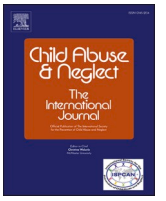
Child Abuse & Neglect 160 (2025) 107211

Contents lists available at ScienceDirect

Child Abuse & Neglect

journal homepage: www.elsevier.com/locate/chiabuneg



The prevalence and correlates of sibling bullying victimisation in early adolescence: An investigation of over 30,000 adolescents in 18 countries

Umar Toseeb *, Emre Deniz, Nathalie Noret

Department of Education, University of York, York YO10 5DD, United Kingdom

ARTICLE INFO

Keywords:
Sibling bullying
Victimisation
Childhood
International
Public health

ABSTRACT

Background: Sibling bullying is a common childhood experience. Recent studies have shown that correlates of sibling bullying are proximal and distal. However, a lack of cross-cultural understanding still exists on the prevalence and protective factors of sibling bullying.
Objective: The objective of the current study was to examine the prevalence of sibling bullying and investigate whether positive environments protect against sibling bullying victimisation in 18 countries.
Participants and setting: We analysed existing data from an international study of over 30,000 adolescents aged 10 and 12 years old, the Children's World Survey.
Methods: Adolescents reported physical and verbal sibling bullying victimisation experiences and the positive aspects of their home, neighbourhood, and school environments. Regression models were fitted to investigate whether individual- and country-level positive home, neighbourhood, and school environments are associated with sibling bullying victimisation.
Results: On average, the prevalence of sibling bullying victimisation was 28 %; 1 in 4 adolescents were physically hurt or called unkind names more than three times in the last month by a sibling (excluding fighting or play fighting). The prevalence varied by country; ranging from 9 %–59 %. Whilst, on the whole, individual-level positive home, neighbourhood, and school environments were associated with reduced sibling bullying victimisation (odds ratios, 0.68–0.85), these effects differed for each country. Country-level positive environments were not associated with sibling bullying victimisation.
Conclusion: These findings demonstrate that improving adolescents' home, neighbourhood, and school environments might serve to reduce sibling bullying victimisation.

Sibling conflict, e.g., jealousy, rivalry, fights, is a natural part of daily sibling interactions (Sanders, 2004). It can, however, turn harmful when it becomes sibling bullying. There are four elements that turn everyday sibling conflict into sibling bullying. These are 1) aggressive behaviours that are unwanted, 2) the intention of harm, 3) the presence of a power imbalance between siblings, and 4) the behaviours need to be repeated frequently (Wolke et al., 2015). Put simply, sibling bullying is "any unwanted aggressive behaviour(s) by a sibling that involves an observed or perceived power imbalance and is repeated multiple times or is highly likely to be repeated" (Wolke et al., 2015, p918). Any aggressive behaviours that lack any of the above four elements would be considered normative sibling conflict rather than sibling bullying.

* Corresponding author.
E-mail address: umar.toseeb@york.ac.uk (U. Toseeb).

https://doi.org/10.1016/j.chiabu.2024.107211
Received 15 April 2024; Received in revised form 2 December 2024; Accepted 10 December 2024
Available online 29 December 2024

Sibling bullying is pervasive in adolescents' lives. Those who are involved in sibling bullying can be victims, perpetrators, or both (Bowes et al., 2014). Indeed, most adolescents who are involved in sibling bullying are both victims and perpetrators (Toseeb, McChesney, Dantchev, et al., 2020; Toseeb, McChesney, Oldfield, et al., 2020; Toseeb et al., 2018). There is high correlation between sibling bullying victimisation and sibling bullying perpetration in adolescence (Menesini et al., 2010). This suggests that adolescents who are victimised by a sibling are at an increased likelihood of bullying a sibling and vice versa.

Despite its apparent ubiquity, no previous study has compared sibling bullying victimisation rates across multiple countries and continents nor has there been a comprehensive investigation of its correlates. Therefore, it remains unclear whether adolescents are more vulnerable to sibling bullying victimisation in some countries compared to others and whether the correlates of sibling bullying vary across countries. We addressed these gaps in knowledge by comparing the prevalence of sibling bullying victimisation across 18 countries and determining whether individual- and country-level positive home, neighbourhood, and school environments predict sibling bullying victimisation.

1. Cross-national studies

Sibling bullying victimisation is common across the world. In the United Kingdom, the prevalence of sibling bullying victimisation is between 30 and 40 % (Toseeb et al., 2018; Toseeb, McChesney, Oldfield, et al., 2020), but this varies depending on the country or region: China (12–20 %, Liu et al., 2021; Qing et al., 2022), Indonesia (15 %, Borualogo & Casas, 2023), Ireland (28 %, Foody et al., 2020), Thailand (26 %, Laopratai et al., 2023), Turkey (48 %, Deniz et al., 2023), Vietnam (54 %, Truong et al., 2022), South Asia (10–14 %, Perkins & Rai, 2023). These reported differences might reflect genuine differences or they might be confounded by other factors making direct comparisons difficult. For example, studies differ on the measures used (e.g., multiple- or single-item), informant (e.g., self- or parent-report), age at victimisation (childhood to late adolescence), reporting period (e.g., childhood-report or retrospective reporting in adulthood), definition of bullying (e.g., some studies count any victimisation as bullying whereas others stipulate victimisation must be repeated). These methodological differences make direct comparisons between countries difficult. We address these limitations by using a consistent measure of sibling bullying victimisation eliminating such potential methodological confounds and enabling a like-for-like comparison of the prevalence of sibling bullying victimisation across multiple countries.

2. Individual differences and sibling bullying

Investigations of the individual differences associated with sibling bullying victimisation are important as they allow for an understanding of the factors that co-occur with victimisation, and therefore offer possible avenues for intervention. Several correlates of sibling bullying victimisation have been identified, mostly at the level of the individual.

Young people's individual differences are a risk factor (e.g., age, disability, sex, ethnicity, sexual orientation, personality etc. (Brett et al., 2023; Laopratai et al., 2023; Menesini et al., 2010; Peng et al., 2022; Toseeb et al., 2018; Toseeb, McChesney, Dantchev, et al., 2020; Tucker et al., 2017). For example, younger children are more likely to be involved in sibling bullying as a victim, older children as a perpetrator, and boys are more likely to be involved in sibling bullying compared to girls (Brett et al., 2023). Indeed, some of the differences across countries might be explained by age differences. Additionally, in some studies, white children are more likely to be involved in sibling bullying than other ethnic groups (Eriksen & Jensen, 2009; Tucker et al., 2013); it may be that some ethnic groups may hesitate to report bullying experiences (Brett et al., 2023). Other researchers have also suggested that some ethnic groups may be disproportionately affected by contextual-level risk factors associated with bullying (e.g., home, school, neighbourhood environments), which may further increase their likelihood for experiencing sibling bullying (Xu et al., 2020). Therefore, sibling bullying may reflect particular social stigmas that exist in a specific social context (Earnshaw et al., 2018), which leaves young people at greater risk of being bullied (Johnson et al., 2002).

Sibling bullying has also been consistently linked to increased mental health difficulties and poor wellbeing in various countries across the world (Dantchev et al., 2019; Deniz & Toseeb, 2023; Laopratai et al., 2023; Liu et al., 2020, 2021; Peng et al., 2022; Toseeb et al., 2024; Toseeb & Wolke, 2022; Tucker et al., 2013). Sibling bullying is a potential risk factor for increased symptoms of anxiety and depression, suicidal ideation and self-harm, loneliness, psychological distress, psychotic-like symptoms, and externalising problems (Bowes et al., 2014; Coyle et al., 2017; Dantchev & Wolke, 2018; Duncan, 1999; Tucker et al., 2013). Additionally, sibling bullying is associated with reduced self-esteem and wellbeing (Katsantonis, 2022; Toseeb & Wolke, 2022).

