



# Bullying Victimization and Subjective Well-Being in 10- and 12-year-Old Children from 24 Countries: The Buffering Effect of Family and Teacher Support

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## Abstract

Bullying victimization in children is a recognized public health concern in many countries worldwide. Specifically, studies have consistently demonstrated that bullying victimization is one of the indicators that most significantly and negatively influences the subjective well-being (SWB) of children. Following this assumption, a study was conducted to examine the impact of bullying victimization on subjective well-being among 75,877 students aged 10 and 12 years across 24 countries. Additionally, the moderating role of support from teachers and family members in the relationship between bullying victimization and subjective well-being was investigated using structural equation modeling (SEM) analysis. The results show that, in many countries, there is an interaction effect of both family support and teacher support figures in both age groups (10 and 12 years). However, significant variability in these interaction effects was observed across countries, and in some countries, no moderating effect was detected. Specifically, in the 12-year-old group, a larger number of countries show no interaction effect from any adult support figure in the relationship between bullying victimization and SWB. The findings are discussed with a focus on the buffering effects of both types of support, the variability observed across countries, and the practical implications of these results.

**Keywords** Subjective Wellbeing · Family and Teacher Support · Bullying Victimization · Children

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## 1 The Phenomenon of Bullying and Their Consequences in Children

Bullying is a public concern in many countries around the world (Oriol et al., 2021; Varela et al., 2020). It is characterized as a form of school violence involving an aggressor and a victim, wherein the aggressor exercises systematic and repeated harmful actions over time to assert power and control over the victim (Olweus, 1993; Volk et al., 2017). Bullying seeks to inflict harm upon its targeted victims through various means, including physical acts such as hitting or kicking, psychological tactics such as threats or confinement, and social dimensions like exclusion or persistent silence towards the victims (Wang et al., 2009; Buroulago & Casas, 2021).

A meta-analysis conducted by Modecki et al. (2014), which included a total of 80 studies from different geographic regions, estimated that the average rate of bullying victimization worldwide was around 36%. However, the prevalence of this form of interpersonal violence varies considerably between countries, and studies on this issue have predominantly focused on Europe, North America, and Australia with limited representation of other regions (Zych et al., 2017). In recent years, there has been an exponential growth of bullying studies in various countries. However, there is still an observed lack of cross-cultural studies (Savahl et al., 2019).

Bullying has been extensively studied, particularly in terms of the consequences that victimization has on children and adolescents (for review, Moore et al., 2017). In the systematic review on the consequences of bullying in childhood and adolescence conducted by Moore et al. (2017), which included 165 articles, a robust association was observed between bullying victimization and the development of mental health issues and substance use. Specifically, victims of bullying have been found to increase the risks of depression, suicidal ideation, alcohol consumption, exhibit lower academic performance, and promote the manifestation of violent behaviors towards others (Oriol, 2023).

## 2 Subjective Well-Being in Children

Subjective well-being, according to Diener (1984), is a multi-dimensional construct that encompasses people's evaluations of their own lives, including affective experiences, cognitive judgments, and a sense of life satisfaction. The cognitive dimension pertains to global and domain-specific satisfaction with life, whereas the affective dimension concerns the presence of positive affect (PA) (such as joy and calm) and the absence of negative affect (NA) (such as anxiety and depression). In recent years, studies focused on evaluating SWB have significantly increased since it is a fundamental construct for healthy adjustment in childhood (Casas, 2018). Specifically, a concrete research trajectory within the domain of children's subjective well-being (SWB) has centered on elucidating the correlates and determinants that influence subjective well-being (Casas & Rees, 2015). In this context, multiple studies have demonstrated that cross-cultural investigations are essential to validate the similarities and differences in the experience of subjective well-being (SWB) and the correlates that influence this form of well-being in children across different countries (p.eg Casas et al., 2022; Casas & González-Carrasco, 2021). To conduct these cross-

cultural studies, efforts have been made to develop and validate new instruments for comparing children's subjective well-being (SWB) across countries (for review, see Dinisman & Ben-Arieh, 2016; Casas & Rees, 2015). Many of these recent cross-cultural studies have been developed within the framework of the International Survey of Children's Well-Being (ISCWeB) project, whose objective is to evaluate SWB in children aged 8, 10, and 12 across different countries worldwide (Casas, 2018). As a result of some studies carried out within this project, it has been concluded that it is essential to use various instruments to assess the cognitive component of SWB to better capture the construct (International Well-being Group, 2013). This approach differs from studies in the adult population, which often use a single-item scale (overall life satisfaction, OLS) is typically used to evaluate satisfaction with life as a whole (Jebb et al., 2020). For example, the ISCWeB project incorporates multi-item scales to evaluate life satisfaction and scales that evaluate the cognitive component considering satisfaction with different domains of child development, in addition to the OLS (Casas et al., 2022). To evaluate the affective component, the ISCWeB project uses the SPANE scale, which measures the presence of PA and the absence of NA following the circumplex model of affect proposed by Russell (2003). In a recent study conducted by Savahl et al. (2024) with children aged 10 and 12 in 35 countries, it was observed that a hierarchical second-order structure, which included cognitive components (including domain satisfaction) and the affective component to assess SWB in children, showed good fit indices across countries.

Many cross-cultural studies conducted as part of the ISCWeB project have shown significant cultural differences in the influence of various correlates on the subjective well-being (SWB) in children (e.g., Casas & Rees, 2015; Newland et al., 2019). Although some studies have identified family and peer relationships, satisfaction with school, and bullying victimization as some of the factors most strongly associated with SWB across different countries at these ages (Law & Bradshaw, 2016; Lawler et al., 2017), challenges remain in the scientific literature regarding the identification of factors that help explain the promotion or decline of children's subjective well-being across countries and the cultural variability in the influence of these factors (Gross-Manos & Bradshaw, 2021).

### **3 Bullying Victimization and Subjective Well-Being in Different Countries**

Bullying victimization is one of the factors that most negatively influences children's subjective well-being (SWB) across different countries (Borualogo & Casas, 2021). Various studies have confirmed the negative relationship between bullying victimization and children's subjective well-being (SWB) in different countries. For example, victimization from bullying in school has been identified as an important risk factor for children, as it is associated with a decrease in SWB at these ages across various countries and geographical regions, including Chile, South Africa, and Algeria (Oriol et al., 2021; Varela et al., 2020). Another recent study with a sample of adolescents from 64 middle-income countries observed a relationship between bullying victimization and the cognitive and affective components of subjective well-being (SWB),

after controlling other variables such as gender, country of birth, and socioeconomic status (Katsantonis et al., 2024). Similar results were observed in the study by Savahl et al. (2019), in which bullying victimization made a significant negative contribution to subjective well-being (SWB) in children across three age groups (8, 10, and 12) from 15 countries in different geographic regions, including Asia, Europe, North Africa, South America, and Sub-Saharan Africa. Another recent study conducted by Borualogo & Casas (2021) with 11,483 children from seven Asian countries found strong negative relationships between bullying victimization and subjective well-being (SWB) in six of the countries, with negative relationships, though less pronounced, also observed in Vietnam. These data demonstrate that despite confirming this negative relationship in countries from different geographical areas, the impact of bullying victimization on SWB can vary significantly between countries. Moreover, there is also notable variability in the prevalence of this form of interpersonal violence across countries (Modecki et al., 2014). For example, a study conducted with children in 15 countries revealed that South Africa had the highest incidence of bullying victimization, with a significant number of children reporting being hit or excluded by their peers at school (Rees & Main, 2015). Other studies have also shown that some Latin American countries, especially low- and middle-income countries also experience a significant degree of bullying victimization (Oriol et al., 2017). The results of a study conducted by Bradshaw et al. (2017), which investigated children aged 8 to 12 years in 16 different countries with diverse socioeconomic backgrounds, indicated that children who had experienced bullying exhibited significantly lower levels of subjective well-being (SWB) compared to non-victims. However, the strength of this association varied considerably across countries. Specifically, the impact of being bullied was found to explain variations in child SWB more prominently in affluent countries than in less economically developed ones.

In sum, bullying victimization is recognized as a highly relevant factor associated with subjective well-being (SWB) in children across countries. However, substantial differences exist in the strength of this association between countries.

