Sibling Bullying and Risk of Depression, Anxiety, and Self-Harm: A Prospective Cohort Study

WHAT'S KNOWN ON THIS SUBJECT: Recent reviews suggest that children bullied by siblings are at increased risk of internalizing symptoms. It is not known whether being bullied by a sibling increases risk of psychiatric disorders such as depression, anxiety, and self-harm.

WHAT THIS STUDY ADDS: Using a large, community-based birth cohort, we found that being bullied by a sibling is prospectively associated with a doubling in the odds of both depression and self-harm at 18 years in young adults.

abstract

FREE

OBJECTIVES: Being the victim of peer bullying is associated with increased risk of psychopathology, yet it is not known whether similar experiences of bullying increase risk of psychiatric disorder when the perpetrator is a sibling. We tested whether being bullied by a sibling is prospectively associated with depression, anxiety, and self-harm in early adulthood.

METHODS: We conducted a longitudinal study using data from >6900 participants of a UK community-based birth cohort (Avon Longitudinal Study of Parents and Children) who reported on sibling bullying at 12 years. Our main outcome measures were depression, anxiety, and self-harm, assessed using the Clinical Interview Schedule–Revised during clinic assessments when participants were 18.

RESULTS: Children who were frequently bullied were approximately twice as likely to have depression (odds ratio [OR] = 2.16; 95% confidence interval [CI], 1.33–3.51; $P < .001$), self-harm (OR = 2.56; 95% CI, 1.63–4.02; $P < .001$), and anxiety (OR = 1.83; 95% CI, 1.19–2.81; $P < .001$) as children who were not bullied by siblings. The ORs were only slightly attenuated after adjustment for a range of confounding individual, family, and peer factors. The population-attributable fractions suggested that 13.0% (95% CI, 1.0%–24.7%) of depression and 19.3% (95% CI, 7.6%–29.6%) of self-harm could be explained by being the victim of sibling bullying if these were causal relationships.

CONCLUSIONS: Being bullied by a sibling is a potential risk factor for depression and self-harm in early adulthood. Our results suggest that interventions designed to target sibling bullying should be devised and evaluated. *Pediatrics* 2014;134:e1032–e1039

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KEY WORDS

siblings, bullying, depression, anxiety, self-harm, longitudinal, ALSPAC

ABBREVIATIONS

ALSPAC—Avon Longitudinal Study of Parents and Children
CI—confidence interval
OR—odds ratio

Dr Bowes and Professor Wolke designed and conceptualized the study; Dr Bowes performed all data analysis and drafted the initial manuscript; Dr Joinson, Dr Lereya, and Professor Lewis critically reviewed the manuscript and helped in redrafting; and all authors approved the final manuscript as submitted.

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Being victimized by bullies has been associated with an increased risk of depression, anxiety, and self-harm.[1–3] It is not known whether being the victim of bullying increases risk of psychiatric disorder when the perpetrator is a sibling. Sibling bullying is a specific type of aggressive behavior that is repeated over time, intended both to cause harm and to dominate.[4] Several studies have provided evidence of an association between sibling bullying and increased internalizing symptoms.[5–12] However, most have either been retrospective[13] or cross-sectional in design,[5–7,10,11] so they do not allow inference of the direction of effects and are susceptible to recall bias. There is evidence that high levels of sibling conflict are associated with an increased risk of later internalizing symptoms.[9,14–17] To our knowledge, no previous studies have examined whether being the victim of sibling bullying is prospectively associated with psychiatric diagnoses in young adults. According to socio-ecological theory,[18,19] sibling relationships, as with other relationships, vary as a function of family, peer, and individual factors that may also increase risk of psychiatric disorder.[11,18] Such factors include high levels of stress,[20–22] family violence,[22,23] peer victimization,[6] and children's internalizing and externalizing difficulties.[23] A multivariate approach that adjusts for such factors is needed. Using data from >6000 families from a UK birth cohort, we tested the hypothesis that being the victim of sibling bullying during childhood is independently associated with an increased risk of depression, anxiety, and self-harm at 18 years.

