situation consisted of three unfamiliar children invited to a triadic play situation. Those young children who showed sustained high antisocial behavior towards their siblings (3 and 6 years) were more likely to bully or refuse to share or interact with unfamiliar peers. Thus, at least in young children, experiences with siblings are predictive of bullying unfamiliar peers.

### Associations of sibling bullying with behavioral or emotional problems

Original research on potential consequences of peer bullying used cross-sectional studies and found moderate associations with behavioral, emotional, or health problems (44–47). Longitudinal studies have now replicated these findings (see Sourander, this issue) (48). Furthermore, longitudinal research indicates that there may be a dose-effect relationship with those bullied more chronically, severely, or experiencing other trauma at increased risk of adverse outcome (23, 49). Furthermore, initial behavioral or emotional difficulties may likely lead to more victimization (48), but victimization itself has a unique adverse effect not accounted for by pre-existing problems or different genetic susceptibility (50).

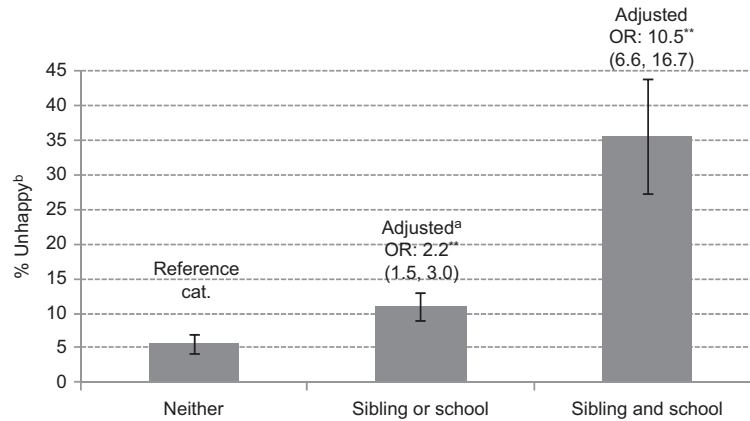
Three of the four studies of sibling bullying in the literature investigated associations between home and school bullying with behavioral or emotional functioning. Here, the focus will be on the associations reported with sibling rather than peer bullying. Firstly, as shown in Table 1, the US (29), Israeli (26), and UK (31) studies all reported relationships between involvement in bullying at home with emotional and behavioral problems. This relationship was found even when controlled for bullying experiences in school (26, 31). Secondly, bully/victims whether at home or in school appear at highest risk for maladjustment. The US study (29) found that those who were involved in any sibling bullying and were bully/victims at school were at the highest risk for psychopathology. The Israeli study was large enough to use multiple logistic regression to control for bullying roles in other contexts (e.g., sibling bullying controlled for school bullying) and a range of social factors. Victimization by siblings, being a bully/victim or bully at school was most strongly related to total and hyperactivity/conduct problems (26). Similarly, in the UK study (31), when controlled for bullying experience in school, only being a bully/victim at home was highly significantly associated with clinically relevant total behavioral difficulties (adjusted odds ratio: 3.2, 95% CI: 2.2, 4.7). Thirdly, all three studies found a clear indication of a dose-effect relationship between sibling and school bullying involvement. Whereas either being bullied at home or school increased maladjustment, being bullied in both settings highly increased the rate of behavioral or emotional problems and unhappiness. This is indicated by an interaction between home and school bullying (see Table 1). This effect is illustrated for the UK study of sibling and peer bullying (31) in Figures 1 and 2. Whereas victimization at home or school was related to behavioral problems or unhappiness, being victimized in both settings led to 10 (Figure 2) and 14 times (Figure 1) increased odds of unhappiness or clinically relevant behavioral problems, respectively.

Finally, a recent longitudinal study examined the short-term stability of bullying victimization at three time points over



**Figure 1** Relationship between bullying at home and/or school and clinical SDQ Scores. Reproduced from Wolke and Skew (31).

\*\* $p < 0.001$ . <sup>a</sup>Odds ratios adjusted in logistic regression for age of adolescents (10–12 years, 13–15 years), gender, family type (two categories: natural parents and other), highest parental qualification, and family income (in quintiles). <sup>b</sup>Abnormal SDQ scores were determined as scores  $>90$ th percentile of all adolescents with SDQ data. SDQ, strength and difficulties questionnaire.