#### **4 The Buffer Effect of Family and Teacher Support across Countries**

Positive, supportive relationships are among the most significant factors moderating potential stressors on subjective well-being (SWB) (Cummins, 2018). For children, perceived support from family, teachers, and friends is strongly associated with higher SWB (e.g., Lampropoulou, 2018; Liu et al., 2016). Notably, family support has consistently been one of the most influential factors linked to SWB across countries, though the strength of this association varies by context (Lawler et al., 2017; Lau & Li, 2011).

During childhood and adolescence, children and adolescents spend a considerable amount of time at school (González-Carrasco et al., 2017a). Therefore, perceived support from teachers has also been shown to be highly relevant to SWB across various countries, particularly during the transition from primary to secondary school, a period when children face increased changes and stress (Oriol et al., 2017). For example, the perception of teacher support has been associated to better academic

results, greater school engagement, and a lower risk of bullying (Tomás et al., 2020). Given that teacher support is an important factor associated with children's SWB, some studies have focused on demonstrating the relevance of this support in alleviating the negative effects of bullying victimization on SWB (e.g., Borualogo & Casas, 2021). For example, a study conducted by Miranda et al. (2019) shows that the perceived social support from teachers mitigates the relationship between bullying victimization and life satisfaction in adolescents. In this line, other studies also demonstrate that perceived social support from teachers also moderates the effects of bullying victimization in other variables related to SWB such as distress, depression, flagging concentration, emotional regulation problems and so forth. (Van Aalst et al., 2021; Huang et al., 2018).

Regarding the mitigating effect of family support, various studies have shown that when victims of bullying perceive loving and caring relationships with their families, they are more likely to experience greater well-being (Bowes et al., 2010; Holt & Espelage, 2007). Another study conducted by Waasdorp and colleagues (2012), show that parental warmth and support were linked to a decreased chance of experience distress in children who experience bullying victimization. More specifically, positive family environments and warm family relationships can act as protective factors for children, shielding them from the adverse consequences related to being a victim of bullying (Bowes et al., 2010; Hong et al., 2023).

Despite this reviewed literature, there are few cross-cultural studies demonstrating the buffering effect that family and teacher support may have in mitigating the negative effects of bullying victimization on subjective well-being (SWB) across countries. Furthermore, we believe that these mitigating effects may vary between countries since, as previously mentioned, there is cultural variability in the relationship between these perceived supports and SWB (e.g., Lawler et al., 2017).

## 5 The Present Study

According to the literature, bullying victimization is strongly associated with children's subjective well-being (SWB) across various countries (e.g., Borualogo & Casas, 2021). However, it is essential to carefully define these relationships based on children's age and any differences that may exist in these associations. Firstly, previous studies have shown that a decline in SWB is observed in children from age 11 onwards in various countries (Gonzalez-Carrasco et al., 2017b). This may be due to the importance of peer relationships, the need for belonging, and acceptance. Therefore, we believe this could influence potential differences in the relationship between bullying victimization and SWB at ages 10 and 12, and it is necessary to examine the variability of these relationships between countries at both ages (Savahl et al., 2019).

Moreover, as previously mentioned, the perception of adult support also varies at these ages, with peer belonging beginning to play a crucial role, especially from age 12 onwards (Blakemore, 2018). Thus, it is relevant to examine the mediating role of adult figures at ages 10 and 12 across different countries. Finally, it is also important to note that previous studies have shown that numerous socio-economic and cultural factors influence the prevalence of bullying across countries (e.g., Varela et al., 2020;

Katsantonis et al., 2024). Therefore, we believe that the relationship between bullying victimization and SWB may vary between countries.

The concrete aims of the study are as follows:

- a) To examine the moderating effect of family and teacher support on the relationship between bullying victimization and subjective well-being (SWB) using an adjustment model in two distinct age groups (10 and 12 years) across 24 countries. Additionally, to assess model fit across countries by applying a second-order SWB structure for both the 10- and 12-year-old models, as previously suggested (Savahl et al., 2024).
- b) To ascertain the measure invariance of the model across countries.

In terms of the study hypotheses, based on the literature review, we hypothesized that there is a negative relationship between bullying victimization and subjective well-being (SWB) in both age groups across countries. In addition, we hypothesize that moderating effects of teacher and family support will be found in different countries, although significant variability across countries is expected. Finally, we also expected to confirm a robust model fit across countries.

## 6 Method

### 6.1 Data Source

The selected data comes from the third wave of the Children's World International Survey. Thirty-five countries participated in this study, making it the largest multinational study to assess perceptions and evaluations of well-being. A total of 128,184 schoolchildren participated in study 3, grouped into three age groups (8, 10 and 12 years old). An international committee of the Children's Worlds survey supervised the design of data collection in each country to guarantee the appropriate representativeness of the data for each region or country. More details on the data collection procedure in each country can be obtained from the project's website ([www.isci-web.org](http://www.isci-web.org)) and from the third wave report by Rees et al. (2020). Especially, a central co-ordinating committee managed and oversaw the design and implementation of the study, sampling protocol, and management of the data. Principal investigators led the implementation of the survey at the country level. This included developing the country sampling strategy, adapting the instrument, and obtaining ethics clearance. A tailored sampling strategy was developed by the co-ordinating committee and the country principal investigators for each country, following a set of agreed principles. These included the following criteria: (1) A probability sample selected from a defined geographical unit. Some countries included a national sample, while others used a target geographical region and (2) a minimum target sample size of 1000 children in each age group, and a minimum number of participating schools to control the effect of clustering. It was used stratification in all countries, the nature of the stratification varied between countries. Where information about the number of children in all schools was available, and it was used random selection with prob-

abilities proportional to the size of the schools. When this information was unavailable, we selected schools with uniform probability. In larger schools, it was selected more than one class so as to reduce the need for high weighting coefficients in the final sample (Rees, 2017).

## 6.2 Participants

For this study, the groups of 10 and 12 years were used with a total of 75 877 students. Considering the variables used for this study; in the 10-year group, a total of 24 countries with 36 986 participants were considered; in the case of the 12-year group, 24 countries met the eligibility criteria with a total of 38,891 participants. Table 1 presents a summary of the demographic variables of the analyzed sample.

## 6.3 Measures

All the scales employed in this study are components of the Children's World International Survey.

**Table 1** Sample descriptive results

Country	Overall		10 age		12 age		Boys		Girls	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Albania	2339	3.1	1176	50.3	1163	49.7	1181	50.6	1152	49.4
Belgium	2188	2.9	1112	50.8	1076	49.2	1077	50.3	1063	49.7
Brazil	1787	2.4	886	49.6	901	50.4	789	44.7	977	55.3
Chile	1929	2.5	913	47.3	1016	52.7	984	52.2	900	47.8
Algeria	2191	2.9	1137	51.9	1054	48.1	1079	49.4	1104	50.6
Estonia	2092	2.8	1013	48.4	1079	51.6	1025	49.1	1061	50.9
Spain	4297	5.7	2209	51.4	2088	48.6	2160	50.3	2137	49.7
Finland	2142	2.8	1067	49.8	1075	50.2	1052	49.1	1090	50.9
Hong Kong	1525	2.0	709	46.5	816	53.5	819	53.7	706	46.3
Croatia	2395	3.2	1240	51.8	1155	48.2	1188	49.9	1191	50.1
Hungary	2029	2.7	1035	51.0	994	49.0	962	47.6	1059	52.4
Indonesia	15,718	20.7	7680	48.9	8038	51.1	7790	49.9	7807	50.1
South Korea	6569	8.7	3174	48.3	3395	51.7	3223	49.1	3346	50.9
Sri Lanka	2377	3.1	1156	48.6	1221	51.4	1048	44.9	1284	55.1
Malta	1382	1.8	630	45.6	752	54.4	578	42.0	799	58.0
Norway	1618	2.1	801	49.5	817	50.5	735	45.4	883	54.6
Nepal	2046	2.7	1005	49.1	1041	50.9	1002	49.2	1034	50.8
Poland	2348	3.1	1192	50.8	1156	49.2	1159	49.4	1186	50.6
Romania	2386	3.1	1241	52.0	1145	48.0	1140	50.2	1131	49.8
Russia	1904	2.5	953	50.1	951	49.9	913	48.0	991	52.0
Taiwan	2848	3.8	1337	46.9	1511	53.1	1415	49.8	1428	50.2
Vietnam	2026	2.7	946	46.7	1080	53.3	1074	53.3	941	46.7
Wales	2627	3.5	959	36.5	1668	63.5	1284	49.0	1338	51.0
South Africa	7114	9.4	3415	48.0	3699	52.0	3252	45.7	3862	54.3

**Bullying Victimization** The Worlds of Children survey included a scale (three items) that assesses the prevalence of different types of peer violence at school. These items are: (1) hit by other children at school, (2) insulted by other children at school, and (3) excluded by other children in their class. The scale is assessed on a 4-point Likert scale where 0=never, 1=once, 2=two or three times and 3=more than three times.