METHODS

Data Source

The sample was made up of participants from the Avon Longitudinal Study of Parents and Children (ALSPAC). ALSPAC recruited 14 541 pregnant women resident in Avon, England with expected dates of delivery between April 1, 1991 and December 31, 1992. Of the 14 541 initial pregnancies (ie, in which mothers enrolled and returned ≥1 questionnaire or attended a "Children in Focus" clinic), 13 988 children were alive at 12 months of age. Children were invited to attend 9 assessment clinics, including face-to-face interviews and psychological and physical tests, from age 7 years onward. The tests administered at each assessment wave varied. (Details are available on a fully searchable data dictionary at http://www.bris.ac.uk/alspac/researchers/data-access/data-dictionary/.) Ethical approval for the study was obtained from the ALSPAC Ethics and Law Committee and the Local Research Ethics Committees. The phases of enrollment are described in more detail in the cohort profile paper.[24]

Sample

At the 12-year assessment, questionnaires were sent out to 11 132 families. Of these, 7505 (67.4%) were returned completed, 3604 were not returned, and 23 were returned blank. Our starting sample consisted of 6928 children who answered detailed questions on sibling bullying through a postal questionnaire in 2003 and 2004, completed at mean age 12 years; 477 children did not have a sibling and so did not answer this questionnaire. Twins (n = 173) were excluded, given previous literature suggesting that the sibling relationship between twins may be distinct from that of singletons.[25,26] Outcome data were available for 3452 adolescents at 18 years. A sample with complete data across all exposure, outcome, and confounding variables (n = 2002) was used to investigate the main and adjusted association between sibling bullying and depression at 18. Young adults who attended the clinic at 18 were more likely to have higher family social class and mothers with higher educational attainment. Those lost to follow-up were no more likely to have reported sibling bullying (odds ratio [OR] = 0.99; 95% confidence interval [CI], 0.96–1.03; P = .68) than those with data on all variables. To address the possibility of bias, we also conducted analyses using imputed data sets, allowing participants with incomplete data to be included in the analyses. All missing data were imputed, and all analyses were repeated using the same sample (N = 5715).

Assessment of Sibling Bullying

Sibling bullying was assessed when children were 12 years (mean 12.1 years, age range 11.9–15.1 years, SD 9.5 months) with a standard sibling bullying questionnaire[6] adapted from the widely used Olweus Bullying Questionnaire.[27] Children were first asked whether they had a sibling. Of the children who answered this questionnaire, 7005 (93.3%) reported that they had a sibling, and 477 (6.4%) reported that they did not. Children with siblings were then informed that they would be asked about bullying by brothers and sisters and told, "This means when a brother or sister tries to upset you by saying nasty and hurtful things, or completely ignores you from their group of friends, hits, kicks, pushes or shoves you around, tells lies or makes up false rumors about you." Children were asked whether they had been bullied by a brother or sister at home in the last 6 months, responding "never" (N = 3643, 52.6%), "only ever once or twice" (N = 1191, 17.2%), "2 or 3 times a month" (N = 645, 9.3%), "about once a week" (N = 663, 9.6%), and "several times a week" (N = 786, 11.4%). Children were then asked to report how often different types of bullying had occurred (Table 1), using the same frequency measures (internal consistency α = .78). Children were also asked to report how old they were when this first happened (mean age 8.3 years).

Outcomes

Participants completed a self-administered computerized version of the Clinical Interview Schedule–Revised (CIS-R)[28]

TABLE 1 Description of Sibling Bullying in Boys and Girls

Frequency of Bullying	Total Sample, *N* (%)	Boys, *N* (%)	Girls, *N* (%)
Sibling bullying, all types			
Never	3643 (52.6)	1786 (49.0)	1857 (51.0)
Only ever once or twice	1191 (17.2)	529 (44.4)	662 (55.6)
2 or 3 times a month	645 (9.3)	295 (45.7)	350 (54.3)
About once a week	663 (9.6)	275 (41.5)	388 (58.5)
Several times a week	786 (11.4)	351 (44.7)	435 (55.3)
Of those who reported sibling bullying (*N* = 3285)			
Type of bullying (% several times a week)			
Hit, kicked, pushed, or shoved	416 (12.7)	185 (12.8)	231 (12.6)
Possessions damaged or taken	65 (2.0)	32 (2.3)	33 (1.8)
Called names	760 (23.1)	329 (22.7)	431 (23.4)
Made fun of	503 (15.4)	235 (16.3)	268 (14.7)
Ignored or left out of games or social groups	157 (4.9)	86 (6.0)	71 (3.9)
Told lies or had rumors spread about them	114 (3.5)	64 (4.4)	50 (2.8)
Bullied in another way	74 (2.5)	35 (2.7)	39 (2.4)

at the 18-year research clinic (mean age 17 years, 10 months) conducted in 2009 to 2010. The Clinical Interview Schedule–Revised is designed for, and has been widely used in, community samples[29] and has an estimated test–retest reliability of 0.74.[28]

Depression

We assessed depression by using a binary variable (depressed, not depressed); cases were those meeting criteria for mild, moderate, or severe depression as listed in the International Classification of Diseases, 10th Revision.