3. Theoretical considerations

Individual risk factors are only part of the problem. Context is important to understand sibling bullying victimisation given the theoretical explanations for sibling bullying. The resource control theory (Hawley, 1999) suggests that sibling bullying is motivated by the desire to maximise access to parental resources such as time, attention, and affection. In support of this, sibling bullying has been found to be associated with parental mental health, parenting, number of siblings, and birth order (Deniz et al., 2023; Deniz & Toseeb, 2024; Plamondon et al., 2018; Qing et al., 2022; Sabah et al., 2022). Therefore, the structural aspects of the home environment appear to be important predictors of sibling bullying. What remains unclear is whether the relational aspects of the home environment (e.g., care, support, safety, respect, and participation) are also associated with sibling bullying, over and above structural aspects of the family environment.

In addition to individual-level characteristics and the home environments, adolescent behaviour and adjustment depend upon multiple levels of influence (Bronfenbrenner, 1979). This includes proximal factors (e.g., the microsystem), such as those described

previously, as well as more distal factors (e.g., macrosystem), such as country-level laws and values. Drawing upon the socioecological systems framework, previous research has shown that sibling bullying behaviours may be learnt through observations of aggressive and bullying behaviours in families (Ingram et al., 2020) and neighbourhoods (Schwartz & Proctor, 2000). Schools may also serve as an important environment in which bullying behaviours are learnt. Indeed, adolescents who are bullied by peers in school are at increased risk of being bullied by siblings at home (Dantchev & Zemp, 2021). Therefore, adolescents' home, neighbourhood, and school environments are worthy of further investigation as correlates of, and potential influences upon, sibling bullying victimisation. Taking into account the socioecological systems framework, differences in sibling bullying victimisation across different cultural contexts might be expected.

To the best of our knowledge, no previous study has investigated the variations in sibling bullying victimisation across multiple countries, both in terms of individual-level or in relation to broader socioecological factors. This is problematic for two reasons. First, it is important to establish a literature on the individual-level correlates of sibling bullying victimisation across multiple countries as it may guide future universal prevention and intervention strategies. Second, what happens in the home is not independent of country-level norms and values; indeed this is a key premise of the socioecological systems framework (Bronfenbrenner, 1979). For example, adolescents, parents, teachers, and others who contribute to creating home, neighbourhood, and school environments do so within the constraints of their country's laws and values. In some countries, it is illegal for a parent to physically punish their child and so in those countries adolescents' home environments are, at least partly, governed by country-level factors. Similarly, a country's laws may influence school environments. In England, for example, schools are required by law to prevent bullying amongst pupils. Therefore, in addition to investigating proximal influences on sibling bullying victimisation (i.e., individual-level home, neighbourhood, and school environments), we also sought to investigate distal influences (i.e., country-level home, neighbourhood, and school environments). Such influences have been found to be associated with bullying in peer relationships (Hong & Espelage, 2012), but have not been examined as extensively in sibling bullying.

4. Positive environments

Much of the previous work on the correlates of sibling bullying victimisation has focussed on the negative factors (i.e., factors that increase the risk of being bullied by siblings). Whilst this is helpful as it identifies the negative influences that need to be removed or minimised from adolescents' lives, it does not provide any indication of what these negative influences need to be replaced with. Identifying positive factors (i.e., those that decrease the risk of being bullied by siblings) might serve to inform future work on developing positive activities that work to reduce sibling bullying victimisation. Put simply, we know lots about the relationships between sibling bullying and the presence of "bad things" but very little about its relationship with the presence of "good things" (note. we conceptualise positive as the presence of good rather than merely the absence of bad). For example, positive environments, characterised by care, support, safety, respect, and participation, might serve to enhance psychological and social wellbeing (Westerhof & Keyes, 2010). Indeed, there is some evidence that these environments are almost universally associated with some aspects of adolescent development (Bell et al., 2024). Understanding adolescents' positive home, neighbourhood, and school environments, their relationship with sibling bullying victimisation, and how this differs depending on the adolescents' home country will help shed new light on the socioecological influences on sibling bullying victimisation.

5. Sibling bullying victimisation in early adolescence

Sibling bullying victimisation becomes an increased cause of concern as young people reach early adolescence. This mainly relates to the heightened risks for social influence on adolescent behaviours. More specifically, peer relationships and social approval become more important than family relationships (Paikoff & Brooks-Gunn, 1991). Adolescents navigate away from their homes and families as they grow older and begin adolescence and spend much more time with their peers at school and, potentially, in their neighbourhoods. Indeed, proximity is a key predictor of friendships. This inevitably increases adolescents' vulnerability to be influenced by the negative aspects of their social environments such school and neighbourhoods. Additionally, adolescence is when individuals are most prone to experiencing mental health difficulties (Blakemore, 2019). Given the well established link between sibling bullying and mental health difficulties in multiple word contexts (see previous discussion), it seems pertinent to prevent sibling bullying with the hope that it may lead to reductions in the onset of mental health difficulties (although predictions about such causal mechanisms are speculative, at this stage).

6. The current study

To address the previously identified gaps in knowledge, we conducted a comprehensive cross-national investigation of sibling bullying victimisation to answer four research questions. First, what is the prevalence of sibling bullying victimisation in early adolescence in different countries? (Research Question 1). We expected that there would be variation in the prevalence of sibling bullying victimisation in early adolescence between countries but made no predictions about which countries are likely to have the highest or lowest prevalence. Second, we wanted to determine the extent to which country-level positive home, neighbourhood, and school environments are associated with sibling bullying victimisation. (Research Question 2). We expected country-level effects to be associated with sibling bullying victimisation; countries with more positive home, neighbourhood, and school environments will have lower levels of sibling bullying victimisation. Next, we asked to what extent individual-level positive home, neighbourhood, and school environments are associated with sibling bullying victimisation in early adolescence. (Research Question 3), and do these effects vary

depending on the country (Research Question 4). We expected that, on the whole, individual-level positive home, neighbourhood, and school environments would be associated with sibling bullying victimisation but some effects might be country-specific.

7. Methods

7.1. Ethical approval

Our study was a secondary analysis of existing data from the third wave of the Children's World Survey (CWS: https://isciweb.org/). Ethical approval for data collection was obtained locally in each country. Parents and adolescents provided consent and assent, respectively.

7.2. Study sample

The CWS is an international study of over 128,184 individuals aged 8-, 10-, and 12- years living in one of the 35 countries in Africa, Asia, Europe, and South America. Researchers at universities in each country asked those in mainstream schools to complete questionnaires online or in person between 2016 and 2019; they translated and administered them in local languages.

Our analysis focussed on a subsample of 32,586 adolescents (unweighted) aged 10–12 years old in 18 countries: Albania, Algeria, Belgium, Brazil, England, Greece, Hungary, Indonesia, Italy, Malaysia, Malta, Nepal, Norway, Spain, Sri Lanka, Taiwan, Vietnam, and Wales. From the original sample of 128,184 individuals, we removed 8-year-olds because they were asked to complete a slightly amended version of the questionnaire ($N = 32,608$), respondents whose answers to the question(s) on sibling bullying were not asked in the country ($N = 36,052$, 18 countries), answered "don't know" ($N = 2435$), did not respond ($N = 1501$), or values were outside the acceptable range ($N = 28$). We also excluded individuals who were suspected to have responded systematically ($N = 3617$). We recognise that 10–12 year olds are in a developmentally ambiguous stage; sometimes referred to as childhood, latency, or adolescence. We used the WHO definition of adolescence, which suggests that adolescence starts at the age of 10 years. Therefore, throughout the manuscript we refer to our sample of 10–12 year olds as adolescents and this developmental stage as early adolescence.

7.3. Measures

Data from self-report questionnaires were used for the following variables.