**Teacher Support** Based on the Children's World survey, this scale is assessed using three items on a 5-point Likert scale ranging from strongly disagree to strongly agree. The items assessed were "My teachers care about me," "If I have a problem at school, my teachers help me," and "My teachers listen to me and take into account what I say."

**Family Support** The Children's Worlds survey included three items related to the perception of emotional support provided by the family: "There are people in my family who care about me", "If I have a problem, people in my family help me" and "My parents/caregivers listen to me and take into account what I say", with the same evaluation format as the Teacher Support on a 5-point Likert scale ranging from strongly agree to strongly disagree.

**Positive and Negative Affect** Based on Russell's Model of Core Affect. These questions are based on positive (happy, calm, and full of energy) and negative (sad, stressed, and bored) experiences in the past two weeks. These positive and negative experiences reflect a pleasant-unpleasant, activated-deactivated and neutral affect (see Rees, 2019).

**Domain-Based Subjective Well-Being Scale (CW-DBSWBS)** The scale consists of 11 items that assess children's domain-based cognitive life satisfaction, each item representing a particular domain of life. This scale was developed for the Children's World Project using five items from the Brief Multidimensional Life Satisfaction Scale for Students (BMSLSS) by Seligson et al. (2003) on the level of satisfaction experienced with family, friends, school, the area in which they live, and themselves, plus four items from the Personal Well-being Index for School Children addressing the level of satisfaction with things they have, personal health and safety, and future security. Two more items were added, which are satisfaction with the use of free time (Casas et al., 2013) and with their freedom (Rees et al., 2015). The scale is assessed on an 11-point Likert scale ranging from "not at all satisfied" (0) to "totally/completely satisfied" (10).

**Children's World Subjective Well-Being Scale (CW-SWBS), without context** This scale consists of six items, three of which were originally drawn from the Satisfaction with Student Life Scale (SLSS) and three new items proposed by Savahl, Casas, and Adams (2021) from the Children's Worlds qualitative research. The scale is assessed on an 11-point Likert scale ranging from "not at all satisfied" (0) to "totally/completely satisfied" (10).



### 6.4 Analytic Strategy

Analyses were performed using R software v4.3. First, reliability analysis was conducted using Cronbach’s alpha ( $\alpha$ ) and McDonald’s omega ( $\omega$ ) for each country in both the 10- and 12-year-old age groups. Alphas are considered questionable at 0.50, acceptable at 0.60, and good at 0.80 according to the internal consistency criteria established by Kline (2000). Additionally, confirmatory factor analysis (CFA) indices were presented for each variable. Each CFA model was tested by country using the model variables. Following the recommendations of Jackson et al. (2009), we used the Comparative Fit Index (CFI), the Standardized Root Mean Square Residual (SRMR), and the Tucker-Lewis Index (TLI) as fit indices to assess model fit. For these fit indices, we adhered to the cut-off thresholds recommended by Casas (2017): scores above 0.90 were accepted for the CFI and TLI, and scores below 0.08 for the SRMR and RMSEA indicated a good fit.

Second, descriptive analyses were performed regarding bullying indicators at the global level and for each kind of bullying by countries and age groups. Likewise, Pearson correlation analyses were carried out among variables. Missing data was handled with full information maximum likelihood (FIML) estimation, which allows for unbiased estimates of parameters and standard errors when data are missing at random (Schafer & Graham, 2002).

Finally, we modeled SWB as a predictor as a second-order variable considering the indicators of positive affect, negative affect, DBSWBS and SWBS. Interaction terms were created by (a) double mean centering predictor and moderator variables, (b) creating a product term between predictor and moderator variables, and (c) standardizing the product term (Aiken & West, 1991). Gender variables was used as control variables. Figure 1 shows the model calculated in R software. We tested the significance of the model’s effects using a *p*-value approach accompanied by a 95%

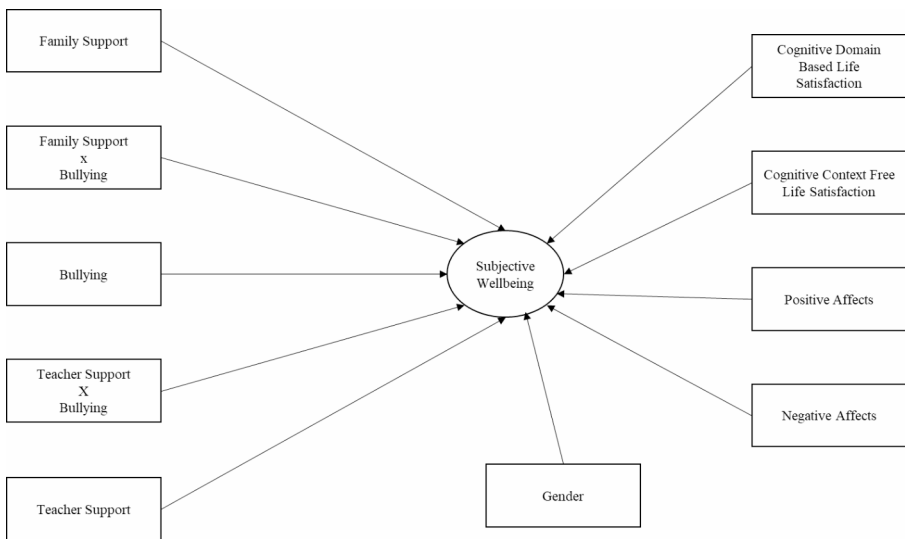


Fig. 1 Multigroup SEM model for 10 and 12 age group

CI based on 2,000 bias-corrected and accelerated bootstrap samples, which are more robust to violation of distributional assumptions. To further explore whether the moderating effect of coherence is stable across countries, we used a multi-group analysis in SEM. Specifically, we contrasted two models, one in which the moderating effect was freely estimated in countries and a second model in which the moderating effects in the countries were constrained to equality. A significant chi-square difference between the two models (free vs. constrained) indicates that countries further modify the moderating effect of coherence. In contrast, a nonsignificant chi-square difference suggests that the moderating effect of coherence is equivalent across countries.

## 7 Results

In Table 2, the results of the reliability analysis for each scale specified in the instrument section are presented, including both Cronbach's Alpha ( $\alpha$ ) and the Omega coefficient ( $\omega$ ). According to Kline (2000), most scales exhibit indicators with values exceeding 0.60, a level deemed acceptable. In the current context, there are a few scales with reliability indicators between 0.50 and 0.60, which, despite being questionable, are included due to their scarcity. The pooled indicators of Confirmatory Factor Analysis (CFA) for each of the countries under evaluation demonstrate satisfactory results, as stated by Jackson et al. (2009).

Table 3 presents the prevalence of bullying globally and for each of the aggression types by country and for each age group. Name-calling aggression is the most frequent type of aggression for both age groups and in all of the countries; For the 10-year-old group, Malaysia is the country with the highest prevalence of call unkind names violence (31.2%) and hit by peers (43.3%) and left out (37.3%). For the 12-year age group, Italy presented the higher values for unkind names violence (30.0%), for hit by peers Russia presents the higher values (54.5%) and for left out Switzerland presents a 29.40% prevalence. Finally, at the global level, Malaysia Namibia and South Africa have a prevalence greater than 60% for the 10-year-old group, and only Russia has a percentage greater than 60% for the 12-year-old group.

