



Sibling Bullying, School Bullying, and Children's Subjective Well-Being Before and During the COVID-19 Pandemic in Indonesia

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Abstract

The aims of this study are threefold. The first aim is to examine the prevalence of sibling and school bullying before and during the COVID-19 pandemic in Indonesia. The second aim is to investigate the subjective well-being (SWB) of children who were bullied or never bullied before and during COVID-19. The third aim is to investigate factors associated with sibling and school bullying before and during the COVID-19 pandemic. This study uses two separate cross-sectional datasets from the Children's Worlds survey in Indonesia. Data in Study 1 were collected in October 2017 ($N=12,794$; 48.2% boys; 51.8% girls, mean age=10.56), while data in Study 2 were collected from July to September 2021 ($N=2,222$; 46.1% boys; 53.9% girls; mean age=10.77). Five items were used to measure sibling and school bullying. The five-item version of the Children's Worlds Subjective Well-Being Scale (CW-SWBS5) was used as the SWB indicator. Three groups of independent variables (family, friends and school climate) were analysed using linear regression to investigate the contribution of each variable to sibling and school bullying. Results show that the prevalence of sibling bullying during the COVID-19 pandemic is higher than before the pandemic, while the frequency of school bullying incidents during COVID-19 is lower than before COVID-19. SWB scores of children during COVID-19 are lower than SWB scores of children before the COVID-19 pandemic, both for bullied or never-bullied children. The fact that children report that parents listen to them and take what they say into account is positively associated with a lower frequency of being bullied at home before and during COVID-19 and being bullied at school only during the pandemic. Although samples are not strictly comparable, the SWB indicators used in both studies showed sensitivity to the changes in children's lives in previous studies. Therefore, the SWB indicators are supposed to be sensitive to changes associated with children's new everyday life COVID-19 has implied.

Keywords Children · COVID-19 · School Bullying · Sibling Bullying · Subjective Well-Being

The World Health Organization (WHO) declared the novel SARS-CoV-2 coronavirus (COVID-19) a pandemic on 11 March 2020 (WHO, 2020). COVID-19 has been an ongoing pandemic since then. It has not only affected the physical health of people worldwide but also affected mental health and well-being in adults (O'Connor et al., 2021) and children and adolescents (Borualogo & Casas, 2021a; Bravo-Sanzana et al., 2022; Cowie & Myers, 2021; Ravens-Sieberer et al., 2021). Effects of the pandemic are experienced not only in high-income countries (Cowden et al., 2021; Kohls et al., 2021; Pancani et al., 2021; Pieh et al., 2021) but also in low- and middle-income countries (Kola et al., 2021; Wang et al., 2021). The number of COVID-19 cases increased rapidly (WHO, 2020), and many countries instituted lockdowns to respond to critical situations and prevent the spread of the virus (BBC, 2020). One consequence of the lockdown was the closing of schools, which changed education dramatically. Students did not go to school and were confined at home. Learning and teaching were undertaken remotely and on digital platforms (Adedoyin & Soykan, 2020).

In Indonesia, students were forced to learn online from March 2020 (Kamil & Kuwado, 2020) until September 2021 (Asmara, 2021). Limited face-to-face learning started in September 2021, which means students' school attendance is limited to a maximum of 50% in the classroom and can only be carried out in areas with a relatively low number of COVID-19 cases (Harbani, 2021). In addition to this limited face-to-face learning, health and safety protocols were implemented. Protocols included social distancing, the mandatory wearing of masks for all students and teachers, no extracurricular events, and the canteen cannot be opened (Harbani, 2021). As a result of these restrictions on limited face-to-face learning, most students learned in smaller groups. They had fewer opportunities for social interaction with other students at school than before the pandemic.

Regarding fewer opportunities to interact with other students at school, several studies confirmed a decreasing number of school bullying incidents (Abramson, 2021; Martinez & Temkin, 2021; Yang et al., 2021; Yourtown, 2021; Vaillancourt et al., 2021). Literature studies in Indonesia did not show information on school bullying incidents during the COVID-19 pandemic. In fact, bullying incidents in Indonesia before the pandemic were high (Borualogo & Gumilang, 2019), putting Indonesia in the fifth highest position out of 78 countries based on the Programme for International Students Assessment (PISA; OECD 2019). Limited studies on bullying before and during COVID-19 in Indonesia leave a gap in information about this issue. Research on bullying before and during the COVID-19 pandemic is essential since several mass media sources reported an increase in cyberbullying incidents during the COVID-19 pandemic in Indonesia, particularly among students (Mashabi & Galih, 2020; Ramadhanty, 2021). UNICEF Indonesia indicated increasing cyberbullying cases during the pandemic (Mashabi & Galih, 2020). Moreover, the Minister of Education, Culture, Research and Technology stated that online learning during the COVID-19 pandemic makes children more vulnerable to becoming victims of cyber-

bullying (Ramadhanty, 2021). Using the Children's Worlds data before and during COVID-19, this study will be the first to examine sibling and school bullying before and during the COVID-19 pandemic in Indonesia.

Children's Worlds is a pioneer in collecting reliable and representative data worldwide in as many countries as possible on children's lives and their perception and evaluation of their lives (Ben-Arieh, 2019; Casas 2019; Gross-Manos et al., 2021). The Children's Worlds project (International Survey of Children's Well-Being; ISC-WeB; www.isciweb.org) aims to improve knowledge about children's well-being, including children's voices in the research (Ben-Arieh, 2019; Casas 2019; Gross-Manos et al., 2021). It has collected data from children ages 8, 10 and 12 (Andresen et al., 2019; Ben-Arieh, 2019; Casas 2019; Gross-Manos et al., 2021). In the third wave of data collection, Children's Worlds involved 35 countries (Rees et al., 2020). Indonesia participated in the third wave of the ISCWeB in 2017–2018. In 2021, a focused Children's Worlds survey involved more than 20 countries, asking about children's perceptions and evaluations during the COVID-19 pandemic, including their SWB, and Indonesia also took part in the study. In both studies, Children's Worlds included questions on sibling and school bullying, the SWB of children, and factors related to the SWB of children.

Bullying victimisation among children is defined as exposure to aggressive action from one or more children that is intended to harm and involves a power imbalance (Olweus, 1993; Smith, 2016; Volk et al., 2014). This definition was originally intended to characterise face-to-face aggressive behaviour that may be physical (e.g., being hit), verbal (e.g., being called unkind names), or emotional (e.g., being left out), which was known as traditional bullying. There are two types of this traditional bullying: sibling and school bullying. Although sibling bullying victimisation has been reported as the most frequent form of family violence (Dantchev & Wolke, 2019), studies on that topic are still limited, and it has rarely been investigated during COVID-19. We only identified two studies investigating bullying during the COVID-19 pandemic (Bacher-Hicks et al., 2022; Vaillancourt et al., 2021) and both studies investigated school bullying.

Subjective well-being (SWB) is defined as a person's evaluation of their lives, the degree to which their thoughtful appraisals and affective reactions indicate that their lives are desirable and proceeding well (Diener, 1984; Diener et al., 2015). In recent decades, SWB studies of children have been expanding. Savahl et al., (2019) defined children's SWB as the results of children's cognitive and affective evaluation of their lives, the circumstances affecting their lives, and the social context in which they live. Casas (2016) stated three strong predictors of children's SWB: bullying, perception of safety, and respect for children and inclusion of their voices. Several studies confirmed Casas' statement about bullying as one strong predictor of SWB of children. A study using the second wave of the Children's Worlds project showed that children who had been bullied had significantly lower SWB than those who had not (Bradshaw et al., 2017). A study in Chile and South Africa also showed a negative relationship between bullying victimisation and SWB (Varela et al., 2020), as well as a study in Algeria (Tiliouine, 2015).

Several studies revealed factors related to bullying. A study in Sweden showed that bullied children had poorer relationships with parents and teachers than nonvictims

(Bjereld et al., 2017). It is difficult for the victims to talk to their parents because they perceive that their parents do not listen. They also have low confidence regarding talking to their teachers (Bjereld et al., 2017). Other studies showed that perceived social support from family (Lee et al., 2022; Shaheen et al., 2019) and friends (Lee et al., 2022) significantly predicted lower bullying victimisation.

The current study is the first in Indonesia to empirically investigate bullying and SWB of children using the two Children's Worlds datasets from 2017 to 2018 and 2021 – before and during COVID-19. The aims of this study are threefold. The first aim is to examine the prevalence of school bullying and sibling bullying before and during the COVID-19 pandemic in Indonesia. The second aim is to compare the SWB of children before and during the pandemic regarding their bullying experiences at home and school. The third aim is to compare factors related to sibling and school bullying before and during COVID-19.

We proceeded with three research questions: (1) Were there any differences in the prevalence of bullying victimisation before and during the COVID-19 pandemic? (2) Were there any differences in SWB of Indonesian children before and during the COVID-19 pandemic, particularly when they were involved in bullying victimisation? and (3) Which factors were related to bullying incidents before and during the COVID-19 pandemic?

1 Methods

This study used two independent datasets of cross-sectional studies of the Children's Worlds international survey conducted in West Java, Indonesia, in two periods. Study 1 was conducted in October 2017, and Study 2 was conducted from July to September 2021. These datasets are analysed together because they included the same measures, all sampled were children from West Java (although different participants), and the data were collected at different times (before and during the COVID-19 pandemic), which allowed for an examination of population-based differences in bullying victimisation, at school by mates and at home by siblings.

1.1 Procedure and Ethical Approval

Ethical approval was gained separately from the ethical committees. Study 1 gained ethical approval from the ethical committee in Universitas Padjadjaran, while Study 2 gained ethical approval from Konsorsium Psikologi Ilmiah Nusantara (Nusantara Scientific Psychology Consortium).

Study 1 was a representative sample of children aged 10 and 12 years old in West Java Province and was conducted in face-to-face data collection using paper and pencil tests. Study 2 was a convenience sample of children 10, 11 and 12 years old in West Java Province and was conducted using internet-based data collection during the COVID-19 social restriction in Indonesia.

Before starting the data collection in both studies, the research team sent informed consent through teachers who helped spread the consent to parents. In Study 1, teachers sent printed informed consent to parents, while in Study 2, it was included in the

Google Form. All participants were required to have parental consent. After written parental consent was obtained, children were also informed that the data would be treated confidentially, and they were free to answer the questions. In Study 2, all information was written on the Google Form. All questionnaires in both studies were anonymous.