Anxiety

A binary variable (anxiety present, not present) was used, with cases defined as those with the presence of any of the following 5 anxiety disorders: generalized anxiety disorder, social phobia, specific (isolated) phobia, panic disorder, or agoraphobia, according to International Classification of Diseases, 10th Revision criteria.

Self-Harm

We assessed self-harm in the previous year by using a binary variable (self-harm, no self-harm) coded from responses to the following questions: "Have you ever hurt yourself on purpose in any way (eg, by taking an overdose of pills, or by cutting yourself)?" If yes, "How many times have you harmed yourself in the last year?" (not in the past year [coded 0] versus once, 2–5 times. 6–10 times, or >10 times [coded 1]).

Potential Confounders

Potential confounders were selected a priori based on the research literature for bullying (both sibling and peer) and family violence. We selected confounders that occurred at or before age 8, the mean onset of sibling bullying. In addition, we also included the earliest available self-reported measure of depressive symptoms (age 10).

Individual Characteristics

We assessed children's internalizing and externalizing problems by using maternal reports from the Strengths and Difficulties Questionnaire[30] when children were 7 years old (original internal consistency across subscales, α = .73; in the current study, α = .70). We assessed peer victimization when children were 8 years of age by using a modified version of the Bullying and Friendship Interview Schedule[31] (original internal consistency, α = .77; in the current study, α = .71). We assessed depressive mood by using the self-reported Short Moods and Feelings Questionnaire,[32] when children were 10 years old (original internal consistency, α = .86; in the current study, α = .80).[32]

Family Characteristics

The analysis was adjusted for a range of family factors derived from maternal reports when children were 8 years of age. These included child birth order (first or later born), mother's marital status (percentage of mothers married for first time versus divorced or separated), number of children living at home (≤2 vs ≥3), presence of both biological parents in the family, and sibling gender, assessed as the percentage of participants with an older brother, an older sister, a younger brother, and a younger sister.

We assessed parental occupational social class based on the lower of the mother or partner's occupational social class[33] and dichotomized into professional, managerial, or skilled professions and partly or unskilled occupations, highest maternal education (coded as [i] advanced-level qualifications, university degree, or ordinary-level qualifications or [ii] certificate of secondary school education, vocational, or none). We measured maternal depression (assessed during pregnancy, at 18 weeks' gestation) by using the Edinburgh Postnatal Depression Scale[34] (original internal consistency, α = .87; in the current study, α = .85), obtained using a postal questionnaire. We assessed child maltreatment (no or present) when the study child was 7 years old by using maternal reports of study children's exposure to stressful life events between 5 and 7 years of age. The items included in this questionnaire were taken from other studies.[35,36] A score of 1 was coded if parents responded "yes" to any item relating to physical or sexual abuse or reported that the study child had been put into care. We assessed domestic violence by using items from an adapted life events inventory,[35] and

it was considered present if mothers reported experiencing physical or emotional cruelty from their partner at any time during the 4 waves in which these data were collected (child age 8 months; 1 year, 9 months; 2 years, 9 months; and 3 years, 11 months).[37,38]

Statistical Analyses

We used logistic regression analyses to calculate ORs for depression, anxiety, and self-harm at 18 years according to sibling bullying at age 12 (treating the sibling bullying variable as both an ordinal scale and as a continuous score to show dose–response association; both sets of results shown) in univariate models. We examined whether the relationship between sibling bullying and each outcome measure could be nonlinear by using a quadratic term. We tested for an interaction between gender and sibling bullying for each of the 3 outcomes. We then introduced confounding variables separately into each model to investigate the impact of previous mental health problems together with peer bullying experiences and family characteristics on the associations. We used the "punaf" command to calculate the population attributable risk and 95% CI from the final multivariable logistic regression model. All analyses were conducted by using Stata 12 (Stata Corp, College Station, TX).