Table 4 displays the outcomes of the structural equation model for the cohort aged 10 years. The second-order SWB indicator is strongly associated with bullying in the majority of the assessed countries. The relationship is more pronounced in Albania ( $B = -0.35, p < 0.001$ ), Croatia ( $B = -0.36, p < 0.001$ ), and Vietnam ( $B = -0.70, p < 0.001$ ), while it is less prominent in Brazil ( $B = -0.12, p < 0.001$ ), Estonia ( $B = -0.14, p < 0.001$ ), and Finland ( $B = -0.13, p < 0.001$ ), where B values are below 0.15. No significant effects were observed in South Korea ( $B = 0.07, p > 0.05$ ).

When examining the impact of family and teacher support on the SWB indicator, it is evident that teacher support has the most significant effects in Albania ( $B = 0.48, p < 0.001$ ), South Korea ( $B = 0.91, p < 0.001$ ), and countries such as Finland, Nepal, and Norway ( $B = 0.27, p < 0.001$ ). In terms of family support, stronger associations with SWB were observed in Brazil ( $B = 0.70, p < 0.001$ ), Chile ( $B = 0.64, p < 0.001$ ), Estonia ( $B = 0.63, p < 0.001$ ), and Malta ( $B = 0.69, p < 0.001$ ).

The table further indicates that the majority of significant interactions in the moderating pathways stem from the interplay between family support and bullying. Nota-

ble effects were observed in Croatia ( $B=0.11, p<0.05$ ), Finland ( $B=0.09, p<0.05$ ), Indonesia ( $B=0.16, p<0.05$ ), Norway ( $B=0.07, p<0.05$ ), Sri Lanka ( $B=0.10, p<0.05$ ), and Vietnam ( $B=0.45, p<0.01$ ). For the interaction between teacher support and bullying, significant effects were identified in Albania ( $B=0.21, p<0.05$ ), Brazil ( $B=0.11, p<0.05$ ), South Korea ( $B=0.67, p<0.05$ ), Spain ( $B=0.13, p<0.05$ ), Hong Kong ( $B=0.10, p<0.05$ ), Indonesia ( $B=0.12, p<0.05$ ), Malta ( $B=0.26, p<0.05$ ), South Africa ( $B=0.13, p<0.05$ ), Taiwan ( $B=0.10, p<0.05$ ), and Vietnam ( $B=0.12, p<0.05$ ), with beta values equal to or greater than 0.10. Overall, the structural equation model fit indicators show that all countries exhibit satisfactory fit.

Table 5 presents the results of the structural equation models for the 12-year-old cohort, where negative effects of bullying on subjective well-being are consistently observed across all countries. The most significant effects ( $B > -0.30$ ) are found in Albania ( $B = -0.39, p<0.01$ ), Croatia ( $B = -0.36, p<0.01$ ), Wales ( $B = -0.35, p<0.01$ ), Indonesia ( $B = -0.54, p<0.01$ ), and Norway ( $B = -0.38, p<0.01$ ).

Regarding the effects of family and home support on well-being, Table 5 shows that the highest values for family support were observed in Algeria ( $B=0.46, p<0.01$ ), Belgium ( $B=0.44, p<0.01$ ), Brazil ( $B=0.65, p<0.01$ ), Chile ( $B=0.46, p<0.01$ ), South Korea ( $B=0.47, p<0.01$ ), Croatia ( $B=0.50, p<0.01$ ), Spain ( $B=0.58, p<0.01$ ), Estonia ( $B=0.60, p<0.01$ ), Finland ( $B=0.54, p<0.01$ ), Wales ( $B=0.45, p<0.01$ ), Taiwan ( $B=0.58, p<0.01$ ), and South Africa ( $B=0.50, p<0.01$ ). For teacher support, the highest effects were reported in Albania ( $B=0.50, p<0.01$ ), South Korea ( $B=0.66, p<0.01$ ), Indonesia ( $B=0.57, p<0.01$ ), Malta ( $B=0.34, p<0.01$ ), Norway ( $B=0.36, p<0.01$ ), Romania ( $B=0.23, p<0.01$ ), Russia ( $B=0.23, p<0.01$ ), Sri Lanka ( $B=0.32, p<0.01$ ), and Taiwan ( $B=0.23, p<0.01$ ). As for the interaction effects, family support and bullying interactions higher than 0.10 were found in Croatia ( $B=0.10, p<0.05$ ), Hungary ( $B=0.11, p<0.05$ ), Indonesia ( $B=0.15, p<0.05$ ), Nepal ( $B=0.12, p<0.05$ ), and Norway ( $B=0.23, p<0.05$ ). Interaction effects between teacher support and bullying, with values greater than 0.10, were observed in countries such as Albania ( $B=0.37, p<0.05$ ), Brazil ( $B=0.10, p<0.05$ ), South Korea ( $B=0.42, p<0.05$ ), Malta ( $B=0.11, p<0.05$ ), Poland ( $B=0.11, p<0.05$ ), Sri Lanka ( $B=0.10, p<0.05$ ), and South Africa ( $B=0.10, p<0.05$ ). Regarding model fit indicators, all countries demonstrate adequate fit.

Lastly, using a multigroup approach in SEM, we contrasted the fit indices of a free model versus a constrained model in which the interactions SEM model was forced across countries for each age group. For the 10 age group results indicated that the difference between the models was significant ( $\Delta\text{Chi-square}=117.134, \text{df}=1012, p<0.05$ ) and for the 12-age group the model was also significant ( $\Delta\text{Chi-square}=567.234, \text{df}=1012, p<0.05$ ). This suggests conditional effects of bullying and interaction variables over subjective wellbeing are significantly modified across countries.

**Table 2** Reliability and confirmatory factor analysis results by country and group age

Group	Country	Bullying		Teacher Support		Family support		Positive Affect		Negative Affect		CW-DBSWBS		CW-SWBS		CFI	TLI	RMSEA	SRMR
		$\alpha$	$\omega$	$\alpha$	$\omega$	$\alpha$	$\omega$	$\alpha$	$\omega$	$\alpha$	$\omega$	$\alpha$	$\omega$	$\alpha$	$\omega$				
10 years	Albania	0.65	0.66	0.65	0.64	0.62	0.63	0.53	0.54	0.8	0.81	0.66	0.66	0.8	0.79	0.94	0.94	0.04	0.04
	Belgium	0.72	0.73	0.83	0.83	0.72	0.73	0.52	0.51	0.56	0.57	0.87	0.87	0.93	0.94	0.95	0.94	0.04	0.05
	Brazil	0.64	0.65	0.79	0.78	0.59	0.6	0.56	0.57	0.66	0.66	0.84	0.84	0.91	0.91	0.94	0.95	0.03	0.05
	Chile	0.62	0.64	0.86	0.86	0.68	0.69	0.64	0.64	0.69	0.69	0.89	0.89	0.93	0.93	0.97	0.97	0.03	0.05
	Algeria	0.57	0.58	0.69	0.69	0.62	0.64	0.54	0.55	0.68	0.68	0.74	0.75	0.9	0.91	0.96	0.95	0.05	0.06
	Estonia	0.75	0.76	0.84	0.84	0.75	0.76	0.66	0.64	0.7	0.7	0.88	0.88	0.95	0.95	0.97	0.96	0.04	0.03
	Spain	0.71	0.73	0.79	0.79	0.6	0.61	0.51	0.51	0.66	0.66	0.87	0.87	0.91	0.9	0.91	0.91	0.03	0.04
	Finland	0.75	0.77	0.86	0.87	0.77	0.78	0.61	0.61	0.71	0.71	0.89	0.89	0.96	0.97	0.97	0.96	0.04	0.05
	Hong Kong	0.58	0.6	0.88	0.88	0.82	0.82	0.55	0.58	0.76	0.76	0.88	0.88	0.96	0.96	0.92	0.93	0.05	0.06
	Croatia	0.69	0.7	0.74	0.75	0.56	0.59	0.57	0.56	0.64	0.64	0.81	0.81	0.92	0.92	0.93	0.93	0.05	0.05
	Hungary	0.68	0.7	0.86	0.86	0.69	0.71	0.63	0.63	0.68	0.69	0.84	0.84	0.94	0.94	0.92	0.91	0.03	0.04
	Indonesia	0.69	0.69	0.7	0.7	0.6	0.59	0.7	0.71	0.7	0.7	0.88	0.88	0.87	0.87	0.93	0.93	0.04	0.05
	South Korea	0.55	0.54	0.88	0.88	0.81	0.82	0.61	0.63	0.73	0.74	0.91	0.91	0.97	0.97	0.97	0.95	0.04	0.05
	Sri Lanka	0.66	0.66	0.75	0.75	0.79	0.79	0.57	0.55	0.73	0.73	0.9	0.91	0.91	0.91	0.96	0.96	0.04	0.04
	Malta	0.71	0.72	0.75	0.75	0.62	0.65	0.55	0.57	0.64	0.65	0.75	0.76	0.94	0.94	0.91	0.90	0.06	0.05
	Norway	0.66	0.71	0.85	0.86	0.83	0.84	0.6	0.61	0.62	0.62	0.87	0.87	0.95	0.95	0.90	0.89	0.05	0.04
	Nepal	0.66	0.67	0.8	0.81	0.78	0.79	0.69	0.7	0.74	0.73	0.89	0.9	0.84	0.84	0.93	0.94	0.05	0.03
	Poland	0.72	0.72	0.82	0.82	0.67	0.68	0.58	0.55	0.68	0.68	0.85	0.85	0.91	0.89	0.94	0.92	0.04	0.04
	Romania	0.61	0.6	0.8	0.8	0.67	0.68	0.59	0.6	0.68	0.69	0.85	0.85	0.94	0.94	0.91	0.91	0.04	0.05
Russia	0.7	0.71	0.84	0.84	0.81	0.82	0.63	0.64	0.78	0.78	0.89	0.89	0.96	0.96	0.92	0.91	0.05	0.06	
Taiwan	0.65	0.64	0.79	0.79	0.69	0.69	0.61	0.6	0.68	0.68	0.88	0.88	0.95	0.95	0.96	0.95	0.04	0.05	
Vietnam	0.66	0.67	0.73	0.73	0.61	0.62	0.63	0.64	0.71	0.71	0.88	0.89	0.91	0.91	0.96	0.96	0.05	0.04	
Wales	0.69	0.71	0.85	0.85	0.72	0.73	0.64	0.64	0.73	0.73	0.88	0.88	0.97	0.97	0.94	0.94	0.06	0.05	
South Africa	0.6	0.61	0.73	0.73	0.68	0.68	0.61	0.6	0.66	0.66	0.79	0.79	0.84	0.84	0.94	0.93	0.03	0.04	