1.2 Data Depuration

In Study 1, depuration procedures were conducted in two steps. First, 179 cases with incomplete questionnaires and missing gender were excluded. Second, following the recommendation from Casas (2016), who stated that cases with three or more missing values in an SWB scale should be eliminated for further analysis, children with more than three missing values in the CW-SWBS5 items were excluded. The remaining missing values in the SWB scales were substituted with multiple imputations using regression.

In Study 2, we checked for systematic responses to questionnaires. Eighty-seven cases with systematic responses were excluded from the dataset.

1.3 Sample

Stratified cluster random sampling was used, with schools being the sampling unit and participants chosen randomly from 267 schools. A representative sample of children 10 and 12 years old (mean age=10.56) in West Java Province was obtained in Study 1 ($N=12,794$; 48.2% girls; 51.8% boys). A convenience sample of children age 10, 11 and 12 years old (mean age=10.77) in West Java Province was obtained in Study 2 ($N=2,222$; 46.1% boys; 53.9% girls). Since schools had been closed, Study 2 was designed as an internet-based survey. Sending informed consent to parents and online data collection with students was more accessible with teachers' assistance. The research team recruited teachers in West Java and asked for their assistance in sending the online questionnaire link to the parents. Table 1 presents the participants' details.

1.4 Instruments

Both studies used the same items to measure bullying victimisation, dependent variables, and SWB. All measures are from the Children's Worlds international survey (Rees et al., 2020). Several independent variables regress to bullying items in both studies. These variables are from previous studies on predictors of bullying victimisation (Borualogo et al., 2022): family relationships, relationships with friends, and school climate. The questionnaires in English were agreed upon in the Children's Worlds project by all the participating research teams in different countries. Each local researcher translated them into the country's language and back-translated them. In Indonesia, the questionnaires were translated into the Indonesian language and back-translated following the guidance of translation and adaptation of the questionnaires from Van de Vijver & Hambleton (1996) and Van de Vijver (2015). The Children's Worlds international team approved the back-translated questionnaires.

Table 1 Participants of the Study 1 and Study 2 by gender and school grade

| | Study 1 | | | Study 2 | | | Total | | |
|--------------|---------|-------|--------|---------|-------|-------|-------|-------|-------|
| | Boys | Girls | Total | Boys | Girls | Total | Boys | Girls | Total |
| | n | n | n | n | n | n | n | n | n |
| | % | % | % | % | % | % | % | % | % |
| 10 years old | 2,947 | 3,114 | 6,061 | 436 | 19.6 | 517 | 23.3 | 953 | 42.9 |
| 11 years old | -- | -- | -- | 388 | 17.5 | 432 | 19.4 | 820 | 36.9 |
| 12 years old | 3,223 | 3,510 | 6,733 | 200 | 9.0 | 249 | 11.2 | 449 | 20.2 |
| Total | 6,170 | 6,624 | 12,794 | 1,024 | 46.1 | 1,198 | 53.9 | 2,222 | 100 |

1.5 Bullying Victimization

Five items were used to measure the frequency of different types of bullying victimisation: two items for the frequency of bullying victimisation by siblings and three items for the frequency of school bullying victimisation, taken from the Children's Worlds international survey (Rees et al., 2020) and translated into Indonesian (Borualogo & Casas, 2021b, c). Sibling bullying victimisation was measured by the frequency of two types of bullying: physical ("How often in the last month have you been hit by your siblings?") and verbal ("How often in the last month have you been called unkind names by your siblings?"). School bullying victimisation was measured by the frequency of physical ("How often in the last month have you been hit by other children in school?"), verbal ("How often in the last month have you been called unkind names by other children in school?"), and emotional bullying ("How often in the last month have you been left out by other children in your class?") (Borualogo & Casas, 2021b, c; Rees et al., 2020). These items are scored on a four-point frequency scale using four response options: 0=Never, 1=Once, 2=Two or three times, and 3=More than three times (Borualogo & Casas, 2021b, c).

1.6 Family

1.6.1 Satisfaction with Family

One item was used to measure satisfaction with family ("How satisfied are you with the people you live with?"). This item is scored using an 11-point scale where 0=Not at all satisfied and 10=Totally satisfied (Rees et al., 2020).

1.6.2 Relationships in Family

Five items were used to measure family relationships: (1) "There are people in my family who care about me"; (2) "If I have a problem, people in my family will help me"; (3) "We have a good time together in my family"; (4) "I feel safe at home"; and (5) "My parents listen to me and take what I say into account." These items are scored using a five-point scale where 0=I do not agree, 1=I agree a little, 2=I agree somewhat, 3=I agree a lot, and 4=I totally agree (Rees et al., 2020). Cronbach's alpha for Study 1 was 0.668 and 0.846 for Study 2.

1.7 Friends

1.7.1 Satisfaction with Friends

One item was used to measure satisfaction with friends ("How satisfied are you with the relationship you have with your friends?"). This item is scored using an 11-point scale where 0=Not at all satisfied and 10=Totally satisfied (Rees et al., 2020).

1.7.2 Relationship with Friends

Four items were used to measure the relationship with friends: (1) “I have enough friends”; (2) “My friends are usually nice to me”; (3) “Me and my friends get along well together”; and (4) “If I have a problem, I have a friend who will support me”. These items are scored using a five-point scale where 0=I do not agree, 1=I agree a little, 2=I agree somewhat, 3=I agree a lot, and 4=I totally agree (Rees et al., 2020). Cronbach’s alpha for Study 1 was 0.681 and 0.877 for Study 2.

1.8 School Climate

Six items were used to measure school climate: (1) “My teachers care about me”; (2) “If I have a problem at school, my teacher will help me”; (3) “If I have a problem at school, other children will help me”; (4) “There are a lot of arguments between children in my class”; (5) “My teachers listen to me and take what I say into account”; and (6) “I feel safe at school”. These items are scored using a five-point scale where 0=I do not agree; 1=I agree a little; 2=I agree somewhat; 3=I agree a lot; 4=I totally agree (Rees et al., 2020). Cronbach’s alpha for Study 1 was 0.587 and 0.592 for Study 2.

1.9 Children’s Worlds Subjective Well-Being Scale 5 (CW-SWBS5)

The Children’s Worlds Subjective Well-Being Scale (CW-SWBS) is a multi-item cognitive, context-free psychometric scale (Casas & González-Carrasco, 2021; Rees et al., 2020) validated and translated into Indonesian (Borualogo et al., 2019; Borualogo & Casas, 2019). CW-SWBS5 includes five items with an 11-point scale from 0=do not agree at all to 10=totally agree. The items are: (1) “I enjoy my life”, (2) “My life is going well”, (3) “I have a good life”, (4) “The things happen in my life are excellent”, and (5) “I am happy with my life”. For Indonesia, using representative samples, the original fit indices for 10-year-olds were $\chi^2=75.17$, $df=5$, $p=.000$, comparative fit index (CFI)=0.995 and root mean square error of approximation (RMSEA)=0.043 (0.035–0.052) (Borualogo & Casas, 2019). For 12-year-olds, the original fit indices were $\chi^2=93.79$, $df=5$, $p=.000$, CFI=0.995 and RMSEA=0.047 (0.039–0.056) (Borualogo & Casas, 2019). Cronbach’s alpha for Study 1 was 0.861 and 0.939 for Study 2.

1.10 Data Analysis

In each study, mean scores, cross-tabulation and frequencies were calculated separately using SPSS 25. Mean differences between gender and age groups were tested using ANOVA. Linear regression was used to analyse the contribution of independent variables (family relationships, relationships with friends and school climate) on each bullying item, with age groups and gender as control variables. The scores for CW-SWBS5 were transformed into a 0–100 scale to make them visually comparable in the tables.

2 Results

2.1 Prevalence of Bullying

Children in Study 2 reported experiencing sibling bullying more frequently than children in Study 1, as presented in Table 2, particularly those who reported being bullied twice or more. In total, 11.8% of children in Study 1 reported being hit two or three times by a sibling, while the incidence was 12.7% of children in Study 2. As many as 7.1% of children in Study 1 reported being called unkind names by siblings two or three times, while 8.5% of children in Study 2 reported it.

In Study 1, more boys (6.1%) reported being hit by siblings than did girls (5.7%). In contrast, in Study 2, more girls (6.8%) reported being hit by siblings than did boys (5.9%). For being victimised verbally by siblings, in both studies, more girls reported being called unkind names by siblings (3.6% and 4.6%, respectively) than did boys (3.5% and 3.8%, respectively).

The most frequent sibling bullying incident in Study 1 and Study 2 was being hit by siblings. The most frequent school bullying incident in Study 1 and Study 2 was being called unkind names by other children in the class.

Table 2 also shows that children in Study 1 reported being victimised at school more frequently in three bullying incidents two or three times and more than three times than children in Study 2. In total, 15.9% and 24.6% of children in Study 1 reported being bullied verbally two or three times and more than three times in the last month, respectively. Of children in Study 2, 9.9% and 9.6% reported being bullied verbally two or three times and more than three times in the last month, respectively.

In total, 16.0% and 12.8% of children in Study 1 reported being bullied physically two or three times and more than three times in the last month, respectively. In comparison, 9.9% and 4.0% of children in Study 2 reported being bullied physically, respectively.

2.2 SWB of Children Before and During the COVID-19 Pandemic

2.2.1 Study 1

Table 3 shows that in Study 1, there were no significant SWB mean differences between ages for all bullying incidents. In contrast, SWB means score differences for any bullying incidents in Study 1 were significantly different between genders. The lowest SWB mean score was displayed by children who reported being called unkind names by siblings more than three times ($M=82.66$; $SD=18.44$). Children who reported having been hit by siblings two or three times displayed the highest SWB mean scores ($M=85.66$; $SD=16.18$) of children who reported having been bullied in any other bullying incidents.

2.2.2 Study 2

In Study 2, significant SWB mean scores differed between age groups for being left out by other children. The lowest SWB mean scores were shown by children who

reported having been called unkind names by siblings two or three times ($M=72.20$; $SD=20.79$). The highest SWB mean scores for children who reported having been bullied were shown by children who reported having been hit by siblings more than three times ($M=80.11$; $SD=20.48$).

2.2.3 Comparing the Two Studies

However, for any bullying incidents in two studies, children who reported never being bullied displayed significantly higher SWB scores than those who reported having been bullied. In both studies, the highest SWB mean scores for never being bullied were displayed by children who reported never being called unkind names by other children at school (in Study 1: $M=89.62$; $SD=14.51$; in Study 2: $M=83.45$; $SD=19.79$). The lowest SWB mean scores for never been bullied were displayed by children who reported never being called unkind names by siblings in Study 1 ($M=89.22$; $SD=14.24$) and children who reported never being hit by other children in class in Study 2 ($M=82.50$; $SD=20.18$). In Study 1, SWB mean scores of children who reported having been bullied ranged from $M=82.66$ to $M=85.66$ and ranged from $M=72.20$ to $M=80.11$ in Study 2.