Missing Data

A sample with complete data across all exposure, outcome, and confounding variables was used to investigate main and independent effects of sibling bullying. We also imputed missing data because there is substantial information on sociodemographic variables that predict missingness in ALSPAC. We used a fully conditional specification as implemented in the Multiple Imputation by Chained Equations[39] algorithm in Stata 12. The imputation model included additional variables that either were associated with missingness or were predictive of outcomes at 18 years: maternal age and sociodemographics in pregnancy and early childhood (full list available on request). We averaged parameter estimates over 60 imputed or completed data sets by using Rubin's rules.[40] In longitudinal studies, earlier measures of child depression can be used to predict later depression,[41] allowing us to impute up to a starting sample of 5715 those with ≥1 measure of adolescent depression and complete exposure data.

RESULTS

Children who reported that they experienced sibling bullying were most commonly subject to nonphysical bullying such as being called names (23.1%) or being made fun of by their sibling (15.4%) several times a week (Table 1). There were no differences in type of bullying experienced by boys and girls.

Table 2 shows individual and family characteristics of children as a function of their exposure to sibling bullying. Children who were bullied by siblings were more likely to be female and to have higher levels of emotional and behavioral problems at age 7. Children who were bullied by a sibling reported much higher rates of peer victimization. In terms of family characteristics, bullied children were more likely to have an older sibling, specifically an older brother, and were more likely to live in families with ≥3 children. More frequent sibling bullying was associated with lower social class and with higher levels of maternal depression during pregnancy. Sibling bullying tended to occur in families with greater levels of domestic violence and child maltreatment.

Association With Psychiatric Difficulties at 18 Years

Of the 3452 children who provided data on both sibling bullying and psychiatric outcomes at 18 years, 1810 participants reported that they had not been bullied by a sibling (50.0% female) (Table 3). Of these children, 6.4% (N = 115) had depression scores in the clinically significant range at 18 years, 9.3% (N = 169) experienced anxiety, and 7.6% (N = 138) had self-harmed in the previous year. Of the 786 children who reported that they had been bullied by a sibling several times a week (55.3% female), depression was reported by 12.3% at age 18 years, self-harm occurred in 14.1%, and anxiety was reported by 16.0%.

Despite a difference in overall prevalence, there was no evidence for an interaction between gender and sibling bullying ($P > .2$) for any of the 3 outcomes, and analyses were not stratified by gender.

Children who reported being bullied by a sibling several times a week had more than twice the odds of depression and self-harm at age 18 years compared with those who were not bullied by their siblings (Table 3) (depression: OR 2.16; 95% CI, 1.33–3.51; $P < .001$; self-harm: OR 2.56; 95% CI, 1.63–4.02). These associations were only slightly attenuated after adjustment for confounding factors. We conducted additional sensitivity analyses adjusting for concurrent depressive symptoms at 18 years and found that the association between sibling bullying and self-harm remained (adjusted OR = 2.26; 95% CI, 1.40–3.66; $P < .001$; additionally adjusted for concurrent depression, OR = 2.02; 95% CI, 1.22–3.35; $P < .001$). The population-attributable fractions suggested that 13.0% (95% CI, 1.0%–24.7%) of depression and 19.3% (95% CI, 7.6%–29.6%) of self-harm at age 18 could be explained by being the victim of sibling bullying if these were causal relationships.

Children who reported being frequently bullied by a sibling also had higher odds of anxiety in unadjusted analyses (OR = 1.83; 95% CI, 1.19–2.81; P = .006), but this association was attenuated after adjustment for individual and family