Table 2 (continued)

Group	Country	Bullying		Teacher Support		Family support		Positive Affect		Negative Affect		CW-DBSWBS		CFI	TLI	RMSEA	SRMR		
		$\alpha$	$\omega$	$\alpha$	$\omega$	$\alpha$	$\omega$	$\alpha$	$\omega$	$\alpha$	$\omega$	$\alpha$	$\omega$						
12 years	Albania	0.65	0.64	0.67	0.68	0.55	0.54	0.61	0.62	0.81	0.82	0.78	0.79	0.86	0.87	0.94	0.95	0.06	0.05
	Belgium	0.68	0.69	0.80	0.81	0.75	0.74	0.53	0.49	0.58	0.57	0.85	0.86	0.94	0.95	0.94	0.94	0.03	0.04
	Brazil	0.62	0.64	0.83	0.84	0.71	0.72	0.71	0.70	0.67	0.66	0.87	0.86	0.94	0.95	0.93	0.93	0.05	0.05
	Chile	0.57	0.58	0.87	0.87	0.80	0.81	0.75	0.74	0.68	0.69	0.92	0.91	0.96	0.96	0.93	0.92	0.04	0.06
	Algeria	0.61	0.62	0.80	0.81	0.68	0.69	0.60	0.61	0.72	0.71	0.84	0.83	0.93	0.94	0.96	0.96	0.04	0.05
	Estonia	0.68	0.67	0.96	0.96	0.82	0.83	0.70	0.71	0.68	0.69	0.90	0.89	0.86	0.86	0.91	0.92	0.07	0.07
	Spain	0.69	0.70	0.81	0.81	0.69	0.70	0.59	0.57	0.61	0.62	0.86	0.87	0.93	0.94	0.90	0.91	0.05	0.04
	Finland	0.71	0.71	0.91	0.91	0.88	0.87	0.65	0.64	0.76	0.77	0.90	0.91	0.98	0.98	0.92	0.93	0.03	0.04
	Hong Kong	0.71	0.70	0.87	0.88	0.88	0.88	0.67	0.66	0.74	0.75	0.91	0.92	0.95	0.97	0.93	0.94	0.04	0.04
	Croatia	0.60	0.64	0.84	0.84	0.68	0.67	0.64	0.64	0.60	0.61	0.84	0.85	0.95	0.96	0.93	0.94	0.05	0.06
	Hungary	0.67	0.66	0.85	0.87	0.79	0.82	0.68	0.68	0.66	0.67	0.82	0.83	0.95	0.95	0.95	0.94	0.06	0.04
	Indonesia	0.69	0.69	0.74	0.73	0.63	0.67	0.67	0.69	0.65	0.65	0.87	0.88	0.91	0.90	0.95	0.95	0.03	0.04
	South Korea	0.53	0.51	0.90	0.90	0.85	0.85	0.62	0.61	0.74	0.75	0.91	0.91	0.98	0.98	0.94	0.95	0.06	0.03
	Sri Lanka	0.65	0.66	0.75	0.75	0.74	0.75	0.62	0.63	0.67	0.68	0.90	0.89	0.93	0.93	0.94	0.94	0.07	0.06
	Malta	0.68	0.72	0.82	0.81	0.75	0.76	0.59	0.57	0.67	0.68	0.87	0.87	0.95	0.96	0.91	0.92	0.06	0.05
	Norway	0.62	0.66	0.90	0.90	0.87	0.87	0.58	0.57	0.63	0.63	0.87	0.87	0.97	0.97	0.94	0.93	0.05	0.04
	Nepal	0.57	0.56	0.74	0.73	0.76	0.76	0.64	0.65	0.75	0.75	0.83	0.84	0.83	0.83	0.94	0.93	0.05	0.04
	Poland	0.72	0.74	0.86	0.86	0.75	0.76	0.57	0.55	0.66	0.66	0.88	0.89	0.96	0.96	0.93	0.93	0.03	0.03
	Romania	0.61	0.62	0.84	0.84	0.60	0.61	0.59	0.59	0.67	0.68	0.82	0.82	0.94	0.93	0.97	0.96	0.05	0.04
	Russia	0.75	0.76	0.87	0.87	0.80	0.81	0.66	0.66	0.77	0.77	0.87	0.88	0.96	0.96	0.90	0.91	0.04	0.05
	Taiwan	0.62	0.64	0.85	0.85	0.81	0.81	0.66	0.67	0.63	0.62	0.91	0.91	0.97	0.97	0.95	0.96	0.05	0.04
	Vietnam	0.60	0.61	0.79	0.79	0.70	0.70	0.64	0.64	0.74	0.74	0.88	0.88	0.93	0.94	0.94	0.93	0.03	0.03
	Wales	0.71	0.73	0.88	0.89	0.83	0.83	0.71	0.71	0.74	0.75	0.90	0.91	0.98	0.98	0.96	0.95	0.04	0.03
	South Africa	0.58	0.59	0.77	0.77	0.67	0.67	0.58	0.59	0.61	0.61	0.81	0.81	0.89	0.89	0.94	0.93	0.05	0.05