In Study 2, children who reported having been bullied two or three times in any bullying incidents displayed lower SWB mean scores than children who reported having been bullied more than three times in any bullying incidents. In contrast, in Study 1, children who reported having been bullied more than three times in any bullying incidents displayed lower SWB mean scores than those who reported having been bullied two or three times in any bullying incidents.

2.3 Factors Related to Sibling and School Bullying

Regression analysis for Study 1 and Study 2, as presented in Table 4, displayed interesting findings. The models in Study 2 were able to explain higher percentages (11.0 – 22.7%) of the variability of the dependent variables than the models in Study 1 (3.1 – 6.4%). In Study 1, the model for being left out by other children in class explained 6.4% of the variability of the dependent variables, the highest percentage among other models in Study 1. In Study 2, the highest percentage was also for being left out by other children in the class, which explained 22.7% of the variability of the dependent variables.

2.3.1 Study 1

In Study 1, a negative Beta score indicated that being a boy increases the probability of being hit and called unkind names by siblings and other children at school. In contrast, a positive Beta score indicated that being a girl increases the probability of being left out by other children in the class. A positive Beta score indicated that being older increases the probability of a child being called unkind names by siblings and other children at school. In contrast, a negative Beta score indicated that being younger children increases the probability of being left out by other children in the class.

Table 2 Frequency of bullying incidents in Study 1 and Study 2

| | Study 1 | | | | | | | | | | Study 2 | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|---------|------|-------|-------|------|------|------|------|------|------|-------|-------|------|---|---|-------|---|---|---|---|--|--|--|--|
| | Boys | | | | | Girls | | | | | Total | | | | | Boys | | | | | Girls | | | | | Total | | | | | | | | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | | | | |
| Hit by sibling | Never | 2,589 | 20.7 | 3,140 | 25.1 | 2,871 | 22.9 | 2,858 | 22.8 | 5,729 | 45.7 | 604 | 28.6 | 725 | 34.3 | 618 | 29.3 | 476 | 22.5 | 235 | 11.1 | 1,329 | 63.0 | | | | | | | | | | | |
| | Once | 1,525 | 12.2 | 1,703 | 13.6 | 1,263 | 10.1 | 1,965 | 15.7 | 3,228 | 25.8 | 147 | 7.0 | 146 | 6.9 | 117 | 5.5 | 115 | 5.4 | 61 | 2.9 | 293 | 13.9 | | | | | | | | | | | |
| | 2 or 3 times | 763 | 6.1 | 719 | 5.7 | 734 | 5.9 | 748 | 6.0 | 1,482 | 11.8 | 125 | 5.9 | 143 | 6.8 | 95 | 4.5 | 95 | 4.5 | 78 | 3.7 | 268 | 12.7 | | | | | | | | | | | |
| | >3 times | 1,136 | 9.1 | 952 | 7.6 | 1,045 | 8.3 | 1,043 | 8.3 | 2,088 | 16.7 | 102 | 4.8 | 119 | 5.6 | 83 | 3.9 | 86 | 4.1 | 52 | 2.5 | 221 | 10.5 | | | | | | | | | | | |
| Called unkind names by siblings | Never | 6,013 | 48.0 | 6,514 | 52.0 | 5,913 | 47.2 | 6,614 | 52.8 | 12,527 | 100 | 978 | 46.3 | 1,133 | 53.7 | 913 | 43.2 | 772 | 36.6 | 426 | 20.2 | 2,111 | 100 | | | | | | | | | | | |
| | Once | 3,669 | 30.2 | 4,044 | 33.3 | 3,700 | 30.4 | 4,013 | 33.0 | 7,713 | 63.5 | 721 | 34.1 | 803 | 38.0 | 710 | 33.6 | 542 | 25.6 | 272 | 12.9 | 1,524 | 72.1 | | | | | | | | | | | |
| | 2 or 3 times | 1,020 | 8.4 | 1,315 | 10.8 | 931 | 7.7 | 1,404 | 11.6 | 2,335 | 19.2 | 100 | 4.7 | 139 | 6.6 | 87 | 4.1 | 103 | 4.9 | 49 | 2.3 | 239 | 11.3 | | | | | | | | | | | |
| | >3 times | 424 | 3.5 | 435 | 3.6 | 453 | 3.7 | 406 | 3.3 | 859 | 7.1 | 81 | 3.8 | 98 | 4.6 | 66 | 3.1 | 58 | 2.7 | 55 | 2.6 | 179 | 8.5 | | | | | | | | | | | |
| Hit by other children | Never | 5,785 | 47.6 | 6,368 | 52.4 | 5,640 | 46.4 | 6,513 | 53.6 | 12,153 | 100 | 970 | 45.9 | 1,144 | 54.1 | 911 | 43.1 | 782 | 37.0 | 421 | 19.9 | 2,114 | 100 | | | | | | | | | | | |
| | Once | 2,360 | 18.4 | 3,338 | 26.1 | 2,725 | 21.3 | 2,973 | 23.2 | 5,698 | 44.5 | 675 | 32.5 | 850 | 40.9 | 690 | 33.2 | 564 | 27.1 | 271 | 13.0 | 1,525 | 73.3 | | | | | | | | | | | |
| | 2 or 3 times | 1,055 | 8.2 | 997 | 7.8 | 943 | 7.4 | 1,109 | 8.7 | 2,052 | 16.0 | 99 | 4.8 | 106 | 5.1 | 77 | 3.7 | 69 | 3.3 | 59 | 2.8 | 205 | 9.9 | | | | | | | | | | | |
| | >3 times | 987 | 7.7 | 649 | 5.1 | 720 | 5.6 | 916 | 7.2 | 1,636 | 12.8 | 40 | 1.9 | 43 | 2.1 | 32 | 1.5 | 25 | 1.2 | 26 | 1.3 | 83 | 4.0 | | | | | | | | | | | |
| Called unkind names by other children | Never | 6,170 | 48.2 | 6,624 | 51.8 | 6,061 | 47.4 | 6,733 | 52.6 | 12,794 | 100 | 954 | 45.9 | 1,126 | 54.1 | 901 | 43.3 | 760 | 36.5 | 419 | 20.1 | 2,080 | 100 | | | | | | | | | | | |
| | Once | 2,220 | 17.4 | 2,451 | 19.2 | 2,338 | 18.3 | 2,333 | 18.2 | 4,671 | 36.5 | 662 | 31.9 | 736 | 35.5 | 664 | 32.0 | 497 | 24.0 | 237 | 11.4 | 1,398 | 67.4 | | | | | | | | | | | |
| | 2 or 3 times | 1,371 | 10.7 | 1,572 | 12.3 | 1,420 | 11.1 | 1,523 | 11.9 | 2,943 | 23.0 | 126 | 6.1 | 144 | 6.9 | 95 | 4.6 | 114 | 5.5 | 61 | 2.9 | 270 | 13.0 | | | | | | | | | | | |
| | >3 times | 1,006 | 7.9 | 1,030 | 8.1 | 978 | 7.6 | 1,058 | 8.3 | 2,036 | 15.9 | 83 | 4.0 | 122 | 5.9 | 67 | 3.2 | 78 | 3.8 | 60 | 2.9 | 205 | 9.9 | | | | | | | | | | | |
| Left out by other children | Never | 6,170 | 48.2 | 6,624 | 51.8 | 6,061 | 47.4 | 6,733 | 52.6 | 12,794 | 100 | 947 | 45.7 | 1,126 | 54.3 | 891 | 43.0 | 764 | 36.9 | 418 | 20.2 | 2,073 | 100 | | | | | | | | | | | |
| | Once | 3,289 | 25.7 | 3,093 | 24.2 | 2,928 | 22.9 | 3,454 | 27.0 | 6,382 | 49.9 | 742 | 35.7 | 708 | 34.1 | 687 | 33.1 | 515 | 24.8 | 248 | 11.9 | 1,450 | 69.8 | | | | | | | | | | | |
| | 2 or 3 times | 800 | 6.3 | 974 | 7.6 | 867 | 6.8 | 907 | 7.1 | 1,774 | 13.9 | 57 | 2.7 | 132 | 6.4 | 68 | 3.3 | 73 | 3.5 | 48 | 2.3 | 189 | 9.1 | | | | | | | | | | | |
| | >3 times | 670 | 5.2 | 909 | 7.1 | 800 | 6.3 | 779 | 6.1 | 1,579 | 12.3 | 51 | 2.5 | 108 | 5.2 | 54 | 2.6 | 58 | 2.8 | 47 | 2.3 | 159 | 7.7 | | | | | | | | | | | |
| Total | 6,170 | 48.2 | 6,624 | 51.8 | 6,061 | 47.4 | 6,733 | 52.6 | 12,794 | 100 | 961 | 46.3 | 1,115 | 53.7 | 899 | 43.3 | 758 | 36.5 | 419 | 20.2 | 2,076 | 100 | | | | | | | | | | | | |

Not perceiving a family that cares for them, perceiving parents who do not listen and do not take what they say into account, not feeling satisfied with friends, not getting along with friends, not having teachers who care about children, not feeling safe at school, and perceiving a lot of arguments in class appear to be associated with a higher frequency of children reporting having been hit by siblings. In contrast, having enough friends is associated with a lower frequency of children reporting having been hit by siblings.

Being unsatisfied with family, not perceiving that their family cares, perceiving that family is not helping when they have a problem, feeling unsatisfied with friends, perceiving friends are not usually nice, not getting along well with friends, not feeling safe at school and many arguments in class appear to be associated with a higher frequency of reporting being called unkind names by siblings. In Study 2, not perceiving a family who cares about them, not perceiving having a good time together with family, not feeling safe at home, parents not listening to children and not taking what they say into account, feeling unsatisfied with friends, perceiving teachers not helping when they have a problem, and perceiving a great number of arguments in class are associated with lower frequency of being called unkind names by siblings.

2.3.2 Study 2

In Study 2, being a boy increases the probability of being hit by other children at school, while being a girl increases the probability of being left out by other children in the class. Being older increases the probability of being called unkind names by siblings and other children at school and being left out by other children in the class. Reporting not having a good time with the family, perceiving parents not listening or taking what they say into account, not feeling satisfied with friends, perceiving that other children do not help when having problems, and perceiving there are many arguments in class appear to be associated with more frequently being hit by siblings.