7.3.1. Outcome variable

Sibling bullying victimisation. Each child was asked to report how often in the last month they had been 1) hit by their brothers or sisters (not including fighting or play fighting) and 2) called unkind names by their brothers or sisters on a four-point scale (0 = *never*, 1 = *once*, 2 = *two or three times*, 3 = *more than three times*). We derived three sibling bullying victimisation variables: physical only, verbal only, and physical and verbal bullying victimisation. They were all dummy variables: physical only and verbal only (0 = *never*, *once*, or *two or three times*, 1 = *more than three times*) and physical and verbal (0 = "*never*", "*once*", "*two or three times*" to both questions, 1 = "*more than three times*" to *either* one of the two questions).

7.3.2. Predictor variables

The predictor variables were positive home (5 items, α =0.74, factor loadings 0.57–0.67), neighbourhood (6 items, α =0.80, factor loadings 0.48–0.73), and school (6 items, α =0.81, factor loadings 0.54–78) environment. See Table S1 (Supplementary Materials) for a full list of factor loadings.

Positive home environment. Adolescents were presented with six statements about family functioning and asked to respond on a five-point-likert scale (0= *I do not agree*, 1= *I agree a little*, 2 = *I agree somewhat*, 3 = *I agree a lot*, 4 = *I totally agree*). The statements were: "There are people in my family who care about me", "If I have a problem, people in my family will help me", "We have a good time together in my family", "I feel safe at home", "My parent(s) listen to me and take what I say into account", "My parents and I make decisions about my life together". Responses of "Don't know" were recoded as missing.

Positive neighbourhood environment. Adolescents were asked six questions about their neighbourhood and asked to respond on a five-point scale (0 = *I do not agree*, 1 = *I agree a little*, 2 = *I agree somewhat*, 3 = *I agree a lot*, 4 = *I totally agree*). Responses of "Don't know" were recoded as missing. The questions were: "I feel safe when I walk around in the area I live in", "In my area there are enough places to play and have a good time", "If I have a problem there are people in my local area who will help me", "Adults in my local area are kind to children", "In my local area, I have opportunities to participate in decisions about things that are important to children", "Adults in my area listen to children and take them seriously".

Positive school environment. Adolescents were asked seven questions about their school and asked to respond on a five-point scale (0 = *I do not agree*, 1 = *I agree a little*, 2 = *I agree somewhat*, 3 = *I agree a lot*, 4 = *I totally agree*). Responses of "Don't know" were recoded as missing. The questions were: "My teachers care about me", "If I have a problem at school my teachers will help me". "If I have a problem at school other children will help me". "There are a lot of arguments between children in my class" (note. This was reverse scored). "My teachers listen to me and take what I say into account", "At school I have opportunities to make decisions about things that are important to me", "I feel safe at school".

For each of the three predictor variables, two sets of scores were calculated: individual- and country-level. For individual-level, mean scores were calculated using the corresponding items for each predictor variable (scores ranging between 0 and 4) for each

child; higher scores indicated a more positive environment. For country-level variables, the individual-level mean scores were used to calculate a country-mean score for positive home, neighbourhood, and school environments; again higher scores indicated a more positive environment.

7.3.3. Covariates

We included a number of covariates in the analysis, all at the individual-level. These were sex (boy or girl) and age (10 or 12-year-old).

Positive and negative emotions. We also measured positive and negative emotions on six questions based on Feldman and Russell (1998). Adolescents were presented with a list of words that describe different feelings. They were asked to read each word and then tick a box to say how much they have felt this way during the last two weeks (0= *not at all satisfied* to 10 = *totally satisfied*). The positive emotions were "happy", "calm", and "full of energy". The negative emotions were "sad", "stressed", and "bored". These six items were used to derive two scores: positive emotions (α = 0.62) and negative emotions (α = 0.65), each ranging from 0 to 30; higher scores indicating higher levels of positive and negative emotions, respectively.

Enough food. Adolescents were asked, "Do you have enough food to eat each day?". They responded on the following scale *(*0 = *never,* 1 = *sometimes,* 2 = *often,* 3 = *always).* Responses of *"Don't know"* were recoded as missing.

Single parent. Adolescents were asked, "*Please tick all of the people who live in your home?"* They were asked to select all that applied from the following: "mother", "father", "mother's partner", "father's partner", "grandmother", "grandfather", "brothers and sisters", "other children", and "other adults". This data was used to generate the single-parent variable (0 = *two parents*, 1 = *single or no parents*).

Own bedroom. Adolescents were asked, "Do you sleep in a room on your own or do you share a room?". They responded by selecting one of the following two options (0= *I sleep in a room that I share with other people*, 1= *I sleep in my own room*).

Peer Bullying. Adolescents were asked three questions about victimisation by peers in school and asked to respond on a four-point scale (0 = *never*, 1 = *once*, 2 = *two or three times*, 3 = *more than three times*). The statements were "hit by other children in your school (not including fighting or play fighting)", "called unkind names by other children in your school", and "left out by other children in your class". Responses of "don't know" were recoded as missing. The questions were used to generate a score of between 0 and 9; higher scores indicating more bullying victimisation by peers in school (α = 0.68).

7.4. Statistical analysis

We conducted the analysis in STATA 18.0 (StataCorp, 2023). All models included case weights provided with the dataset to ensure estimates were adjusted to the population level. To address research question 1, we produced individual-level mean values for each of the three sibling bullying victimisation variables. To address research question 2, we fitted two mixed-effects binary logistic regression models. In the first model (Model 1), there were three predictors: country-level positive home (1), neighbourhood (2), and school (3) environments. We also included country as a random effect. In the second model (Model 2), we repeated model 1 and added a number of covariates: sex, age, positive emotions, negative emotions, enough food, single parent, own room, and peer bullying victimisation. To address research question 3, we repeated model 1 and replaced country-level positive environments with individual-level positive environments (Model 3) and then repeated this with covariates (Model 4). Finally, to address research question 4, we repeated model 4

Table 1
Sociodemographic characteristics of sample (unweighted).

	Mean (SD) / N (%)	Range
Individual-Level Predictors		
Positive Home Environment[a]	3.35 (0.69)	0–4
Positive Neighbourhood Environment	2.82 (0.90)	0–4
Positive School Environment	3.09 (0.78)	0–4
Covariates		
Sex		
Female	16,697 (51.51 %)	–
Male	15,715 (48.49 %)	–
Age Group		
10 Years Old	15,836 (48.60 %)	–
12 Years Old	16,750 (51.40 %)	–
Positive Emotions	24.34 (5.54)	0–30
Negative Emotions	11.61 (7.77)	0–30
Enough Food		
Never/Sometimes	2150 6.79 %)	–
Often	4007 (12.66 %)	–
Always	25,498 (80.55 %)	–
Single Parent[b]		
No	26,012 (86.54 %)	–
Yes	4047 (13.46 %)	–
Own Bedroom[a]		
No	14,216 (45.00 %)	–
Yes	17,373 (55.00 %)	–
Peer Bullying	2.33 (2.40)	0–9

for each country separately (Models 5–22). For all logistic regression models, we produced odds ratios [95 % confidence intervals].

A previous version of this analysis was pre-registered on the open science framework in June 2023 (https://osf.io/sx97j). We abandoned the previous plan after a round peer review. This was due to concerns raised by peer reviewers and issues we identified with some of the variables we planned to use (e.g., inconsistency in measurement across countries). Therefore, the analysis reported here should be considered exploratory.

8. Results

8.1. Descriptive statistics

Descriptive statistics for all the predictors and covariates are shown in Table 1 and proportions of missing data are shown in Table S2 (Supplementary Materials).

8.2. Prevalence of sibling bullying victimisation

We calculated three sets of prevalence estimates for sibling bullying victimisation; 1) physical and verbal, 2) physical only, and 3) verbal only (see Table 2). Overall, 28 % of adolescents reported being bullied by their siblings; that is being hit (19 %) and or called unkind names (19 %) more than three times in the last month. The country where the highest proportion of adolescents reported being bullied by their siblings was Malaysia (overall: 59 % physical: 50 %, verbal: 33 %). Adolescents in Albania reported the lowest levels of sibling bullying victimisation (overall: 9 %, physical: 8 %, verbal: 2 %).