TABLE 2 Individual and Family Characteristics of Sibling Victims

		Sibling Bullying (Last 6 mo)				
	Never (N = 3643), % or M (SD)	Only Ever Once or Twice (N = 1191), % or M (SD)	2 or 3 Times a Month (N = 645), % or M (SD)	About Once a Week (N = 663), % or M (SD)	Several Times a Week (N = 786), % or M (SD)	P
Individual characteristics						
Male	49.0	44.4	45.7	41.2	44.7	<.001
Child's age when first bullied by sibling,	—	8.92 (2.34)	8.38 (2.26)	8.21 (2.37)	7.59 (2.65)	<.001
Early internalizing problems	1.44 (1.61)	1.51 (1.71)	1.47 (1.68)	1.68 (1.69)	1.74 (1.77)	<.001
Early externalizing problems	1.41 (1.39)	1.58 (1.40)	1.61 (1.45)	1.71 (1.48)	1.96 (1.59)	<.001
Frequently bullied by peers	16.8	20.8	21.3	20.9	26.3	<.001
Family characteristics						
First-born child	49.5	37.5	34.3	39.0	34.0	<.001
Divorced or separated	10.5	10.0	11.3	9.6	12.1	
No. of children living at home (% ≥3)	42.3	49.4	51.2	51.9	56.7	<.001
Child has older brother (%)	34.4	45.7	49.4	51.3	54.9	<.001
Child has older sister (%)	39.4	46.0	43.4	42.6	40.6	.14
Lower parental social class	45.9	45.5	43.8	45.5	54.2	.05
Maternal education (ordinary-levels or less)	57.0	55.1	53.7	52.9	60.6	.69
Maternal depression	6.26 (4.53)	6.34 (4.40)	6.57 (4.49)	7.01 (4.76)	7.05 (4.76)	<.001
Maltreated by adult	13.0	14.4	14.8	13.9	18.6	.002
Domestic violence	21.0	24.0	23.9	26.7	30.9	<.001

—, answer not applicable.

characteristics (OR = 1.51; 95% CI, 0.95–2.38; P = .08).

There was no evidence for nonlinear relationships between sibling bullying and any of the 3 outcomes ($P > .3$).

Missing Data Analyses

We repeated analyses using the imputed data set (Table 3). Associations between sibling bullying and each outcome were typically slightly lower in the imputed analyses (eg, adjusted OR for depression in unimputed data set = 1.85; 95% CI, 1.11–3.09; in imputed data set, OR = 1.64; 95% CI, 1.12–2.42) but were consistent with the previous findings based on complete cases.

DISCUSSION

Using data from a large, prospective cohort study, we found evidence of strong dose–response associations between being the victim of sibling bullying at age 12 years and depression and self-harm at 18 years. The associations were similar for boys and girls, and they held true even after we controlled for a range of confounders. We also found some evidence of an increase of anxiety at follow-up, although this association did not remain after adjustment for concurrent depression at 18 years.

To our knowledge, our study is the first longitudinal study to investigate the prospective association between sibling bullying and the emergence of clinical outcomes in early adulthood. Our findings are consistent with those of a cross-sectional study by Tucker and colleagues[7] that reported evidence of an increased risk of symptoms of depression, anxiety, and anger among adolescents exposed to sibling aggression. Our findings are also in line with results of recent meta-analyses suggesting an association between sibling aggression and internalizing symptoms.[1,17] Strengths of our study include the large sample size and extended follow-up, our detailed self-report measure of

TABLE 3 Prevalence and ORs for Depression, Self-Harm, and Anxiety at Age 18 According to Self-Reports of Sibling Bullying at Age 12