2.3.3 Comparing the Two Studies

In both studies, age significantly contributed to verbal sibling bullying and verbal and emotional school bullying. Age did not contribute to sibling and school physical bullying in either study. Gender showed a significant contribution in both studies related to physical and emotional school bullying. Gender significance was observed in physical and verbal sibling bullying and verbal school bullying only in Study 1. Gender showed significant contributions to all bullying incidents in Study 1.

Feeling unsatisfied with friends and perceiving a great number of arguments between children in class is associated with a higher frequency of reporting having been hit by other children in class in both studies. In Study 1, children's perception that the teacher will help if they have a problem at school appears to be associated with a higher frequency of being hit by other children at school. In contrast, in Study 2, the same perception is associated with a lower frequency of being hit by other children at school.

In Study 1, feeling safe at school, perceiving friends are usually nice and getting along well with friends appear to be related to a reported lower frequency of being hit

Table 3 Mean scores for CW-SWBS by gender and age groups for each bullying incidents

| | | Study 1 | | | Study 2 | | |
|-------------------------------------|--------------|----------|----------|-----------|----------|----------|-----------|
| | | <i>M</i> | <i>N</i> | <i>SD</i> | <i>M</i> | <i>N</i> | <i>SD</i> |
| Been hit by sibling | | | | | | | |
| 10 years old | Never | 89.34** | 2,871 | 15.41 | 82.95** | 618 | 20.33 |
| | Once | 86.74** | 1,263 | 16.49 | 78.08** | 117 | 21.41 |
| | 2 or 3 times | 85.65** | 734 | 16.98 | 76.42** | 95 | 21.12 |
| | >3 times | 85.27** | 1,045 | 17.65 | 78.41** | 83 | 21.69 |
| | Total | 87.61 | 5,913 | 16.34 | 81.23 | 913 | 20.80 |
| 11 years old | Never | -- | -- | -- | 82.81** | 476 | 21.91 |
| | Once | -- | -- | -- | 79.58** | 115 | 19.79 |
| | 2 or 3 times | -- | -- | -- | 78.02** | 95 | 18.47 |
| | >3 times | -- | -- | -- | 83.07** | 86 | 20.26 |
| | Total | -- | -- | -- | 81.77 | 772 | 21.07 |
| 12 years old | Never | 89.74** | 2,858 | 13.27 | 82.34** | 235 | 20.03 |
| | Once | 86.37** | 1,965 | 14.42 | 73.87** | 61 | 23.06 |
| | 2 or 3 times | 85.67** | 748 | 15.36 | 73.77** | 78 | 19.18 |
| | >3 times | 83.74** | 1,043 | 16.35 | 77.92** | 52 | 18.55 |
| | Total | 87.33 | 6,614 | 14.55 | 79.02 | 426 | 20.47 |
| Boys | Never | 88.96** | 2,589 | 14.85 | 82.99** | 604 | 20.67 |
| | Once | 85.22** | 1,525 | 15.99 | 78.19** | 147 | 21.81 |
| | 2 or 3 times | 85.35** | 763 | 15.67 | 77.87** | 125 | 18.68 |
| | >3 times | 85.16** | 1,136 | 16.69 | 82.04** | 102 | 20.19 |
| | Total | 86.84++ | 6,013 | 15.71 | 81.51 | 978 | 20.64 |
| Girls | Never | 90.01** | 3,140 | 13.97 | 82.63** | 725 | 21.00 |
| | Once | 87.68** | 1,703 | 14.49 | 77.39** | 146 | 20.60 |
| | 2 or 3 times | 85.99** | 719 | 16.71 | 74.77** | 143 | 20.42 |
| | >3 times | 83.73** | 952 | 17.39 | 78.45** | 119 | 20.67 |
| | Total | 88.04++ | 6,514 | 15.13 | 80.53 | 1,133 | 21.03 |
| Total | Never | 89.54** | 5,729 | 14.38 | 82.79** | 1,329 | 20.85 |
| | Once | 86.52** | 3,228 | 15.27 | 77.79** | 293 | 21.18 |
| | 2 or 3 times | 85.66** | 1,482 | 16.18 | 76.22** | 268 | 19.65 |
| | >3 times | 84.51** | 2,088 | 17.03 | 80.11** | 221 | 20.48 |
| | Total | 87.46** | 12,527 | 15.42 | 80.98** | 2,111 | 20.85 |
| Been called unkind names by sibling | | | | | | | |
| 10 years old | Never | 89.35** | 3,700 | 15.22 | 83.42** | 710 | 19.75 |
| | Once | 85.97** | 931 | 16.35 | 78.23** | 87 | 20.63 |
| | 2 or 3 times | 83.99** | 453 | 17.31 | 69.79** | 66 | 22.77 |
| | >3 times | 83.14** | 556 | 19.15 | 74.92** | 48 | 24.73 |
| | Total | 87.75 | 5,640 | 16.17 | 81.49 | 911 | 20.71 |
| 11 years old | Never | -- | -- | -- | 83.97** | 542 | 20.82 |
| | Once | -- | -- | -- | 77.67** | 103 | 20.98 |
| | 2 or 3 times | -- | -- | -- | 73.62** | 58 | 18.41 |
| | >3 times | -- | -- | -- | 80.76** | 79 | 20.90 |
| | Total | -- | -- | -- | 82.05 | 782 | 20.89 |

Table 3 (continued)

| | | Study 1 | | | Study 2 | | |
|-------------------------------------|--------------|----------|----------|-----------|----------|----------|-----------|
| | | <i>M</i> | <i>N</i> | <i>SD</i> | <i>M</i> | <i>N</i> | <i>SD</i> |
| 12 years old | Never | 89.11** | 4,013 | 13.28 | 81.63** | 272 | 19.82 |
| | Once | 85.87** | 1,404 | 14.67 | 79.84** | 49 | 17.02 |
| | 2 or 3 times | 84.01** | 406 | 15.48 | 73.60** | 55 | 20.76 |
| | > 3 times | 82.27** | 690 | 17.84 | 70.53** | 45 | 22.83 |
| | Total | 87.37 | 6,513 | 14.47 | 79.19 | 421 | 20.31 |
| Boys | Never | 88.53** | 3,669 | 14.86 | 83.14** | 721 | 20.35 |
| | Once | 85.54** | 1,020 | 15.61 | 80.56** | 100 | 20.24 |
| | 2 or 3 times | 83.20** | 424 | 15.56 | 74.12** | 81 | 20.50 |
| | > 3 times | 82.55** | 672 | 18.18 | 77.91** | 68 | 20.87 |
| | Total | 86.92++ | 5,785 | 15.63 | 81.76 | 970 | 20.54 |
| Girls | Never | 89.85** | 4,044 | 13.63 | 83.44** | 803 | 19.99 |
| | Once | 86.19** | 1,315 | 15.17 | 76.70** | 139 | 19.80 |
| | 2 or 3 times | 84.78** | 435 | 17.28 | 70.61** | 98 | 20.99 |
| | > 3 times | 82.79** | 574 | 18.75 | 75.50** | 104 | 24.03 |
| | Total | 88.11++ | 6,368 | 14.95 | 80.80 | 1,144 | 20.87 |
| Total | Never | 89.22** | 7,713 | 14.24 | 83.29** | 1,524 | 20.15 |
| | Once | 85.91** | 2,335 | 15.36 | 78.32** | 239 | 20.04 |
| | 2 or 3 times | 84.00** | 859 | 16.46 | 72.20** | 179 | 20.79 |
| | > 3 times | 82.66** | 1,246 | 18.44 | 76.45** | 172 | 22.80 |
| | Total | 87.54** | 12,153 | 15.29 | 81.24** | 2,114 | 20.72 |
| Been hit by other children in class | | | | | | | |
| 10 years old | Never | 89.43** | 2,725 | 15.54 | 83.33** | 690 | 19.17 |
| | Once | 86.63** | 1,673 | 16.57 | 75.90** | 102 | 22.54 |
| | 2 or 3 times | 85.29** | 943 | 16.67 | 75.84** | 77 | 24.39 |
| | > 3 times | 84.80** | 720 | 18.36 | 73.94** | 32 | 24.08 |
| | Total | 87.46 | 6,061 | 16.46 | 81.52+ | 901 | 20.48 |
| 11 years old | Never | -- | -- | -- | 82.46** | 564 | 21.06 |
| | Once | -- | -- | -- | 84.43** | 102 | 18.62 |
| | 2 or 3 times | -- | -- | -- | 72.69** | 69 | 20.92 |
| | > 3 times | -- | -- | -- | 86.32** | 25 | 20.16 |
| | Total | -- | -- | -- | 81.97+ | 760 | 20.89 |
| 12 years old | Never | 89.23** | 2,973 | 13.50 | 80.48** | 271 | 20.75 |
| | Once | 86.80** | 1,735 | 14.27 | 79.21** | 63 | 20.01 |
| | 2 or 3 times | 84.91** | 1,109 | 15.21 | 73.35** | 59 | 17.78 |
| | > 3 times | 84.71** | 916 | 16.64 | 72.31** | 26 | 21.10 |
| | Total | 87.28 | 6,733 | 14.57 | 78.77+ | 419 | 20.41 |
| Boys | Never | 88.91** | 2,360 | 14.93 | 82.81** | 675 | 20.02 |
| | Once | 86.09** | 1,768 | 15.72 | 80.87** | 140 | 20.17 |
| | 2 or 3 times | 85.01** | 1,055 | 15.93 | 77.19** | 99 | 21.29 |
| | > 3 times | 84.43** | 987 | 17.10 | 76.80** | 40 | 22.83 |
| | Total | 86.72++ | 6,170 | 15.79 | 81.69 | 954 | 20.37 |