8.3. Country-level home, neighbourhood, and school environments

To address research question 2 and determine whether country-level positive home, neighbourhood, and school environments are associated with sibling bullying victimisation, we fitted two mixed-effects logistic regression models (see Table 3; Models 1–2). Although country-level effects were significant, explaining 5 % of the variance, country-level positive home, neighbourhood, and school environments were not significant correlates of sibling bullying victimisation. The confidence intervals for all country-level estimates were wide and crossed 1. That is, whilst the country adolescents live in explains some of the variations in their sibling bullying victimisation experiences, country-level positive environments (i.e., home, neighbourhood, and school) do not explain variations in sibling bullying victimisation experiences. (See Tables 4a and 4b.)

8.4. Individual-level characteristics

Although not part of a specific hypothesis, here we describe the findings of the covariates that were included in model 2 (Table 3).

Table 2
Prevalence of sibling bullying victimisation by country.

	Unweighted						Weighted					
	Physical and Verbal		Physical Only		Verbal Only		Physical and Verbal		Physical Only		Verbal Only	
	%	**Total N**	**%**	**Total N**	**%**	**Total N**	**%**	**Total N**	**%**	**Total N**	**%**	**Total N**
Africa												
Algeria	29.36	463	20.55	324	19.72	311	29.46	472	20.34	326	20.03	321
Asia												
Indonesia	24.51	2369	19.14	1850	11.45	1107	24.52	2346	19.16	1834	11.44	1095
Malaysia	61.87	503	52.89	430	33.95	276	59.06	466	49.92	390	33.18	262
Nepal	18.56	256	8.92	123	15.08	208	18.56	256	8.92	123	15.07	208
Sri Lanka	24.68	409	17.20	285	14.60	242	22.84	364	15.86	253	13.61	217
Taiwan	20.67	393	12.31	234	14.10	268	22.03	401	12.60	229	15.21	277
Vietnam	23.06	333	14.47	209	14.68	212	22.50	330	13.97	205	14.25	209
Europe												
Albania	8.56	137	7.12	114	2.69	43	9.03	147	7.66	124	2.47	40
Belgium	37.00	521	23.93	337	28.69	404	37.37	536	23.76	341	29.21	419
England	37.83	174	26.74	123	30.22	139	37.41	174	26.23	122	29.44	137
Greece	24.87	140	21.31	120	12.97	73	25.34	146	21.59	125	13.59	79
Hungary	20.33	272	9.87	132	15.17	203	20.51	275	9.61	129	15.36	206
Italy	26.12	339	13.79	179	18.64	242	26.03	331	14.47	184	17.68	225
Malta	36.25	282	28.28	220	23.14	180	36.49	268	28.56	210	23.28	171
Norway	21.73	241	12.08	134	17.31	192	21.78	221	12.14	123	17.34	176
Spain	34.98	987	23.07	651	25.58	722	34.91	1010	22.89	662	25.44	736
Wales	29.77	512	15.99	275	26.51	456	32.28	553	18.94	325	28.33	485
South America												
Brazil	22.13	233	10.92	115	15.67	165	22.13	232	10.94	115	15.66	164
Total	**27.90**	**8564**	**18.81**	**5855**	**18.90**	**5443**	**27.90**	**8528**	**18.75**	**5819**	**18.92**	**5425**

Table 3
Individual and country-level positive environments as predictors of sibling bullying victimisation.

	Model 1	Model 2	Model 3	Model 4
N	31,773	27,626	31,462	27,441
Individual-Level Predictors				
Positive Home	–	–	0.68 [0.66, 0.72]***	0.73 [0.69, 0.77]***
Positive Neighbourhood	–	–	0.85 [0.83, 0.88]***	0.90 [0.87, 0.93]***
Positive School	–	–	0.85 [0.81, 0.88]***	0.96 [0.91, 1.00]
Country-Level Predictors				
Positive Home	1.19 [0.24, 5.95]	1.62 [0.25, 10.60]	–	–
Positive Neighbourhood	0.88 [0.26, 2.98]	0.75 [0.21, 2.71]	–	–
Positive School	0.73 [0.17, 3.15]	0.98 [0.23, 4.22]	–	–
Covariates				
Gender (Male)	–	1.24 [1.17, 1.32]***	–	1.22 [1.15, 1.29]***
Age (12y)	–	0.84 [0.79, 0.89]***	–	0.83 [0.78, 0.88]***
Positive Emotions	–	0.97 [0.97, 0.98]***	–	0.99 [0.98, 0.99]***
Negative Emotions	–	1.03 [1.03, 1.04]***	–	1.03 [1.02, 1.03]***
Enough Food	–	0.96 [0.91, 1.01]	–	1.02 [0.96, 1.07]
Single Parent (Yes)	–	1.02 [0.94, 1.11]	–	0.97 [0.89, 1.05]
Own Room (Yes)	–	0.75 [0.70, 0.79]***	–	0.75 [0.71, 0.80]***
Peer Bullying	–	1.26 [1.24, 1.27]***	–	1.25 [1.23, 1.26]***
Country-Level Effect	0.05 [0.03, 0.10]	0.05 [0.02, 0.10]	0.06 [0.03, 0.10]	0.06 [0.03, 0.11]

*$p < .05$, **$p < .01$, ***$p < .001$.

Table 4a
Positive environments as predictors of sibling bullying victimisation with covariates (by country in africa and asia).

	Africa	Asia					
	Algeria	Indonesia	Malaysia	Nepal	Sri Lanka	Taiwan	Vietnam
Model Number	6	12	14	16	19	20	21
N	1418	8812	780	1261	1495	1789	1332
Positive Home	0.65 [0.55, 0.77]***	0.87 [0.79, 0.96]**	0.83 [0.64, 1.07]	0.86 [0.68, 1.08]	0.94 [0.75, 1.17]	0.63 [0.52, 0.77]***	0.66 [0.54, 0.81]
Positive Neighbourhood	0.95 [0.83, 1.09]	0.83 [0.75, 0.91]***	NA	0.93 [0.73, 1.17]	0.79 [0.68, 0.93]**	0.88 [0.75, 1.03]	1.07 [0.88, 1.30]
Positive School	0.89 [0.76, 1.04]	0.97 [0.87, 1.08]	0.82 [0.67, 1.00]	1.02 [0.79, 1.31]	1.02 [0.82, 1.28]	1.11 [0.90, 1.37]	0.74 [0.60, 0.91]**
Covariates							
Gender (Male)	0.91 [0.71, 1.16]	1.38 [1.24, 1.53]***	1.10 [0.78, 1.55]	0.94 [0.70, 1.27]	0.98 [0.74, 1.29]	0.98 [0.76, 1.27]	0.86 [0.65, 1.15]
Age (12y)	1.18 [0.92, 1.52]	0.95 [0.86, 1.53]	NA	1.00 [0.74, 1.35]	0.76 [0.58, 1.00]	0.56 [0.43, 0.74]***	0.68 [0.51, 0.90]**
Enough Food	1.09 [0.87,1.38]	1.15 [1.06, 1.24]**	0.95 [0.75, 1.20]	1.04 [0.85, 1.28]	1.08 [0.88, 1.33]	0.97 [0.77, 1.23]	0.93 [0.76, 1.13]
Positive Emotions	0.97 [0.95, 0.99]*	0.99 [0.98, 1.00]	0.92 [0.89, 0.96]***	0.98 [0.95, 1.00]	0.96 [0.94, 0.98]***	1.01 [0.98, 1.03]	1.01 [0.98, 1.03]
Negative Emotions	1.03 [1.01, 1.04]**	1.02 [1.02, 1.03]***	1.04 [1.01, 1.06]***	1.03 [1.01, 1.05]**	1.04 [1.02, 1.05]***	1.04 [1.02, 1.05]***	1.04 [1.02, 1.06]***
Single Parent (Yes)	0.95 [0.60, 1.52]	0.80 [0.67, 0.95]**	0.86 [0.43, 1.73]	1.30 [0.66, 2.58]	0.77 [0.44, 1.34]	1.04 [0.73, 1.47]	NA
Own Room (Yes)	0.96 [0.74, 1.25]	0.67 [0.60, 0.74]***	NA	0.59 [0.44, 0.79]***	0.97 [0.71, 1.32]	0.88 [0.68, 1.15]	0.81 [0.61, 1.07]
Peer Bullying	1.16 [1.10, 1.22]***	1.29 [1.26, 1.31]***	1.31 [1.22, 1.40]***	1.25 [1.17, 1.33]***	1.29 [1.21, 1.37]***	1.39 [0.26, 1.40]	1.29 [1.21, 1.38]***

*p < .05, **p < .01, ***p < .001.