**Table 3** Prevalence of bullying victimization in 10 and 12 years-old age groups

	Group 10 age				Group 12 age			
	Hit	Called	Left out	Global	Hit	Called	Left out	Global
Albania	8.0%	9.9%	5.0%	16.0%	6.3%	9.8%	3.4%	14.7%
Algeria	12.2%	20.6%	19.8%	35.8%	15.0%	28.2%	20.9%	41.5%
Belgium	26.3%	35.7%	20.8%	45.4%	11.7%	29.5%	13.4%	34.7%
Brazil	12.6%	30.4%	24.8%	42.3%	10.9%	36.5%	28.3%	48.8%
Chile	18.3%	33.3%	20.1%	42.7%	9.0%	24.7%	19.6%	37.0%
South Korea	3.6%	21.2%	1.6%	22.4%	1.9%	13.3%	1.0%	14.4%
Croatia	17.4%	26.2%	16.7%	36.7%	13.5%	24.5%	15.9%	38.8%
Spain	20.8%	38.9%	25.0%	47.6%	5.6%	23.3%	13.4%	29.3%
Estonia	27.9%	34.2%	24.6%	43.1%	20.0%	37.2%	21.4%	48.0%
Finland	14.1%	29.1%	21.0%	37.4%	7.2%	21.7%	14.2%	27.1%
Wales	17.6%	34.2%	28.2%	46.6%	14.5%	42.1%	26.4%	49.6%
Hong Kong	6.5%	23.8%	9.1%	27.9%	7.5%	24.5%	8.9%	27.9%
Hungary	19.4%	36.1%	24.5%	49.1%	9.6%	26.4%	12.5%	34.0%
Indonesia	28.0%	38.5%	28.0%	52.0%	30.5%	43.6%	25.4%	54.7%
Malta	24.6%	25.9%	20.2%	41.6%	13.2%	21.5%	18.3%	34.2%
Nepal	16.7%	30.7%	24.3%	41.9%	22.3%	46.2%	20.7%	55.5%
Norway	11.0%	21.7%	16.1%	31.4%	4.9%	23.0%	14.0%	29.6%
Poland	25.6%	33.7%	20.2%	45.2%	21.1%	35.3%	19.0%	43.0%
Rumania	16.9%	20.0%	22.1%	38.5%	18.9%	26.4%	20.2%	41.5%
Russia	20.3%	35.5%	25.4%	46.6%	20.8%	39.1%	28.3%	48.3%
Sri Lanka	17.8%	32.4%	14.5%	40.4%	14.5%	31.5%	10.6%	37.4%
South Africa	31.2%	41.9%	29.8%	58.9%	22.6%	44.3%	26.7%	56.9%
Taiwan	9.8%	24.5%	10.7%	31.3%	3.6%	13.5%	3.4%	15.4%
Vietnam	13.8%	25.4%	14.1%	36.0%	11.6%	30.6%	14.1%	37.4%

## 8 Discussion

As reported in the literature, bullying victimization can lead to mental health issues such as anxiety, depression, and a substantial decline in children's subjective well-being (SWB). Therefore, identifying effective strategies to mitigate these negative effects is crucial. The current study aimed to investigate the impact of bullying victimization on the SWB of 10- and 12-year-old children across different countries and to explore the moderating effect of support provided by teachers and family members on this relationship.

Descriptive data revealed that Malaysia, Namibia, and South Africa show a prevalence greater than 60% among the 10-year-old group, while only Russia exceeds 60% for the 12-year-old group. These findings surpass the mean prevalence of 36% reported in a meta-analysis by Modecki et al. (2014), which included 80 studies involving adolescents. However, it is important to note that differences in bullying rates between countries result from a complex interplay of cultural values, school policies, socioeconomic factors, and legal frameworks (Sheitauer et al., 2016). For instance, a study by Elgar et al. (2013), using data from countries participating in the HBSG study between 1994 and 2006, found that countries with higher income inequality tend to report higher rates of bullying. South Africa, for example, has one

**Table 4** SEM model for the 10 years-old group

Direct paths	Albania			Algeria			Belgium			Brazil			Chile			South Korea		
	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p
Family Support	0.24	2.75	0.02	0.51	5.69	0.00	0.46	5.63	0.00	0.70	6.53	0.00	0.64	6.65	0.00	0.59	1.68	0.00
Teacher Support	0.48	3.12	0.00	0.01	0.21	0.83	0.10	2.71	0.00	-0.02	-0.21	0.84	0.03	0.45	0.65	0.91	4.42	0.00
<i>Moderation variables</i>																		
Bullying	-0.35	-2.75	0.00	-0.23	-4.07	0.00	-0.29	-6.37	0.00	-0.12	-2.82	0.01	-0.20	-3.49	0.00	0.07	0.67	0.50
<i>Interactions</i>																		
Family Support x Bullying	0.09	1.34	0.06	0.08	1.27	0.20	-0.03	-0.81	0.23	-0.01	-0.08	0.94	-0.01	-0.13	0.90	0.06	0.18	0.85
Teacher Support x Bullying	0.12	2.14	0.03	-0.01	-0.67	0.51	0.09	2.16	0.02	0.11	2.13	0.02	-0.03	-0.23	0.82	0.67	3.37	0.00
<i>Control variable</i>																		
Gender	0.12	1.45	0.01	0.07	2.19	0.03	-0.27	-5.09	0.01	-0.12	-4.48	0.00	-0.09	-3.21	0.01	-0.18	-6.52	0.00
<i>Model fit</i>																		
CFI	0.92			0.92			0.93			0.98			0.92			0.94		
TLI	0.92			0.92			0.92			0.98			0.92			0.93		
RMSEA	0.05			0.03			0.03			0.02			0.04			0.04		
SRMSR	0.06			0.04			0.04			0.06			0.08			0.03		
<i>Direct paths</i>																		
	Croatia			Spain			Estonia			Finland			Wales			Hong Kong		
	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p
Family Support	0.50	5.54	0.00	0.53	6.42	0.00	0.63	5.28	0.00	0.46	6.53	0.00	0.57	6.67	0.00	0.64	7.96	0.00
Teacher Support	0.16	3.29	0.00	0.09	1.97	0.05	0.14	1.58	0.12	0.27	4.96	0.00	0.11	2.18	0.03	0.18	3.16	0.00
<i>Moderation variables</i>																		
Bullying	-0.36	-3.19	0.00	-0.17	-4.68	0.00	-0.14	-3.07	0.02	-0.13	-3.19	0.00	-0.22	-5.59	0.00	-0.16	-2.64	0.00
<i>Interactions</i>																		
Family Support x Bullying	0.11	2.23	0.03	-0.02	-0.65	0.52	-0.02	-0.36	0.72	0.09	2.08	0.02	0.05	0.69	0.49	-0.02	-0.04	0.23
Teacher Support x Bullying	-0.04	-1.32	0.17	0.13	2.59	0.05	-0.03	-0.48	0.63	0.04	0.87	0.06	0.06	1.36	0.17	0.10	1.17	0.02
<i>Control variable</i>																		
Gender	-0.11	-4.07	-1.38	-0.01	-0.42	0.67	-0.03	-1.15	0.25	-0.16	-3.18	0.00	-0.08	-0.27	0.79	-0.02	-0.43	0.02
<i>Model fit</i>																		
CFI	0.91			0.90			0.90			0.95			0.92			0.92		

**Table 4** (continued)

	Albania			Algeria			Belgium			Brazil			Chile			South Korea					
	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p			
<i>Direct paths</i>																					
TLI	0.90			0.89			0.90			0.94			0.91			0.90					
RMSEA	0.03			0.04			0.05			0.03			0.05			0.03					
SRMSR	0.05			0.03			0.06			0.06			0.06			0.05					
<i>Direct paths</i>																					
Hungary				Indonesia			Malta			Nepal			Norway			Poland					
B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	
Family Support	0.43	6.30	0.00	0.47	5.66	0.00	0.69	5.83	0.00	0.31	7.63	0.00	0.31	7.63	0.00	0.54	5.78	0.00	0.00		
Teacher Support	0.25	5.75	0.00	0.03	0.35	0.72	-0.09	-0.92	0.36	0.27	8.00	0.00	0.27	8.00	0.00	0.14	2.13	0.00	0.00		
<i>Moderation variables</i>																					
Bullying	-0.28	-4.60	0.00	-0.20	-7.85	0.00	-0.39	-5.59	0.00	-0.30	-8.17	0.00	-0.30	-8.17	0.00	-0.21	-5.05	0.00	0.00		
<i>Interactions</i>																					
Family Support x Bullying	0.05	1.06	0.29	-0.16	-2.89	0.00	0.01	0.18	0.86	0.07	2.87	0.00	0.07	2.87	0.00	0.02	0.06	0.14	0.00		
Teacher Support x Bullying	0.05	-0.57	0.57	0.12	2.33	0.00	0.26	3.06	0.00	0.09	3.49	0.00	0.08	3.41	0.00	0.02	0.19	0.22	0.00		
<i>Control variable</i>																					
Gender	-0.08	-3.33	0.00	0.08	3.55	0.00	-0.02	-0.66	0.51	-0.07	-5.82	0.00	-0.14	-5.82	0.00	-0.08	-1.63	0.03	0.00		
<i>Model fit</i>																					
CFI	0.91			0.91			0.93			0.97			0.98			0.92					
TLI	0.90			0.89			0.91			0.97			0.97			0.92					
RMSEA	0.03			0.03			0.06			0.02			0.03			0.05					
SRMSR	0.05			0.04			0.06			0.05			0.05			0.06					
<i>Direct paths</i>																					
Rumania				Russia			Sri Lanka			South Africa			Taiwan			Vietnam					
B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	
Family Support	0.34	5.40	0.00	0.34	5.40	0.00	0.21	3.25	0.00	0.49	5.16	0.00	0.58	12.18	0.00	0.44	8.30	0.00	0.00		
Teacher Support	0.26	5.19	0.09	0.26	5.19	0.00	0.23	3.65	0.00	0.13	1.61	0.10	0.21	5.26	0.00	-0.03	0.40	0.09	0.00		
<i>Moderation variables</i>																					
Bullying	-0.30	-7.62	0.00	-0.30	-7.62	0.00	-0.29	-3.72	0.00	-0.24	-6.58	0.00	-0.19	-5.02	0.00	-0.70	-8.45	0.00	0.00		
<i>Interactions</i>																					