**Figure 2** Relationship between bullying at home and/or school and unhappiness. Reproduced from Wolke and Skew (31). \*\* $p < 0.001$ . <sup>a</sup>Odds ratios adjusted in logistic regression for age of adolescents (10–12 years, 13–15 years), gender, family type (two categories: natural parents and other), highest parental qualification, and family income (in quintiles). <sup>b</sup>Unhappiness was determined as scores <10th percentile of all ‘Understanding Society Adolescents’ on the Happiness scale.

9 weeks among primary school students in the UK and Germany (mean age: 8.9 years) (32). The study assessed individual factors, sibling bullying experiences, and social network factors in the school classes (e.g., hierarchies, density of relationships, reciprocity, etc.), and their contribution to remaining a victim of bullying. Relative risk analyses indicated a sixfold increased risk of remaining a victim at consequent follow-ups, compared to a child not victimized at baseline, becoming a victim over the follow-up period. Individual characteristics explained substantially more variance in the stability of bullying victimization than class level factors. Hierarchical logistic regression analyses revealed that being victimized by siblings and being rejected by peers predicted remaining a victim over a 9-week period. Overall, being a victim of sibling bullying was the best predictor of remaining a victim at school (odds ratio: 2.99, 95% CI: 1.15, 7.77).

## Conclusions

Firstly, sibling bullying is widespread and nearly normative with up to 50% involved in bullying every month and between 16% and 20% involved in bullying several times a week at home (26, 31). Secondly, being a perpetrator and victim (bully/victim) appears to be the most frequent role taken in sibling bullying involvement. This is in contrast to peer bullying where the most frequent role is victim or bully (21, 35). Thirdly, whereas victimization and, in particular, bully/victim numbers appear to decrease during adolescence, sibling bullying remains relatively stable over time, at least between 10 and 15 years of age (26, 31). Fourthly, there is consistent evidence that experience of bullying between siblings transfers to peer relationships and bullying involvement in school. Fifth, both bullying siblings at home and between peers at school make unique contributions to explaining behavioral and emotional problems. Sibling bullying appears to also predict stability of victimization in school, i.e., those

bullied at home are less likely to escape victimization at school (32). Finally, there is a clear dose-effect relationship and their magnitude indicates multiplicative interaction (29, 31). If an adolescent is involved in bullying at home (in particular as a bully/victim) and bullied at school, the odds for emotional and behavioral problems are exponentially increased compared to an adolescent just involved in bullying in one context. There is no respite for these school children either at home or at school. Furthermore, experience of parental violence and unpredictability are individual factors relevant to severe sibling violence (2). These children are polyvictimised (51).

There are several limitations concerning this review. All, but the study of victimization stability (32), are cross-sectional analyses and do not allow for conclusions regarding causality. Are children with behavioral problems more often bullied or does bullying lead to behavioral or emotional problems and less well-being? It may be that both mechanisms, as shown for school bullying, may be operating (48) and that siblings with certain temperamental characteristics may elicit bullying (2, 52). Longitudinal research in large enough samples is required to help disentangle whether sibling bullying uniquely contributes to less well-being and maladjustment. Furthermore, reports by other data sources and linkage to other data including school examination results and health data could provide objective measures of outcomes that do not rely on self-report. To understand mechanisms it will be necessary to investigate family constellations (53, 54), and assess other members of the household (2). It appears that combinations of an older brother and younger sister may be a particular recipe for conflict (30).

Despite these limitations, the findings so far are compelling enough to suggest that for those victimized at home and at school there is little escape from bullying and its consequences. Sibling relationships appear to be a training ground with implications for well-being of the individual (25). Previously trans-context effects from home to peer relationships and well-being have been reported for highly positive



sibling relationships (11) – this review extends this by showing that highly negative sibling relationships also transfer across contexts. Overall, bullying is one of the major safety concerns for parents as also reported by the recent UK Staying Safe Survey in the UK (55) that interviewed young people aged 12–17 years, and parents/carers. Bullying was the second highest concern expressed about children's safety by parents (61%), and also by children (although only by 35%). The current findings add that bullying also takes place at home, starts very early in life (17), is related to parenting (2), and interventions should include the family and parenting skills of dealing with repeated conflicts between siblings. Bullying starts at home! Strengthening families and parenting skills and increasing sibling support is likely to reduce bullying in school and increase well-being (13).