Outcome	Frequency of Sibling Bullying					Linear Trend
	Never (N = 3643)	Only Ever Once or Twice (N = 1191)	2 or 3 Times a Month (N = 645)	About Once a Week (N = 663)	Several Times a Week (N = 786)	
Depression						
% yes	6.4	6.8	9.1	6.8	12.3	—
Unadjusted OR (95% CI)	1.00	0.91 (0.53–1.56)	1.47 (0.83–2.60)	1.25 (0.70–2.24)	2.16 (1.33–3.51)*	1.18 (1.06–1.33)*
Adjusted OR (95% CI)	1.00	0.79 (0.45–1.36)	1.40 (0.78–2.55)	1.00 (0.55–1.81)	1.85 (1.11–3.09)*	1.13 (1.01–1.27)*
Imputed adjusted OR (95% CI)	1.00	0.99 (0.68–1.45)	1.31 (0.86–2.02)	1.10 (0.72–1.69)	1.64 (1.12–2.42)*	1.18 (1.09–1.28)*
Self-harm						
% yes	7.6	9.4	8.8	10.7	14.1	—
Unadjusted OR (95% CI)	1.00	1.57 (1.02–2.44)*	1.46 (0.84–2.55)	1.86 (1.13–3.05)*	2.56 (1.63–4.02)*	1.24 (1.12–1.38)*
Adjusted OR (95% CI)	1.00	1.31 (0.84–2.06)	1.40 (0.79–2.47)	1.68 (1.02–2.77)*	2.26 (1.40–3.66)*	1.21 (1.09–1.35)*
Imputed adjusted OR (95% CI)	1.00	1.23 (0.96–1.59)	1.39 (1.01–1.90)*	1.53 (1.15–2.04)*	2.18 (1.41–3.10)*	1.20 (1.08–1.30)*
Anxiety						
% yes	9.3	9.9	6.9	10.4	16.0	—
Unadjusted OR (95% CI)	1.00	1.22 (0.81–1.83)	0.57 (0.29–1.11)	0.95 (0.56–1.61)	1.83 (1.19–2.81)*	1.09 (0.98–1.20)
Adjusted OR (95% CI)	1.00	1.08 (0.71–1.63)	0.54 (0.27–1.06)	0.84 (0.49–1.44)	1.55 (0.95–2.38)	1.04 (0.93–1.15)
Imputed adjusted OR (95% CI)	1.00	0.98 (0.71–1.34)	0.82 (0.53–1.26)	1.10 (0.76–1.58)	1.43 (1.03–1.99)*	1.07 (0.99–1.15)

Unadjusted and adjusted analyses used complete cases (N = 3452).

Adjusted model includes the following covariates: individual characteristics: gender, mother-reported emotional and conduct problems at age 7, peer victimization at age 8, self-reported depression at age 10; family characteristics: first-born versus not, number of children in family, mother's marital status, parental social class, maternal education, mother's history of depression, domestic violence and maltreatment.

* $P < .05$.

sibling bullying, and our ability to adjust for a large number of potential confounders.

A potential limitation of the study is that our measure of sibling bullying was self-reported. People who are prone to depression may be more likely to perceive or report bullying. To address this limitation, we adjusted for emotional and behavioral problems reported by mothers at 7 years of age, before the self-reported mean onset of sibling bullying occurred, and self-reported depressive symptoms at age 10. This approach could have led to overadjustment because sibling bullying was reported on average starting at age 8, before our Short Moods and Feelings Questionnaire measure. Finally, in sensitivity analyses we additionally adjusted for concurrent depression at 18 years when examining associations between sibling bullying, self-harm, and anxiety. A second limitation is the loss to follow-up from the original ALSPAC sample. Those who completed the CIS-R did not differ in their reports of sibling bullying at age 12 compared with those who were lost to follow-up, and the results of our imputation analyses were consistent with our complete case findings. We therefore think it is unlikely that our findings could be explained by attrition. A third potential limitation is that although we adjusted for a number of potential confounders, we cannot exclude the possibility of residual confounding. For example, there is evidence that genetic influences increase children's risk of peer victimization,[42,43] but the impact of peer victimization on children's internalizing symptoms has been shown to be environmentally mediated.[44] It is not known whether this is also the case for sibling victimization. Lastly, participants retrospectively reported the age at which sibling victimization began. We adjusted for confounders occurring before the mean onset of sibling victimization, but this may have led to

overadjustment if sibling victimization occurred before age 8.

Implications and Conclusions

Victims of sibling bullying are twice as likely to develop depression by early adulthood and to report self-harming within the previous year when compared with children not bullied by siblings. There is a growing concern about bullying occurring at school, at work, or by adult partners. In contrast, sibling bullying is neglected by researchers, clinicians, and policymakers. Although sibling bullying tends to occur more often in families characterized by high levels of conflict and violence,[45] our findings suggest that sibling bullying is independently associated with the emergence of depression and self-harm once such family risk factors have been taken into account.

Unlike peer groups, sibling relationships endure throughout development, with little opportunity for victims to escape. Our results suggest that being bullied by siblings may not be a harmless experience in children's lives but a risk factor for enduring mental health problems. Because sibling bullying often occurs alongside interparental conflict and in families with poor parent–child relationships, it may be important to integrate siblings into child and family programs. However, given that we observe an association over and above the effects of multiple family risk factors, our findings argue for the development of interventions specifically designed to target sibling bullying. Existing programs that target the sibling relationship more broadly[46,47] should be systematically evaluated to determine whether they lead to a reduction in sibling bullying and psychological harm.

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