On the whole, when all countries were considered together, there were a number of significant covariates all in the expected direction. Males and 12-year-olds were more likely to be bullied by their siblings compared to females and 10-year-olds. Adolescents with their own bedroom were less likely to be bullied by their siblings compared to those without their own bedroom. Positive emotions were associated with lower levels of victimisation and negative emotions were associated with higher levels of victimisation. Finally, adolescents who were bullied by peers were more likely to also be bullied by siblings. That is, individual-level characteristics (i.e., age, gender, own bedroom, peer victimisation, and positive and negative emotions) appear to surpass the country-level effects on sibling bullying victimisation.

Table 4b
Positive environments as predictors of sibling bullying victimisation with covariates (by Country in Europe and South America).

	Europe										South America
	Albania	Belgium	England	Greece	Hungary	Italy	Malta	Norway	Spain	Wales	Brazil
Model Number	5	7	9	10	11	13	15	17	18	22	8
N	1535	1225	404	540	1264	1174	336	1063	2558	1602	965
Positive Home	0.78 [0.54, 1.12]	0.57 [0.46, 0.70]***	0.44 [0.29, 0.68]***	0.94 [0.66, 1.35]	0.52 [0.39, 0.71]***	0.78 [0.60, 1.01]	0.40 [0.24, 0.66]	0.89 [0.70, 1.13]	0.54 [0.45, 0.64]***	0.68 [0.57, 0.80]***	0.73 [0.58, 0.90]**
Positive Neighbourhood	0.87 [0.70, 1.08]	0.99 [0.85, 1.15]	0.99 [0.76, 1.30]	1.11 [0.85, 1.46]	1.07 [0.87, 1.31]	1.04 [0.88, 1.23]	0.93 [0.70, 1.23]	0.95 [0.79, 1.15]	0.87 [0.79, 0.97]*	0.81 [0.71, 0.92]**	1.00 [0.84, 1.19]
Positive School	0.80 [0.56, 1.13]	0.99 [0.82, 1.21]	0.99 [0.67, 1.46]	0.51 [0.37, 0.71]***	1.00 [0.80, 1.26]	0.85 [0.69,1.06]	1.03 [0.69, 1.53]	0.66 [0.52, 0.83]***	0.86 [0.73, 1.00]	1.04 [0.89, 1.23]	1.04 [0.83, 1.29]
Covariates											
Gender (Male)	1.33 [0.91, 1.97]	1.36 [1.06, 1.74]*	1.33 [0.85, 2.10]	1.20 [0.78, 1.86]	0.97 [0.72, 1.32]	1.20 [0.90, 1.60]	0.88 [0.53, 1.45]	1.99 [1.42, 2.80]***	1.28 [1.07, 1.53]**	1.47 [1.15, 1.88]**	0.95 [0.68, 1.34]
Age (12y)	0.36 [0.24, 0.53]***	0.84 [0.65, 1.07]	NA	NA	0.78 [0.57, 1.06]	0.61 [0.45, 0.83]**	0.33 [1.00, 1.13]	0.47 [0.34, 0.67]***	0.86 [0.71, 1.05]	0.67 [0.52, 0.86]**	0.69 [0.48, 0.98]*
Enough Food	0.94 [0.64, 1.40]	0.79 [0.54, 1.15]	0.40 [0.23,0.71]**	0.84 [0.53, 1.34]	0.69 [0.42, 1.14]	1.31 [0.88, 1.95]	0.72 [0.44, 1.19]	0.50 [0.30, 0.82]**	1.08 [0.84, 1.40]	0.48 [0.37, 0.62]***	0.62 [0.44, 0.86]**
Positive Emotions	0.97 [0.93, 1.01]	0.99 [0.97, 1.02]	1.03 [0.98, 1.07]	0.96 [0.91, 1.01]	0.97 [0.95, 1.00]	0.96 [0.93, 0.99]*	0.95 [0.90, 1.00]*	1.00 [0.97, 1.03]	0.98 [0.96,1.00]*	1.02 [1.00, 1.04]	0.98 [0.95 1.00]
Negative Emotions	1.00 [0.98, 1.03]	1.04 [1.02, 1.06]***	1.06 [1.03, 1.09]**	1.04 [1.01, 1.07]*	1.02 [1.00, 1.04]	1.05 [1.03, 1.07]***	1.06 [1.02, 1.09]**	1.05 [1.03, 1.08]***	1.03 [1.02, 1.04]***	1.04 [1.02, 1.05]***	
Single Parent (Yes)	1.31 [0.59, 2.93]	1.50 [1.08, 2.08]*	1.23 [0.72, 2.11]	0.86 [0.36, 2.05]	1.16 [0.83, 1.62]	0.91 [0.63, 1.32]	1.07 [0.51, 2.23]	0.98 [0.65, 1.48]	1.14 [0.90, 1.44]	0.82 [0.63, 1.08]	
Own Room (Yes)	0.96 [0.65, 1.43]	1.07 [0.80, 1.42]	0.96 [0.60, 1.54]	0.75 [0.49, 1.15]	0.59 [0.44, 0.79]***	0.78 [0.57,1.07]	0.52 [0.31, 0.86]*	0.70 [0.40, 1.23]	0.89 [0.74, 1.08]	0.59 [0.45, 0.77]***	
Peer Bullying	1.37 [1.24, 1.51]***	1.14 [1.08, 1.21]***	1.06 [0.95, 1.16]	1.19 [1.08, 1.31]**	1.19 [1.12, 1.28]***	1.20 [1.12, 1.30]***	1.16 [1.03, 1.29]*	1.12 [1.03, 1.22]**	1.18 [1.14, 1.24]***	1.22 [1.15, 1.28]***	

*p < .05, **p < .01, ***p < .001.

8.5. Individual-level home, neighbourhood, and school environments

To determine whether individual-level home, neighbourhood, and school environments explain variations in sibling bullying victimisation (RQ3), we fitted two further mixed-effect logistic regression models. In the model without covariates (Table 3; Model 3), individual-level positive home, neighbourhood, and school-environments were associated with decreased sibling bullying victimisation. That is, when all countries are considered together, adolescents with more positive home, neighbourhood, and school environments are less likely to be bullied by their siblings compared to those with less positive home, neighbourhood, and school environments.

The effects were different when covariates were added (Table 3; Model 4). Whilst, positive home and neighbourhood environments were still associated with reduced sibling bullying victimisation, positive school environments were not. We speculated that this was because peer bullying, a measure of school bullying, was included in the model. Indeed, when we removed peer bullying from the model, positive school environments were significant again (Table S3, Supplementary Materials).

8.6. Different effects based on country

To determine whether the association between positive home, neighbourhood, and school environment and sibling bullying victimisation are dependent on the country (RQ4), we fitted a series of mixed effect logistic regression models (Table 4; models 5–22). In half of the countries, adolescents' positive home environments were associated with lower levels of sibling bullying victimisation (Algeria, Belgium, Brazil, England, Hungary, Indonesia, Spain, Taiwan, and Wales). In three countries, adolescents' positive neighbourhood environments were associated with lower levels of sibling bullying victimisation (Indonesia, Sri Lanka, and Wales). In a further three countries, adolescents' positive school environments were associated with lower levels of sibling bullying victimisation (Greece, Norway, and Vietnam). There were a handful of countries where none of the three positive environments were associated with sibling bullying victimisation (Albania, Italy, Malaysia, Malta, and Nepal). Therefore, whether adolescents who experience positive home, neighbourhood, and school environments are less likely to be bullied by their siblings is dependent on which country they live in. In some countries, one or two of these positive environments are associated with lower odds of being bullied whereas in others none of the three are associated with sibling bullying victimisation.