## References

- Finkelhor D, Turner H, Ormrod R. Kid's stuff: the nature and impact of peer and sibling violence on younger and older children. *Child Abuse Negl* 2006;30:1401–21.
- Eriksen S, Jensen V. A push or a punch; distinguishing the severity of sibling violence. *J Interpers Violence* 2009;24:183–208.
- Bank SP, Kahn MD. *The sibling bond*. New York: Basic Books, 1982.
- McHale SM, Crouter AC. The family contexts of sibling relationships. In: Brody G, editor. *Sibling relationships: their causes and consequences*. Norwood, NJ: Ablex, 1996:173–96.
- Dunn JF. Sibling influences. In: Lewis M, Feinman S, editors. *Social influences and socialization in infancy*. New York/London: Plenum, 1991:97–109.
- Dunn J. *Sisters and brothers (the developing child)*. Cambridge, MA: Harvard University Press, 1985.
- Brody GH. Siblings' direct and indirect contributions to child development. *Curr Direct Psychol Sci* 2004;13:124–6.
- Cicirelli VG. *Sibling relationships across the lifespan*. New York: Plenum, 1995.
- Azmitia M, Hesser J. Why siblings are important agents of cognitive development: a comparison of siblings and peers. *Child Dev* 1993;64:430–44.
- Stormshak EA, Bellanti CJ, Bierman KL. The quality of sibling relationships and the development of social competence and behavioral control in aggressive children. *Dev Psychol* 1996;32:79–89.
- Gass K, Jenkins J, Dunn J. Are sibling relationships protective? A longitudinal study. *J Child Psychol Psychiatr* 2007;48:167–75.
- Jenkins J, Simpson A, Dunn J, Rasbash J, O'Connor TG. Mutual influence of marital conflict and children's behavior problems: shared and nonshared family risks. *Child Dev* 2005;76:24–39.
- Bowes L, Maughan B, Caspi A, Moffitt TE, Arseneault L. Families promote emotional and behavioural resilience to bullying: evidence of an environmental effect. *J Child Psychol Psychiatr* 2010;51:809–17.
- Dunn J, Herrera C. Conflict resolution with friends, siblings, and mothers: a developmental perspective. *Aggress Behav* 1997;23:343–57.
- Straus MA, Gelles RJ, Steimetz S. *Behind closed doors*. New York: Double-Day, 1980.
- Goodwin MP, Roscoe B. Sibling violence and antagonistic interactions among middle adolescents. *Adolescence* 1990;25:451–67.
- Ensor R, Marks A, Jacobs L, Hughes C. Trajectories of antisocial behaviour towards siblings predict antisocial behaviour towards peers. *J Child Psychol Psychiatr* 2010;51:1208–16.
- Analitis F, Velderman MK, Ravens-Sieberer U, Detmar S, Erhart M, et al. Being bullied: associated factors in children and adolescents 8 to 18 years old in 11 European countries. *Pediatrics* 2009;123:569–77.
- Christakis NA, Fowler JH. The spread of obesity in a large social network over 32 years. *N Engl J Med* 2007;357:370–9.
- Olweus D. *Bullying in schools: what we know and what we can do*. Oxford: Blackwell, 1993.
- Stassen Berger K. Update on bullying at school: science forgotten? *Dev Rev* 2007;27:90–126.
- Wolke D, Woods S, Stanford K, Schulz H. Bullying and victimization of primary school children in England and Germany: prevalence and school factors. *Br J Psychol* 2001;92:673–96.
- Schreier A, Wolke D, Thomas K, Horwood J, Hollis C, et al. Prospective study of peer victimization in childhood and psychotic symptoms in a nonclinical population at age 12 years. *Arch Gen Psychiatry* 2009;66:527–36.
- Crick N, Ostrov J, Werner N. A longitudinal study of relational aggression, physical aggression, and children's social – psychological adjustment. *J Abnorm Child Psychol* 2006;34:127–38.
- Monks CP, Smith PK, Naylor P, Barter C, Ireland JL, et al. Bullying in different contexts: commonalities, differences and the role of theory. *Aggress Violent Behav* 2009;14:146–56.
- Wolke D, Samara MM. Bullied by siblings: association with peer victimisation and behaviour problems in Israeli lower secondary school children. *J Child Psychol Psychiatr* 2004;45:1015–29.
- Hardy MS. Physical aggression and sexual behavior among siblings: a retrospective study. *J Fam Violence* 2001;16:255–68.
- Eriksen S, Jensen V. All in the family? Family environment factors in sibling violence. *J Fam Violence* 2006;21:497–507.
- Duncan RD. Peer and sibling aggression: an investigation of intra- and extra-familial bullying. *J Interpers Violence* 1999;14:871–86.
- Menesini E, Camodeca M, Nocentini A. Bullying among siblings: the role of personality and relational variables. *Br J Dev Psychol* 2010;28:921–39.
- Wolke D, Skew A. Bullied at home and at school: relationship to behaviour problems and unhappiness. In: McFall S, editor. *Understanding society: early findings from the first wave of the UK's household longitudinal study*. London: Economic Social Research Council, 2011, pp. 23–32.
- Sapouna M, Wolke D, Vannini N, Watson S, Woods S, et al. Individual and social network predictors of the short-term stability of bullying victimization in the United Kingdom and Germany. *Br J Educ Psychol* 2011 (online: DOI: 10.1111/j.2044-8279.2011.02022.x).
- Samara M, Smith PK. How schools tackle bullying, and the use of whole school policies: changes over the last decade. *Educ Psychol* 2008;28:663–76.
- Smith PK, Morita Y, Junger-Tas J, Olweus D, Catalano R, et al. *The nature of school bullying: a cross-national perspective*. London: Routledge, 1999.
- Whitney I, Smith PK. A survey of the nature and extent of bullying in junior/middle and secondary schools. *Educ Res* 1993;35:3–25.
- Aguilar B, O'Brien KM, August GJ, Aoun SL, Hektner JM. Relationship quality of aggressive children and their siblings: a multi-informant, multimeasure investigation. *J Abnorm Child Psychol* 2001;29:479–89.