**Table 4** (continued)

Direct paths	Albania			Algeria			Belgium			Brazil			Chile			South Korea			
	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	
Home Support x Bullying	0.04	0.11	0.01	0.07	2.59	0.03	0.10	2.78	0.04	0.04	-1.84	0.09	0.03	0.37	0.71	0.45	5.45	0.01	
Teacher Support x Bullying	0.09	0.03	0.03	0.05	1.31	0.09	0.05	0.85	0.40	0.13	1.97	0.04	0.10	3.11	0.04	0.12	2.37	0.03	
<i>Control variable</i>																			
Gender	-0.01	-0.25	0.13	-0.01	-0.25	0.81	0.01	0.34	0.73	-0.03	-1.90	0.06	-0.05	-2.21	0.03	-0.03	-0.86	0.13	
<i>Model fit</i>																			
CFI	0.91			0.91			0.91			0.89			0.91			0.92			
TLI	0.90			0.90			0.91			0.88			0.90			0.91			
RMSEA	0.04			0.04			0.03			0.05			0.03			0.03			
SRMSR	0.08			0.08			0.06			0.04			0.04			0.05			

**Table 5** SEM Model for the 12 years-old group

<i>Direct paths</i>	Albania			Algeria			Belgium			Brazil			Chile			South Korea			
	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	
Family Support	0.21	1.41	0.16	0.46	5.84	0.00	0.44	5.12	0.00	0.65	8.22	0.00	0.78	13.37	0.00	0.47	3.11	0.00	
Teacher Support	0.50	2.45	0.01	0.16	2.74	0.00	0.17	3.39	0.00	0.10	1.84	0.05	0.04	1.04	0.30	0.66	5.24	0.00	
<i>Moderation variables</i>																			
Bullying	-0.39	-3.16	0.00	-0.30	-4.99	0.00	-0.30	-5.28	0.00	-0.25	-2.53	0.01	-0.16	-3.99	0.00	-0.05	-0.89	0.38	
<i>Interactions</i>																			
Family Support x Bully	0.03	0.68	0.50	0.07	2.45	0.02	-0.01	-0.04	0.88	0.05	1.50	0.13	-0.08	-1.05	0.30	-0.05	-0.35	0.72	
Teacher Support x Bully	0.37	1.91	0.04	-0.04	-0.98	0.33	0.09	3.57	0.05	0.10	3.02	0.03	0.01	0.02	0.98	0.42	3.22	0.00	
<i>Control variable</i>																			
Gender	-0.08	-2.76	0.01	-0.02	-0.72	0.47	-0.10	-3.93	0.00	-0.10	-4.14	0.00	-0.14	-3.41	0.00	-0.15	-11.52	0.00	
<i>Model fit</i>																			
CFI	0.94			0.93			0.93			0.90			0.91			0.92			
TLI	0.91			0.92			0.93			0.90			0.90			0.91			
RMSEA	0.04			0.03			0.04			0.06			0.04			0.05			
SRMSR	0.07			0.05			0.05			0.07			0.05			0.08			
<i>Direct paths</i>																			
				Spain			Estonia			Finland			Wales			Hong Kong			
				B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	
Family Support	0.50	5.54	0.00	0.58	11.33	0.00	0.60	5.60	0.00	0.54	7.81	0.00	0.45	8.97	0.00	0.57	11.16	0.00	
Teacher Support	0.16	3.29	0.00	0.11	3.88	0.00	0.18	2.78	0.00	0.17	4.16	0.00	0.22	7.70	0.00	0.19	4.50	0.00	
<i>Moderation variables</i>																			
Bullying	-0.36	-3.19	0.00	-0.24	-6.65	0.00	-0.19	-1.41	0.16	-0.27	-5.17	0.00	-0.35	-8.71	0.00	-0.27	-2.74	0.01	
<i>Interactions</i>																			
Family Support x Bully	0.10	1.32	0.04	0.09	2.83	0.02	0.03	0.17	0.86	0.08	2.51	0.06	0.08	2.12	0.03	-0.03	-0.27	0.78	
Teacher Support x Bully	-0.14	-1.38	0.17	0.02	1.28	0.68	-0.08	-0.38	0.71	0.08	2.54	0.05	-0.04	-1.65	0.10	-0.04	-1.32	0.18	
<i>Control variable</i>																			
Gender	-0.11	-4.61	0.00	-0.13	-6.99	0.00	0.01	-0.62	0.53	-0.12	-5.01	0.00	-0.09	4.93	0.00	-0.05	-2.20	0.03	
<i>Model fit</i>																			
CFI	0.91			0.93			0.91			0.94			0.92			0.92			

Table 5 (continued)

<i>Direct paths</i>	Croatia			Spain			Estonia			Finland			Wales			Hong Kong		
	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p
TLI	0.90			0.91			0.90			0.93			0.90			0.91		
RMSEA	0.03			0.03			0.04			0.03			0.06			0.04		
SRMSR	0.05			0.05			0.05			0.07			0.06			0.06		
<i>Direct paths</i>	Hungary			Indonesia			Malta			Nepal			Norway			Poland		
	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p
Family Support	0.51	8.30	0.00	0.75	3.43	0.00	0.45	3.54	0.00	0.38	5.26	0.00	0.31	2.20	0.03	0.42	3.62	0.00
Teacher Support	0.24	6.50	0.00	0.57	1.32	0.00	0.34	1.27	0.01	0.35	5.17	0.00	0.36	5.28	0.00	0.19	3.97	0.00
<i>Moderation variables</i>																		
Bullying	-0.23	-4.44	0.00	-0.54	-2.56	0.00	-0.20	-2.31	0.03	-0.05	-0.67	0.50	-0.38	-3.62	0.00	-0.21	-3.87	0.00
<i>Interactions</i>																		
Family Support x Bully	0.11	5.60	0.02	0.15	3.45	0.03	0.09	1.87	0.06	0.12	1.10	0.04	0.23	1.32	0.04	0.04	0.51	0.61
Teacher Support x Bully	-0.01	0.64	0.53	0.09	1.09	0.32	0.11	2.03	0.02	-0.20	-1.80	0.07	0.01	0.16	0.87	0.11	1.88	0.05
<i>Control variable</i>																		
Gender	-0.14	-5.38	0.00	-0.01	-0.43	0.75	-1.34	-3.45	0.00	0.02	0.77	0.44	-0.07	-2.19	0.03	-0.10	-3.72	0.00
<i>Model fit</i>																		
CFI	0.91			0.92			0.92			0.88			0.94			0.92		
TLI	0.90			0.91			0.91			0.82			0.93			0.91		
RMSEA	0.03			0.05			0.05			0.06			0.03			0.03		
SRMSR	0.06			0.07			0.06			0.08			0.06			0.04		
<i>Direct paths</i>	Rumania			Russia			Sri Lanka			South Africa			Taiwan			Vietnam		
	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p
Family Support	0.47	6.42	0.00	0.47	6.42	0.00	0.26	3.46	0.00	0.50	10.45	0.00	0.58	3.67	0.00	0.42	6.84	0.00
Teacher Support	0.23	5.48	0.00	0.23	5.48	0.00	0.32	6.04	0.00	0.12	3.03	0.00	0.23	2.56	0.01	0.10	1.99	0.05
<i>Moderation variables</i>																		
Bullying	-0.28	-6.33	0.00	-0.28	-6.33	0.00	-0.24	-3.40	0.01	-0.25	-9.72	0.00	-0.13	-0.71	0.47	-0.23	-4.66	0.00
<i>Interactions</i>																		
Family Support x Bully	0.03	1.06	0.29	0.03	1.06	0.29	0.03	1.07	0.29	-0.01	-0.32	0.75	-0.01	-0.00	0.90	-0.02	-0.10	0.91