Table 3 (continued)

| | | Study 1 | | | Study 2 | | |
|--|--------------|----------|----------|-----------|----------|----------|-----------|
| | | <i>M</i> | <i>N</i> | <i>SD</i> | <i>M</i> | <i>N</i> | <i>SD</i> |
| Girls | Never | 89.62** | 3,338 | 14.21 | 82.26** | 850 | 20.31 |
| | Once | 87.39** | 1,640 | 15.11 | 78.91** | 127 | 21.48 |
| | 2 or 3 times | 85.17** | 997 | 15.86 | 71.15** | 106 | 21.25 |
| | > 3 times | 85.23** | 649 | 17.88 | 77.49** | 43 | 22.65 |
| | Total | 87.97++ | 6,624 | 15.19 | 80.65 | 1,126 | 20.87 |
| Total | Never | 89.33** | 5,698 | 14.51 | 82.50** | 1,525 | 20.18 |
| | Once | 86.71** | 3,408 | 15.44 | 79.94** | 267 | 20.79 |
| | 2 or 3 times | 85.09** | 2,052 | 15.89 | 74.07** | 205 | 21.44 |
| | > 3 times | 84.75** | 1,636 | 17.41 | 77.16** | 83 | 22.60 |
| | Total | 87.37** | 12,794 | 15.49 | 81.13** | 2,080 | 20.64 |
| Been called unkind names by other children at school | | | | | | | |
| 10 years old | Never | 89.62** | 2,338 | 15.43 | 84.08** | 664 | 18.46 |
| | Once | 87.08** | 1,420 | 16.38 | 79.28** | 95 | 22.34 |
| | 2 or 3 times | 85.52** | 978 | 17.19 | 67.58** | 67 | 24.11 |
| | > 3 times | 85.49** | 1,325 | 17.31 | 74.34** | 65 | 25.61 |
| | Total | 87.46 | 6,061 | 16.46 | 81.62 | 891 | 20.51 |
| 11 years old | Never | -- | -- | -- | 83.12** | 497 | 21.56 |
| | Once | -- | -- | -- | 81.79** | 114 | 19.48 |
| | 2 or 3 times | -- | -- | -- | 75.38** | 78 | 19.21 |
| | > 3 times | -- | -- | -- | 78.45** | 75 | 21.56 |
| | Total | -- | -- | -- | 81.67 | 764 | 21.15 |
| 12 years old | Never | 89.62** | 2,333 | 13.52 | 82.36** | 237 | 19.53 |
| | Once | 87.29** | 1,523 | 14.14 | 75.87** | 61 | 18.35 |
| | 2 or 3 times | 85.45** | 1,058 | 14.52 | 75.27** | 60 | 20.84 |
| | > 3 times | 85.33** | 1,819 | 15.78 | 75.43** | 60 | 23.19 |
| | Total | 87.28 | 6,733 | 14.57 | 79.40 | 418 | 20.33 |
| Boys | Never | 88.98** | 2,220 | 15.02 | 83.91** | 662 | 19.54 |
| | Once | 86.50** | 1,371 | 15.24 | 78.39** | 126 | 21.57 |
| | 2 or 3 times | 84.47** | 1,006 | 16.54 | 75.57** | 83 | 21.13 |
| | > 3 times | 85.15** | 1,573 | 16.44 | 75.37** | 76 | 22.78 |
| | Total | 86.72++ | 6,170 | 15.79 | 81.76 | 947 | 20.48 |
| Girls | Never | 90.20** | 2,451 | 14.00 | 83.03** | 736 | 20.01 |
| | Once | 87.78** | 1,572 | 15.26 | 80.59** | 144 | 19.24 |
| | 2 or 3 times | 86.49** | 1,030 | 15.10 | 70.92** | 122 | 21.79 |
| | > 3 times | 85.65** | 1,571 | 16.44 | 76.72** | 124 | 23.82 |
| | Total | 87.97++ | 6,624 | 15.19 | 80.71 | 1,126 | 20.92 |
| Total | Never | 89.62** | 4,671 | 14.51 | 83.45** | 1,398 | 19.79 |
| | Once | 87.19** | 2,943 | 15.26 | 79.57** | 270 | 20.35 |
| | 2 or 3 times | 85.49** | 2,036 | 15.85 | 72.80** | 205 | 21.59 |
| | > 3 times | 85.40** | 3,144 | 16.44 | 76.21** | 200 | 23.38 |
| | Total | 87.37** | 12,794 | 15.49 | 81.19** | 2,073 | 20.72 |

Table 3 (continued)

| | | Study 1 | | | Study 2 | | |
|--|--------------|----------|----------|-----------|----------|----------|-----------|
| | | <i>M</i> | <i>N</i> | <i>SD</i> | <i>M</i> | <i>N</i> | <i>SD</i> |
| Been left out by other children in class | | | | | | | |
| 10 years old | Never | 89.60** | 2,928 | 15.34 | 84.45** | 687 | 17.80 |
| | Once | 86.84** | 1,466 | 15.82 | 76.78** | 90 | 25.53 |
| | 2 or 3 times | 85.11** | 867 | 17.42 | 70.41** | 68 | 26.44 |
| | > 3 times | 83.34** | 800 | 19.13 | 67.59** | 54 | 24.21 |
| | Total | 87.46 | 6,061 | 16.46 | 81.61+ | 899 | 20.57 |
| 11 years old | Never | -- | -- | -- | 84.20** | 515 | 20.47 |
| | Once | -- | -- | -- | 76.28** | 112 | 22.48 |
| | 2 or 3 times | -- | -- | -- | 75.48** | 73 | 19.18 |
| | > 3 times | -- | -- | -- | 82.00** | 58 | 18.57 |
| | Total | -- | -- | -- | 82.02+ | 758 | 20.78 |
| 12 years old | Never | 89.39** | 3,454 | 12.98 | 82.54** | 248 | 18.26 |
| | Once | 86.43** | 1,593 | 14.20 | 74.31** | 76 | 22.68 |
| | 2 or 3 times | 84.53** | 907 | 15.53 | 73.04** | 48 | 21.27 |
| | > 3 times | 82.88** | 779 | 18.61 | 74.55** | 47 | 23.05 |
| | Total | 87.28 | 6,733 | 14.57 | 79.06+ | 419 | 20.40 |
| Boys | Never | 89.08** | 3,289 | 14.23 | 83.96** | 742 | 18.78 |
| | Once | 85.39** | 1,411 | 15.62 | 74.14** | 111 | 24.25 |
| | 2 or 3 times | 83.28** | 800 | 17.36 | 72.53** | 57 | 23.33 |
| | > 3 times | 82.04** | 670 | 19.09 | 76.59** | 51 | 23.08 |
| | Total | 86.72++ | 6,170 | 15.79 | 81.76 | 961 | 20.40 |
| Girls | Never | 89.92** | 3,093 | 13.97 | 84.12** | 708 | 18.97 |
| | Once | 87.68** | 1,648 | 14.36 | 77.08** | 167 | 22.98 |
| | 2 or 3 times | 86.07** | 974 | 15.61 | 73.26** | 132 | 22.27 |
| | > 3 times | 83.89** | 909 | 18.68 | 74.11** | 108 | 22.49 |
| | Total | 87.97++ | 6,624 | 15.19 | 80.81 | 1,115 | 20.84 |
| Total | Never | 89.49** | 6,382 | 14.11 | 84.04** | 1,450 | 18.87 |
| | Once | 86.62** | 3,059 | 14.99 | 75.91** | 278 | 23.49 |
| | 2 or 3 times | 84.82** | 1,774 | 16.48 | 73.04** | 189 | 22.54 |
| | > 3 times | 83.11** | 1,579 | 18.87 | 74.91** | 159 | 22.64 |
| | Total | 87.37** | 12,794 | 15.49 | 81.25** | 1,076 | 20.64 |

Notes:

Study 1: Differences between age groups are all non-significant, while differences between gender all are significant.

Study 2: Differences between age-groups and between genders are all non-significant, excepting for been hit and left out by other children between age-groups)

by other children in the class. In contrast, in Study 2, feeling safe at school is associated with a higher frequency of being hit by other children in the class. However, the other two items (perceiving friends are usually nice and getting along well with friends) do not display a significant association with reporting being hit. In Study 1, reporting having enough friends appears to be associated with a higher frequency of being hit by other children in the class, which is a surprising result, while in Study 2, no significant association is observed between having enough friends and being victimised.

Table 4 Mean scores for CW-SWBS by gender and age groups for each bullying incidents