Whilst positive environments were not consistently associated with reduced sibling bullying victimisation, two covariates appeared to be, almost universally, associated with sibling bullying victimisation. First, in 16 out of 18 countries, adolescents who were bullied by their peers were more likely to be bullied by their siblings than those who were not bullied by peers. Second, in 15 out of 18 countries, adolescents who experienced more negative emotions were more likely to be bullied by their siblings. Whilst directionality cannot be inferred, being bullied by peers and experiencing more negative emotions are risk factors for being bullied by siblings at home (or vice versa).

The other covariates were less consistently associated with sibling bullying victimisation. Being male (Germany, Indonesia, Norway, Spain, Wales), 12-years-old (Albania, Brazil, Italy, Norway, Taiwan, Vietnam, and Wales), and having their own bedroom (Hungary, Indonesia, Malta, Nepal, and Wales) were all significant predictors of sibling bullying victimisation in some countries; all in the same direction as the overall sample models. That is males, 12-year-olds, and those with their own bedroom fared better. Having enough food was associated with decreased odds of being bullied by siblings in some countries (Brazil, England, Norway, and Wales) but increased odds in one country (Indonesia). In a similar vein, having a single parent in the household was associated with increased odds of being bullied by siblings in one country (Belgium) but decreased odds in another (Indonesia). Therefore, the correlates of sibling bullying victimisation are dependent on the country.

9. Discussion

Our study was the first comprehensive cross-national investigation of the prevalence and correlates of sibling bullying victimisation during early adolescence. In summary, we found that a) there are large variations in the prevalence of sibling bullying victimisation across the world, b) on the whole, individual, but not country-level, positive home, neighbourhood, and school environments are associated with lower levels of sibling bullying victimisation, and c) the importance of positive home, neighbourhood, and school environments for sibling bullying victimisation is different for different countries.

9.1. Prevalence of sibling bullying victimisation

The prevalence of sibling bullying victimisation varies immensely across the world. We found that the lowest prevalence was reported in Albania (9 %) whilst the highest was in Malaysia (59 %). These two countries appear to be extremes at each end as the prevalence estimates for the remaining countries were between 19 %–37 %. Where there are previous studies estimating prevalence, these estimates are broadly in line with those reported in past work for some countries (e.g., the UK and Indonesia, Borualogo & Casas, 2023; Toseeb, McChesney, Oldfield, et al., 2020; Toseeb et al., 2018) but not others (e.g., Vietnam, Truong et al., 2022). Discrepancies in the prevalence estimates are likely to be due to a range of factors such as inconsistencies in conceptualisation and measurement of sibling bullying victimisation, and differences in individual, family, and culture-level characteristics of samples between studies (e.g., collectivist vs individualist cultures).

Country level differences in the prevalence of sibling bullying victimisation might be explained by cultural differences, as theorised by Hofstede's Cultural Dimensions Theory (Hofstede, 2011). The theory outlines six dimensions on which cultures might differ. One

key dimension is individualism-collectivism. That is, sibling bullying might be influenced by the extent to which cultural norms promote individualistic vs collectivist values. In individualistic cultures, personal autonomy and independence are valued. Bullying between siblings might be normalised and perceived as developing crucial life skills such as resolving disputes independently; an opportunity to navigate difficult social situations. This might result in less intervention from parents, which means that low level conflict escalates to bullying. Contrary to this, collectivist cultures promote interdependence. As such, bullying amongst siblings might be less likely to be normalised and parents might be more likely to intervene. Therefore, low level sibling conflict might be less likely to develop into sibling bullying. Additionally, cultural norms promote respect for older siblings and many adopt the role of caregiver for younger ones. This might challenge the, often reported, finding that older siblings are more likely to be bullies and younger siblings are more likely to be victims of bullying. Hofstede's Cultural Dimensions Theory provides a useful framework through which cross cultural differences can be investigated. Whilst, the purpose of our work was not to test the framework, the prevalence estimates in Table 2, do provide some indicative support for the hypothesis that individualist cultures have higher rates of sibling bullying victimisation than collectivist cultures. We did not perform any inferential statistics and this has not been investigated in any meaningful way. Future work should investigate all six of Hofstede's Cultural Dimensions specifically with reference to sibling bullying in a carefully planned set of analyses.

A particularly novel aspect of our work is that our estimates are weighted, meaning that, in almost all of the countries studied, for the first time, we provide population estimates of the prevalence of sibling bullying victimisation. These provide practitioners and policy-makers reference points for sibling bullying victimisation in their countries. It also allows them to compare their prevalence with other similar, and different, countries, providing those with particularly high rates additional incentive to take action to reduce sibling bullying victimisation.

9.2. Positive home, neighbourhood, and school environments

Our findings demonstrate that, on the whole, adolescents' individual-level positive home, neighbourhood, and school environments are all associated with reduced sibling bullying victimisation but country-level positive environments are not. That is, adolescents' experiences with their proximal positive environments (i.e., the miscrosystem) are important but their distal positive environments (i.e., the macrosystem) are not. This suggests that, if future work is able to draw causal links, interventions should target home, neighbourhoods, and schools directly rather than implementing country-level policies. Additionally, these findings might suggest that even in countries where it is difficult to achieve universally positive environments, targeted support in adolescents' homes, neighbourhoods, and schools might lead to a reduction in sibling bullying victimisation even if the wider country context is not favourable.

The extent to which individual-level positive home, neighbourhood, and school environments are associated with sibling bullying victimisation varies depending on the country. In half of the countries studied, individuals who experienced a positive home environment were less likely to be bullied by their siblings. But in the other half of the countries, either positive neighbourhood and or school environments were associated with a reduced likelihood of being bullied by siblings or none of the positive environments. This difference in effect depending on the country is important for two reasons. First, it emphasises the need for studies undertaken in one context to be replicated in another context to ensure that the influences on sibling bullying victimisation are similar across contexts. Second, the findings demonstrate that, if future work is able to demonstrate a causal link between positive environments and reduced sibling bullying victimisation, the targets for interventions should be country-specific. In some countries, the best way to reduce sibling bullying victimisation might be to intervene at home to promote a positive home environment whilst in others it might be in neighbourhoods and schools.

To the best of our knowledge, our study was the first to demonstrate that positive home, neighbourhood, and school environments are all associated, to a greater or lesser extent, with sibling bullying victimisation, even after a number of co-variates are taken into account. Much of the previous work on sibling bullying victimisation focuses on what happens within the home, which has the potential for parent-blaming; but parents and home environments function within the context of wider society. Our study provides the first empirical evidence for the existence of multiple proximal factors within the socioecological systems framework (Bronfenbrenner, 1979) with reference to sibling bullying victimisation. We demonstrate that, whilst home environments are important correlates of sibling bullying victimisation, what happens in neighbourhoods and schools is also important.

9.3. Peer bullying and negative emotions

The near universal associations of peer bullying and negative emotions with sibling bullying victimisation require some consideration. First, the finding that adolescents who are bullied by peers are at increased risk of being bullied by siblings is not new; previous work has demonstrated this effect (Dantchev & Zemp, 2021; Toseeb, McChesney, Oldfield, et al., 2020). The novelty lies within the fact that we demonstrate this effect in 16 countries in diverse regions of the world. We propose some speculative explanations for this. It may be that some of the individual-level differences that make adolescents stand out as different compared to other (e.g., disability, sexual orientation, personality etc.) might be similar for sibling and peer bullying victimisation. Future work should consider the extent to which these correlates are common for sibling and peer bullying victimisation. Additionally, adolescents who are bullied in one context, might become more attuned to bullying behaviours and subsequently more likely to recognise them in other contexts. Therefore, the observed homotypic effects of bullying victimisation across multiple contexts might be reporting effects. Future work should consider whether using alternative, more objective, methods of measuring bullying in different contexts (i.e., home and school) leads to the same findings.