37. Putallaz M. Maternal behavior and children's sociometric status. *Child Dev* 1987;54:417–26.
38. MacDonald K, Parke RE. Bridging the gap: parent-child play interaction and peer interactive competence. *Child Dev* 1984;55:1265–77.
39. Sroufe LA, Coffino B, Carlson EA. Conceptualizing the role of early experience: lessons from the Minnesota longitudinal study. *Dev Rev* 2010;30:36–51.
40. Bowlby J. Attachment and loss, vol. 1. Attachment. Harmondsworth: Penguin, 1971.
41. Gleason TR, Gower AL, Hohmann LM, Gleason TC. Temperament and friendship in preschool-aged children. *Int J Behav Dev* 2005;29:336–44.
42. Rutter M. Genes and behavior: nature-nurture interplay explained. Oxford: Blackwell, 2006.
43. Stocker C, Dunn J. Sibling relationships in childhood: links with friendships and peer relationships. *Br J Dev Psychol* 1990;8:227–44.
44. Hawker D, Boulton M. Twenty years' research on peer victimization and psychosocial maladjustment: a meta-analytic review of cross-sectional studies. *J Child Psychol Psychiatr* 2000;41:441–55.
45. Wolke D, Woods S, Bloomfield L, Karstadt L. The association between direct and relational bullying and behaviour. *J Child Psychol Psychiatr* 2000;41:989–1002.
46. Wolke D, Woods S, Bloomfield L, Karstadt L. Bullying involvement in primary school and common health problems. *Arch Dis Child* 2001;85:197–201.
47. Gini G, Pozzoli T. Association between bullying and psychosomatic problems: a meta-analysis. *Pediatrics* 2009;123:1059–65.
48. Reijntjes A, Kamphuis JH, Prinzie P, Telch MJ. Peer victimization and internalizing problems in children: a meta-analysis of longitudinal studies. *Child Abuse Negl* 2010;34:244–52.
49. Arseneault L, Cannon M, Fisher HL, Polanczyk G, Moffitt TE, et al. Childhood trauma and children's emerging psychotic symptoms: a genetically sensitive longitudinal cohort study. *Am J Psychiatry* 2011;168:65–72.
50. Arseneault L, Milne BJ, Taylor A, Adams F, Delgado K, et al. Being bullied as an environmentally mediated contributing factor to children's internalizing problems: a study of twins discordant for victimization. *Arch Pediatr Adolesc Med* 2008;162:145–50.
51. Finkelhor D, Ormrod RK, Turner HA. Polyvictimization and trauma in a national longitudinal cohort. *Dev Psychopathol* 2007;19:149–66.
52. Dunn J, Kendrick C. Temperamental differences, family relationships, and young children's response to change within the family. In: Porter R, Collins GM, editors. *Ciba Foundation symposium 89: temperamental differences in infants and young children*. London: Pitman Books, 1982:87–105.
53. Ma X. Bullying and being bullied: to what extent are bullies also victims? *Am Educ Res J* 2001;38:351–70.
54. Lawson DW, Mace R. Siblings and childhood mental health: evidence for a later-born advantage. *Soc Sci Med* 2010;70:2061–9.
55. Department for Children, Schools and Families. *Staying Safe Survey 2009: young people and parents' attitudes around accidents, bullying and safety*. London: Department Children Schools Families, 2009.