| | Study 1 | | | | | | | | | | Study 2 | | | | | | | | | | | |
|-----------------------------|--|------|---------|--------|------|-------|-------|---------|------|-------|---|------|---------|-------|---|-------|----|---------|---|---|-------|-------|
| | Lower | | | | | Upper | | | | | Lower | | | | | Upper | | | | | | |
| | B | SE | β | t | p | B | SE | β | t | p | B | SE | β | t | p | B | SE | β | t | p | Lower | Upper |
| | Been hit by siblings | | | | | | | | | | | | | | | | | | | | | |
| Age | -.003 | .011 | -.002 | -.233 | .816 | -.024 | .019 | .055 | .029 | .040 | 1.912 | .056 | -.001 | .111 | | | | | | | | |
| Gender | -.148 | .022 | -.067 | -6.840 | .000 | -.191 | -.106 | -.072 | .043 | -.034 | -1.655 | .098 | -.157 | .013 | | | | | | | | |
| Satisfaction with family | -.007 | .006 | -.013 | -1.245 | .213 | -.018 | .004 | .018 | .013 | .036 | 1.331 | .183 | -.008 | .044 | | | | | | | | |
| Family care | -.051 | .015 | -.039 | -3.516 | .000 | -.080 | -.023 | .010 | .034 | .009 | .282 | .778 | -.057 | .077 | | | | | | | | |
| Family will help | .005 | .013 | .004 | .399 | .690 | -.021 | .031 | -.027 | .035 | -.026 | -.781 | .435 | -.096 | .041 | | | | | | | | |
| Have a good time in family | .012 | .014 | .010 | .901 | .368 | -.014 | .039 | -.096 | .036 | -.088 | -2.679 | .007 | -.167 | -.026 | | | | | | | | |
| Feel safe at home | .022 | .014 | .017 | 1.583 | .113 | -.005 | .050 | .005 | .023 | .005 | .227 | .821 | -.039 | .049 | | | | | | | | |
| Parents listen to children | -.027 | .013 | -.024 | -2.070 | .038 | -.053 | -.001 | -.094 | .034 | -.087 | -2.736 | .006 | -.161 | -.026 | | | | | | | | |
| Satisfaction with friends | -.012 | .006 | -.022 | -2.036 | .042 | -.024 | .000 | -.030 | .013 | -.064 | -2.353 | .019 | -.055 | -.005 | | | | | | | | |
| Have enough friends | .029 | .013 | .024 | 2.261 | .024 | .004 | .054 | .062 | .035 | .055 | 1.775 | .076 | -.007 | .130 | | | | | | | | |
| Friends are nice | -.010 | .014 | -.009 | -.701 | .483 | -.037 | .017 | -.051 | .038 | -.045 | -1.330 | .184 | -.125 | .024 | | | | | | | | |
| Get along well with friends | -.097 | .014 | -.085 | -7.045 | .000 | -.124 | -.070 | -.031 | .038 | -.026 | -.815 | .415 | -.104 | .043 | | | | | | | | |
| Friends support | -.001 | .011 | -.011 | -.061 | .951 | -.023 | .022 | .034 | .031 | .032 | 1.085 | .278 | -.027 | .095 | | | | | | | | |
| Teachers care | -.035 | .016 | -.027 | -2.226 | .026 | -.066 | -.004 | .061 | .033 | .058 | 1.855 | .064 | -.004 | .126 | | | | | | | | |
| Teachers help | -.012 | .015 | -.009 | -.764 | .445 | -.042 | .018 | -.067 | .035 | -.062 | -1.895 | .058 | -.136 | .002 | | | | | | | | |
| Other children help | -.009 | .014 | -.008 | -.671 | .502 | -.037 | .018 | -.086 | .030 | -.083 | -2.897 | .004 | -.144 | -.028 | | | | | | | | |
| Teachers listen to children | .014 | .013 | .012 | 1.060 | .289 | -.012 | .040 | -.039 | .032 | -.036 | -1.235 | .217 | -.102 | .023 | | | | | | | | |
| Feel safe at school | -.050 | .014 | -.040 | -3.522 | .000 | -.078 | -.022 | .032 | .018 | .038 | 1.790 | .074 | -.003 | .068 | | | | | | | | |
| A lot arguments in class | .044 | .008 | .055 | 5.464 | .000 | .028 | .059 | .144 | .017 | .175 | 8.248 | .000 | .110 | .178 | | | | | | | | |
| | Adjusted R ² = .031; F = 18.640; df1 = 19; df2 = 10328; p < .01 | | | | | | | | | | Adjusted R ² = .110; F = 14.772; df1 = 19; df2 = 2091; p < .01 | | | | | | | | | | | |
| | Been called unkind names by siblings | | | | | | | | | | | | | | | | | | | | | |
| Age | .026 | .010 | .027 | 2.680 | .007 | .007 | .045 | .084 | .026 | .067 | 3.219 | .001 | .033 | .135 | | | | | | | | |
| Gender | -.044 | .019 | -.022 | -2.241 | .025 | -.082 | -.005 | .029 | .039 | .015 | .745 | .456 | -.048 | .107 | | | | | | | | |
| Satisfaction with family | -.019 | .005 | -.040 | -3.704 | .000 | -.029 | -.009 | .004 | .012 | .009 | .349 | .727 | -.020 | .028 | | | | | | | | |
| Family care | -.032 | .013 | -.027 | -2.406 | .016 | -.057 | -.006 | -.052 | .032 | -.055 | -1.638 | .102 | -.115 | .010 | | | | | | | | |
| Family will help | -.005 | .012 | -.004 | -.383 | .701 | -.028 | .019 | -.020 | .032 | -.021 | -.639 | .523 | -.083 | .042 | | | | | | | | |
| Have a good time together | .003 | .012 | .003 | .257 | .797 | -.021 | .027 | -.071 | .033 | -.070 | -2.139 | .033 | -.136 | -.006 | | | | | | | | |

Table 4 (continued)

| | Study 1 | | | | | Study 2 | | | | | | | | |
|-----------------------------|--|------|---------|---------|------|---------|-------|-------|------|---------|--------|------|--------|-------|
| | B | SE | β | t | p | Lower | Upper | B | SE | β | t | p | Lower | Upper |
| Feel safe at home | -.008 | .013 | -.007 | -.635 | .525 | -.033 | .017 | -.057 | .021 | -.061 | -2.741 | .006 | -.097 | -.016 |
| Parents listen to children | -.022 | .012 | -.022 | -1.873 | .061 | -.046 | .001 | -.069 | .031 | -.070 | -2.197 | .028 | -1.130 | -.007 |
| Satisfaction with friends | -.021 | .005 | -.042 | -3.843 | .000 | -.032 | -.010 | -.027 | .012 | -.062 | -2.283 | .023 | -.050 | -.004 |
| Have enough friends | .020 | .011 | .019 | 1.706 | .088 | -.003 | .042 | -.051 | .032 | -.049 | -1.572 | .116 | -1.114 | .013 |
| Friends are nice | -.051 | .012 | -.051 | -4.106 | .000 | -.075 | -.027 | -.005 | .035 | -.005 | -.147 | .883 | -.074 | .064 |
| Get along well with friends | -.057 | .012 | -.056 | -4.579 | .000 | -.081 | -.033 | .001 | .035 | .001 | .017 | .987 | -.067 | .068 |
| Friends support | .008 | .010 | .010 | .816 | .415 | -.012 | .028 | .018 | .028 | .019 | .631 | .528 | -.038 | .074 |
| Teachers care | -.008 | .014 | -.007 | -.574 | .566 | -.036 | .020 | .033 | .030 | .034 | 1.094 | .274 | -.026 | .093 |
| Teachers help | -.011 | .014 | -.011 | -.840 | .401 | -.038 | .015 | -.069 | .032 | -.070 | -2.118 | .034 | -.132 | -.005 |
| Other children help | .024 | .013 | .024 | 1.866 | .062 | -.001 | .048 | -.010 | .027 | -.010 | -.357 | .721 | -.063 | .043 |
| Teachers listen to children | -.011 | .012 | -.011 | -.938 | .348 | -.035 | .012 | .019 | .029 | .019 | .650 | .516 | -.038 | .076 |
| Feel safe at school | -.050 | .013 | -.045 | -3.918 | .000 | -.075 | -.025 | .023 | .016 | .030 | 1.418 | .156 | -.009 | .055 |
| A lot arguments in class | .032 | .007 | .045 | 4.447 | .000 | .018 | .046 | .107 | .016 | .142 | 6.748 | .000 | .076 | .138 |
| | Adjusted R2=.032; F=18.594; df1=19; df2=10107; p<.01 | | | | | | | | | | | | | |
| | Adjusted R2=.118; F=15.865; df1=19; df2=2094; p<.01 | | | | | | | | | | | | | |
| | Been hit by other children at school | | | | | | | | | | | | | |
| Age | .019 | .010 | .018 | 1.847 | .065 | -.001 | .039 | .033 | .022 | .030 | 1.467 | .142 | -.011 | .077 |
| Gender | -.287 | .020 | -.135 | -14.085 | .000 | -.327 | -.247 | -.114 | .034 | -.069 | -3.379 | .001 | -.180 | -.048 |
| Satisfaction with family | -.005 | .005 | -.011 | -1.048 | .294 | -.016 | .005 | .001 | .011 | .004 | .141 | .888 | -.019 | .022 |
| Family care | -.013 | .014 | -.011 | -.984 | .325 | -.040 | .013 | -.068 | .027 | -.082 | -2.527 | .012 | -.120 | -.015 |
| Family help | .013 | .012 | .012 | 1.052 | .293 | -.011 | .038 | -.048 | .028 | -.056 | -1.736 | .083 | -.103 | .006 |
| Have a good time | .016 | .013 | .013 | 1.239 | .216 | -.009 | .041 | -.008 | .028 | -.009 | -.284 | .777 | -.063 | .047 |
| Feel safe at home | .003 | .013 | .003 | .254 | .800 | -.022 | .029 | -.060 | .017 | -.076 | -3.453 | .001 | -.095 | -.026 |
| Parents listen to children | .003 | .012 | .002 | .219 | .827 | -.022 | .027 | -.030 | .027 | -.035 | -1.108 | .268 | -.083 | .023 |
| Satisfaction with friends | -.026 | .006 | -.048 | -4.510 | .000 | -.037 | -.015 | -.031 | .010 | -.084 | -3.091 | .002 | -.051 | -.011 |
| Have enough friends | .036 | .012 | .032 | 2.978 | .003 | .012 | .059 | -.008 | .028 | -.009 | -.284 | .776 | -.062 | .046 |
| Friends are nice | -.027 | .013 | -.025 | -2.060 | .039 | -.052 | -.001 | -.047 | .030 | -.052 | -1.555 | .120 | -.106 | .012 |
| Get along well with friends | -.086 | .013 | -.079 | -6.657 | .000 | -.111 | -.061 | -.023 | .030 | -.024 | -.761 | .447 | -.081 | .036 |

Table 4 (continued)