Second, we found sibling bullying victimisation is associated with negative emotions in all but three countries, which is consistent

with the large body of work reporting similar effects (Borualogo & Casas, 2023; Dantchev et al., 2019; Deniz & Toseeb, 2023; Laopratai et al., 2023; Liu et al., 2020, 2021; Peng et al., 2022; Plamondon et al., 2018; Toseeb & Wolke, 2022; Truong et al., 2022; Tucker et al., 2013). Again, the novelty lies in the near universality of the effects and emphasises the need to consider further the nature of the relationship between sibling bullying and negative emotions. Does sibling bullying lead to mental health difficulties, do mental health difficulties make adolescents more susceptible to being bullied, or do sibling bullying and mental health difficulties co-occur because they are influenced by a common third factor (see recent paper by Toseeb et al., 2024)? Given the near universality of these associations, future work should consider these questions in diverse socio-cultural contexts.

9.4. Strengths and limitations

Our study was conducted with a large, multi-national, representative sample. A key strength of our paper is our inclusion of both proximal and distal measures of positive environments reflecting different elements of the socioecological framework. Typically, research employing this framework only includes a small number of variables, which fails to control for the impact of other potential confounders resulting in an overestimation of their importance. Analysis of multiple variables, in the way undertaken in our study, enabled us to identify the unique variance accounted for by individual predictors. However, the findings of our study should be viewed in the context of some limitations. Our choice of variables to include was limited by those available in the dataset, therefore future research could examine other elements from the socioecological framework not captured in this analysis. Further, the measurement of bullying only reflected two forms of harm, physical and verbal. The measure did not include any definition of bullying, due to cross-cultural differences in the way bullying is labelled and defined (Bradshaw et al., 2017). Therefore, future research should use an alternative measure that includes items capturing wider forms of bullying such as cyber and indirect bullying. Additionally, it is important to acknowledge the cross-sectional observational nature of the data meaning that we cannot infer causality but the results presented here provide the foundation for future longitudinal causal research. Finally, our findings do not explain why some countries have higher levels of sibling bullying compared to others, aside from the explanatory power of positive environments. Factors such as collectivism and individualism may indeed play a role and should be investigated in future work.

10. Conclusions

To the best of our knowledge, our study is the first multi-national comparison of sibling bullying victimisation. We demonstrate that the prevalence of sibling bullying victimisation varies across the world. Whilst we find that, on the whole, adolescents' positive home, neighbourhood, and school environments are associated with reduced sibling bullying victimisation, these effects differ depending on each country. Crucially, we demonstrate that what happens in neighbourhoods and schools (in addition to homes) is associated with sibling bullying victimisation. This is important because, if causality can be established, it demonstrates that what happens *inside and outside* the home may play an important role in preventing sibling bullying victimisation within the home. Our work provides preliminary evidence of novel targets for intervention in neighbourhoods and schools; we suggest that creating neighbourhoods and school environments where adolescents feel safe, listened to, able to reach out for help, participate in decision-making, and have enough places to play might help to reduce the incidence of bullying victimisation at home. The mechanisms through which these benefits might be realised should be the focus of future research.

Declarations of competing interest

The authors have no conflicts of interest to declare.

SD = standard deviation. [a] question not asked in Malaysia. [b] question not asked in Vietnam.

CRediT authorship contribution statement

Umar Toseeb: Writing – review & editing, Writing – original draft, Project administration, Formal analysis, Data curation, Conceptualization. **Emre Deniz:** Writing – review & editing, Conceptualization. **Nathalie Noret:** Writing – review & editing, Conceptualization.

Acknowledgements

The data used in this publication come from the third wave of Children's Worlds project: An international survey of children's lives and well-being (www.isciweb.org). The views expressed here are those of the author(s). They are not necessarily those of ISCIWeB.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.chiabu.2024.107211.

Data availability

The authors do not have permission to share data.

References

Bell, B. T., Deniz, E., & Toseeb, U. (2024). Positive environments and their associations with adolescent appearance dissatisfaction. *PsyArXiv*. https://doi.org/10.31234/osf.io/tmuxb

Blakemore, S. J. (2019). Adolescence and mental health. *The Lancet, 393*(10185), 2030–2031. https://doi.org/10.1016/S0140-6736(19)31013-X

Borualogo, I. S., & Casas, F. (2023). Sibling bullying, school bullying, and children's subjective well-being before and during the covid-19 pandemic in Indonesia. *Child Indicators Research, 16*(3), 1203–1232. https://doi.org/10.1007/s12187-023-10013-5

Bowes, L., Wolke, D., Joinson, C., et al. (2014). Sibling bullying and risk of depression, anxiety, and self-harm: A prospective cohort study. *Pediatrics, 134*(4), E1032–E1039. https://doi.org/10.1542/peds.2014-0832

Bradshaw, J., Crous, G., Rees, G., et al. (2017). Comparing children's experiences of schools-based bullying across countries. *Children and Youth Services Review, 80*, 171–180. https://doi.org/10.1016/j.childyouth.2017.06.060

Brett, H., Bartoli, A. J., & Smith, P. K. (2023). Sibling bullying during childhood: A scoping review. *Aggression and Violent Behavior*. https://doi.org/10.1016/j.avb.2023.101862

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.

Coyle, S., Demaray, M. K., Malecki, C. K., et al. (2017, 2017/12/01). The associations among sibling and peer-bullying, social support and internalizing behaviors. *Child & Youth Care Forum, 46*(6), 895–922. https://doi.org/10.1007/s10566-017-9412-3

Dantchev, S., Hickman, M., Heron, J., et al. (2019). The independent and cumulative effects of sibling and peer bullying in childhood on depression, anxiety, suicidal ideation, and self-harm in adulthood. *Frontiers in Psychiatry, 10*, 651. https://doi.org/10.3389/fpsyt.2019.00651

Dantchev, S., & Wolke, D. (2018). Sibling bullying at 12 years and high-risk behavior in early adulthood: A prospective cohort study. *Aggressive Behavior*. https://doi.org/10.1002/ab.21793

Dantchev, S., & Zemp, M. (2021). Sibling, peer, and cyber bullying among children and adolescents: Co-occurrence and implications for their adjustment. *Frontiers in Psychology, 12*, Article 761276. https://doi.org/10.3389/fpsyg.2021.761276

Deniz, E., Derinalp, P., Gulkanat, I., et al. (2023). Sibling bullying in turkish adolescents: Translation and cross-cultural validation of the sibling bullying questionnaire. *Journal of Family Violence, 38*, 379–392. https://doi.org/10.1007/s10896-022-00360-2

Deniz, E., & Toseeb, U. (2023). A longitudinal study of sibling bullying and mental health in autistic adolescents: The role of self-esteem. *Autism Research, 16*(8), 1533–1549. https://doi.org/10.1002/aur.2987

Deniz, E., & Toseeb, U. (2024). Sibling bullying and mental health in british and turkish autistic children and adolescents: The role of social and emotional functioning. *Research in Autism Spectrum Disorders, 114*, Article 102392. https://doi.org/10.1016/j.rasd.2024.102392

Duncan, R. D. (1999). Peer and sibling aggression: An investigation of intra- and extra-familial bullying. *Journal of Interpersonal Violence, 14*(8), 871–886. https://doi.org/10.1177/088626099014008005. , Aug.