| | Study 1 | | | | | Study 2 | | | | | | | | |
|-----------------------------|--|------|---------|--------|------|---------|-------|-------|------|---------|--------|------|-------|-------|
| | B | SE | β | t | p | Lower | Upper | B | SE | β | t | p | Lower | Upper |
| Friend supports | -.011 | .011 | -.012 | -1.054 | .292 | -.032 | .010 | .023 | .025 | .027 | .931 | .352 | -.025 | .071 |
| Teachers care | .003 | .015 | .003 | .212 | .832 | -.026 | .032 | .084 | .026 | .099 | 3.204 | .001 | .032 | .135 |
| Teachers help | .044 | .014 | .037 | 3.057 | .002 | .016 | .072 | -.065 | .028 | -.076 | -2.309 | .021 | -.120 | -.010 |
| Other children help | -.005 | .013 | -.004 | -.349 | .727 | -.030 | .021 | -.017 | .023 | -.021 | -.740 | .459 | -.063 | .028 |
| Teachers listen to children | .014 | .012 | .013 | 1.098 | .272 | -.011 | .038 | .008 | .025 | .010 | .340 | .734 | -.041 | .058 |
| Feel safe at school | -.107 | .013 | -.090 | -8.023 | .000 | -.133 | -.081 | .049 | .014 | .073 | 3.484 | .001 | .021 | .077 |
| A lot arguments in class | .060 | .008 | .078 | 7.937 | .000 | .045 | .074 | .145 | .014 | .220 | 10.551 | .000 | .118 | .172 |
| | Adjusted R2=.050; F=30.125; df1=19; df2=10484; p<.01 | | | | | | | | | | | | | |
| | Been called unkind names by other children at school | | | | | | | | | | | | | |
| Age | .059 | .012 | .049 | 5.098 | .000 | .036 | .082 | .109 | .027 | .082 | 4.015 | .000 | .056 | .162 |
| Gender | -.081 | .023 | -.034 | -3.503 | .000 | -.126 | -.036 | .057 | .041 | .028 | 1.386 | .166 | -.024 | .137 |
| Satisfaction with family | .007 | .006 | .013 | 1.221 | .222 | -.004 | .019 | -.001 | .013 | -.003 | -.104 | .918 | -.026 | .023 |
| Family care | -.012 | .015 | -.009 | -.801 | .423 | -.043 | .018 | -.069 | .033 | -.068 | -2.096 | .036 | -.133 | -.004 |
| Family help | .010 | .014 | .008 | .721 | .471 | -.018 | .038 | -.053 | .033 | -.052 | -1.600 | .110 | -.118 | .012 |
| Have a good time | .009 | .014 | .006 | .607 | .544 | -.019 | .037 | -.019 | .035 | -.018 | -.556 | .578 | -.088 | .049 |
| Feel safe at home | .046 | .015 | .033 | 3.081 | .002 | .017 | .075 | -.075 | .021 | -.078 | -3.561 | .000 | -.116 | -.034 |
| Parents listen to children | -.015 | .014 | -.012 | -1.030 | .303 | -.042 | .013 | -.083 | .032 | -.080 | -2.579 | .010 | -.146 | -.020 |
| Satisfaction with friends | -.031 | .006 | -.051 | -4.769 | .000 | -.044 | -.018 | -.041 | .012 | -.091 | -3.411 | .001 | -.065 | -.017 |
| Have enough friends | .026 | .014 | .020 | 1.919 | .055 | -.001 | .053 | .040 | .033 | .036 | 1.209 | .227 | -.025 | .106 |
| Friends are nice | -.074 | .015 | -.062 | -5.077 | .000 | -.103 | -.046 | -.075 | .036 | -.069 | -2.069 | .039 | -.146 | -.004 |
| Get along well with friends | -.108 | .015 | -.088 | -7.383 | .000 | -.137 | -.080 | -.045 | .036 | -.039 | -1.236 | .216 | -.115 | .026 |
| Friend supports | .002 | .012 | .002 | .159 | .874 | -.022 | .026 | .030 | .030 | .029 | 1.023 | .306 | -.028 | .089 |
| Teachers care | .010 | .017 | .007 | .575 | .565 | -.023 | .042 | .150 | .032 | .147 | 4.769 | .000 | .089 | .212 |
| Teachers help | .010 | .016 | .008 | .643 | .520 | -.021 | .042 | -.071 | .033 | -.069 | -2.133 | .033 | -.137 | -.006 |
| Other children help | -.026 | .015 | -.021 | -1.714 | .087 | -.055 | .004 | -.068 | .028 | -.068 | -2.412 | .016 | -.123 | -.013 |
| Teachers listen to children | .022 | .014 | .018 | 1.577 | .115 | -.005 | .050 | .014 | .030 | .013 | .449 | .653 | -.046 | .073 |
| Feel safe at school | -.049 | .015 | -.036 | -3.228 | .001 | -.078 | -.019 | .034 | .017 | .042 | 2.022 | .043 | .001 | .068 |
| A lot arguments in class | .070 | .009 | .081 | 8.176 | .000 | .053 | .086 | .158 | .017 | .198 | 9.576 | .000 | .126 | .191 |

Table 4 (continued)

| | Study 1 | | | | | Study 2 | | | | | | | | | |
|-----------------------------|--|------|---------|--------|------|---|-------|-------|------|---------|--------|------|-------|-------|--|
| | B | SE | β | t | p | Lower | Upper | B | SE | β | t | p | Lower | Upper | |
| | Adjusted R2 = .040; F = 24.102; df1 = 19; df2 = 10484; p < .01 | | | | | Adjusted R2 = .166; F = 22.711; df1 = 19; df2 = 2053; p < .01 | | | | | | | | | |
| | Been left out by other children in class | | | | | | | | | | | | | | |
| Age | -.042 | .010 | -.040 | -4.141 | .000 | -.061 | -.022 | .061 | .024 | .050 | 2.520 | .012 | .014 | .109 | |
| Gender | .124 | .020 | .059 | 6.218 | .000 | .085 | .163 | .209 | .037 | .111 | 5.674 | .000 | .137 | .281 | |
| Satisfaction with family | -.009 | .005 | -.018 | -1.695 | .090 | -.019 | .001 | -.010 | .011 | -.022 | -.871 | .384 | -.032 | .012 | |
| Family care | .009 | .013 | .007 | .636 | .525 | -.018 | .035 | -.040 | .030 | -.042 | -1.347 | .178 | -.098 | .018 | |
| Family help | .021 | .012 | .018 | 1.687 | .092 | -.003 | .045 | -.149 | .030 | -.154 | -4.907 | .000 | -.209 | -.809 | |
| Have a good time | .018 | .012 | .015 | 1.457 | .145 | -.006 | .043 | .043 | .031 | .043 | 1.384 | .167 | -.018 | .105 | |
| Feel safe at home | .004 | .013 | .003 | .325 | .745 | -.021 | .029 | -.048 | .019 | -.053 | -2.505 | .012 | -.086 | -.010 | |
| Parents listen to children | -.008 | .012 | -.008 | -.680 | .496 | -.032 | .016 | -.083 | .030 | -.084 | -2.804 | .005 | -.141 | -.025 | |
| Satisfaction with friends | -.047 | .006 | -.089 | -8.402 | .000 | -.058 | -.036 | -.029 | .011 | -.068 | -2.662 | .008 | -.051 | -.008 | |
| Have enough friends | .012 | .012 | .010 | .987 | .323 | -.011 | .035 | -.060 | .031 | -.058 | -1.973 | .049 | -.120 | .000 | |
| Friends are nice | -.084 | .013 | -.080 | -6.658 | .000 | -.109 | -.059 | -.089 | .033 | -.088 | -2.703 | .007 | -.154 | -.025 | |
| Get along well with friends | -.094 | .013 | -.087 | -7.362 | .000 | -.118 | -.069 | -.061 | .033 | -.056 | -1.859 | .063 | -.125 | .003 | |
| Friend supports | .004 | .010 | .004 | .364 | .716 | -.017 | .024 | .088 | .027 | .091 | 3.288 | .001 | .036 | .141 | |
| Teachers care | .019 | .014 | .015 | 1.297 | .195 | -.010 | .047 | .081 | .029 | .084 | 2.809 | .005 | .025 | .138 | |
| Teachers help | .047 | .014 | .041 | 3.350 | .001 | .019 | .075 | -.010 | .031 | -.011 | -.338 | .736 | -.070 | .050 | |
| Other children help | -.026 | .013 | -.025 | -2.019 | .044 | -.051 | -.001 | -.077 | .025 | -.082 | -3.054 | .002 | -.127 | -.028 | |
| Teachers listen to children | .031 | .012 | .029 | 2.510 | .012 | .007 | .055 | .027 | .027 | .027 | .977 | .329 | -.027 | .081 | |
| Feel safe at school | -.089 | .013 | -.076 | -6817 | .000 | -.114 | -.063 | .050 | .015 | .065 | 3.243 | .001 | .020 | .080 | |
| A lot arguments in class | .066 | .007 | .087 | 8.946 | .000 | .052 | .081 | .164 | .015 | .219 | 11.020 | .000 | .135 | .194 | |
| | Adjusted R2 = .064; F = 38.565; df1 = 19; df2 = 10484; p < .01 | | | | | Adjusted R2 = .227; F = 33.106; df1 = 19; df2 = 2056; p < .01 | | | | | | | | | |

Feeling safe at home is associated with a higher frequency of being called unkind names by other children at school in Study 1, while in Study 2, it appears to be associated with a lower frequency of that kind of bullying incident. Feeling unsatisfied with friends, perceiving friends are not usually nice, and perceiving a lot of arguments at school appears to be associated with a higher frequency of being called unkind names by other children in both studies. Not feeling safe at school appears to be associated with a higher frequency of being called unkind names by other children at school in Study 1 but a lower frequency of being called unkind names by other children at school in Study 2. Perceiving family does not care about them, reporting parents not listening to them and not taking what they say into account and perceiving teachers and other children not helping when they have a problem appear to be associated with a higher frequency of being called unkind names by other children at school in Study 2, but not in Study 1.

In both studies, feeling unsatisfied with friends, perceiving friends are not usually nice, perceiving other children are not helping when they have a problem, not feeling safe at school, and perceiving many arguments between children in class appear to be associated with a higher frequency of being left out by other children in the class. Not getting along well with friends is associated with a higher frequency of being left out by other children only in Study 1, while perceiving teachers as helping and listening to children is associated with a lower frequency of being left out by other children in Study 1. None of the family variables contributes to emotional bullying at school in Study 1. In Study 2, perceiving family as not helping when they have a problem, not feeling safe at home, perceiving parents do not listen to them, and perceiving not having enough friends are associated with a high frequency of being left out by other children. However, support from friends and teachers helping when children have a problem is associated with a lower frequency of being left out by other children in Study 2.

3 Discussion

3.1 Prevalence of Bullying

The first aim of this study was to analyse the prevalence of sibling and school bullying before and during the COVID-19 pandemic in Indonesia. Before COVID-19, the percentage of children reporting being called unkind names by other children in school was the highest among other bullying incidents. In total, more children reported being bullied at school than being bullied by siblings at home (Table 2). However, during COVID-19, the percentage of children reporting being hit by siblings is higher than the percentage of children reporting being bullied for any other bullying incident (Study 2; Table 2). Since children were confined at home during COVID-19, they were in contact with siblings more frequently. A study in Indonesia showed that 45.7% of children reported having to take care of their siblings several times during the lockdown, and 50.9% of participants in this study reported they were bored due to not having various activities (Borualogo & Casas, 2021a). Relationships with siblings are often described as emotionally ambivalent (Brody, 2004). Although

children take care of their siblings several times a day and are warm in their relationships with them, a possible explanation for these results is that they may get bored or tired and have conflicts with siblings more often during the COVID-19 confinement, and consequently bullying relationships with siblings may have increased. In contrast, a study among U.S. children of Latin American origins showed that school closure was linked to more sibling positivity in families with more children (Sun et al., 2021).

Perkins et al., (2021) explained that sibling bullying was more likely to occur during the COVID-19 pandemic because of the confinement at home combined with economic, interpersonal and social relationships where abuse already exists. A review study also showed that surveys reported increased violence in the family, including child abuse-related injuries treated in hospitals (Cappa & Jijon, 2021; Kourti et al., 2021) also found that children being confined at home led to constant contact between siblings, resulting in increased bullying incidents. As for Indonesian cases, during the COVID-19 pandemic, the economic situation at home worsened since some parents lost their jobs (Putri, 2020). Many parents were forced to work in the informal sectors and leave their children less supervised. Fontanesi et al., (2020) predicted there would be an increase in sibling bullying during the COVID-19 pandemic due to the absence of parents supervision while parents were working away from home. The situation may be getting worse, as children may have less access to reporting sibling bullying because of limited support services using hotlines (Field, 2021; Kourti et al., 2021). Several institutions in Indonesia provide hotlines, particularly for school bullying reports. Unfortunately, there are no specific hotlines for sibling bullying. However, these hotlines still need to more clearly disseminate the message that children can access them easily and can also report sibling bullying incidents.