Earnshaw, V. A., Reisner, S. L., Menino, D., et al. (2018). Stigma-based bullying interventions: A systematic review. *Develpmental Review, 48*, 178–200. https://doi.org/10.1016/j.dr.2018.02.001

Eriksen, S., & Jensen, V. (2009). A push or a punch: Distinguishing the severity of sibling violence. *Journal of Interpersonal Violence, 24*(21), 183–208.

Feldman, B. L., & Russell, J. A. (1998). Independence and bipolarity in the structure of current affect. *Journal of Personality and Social Psychology, 74*(4), 967–984. https://doi.org/10.1037/0022-3514.74.4.967

Foody, M., Samara, M., & O'Higgins Norman, J. (2020). Bullying by siblings and peers: Poly-setting victimization and the association with problem behaviours and depression. *British Journal of Educational Psychology, 90*(Suppl. 1), 138–157. https://doi.org/10.1111/bjep.12311

Hawley, P. H. (1999). The ontogenesis of social dominance: A strategy-based evolutionary perspective. *Developmental Review, 19*(1), 97–132. https://doi.org/10.1006/drev.1998.0470

Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture, 2*(1). https://doi.org/10.9707/2307-0919.1014

Hong, J. S., & Espelage, D. L. (2012). A review of research on bullying and peer victimization in school: An ecological system analysis. *Aggression and Violent Behavior, 17*(4), 311–322. https://doi.org/10.1016/j.avb.2012.03.003

Ingram, K. M., Espelage, D. L., Davis, J. P., et al. (2020). Family violence, sibling, and peer aggression during adolescence: Associations with behavioral health outcomes [original research]. *Frontiers in Psychiatry, 11*. https://doi.org/10.3389/fpsyt.2020.00026

Johnson, H. R., Thompson, M. J. J., Wilkinson, S., et al. (2002). Vulnerability to bullying: Teacher-reported conduct and emotional problems, hyperactivity, peer relationship difficulties, and prosocial behaviour in primary school children. *Educational Psychology, 22*(5), 553–556. https://doi.org/10.1080/0144341022000023626

Katsantonis, I. (2022). The mediating role of school and sibling bullying in the relationship between subjective well-being and mental health symptoms. *Psych, 4*(2), 258–268.

Laopratai, M., Jirakran, K., & Chonchaiya, W. (2023). Factors affecting sibling bullying and its association with self-esteem and depression in middle school students. *European Journal of Pediatrics*, 1–9. https://doi.org/10.1007/s00431-023-05015-y

Liu, X., Peng, C., Yu, Y., et al. (2020). Association between sub-types of sibling bullying and mental health distress among chinese children and adolescents. *Frontiers in Psychiatry, 11*, 368. https://doi.org/10.3389/fpsyt.2020.00368

Liu, X., Wolloh Ii, M. G., Lin, X., et al. (2021). The association between sibling bullying and psychotic-like experiences among children age 11–16 years in China. *Journal of Affective Disorders, 284*, 31–37. https://doi.org/10.1016/j.jad.2021.01.073

Menesini, E., Camodeca, M., & Nocentini, A. (2010). Bullying among siblings: The role of personality and relational variables. *British Journal of Developmental Psychology, 28*(Pt 4), 921–939.

Paikoff, R. L., & Brooks-Gunn, J. (1991). Do parent-child relationships change during puberty? *Psychological Bulletin, 110*(1), 47–66. https://doi.org/10.1037/0033-2909.110.1.47. , Jul.

Peng, C., Wang, Z., Yu, Y., et al. (2022). Co-occurrence of sibling and peer bullying victimization and depression and anxiety among chinese adolescents: The role of sexual orientation. *Child Abuse and Neglect, 131*, Article 105684. https://doi.org/10.1016/j.chiabu.2022.105684

Perkins, N. H., & Rai, A. (2023). Physical and emotional sibling violence among south asian immigrants in the United States. *Journal of Family Violence.*. https://doi.org/10.1007/s10896-023-00493-y

Plamondon, A., Bouchard, G., & Lachance-Grzela, M. (2018). Family dynamics and young adults' well-being: The mediating role of sibling bullying. *Journal of Interpersonal Violence.* , Article 886260518800313. https://doi.org/10.1177/0886260518800313

Qing, Z., Ma, Y., & Liu, X. (2022). Prevalence and associated family factors of sibling bullying among chinese children and adolescents. *Frontiers in Psychology, 13*, Article 892598. https://doi.org/10.3389/fpsyg.2022.892598

Sabah, A., Aljaberi, M. A., Lin, C., et al. (2022). The associations between sibling victimization, sibling bullying, parental acceptance-rejection, and school bullying. *International Journal of Environmental Research and Public Health, 19*(23), Article 16346. https://www.mdpi.com/1660-4601/19/23/16346.

Sanders, R. (2004). *Sibling relationships: Theory and issues for practice*. Macmillan International Higher Education.

Schwartz, D., & Proctor, L. J. (2000). Community violence exposure and children's social adjustment in the school peer group: The mediating roles of emotion regulation and social cognition. *Journal of Consulting and Clinical Psychology, 68*(4), 670–683.

StataCorp. (2023). *Stata statistical software: Release 18*.

Toseeb, U., McChesney, G., Dantchev, S., et al. (2020). Precursors of sibling bullying in middle childhood: Evidence from a Uk-based longitudinal cohort study. *Child Abuse & Neglect, 108*, Article 104633. https://doi.org/10.1016/j.chiabu.2020.104633

Toseeb, U., McChesney, G., Oldfield, J., et al. (2020). Sibling bullying in middle childhood is associated with psychosocial difficulties in early adolescence: The case of individuals with autism spectrum disorder. *Journal of Autism and Developmental Disorders, 50*, 1457–1469. https://doi.org/10.1007/s10803-019-04116-8

Toseeb, U., McChesney, G., & Wolke, D. (2018). The prevalence and psychopathological correlates of sibling bullying in children with and without autism spectrum disorder. *Journal of Autism and Developmental Disorders, 48*, 2308–2318. https://doi.org/10.1007/s10803-018-3484-2

Toseeb, U., Vincent, J., & Asbury, K. (2024). Genetic influences on sibling bullying and mental health difficulties. *Journal of Child Psychology and Psychiatry, 65*, 1165–1174. https://doi.org/10.1111/jcpp.13956

Toseeb, U., & Wolke, D. (2022). Sibling bullying: A prospective longitudinal study of associations with positive and negative mental health during adolescence. *Journal of Youth and Adolescence, 51*, 940–955. https://doi.org/10.1007/s10964-021-01495-z

Truong, T. K. H., Tran, H. T., Giang Ngo, T. H., et al. (2022). Sibling bullying among vietnamese children: The relation with peer bullying and subjective well-being. *Current Issues in Personality Psychology, 10*(3), 216–226. https://doi.org/10.5114/cipp.2021.110025

Tucker, C. J., Finkelhor, D., Shattuck, A. M., et al. (2013). Prevalence and correlates of sibling victimization types. *Child Abuse & Neglect, 37*(4), 213–223. https://doi.org/10.1016/j.chiabu.2013.01.006

Tucker, C. J., Finkelhor, D., & Turner, H. (2017). Victimization by siblings in children with disability or weight problems. *Journal of Developmental and Behavioral Pediatrics, 38*(6), 378–384. https://doi.org/10.1097/dbp.0000000000000456

Westerhof, G. J., & Keyes, C. L. M. (2010). Mental illness and mental health: The two continua model across the lifespan. *Journal of Adult Development, 17*(2), 110–119. https://doi.org/10.1007/s10804-009-9082-y

Wolke, D., Tippett, N., & Dantchev, S. (2015). Bullying in the family: Sibling bullying. *Lancet Psychiatry, 2*(10), 917–929. https://doi.org/10.1016/S2215-0366(15)00262-X

Xu, M., Macrynikola, N., Waseem, M., et al. (2020, 2020/01/01/). Racial and ethnic differences in bullying: Review and implications for intervention. *Aggression and Violent Behavior, 50*, Article 101340. https://doi.org/10.1016/j.avb.2019.101340