All schools in Indonesia were closed during the COVID-19 pandemic, starting in March 2020 (Kamil & Kuwado, 2020) until September 2021 (Asmara, 2021). Children were compelled to learn online and had fewer opportunities to interact socially at school. This might be the reason for the lower percentage of school bullying during COVID-19. Aligned with this finding, a survey in Germany showed that 46% of parents reported that their children are less likely to be victimised during school closure during COVID-19 (Werner & Woessmann, 2021). However, this might be a pseudo-reduction because children's increased presence online might be tied to other types of bullying, particularly cyberbullying. Several studies revealed that the number of cyberbullying cases increased during the school closure (Barlett et al., 2021). UNICEF Indonesia pointed out an increase in cyberbullying cases in the country during the COVID-19 pandemic (Mashabi & Galih, 2020). The Indonesian Minister of Education, Culture, Research and Technology stated that the pandemic triggered increased cyberbullying among children (Ramadhanty, 2021). Since there are no scientific reports on cyberbullying cases in Indonesia, further studies are needed to investigate whether children who are victimised at school are vulnerable to being cyberbullied during remote learning. In contrast, a longitudinal study on the social and psychological effect of the COVID-19 pandemic on middle school students in Northeastern Pennsylvania revealed that one in nine students experienced a significant rise (11.7%) in bullying victimisation from year 4 to year 5, the years straddling the COVID-19 pandemic (Walters et al., 2021).

The current study showed that girls and younger children were more likely to report being bullied than boys and older children during the COVID-19 pandemic. In contrast, boys and older children were more likely to report being bullied than girls and younger children before COVID-19, except for sibling bullying. These results aligned with a study in Mexico and Chile that revealed girls experienced a higher prevalence of bullying victimisation during the COVID-19 pandemic (Bravo-Sanzana et al., 2022), although in contrast, late adolescents experienced a higher prevalence of bullying victimisation (Bravo-Sanzana et al., 2022). Results of the current study also aligned with a study in Canada that revealed girls were more likely to report being bullied during the COVID-19 and elementary school students reported higher bullying involvement than secondary school students (Vaillancourt et al., 2021).

Both studies' most prevalent bullying victimisation was verbal bullying (Table 2). These results aligned with a study in five Association of Southeast Asian Nations (ASEAN) countries, including Indonesia, which showed name-calling was the most prevalent (13.5%) type of bullying victimisation (Pengpid & Pletzer, 2019).

3.2 SWB of Children Before and During the COVID-19 Pandemic

The study's second aim was to compare the SWB of children, whether they experienced being bullied or had never been bullied at home and school before and during the COVID-19 pandemic. Although the samples are not strictly comparable, children in Study 1 display higher SWB scores than children in Study 2. These results suggest that positive indicators have decreased from Study 1 to Study 2, meaning from before the COVID-19 data collection to during the COVID-19 data collection.

Children in Study 2 who reported being bullied by siblings more than three times display significantly higher SWB scores than children who reported being bullied two or three times. These results suggest that children may have adapted to adverse situations, such as being bullied by siblings more times during the COVID-19 pandemic. During COVID-19, children were confined at home, most likely without parents' supervision, which may explain the fact that they experienced more frequent bullying by siblings, but adapted to being victimised at home.

The pandemic has brought changes in school life for children, from offline to online learning to limited social interactions with friends. With fewer opportunities to interact socially at school, school bullying rates are lower during the pandemic than before the pandemic (Table 2). Children who reported never being bullied during the pandemic display lower SWB scores than those who were never bullied before the pandemic. Although it is not strictly comparable between samples, this result suggests their situations during the pandemic affected children's SWB. These results aligned with a longitudinal study that concluded the detrimental effect of the COVID-19 pandemic on children's SWB (Steinmayr et al., 2022). Another study in Indonesia also revealed lower SWB scores of children during the COVID-19 pandemic (Borualogo & Casas, 2022). In the current study, the SWB was worse when they experienced being bullied, both before and during the pandemic. Like before the pandemic, children reporting any kind (physical, verbal, emotional) of school bullying during the pandemic displayed significantly lower SWB scores than those who reported never being bullied during the pandemic.

3.3 Factors Related to Sibling and School Bullying

The third aim of the study was to investigate factors related to sibling and school bullying before and during COVID-19. The current study revealed several interesting yet unexpected findings on factors related to sibling and school bullying before and during the COVID-19 pandemic. Children have experienced life changes during the pandemic that may have affected their social relationships, particularly school-related experiences, including bullying. Different situations in children's lives before and during the COVID-19 pandemic apparently contributed differently to their bullying experiences at home by siblings and at school by mates.

A previous study in Indonesia with a sample of elementary and secondary school students showed the importance of being listened to by parents when children experienced school bullying (Borualogo, 2021; Casas, 2016) also stated that being listened to by parents is a strong predictor of children's SWB. It is important for children and adolescents to feel adequately heard concerning their SWB (Corominas et al., 2020). The current study exposes that for sibling bullying, parents listening to children is essential to protect children from being victimised by siblings both before and during the pandemic. However, for school bullying, parents listening to children protects them from being bullied at school only during COVID-19. This is probably because children have more frequent interactions with their parents during the pandemic, encouraging them to share their experiences with their parents.

In addition to the explanation above, teachers listening to children protected children in Study 1 from being left out by other children in the class. However, this variable is not associated with any bullying indicator in Study 2. During remote learning, children did not meet in person with their teachers. Therefore, children might have fewer opportunities to communicate with teachers, just as in offline classes.

A surprising association is observed in Study 1. Children's perception that teachers will help if they have a problem at school is associated with a higher frequency of being hit by other children. A previous study in Indonesia shows that children prefer to report to parents rather than teachers to get help when they have problems at school, including bullying (Borualogo et al., 2020). This is most likely because when they report to teachers, teachers reprimand the perpetrators, and in many cases, it makes perpetrators more aggressive toward victims for reporting them to teachers. In the end, it causes the children to experience repeated bullying incidents.

None of the family variables in Study 1 was associated with children's experiences of being bullied at school, except for feeling safe at home, which was associated with a lower frequency of being called unkind names by other children at school. However, several family variables (e.g., having people in the family who care about children, family helping children when they have a problem, and parents listening to children) were associated with school bullying indicators in Study 2. Even feeling safe at home was associated with all three school bullying indicators. During the COVID-19 pandemic, while children were more frequently together with their family members, the family's contribution to children's school life apparently changed. This is not surprising since children's school life moved to home. They participated in online learning from home, and the online learning process may have involved other family members.

School climate was associated differently with bullying before and during the pandemic. Feeling safe at school protects children from bullying, both by siblings and at school before COVID-19, but apparently only protects children from being bullied at school during COVID-19. Perceiving many arguments in class increased the probability of children being bullied in all five bullying indicators – at home and school – before and during the pandemic. These indicators of a positive school climate (i.e., feeling safe at school and not perceiving many arguments in class) represent essential conditions that protect children from being bullied at school both before and during COVID-19.

Perceptions about friends displayed diverse associations with being bullied at home and school in both studies. In both studies, satisfaction with friends was associated with a lower probability of being victimised by siblings at home and classmates at school. Friends being perceived as usually nice was associated with a lower probability of verbal and emotional bullying in both studies. These results suggest that before and during the pandemic, friends play important roles in children's lives, particularly in protecting them from being bullied. Although children probably did not have many opportunities to meet with their friends during the lockdown, relationships with friends still appeared important in protecting them from being bullied during remote learning. Another study in Indonesia also showed the importance of having good relationships with friends during the COVID-19 pandemic and staying in contact with them using online communication (Borualogo, 2021). However, surprising results are observed in Study 1, where reporting having enough friends was associated with a higher frequency of being hit by siblings and other children in the class. A study in England revealed that even though children have enough friends, asking them for help while they experience bullying is the least-used coping strategy (Kanetsuna & Smith, 2002), and children prefer to ask adults for help. A study in Japan showed that children were often bullied by a number of mates perceived as real friends (Kanetsuna & Smith, 2002). In these cases, being bullied by so-called friends appeared especially shameful and more challenging to cope with. This may be related to the surprising findings in Indonesia, where perceiving having enough friends was associated with a higher frequency of being bullied.

4 Conclusion

The prevalence of sibling bullying during the COVID-19 pandemic appeared to be higher than before the pandemic. The frequency of school bullying during COVID-19 was lower than before COVID-19 in Indonesia. However, further study is needed to determine whether the incidents are really decreasing or moving to another type of bullying, as may be the case of cyberbullying.

During COVID-19, more girls and children 11 years old reported being bullied than boys and older children in all bullying indicators. This contrasts with the situation before COVID-19, where more boys and older children reported being bullied in all bullying indicators.

Although samples are not strictly comparable, the SWB levels during the COVID-19 data collection seem to decrease compared to those before the COVID-19. At

the same time, the frequency of all types of bullying apparently increased for the COVID-19 data collection. In previous studies, indicators used in the Children's Worlds project showed sensitivity to changes in children's lives. Therefore, SWB indicators should be sensitive to changes associated with children's new everyday life that COVID-19 has implied. However, this sample is not strictly comparable with the available pre-COVID-19 sample. School climate and relationships with family and friends were associated differently with sibling and school bullying before and during COVID-19.

This study has some limitations. First, it is only focused on sibling and school bullying before and during the COVID-19 pandemic. However, several studies indicated an increasing number of cyberbullying incidents during COVID-19. Unfortunately, this study did not collect data about cyberbullying. Therefore, future studies shall investigate cyberbullying, particularly to better understand whether children involved in a sibling or school bullying are more vulnerable to cyberbullying victimisation. Second, the sample in Study 2 is convenient. Therefore, the results cannot be generalised. Third, both studies are cross-sectional, and data collected in Study 1 and Study 2 may not be strictly comparable.

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Declarations

Compliance with Ethical Standards The authors declare that they have no conflict of interest to disclose. This research involving human participants. Ethical approval for each study was obtained from the appropriate ethics committee in Indonesia prior to the survey being conducted. Active parent consent was gained prior to the survey being conducted. Children were also informed that their data will be treated confidentially and they were free to join or not join the survey.

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