Table 5 (continued)

<i>Direct paths</i>	Rumania			Russia			Sri Lanka			South Africa			Taiwan			Vietnam			
	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	B	z	p	
Teacher Support x Bully	-0.02	-0.40	-0.02	-0.02	-0.40	0.69	0.10	1.69	0.04	0.09	3.14	0.03	0.02	0.15	0.88	0.03	1.59	0.11	
<i>Control variable</i>																			
Gender	-0.09	-3.58	0.00	-0.09	-3.53	0.00	0.05	1.81	0.00	-0.05	-3.52	0.00	-0.08	-3.77	0.00	-0.09	-3.07	0.00	
<i>Model fit</i>																			
CFI	0.92			0.89			0.91			0.91			0.89			0.92			
TLI	0.90			0.90			0.90			0.90			0.91			0.92			
RMSEA	0.06			0.05			0.04			0.04			0.06			0.04			
SRMSR	0.05			0.06			0.06			0.04			0.05			0.05			

of the highest Gini coefficients (a measure of income inequality) in the world. Consistently, previous research has also reported a high prevalence of bullying victimization in South African schools (Steyn & Singh, 2018).

In countries like Namibia, previous studies have shown that children and adolescents are exposed to multiple risk factors that influence their developmental trajectories (Gentz et al., 2021). Specifically, in another study conducted as part of the Children's Worlds Project, which included 2,124 children aged 10 and 12 in Namibia, 86% of children reported experiencing some form of peer violence at school. In Malaysia, rates of bullying victimization have been highly variable across previous studies (Tan et al., 2019). Although Malaysia has significantly reduced poverty in recent decades, considerable intra-ethnic income inequality persists, which may explain why some areas still report high rates of bullying (Tan et al., 2019). In Russia, marked differences in prevalence rates have been observed, with more than 40% of bullying victims belonging to the bottom 20% of families in terms of economic, social, and cultural status (Rean & Novikova, 2019). Furthermore, the majority of bullying victims (70%) reside in sparsely populated towns or cities (Avanesian et al., 2021).

In sum, the findings from this study confirm that bullying prevalence rates vary considerably across countries. It appears that countries with higher prevalence are often characterized by significant disparities in bullying rates in prior studies, as well as economic and cultural differences within their populations.

According to the first hypothesis of this study, the results show significant negative relationships between bullying victimization and the subjective well-being (SWB) of 10- and 12-year-old children across different countries. The results confirmed that bullying victimization negatively affects SWB across countries, but the magnitude of this effect varies depending on age and country. Specifically, in most countries, the 10-year-old group experienced a moderate to strong negative effect of bullying victimization on SWB, with some countries (e.g., Albania, Croatia, Vietnam) showing particularly strong effects. However, exceptions were found in countries such as Brazil, Estonia, and Finland, where the effect was negative but relatively small, and no significant effects were observed in South Korea. In the 12-year-old group, the impact of bullying victimization on SWB was observed in all countries, with the highest effects in Albania, Croatia, Wales, Indonesia, and Norway.

These findings suggest that in both 10- and 12-year-olds, bullying victimization negatively impacts subjective well-being across different ages and geographical regions (Savahl et al., 2019). However, as observed in previous studies, the magnitude of this effect varies significantly between countries (Bradshaw et al., 2017). Previous research had suggested that bullying victimization might have a greater impact in high-GDP countries compared to low-income countries (Bradshaw et al., 2017). However, our data do not show a clear association between a country's economic status and the relationship between bullying victimization and SWB in either age group. One possible explanation for this could be that in many of these countries, there are significant economic disparities in the socioeconomic status of families, which may account for the variability in the strength of the relationship between the two variables. Additionally, other psychosocial factors and the quality of children's social

relationships may also be important factors to consider in the relationship between bullying victimization and SWB across countries (Chen et al., 2023).

According to the second hypothesis, a moderating effect was expected in the relationship between emotional support from family and teachers and the SWB of 10- and 12-year-old children. In the 10-year-old group, an interaction effect was observed, with substantial variability across countries. Significant interaction effects related to family support were found in 9 out of 24 countries. Regarding teacher support, significant interaction effects were observed in 11 out of 24 countries. However, it is important to note that only Vietnam and Romania showed significant interaction effects for both forms of support. In Algeria, Chile, Hungary, Spain, and Poland, no effects were observed for either form of adult support. Structural equation model fit indicators revealed satisfactory fit for all countries.

In the case of the 12-year-old group, a significant interaction with family support was observed in 8 countries, and a significant interaction with teacher support was also found in 8 countries. Similar to the 10-year-old model, in the 12-year-old group, only one country (Wales) showed a significant interaction effect for both forms of support. In contrast, no significant interactions were found in Belgium, Chile, Hong Kong, Finland, Estonia, Poland, Vietnam, or Russia. This suggests that the interaction effect of either or both forms of support is present in fewer countries among 12-year-olds compared to 10-year-olds.

These findings lead to several important conclusions. First, it is evident that in many countries, at both ages 10 and 12, one or both adult support figures play a mitigating role in the relationship between bullying victimization and SWB. Notably, significant interaction effects for both forms of support were only observed in Vietnam and Romania (at age 10) and in Wales (at age 12). This may be due to the inclusion of both support figures in each country's model, which might lead the effect of one support figure to lose statistical significance when both are considered simultaneously. The findings corroborate previous studies that have shown adult support can mitigate the effects of bullying on SWB at these ages (e.g., Miranda et al., 2019). Other research has similarly indicated that adult support, both at home and in school, can alleviate mental health problems associated with bullying (Walters et al., 2020; Stadler et al., 2010). However, it is also important to highlight the considerable variability in effects across countries. In some countries, no mitigating effect from adult support figures was observed, neither at age 10 nor at age 12. Notably, at age 12, there is a striking absence of moderation effects in 8 countries. This finding is crucial from a developmental perspective. The scientific literature shows that from age 10 onwards, adult support figures begin to have less influence on adolescents' development, as they increasingly seek to establish their position within the social hierarchy of their peer group (Mills et al., 2014; Andrews et al., 2021). Furthermore, this shift toward the relevance of peer groups, at the expense of adult support figures, is particularly pronounced between the ages of 12 and 14 (Blakemore, 2018). This may also help explain why fewer countries show significant interaction effects at age 12.

The differences in effects observed across countries also underscore the importance of considering many other factors that may influence the relationship between bullying victimization and SWB. As previously mentioned, socioeconomic factors and many other structural aspects specific to each country are also explanatory vari-

ables in the relationship between bullying victimization and SWB (Savahl et al., 2019; Varela et al., 2020; Sittichai & Smith, 2015), and thus may also influence the moderating effects of variables such as adult support figures.

### 8.1 Limitations

This study has several limitations. First, the instrument used to measure bullying includes only three types of bullying behaviors (physical, psychological, and verbal), assessed through three items. This limited scope may exclude other forms of bullying behavior captured by alternative measures of bullying victimization. Additionally, future research would benefit from incorporating assessments of cyberbullying, which is an increasingly prevalent form of aggression among children and adolescents. It is also important to recognize that the measures employed in this study are based on self-reports, which may introduce response biases related to participants' experiences with these forms of violence. Self-reported data can be influenced by factors such as social desirability, recall bias, or underreporting of sensitive issues. Furthermore, future studies should consider including additional sociodemographic variables, such as socioeconomic status and family structure, which may play a significant role in shaping both the experience of bullying and its consequences. These variables could provide valuable insights into the broader contextual factors influencing bullying dynamics. Finally, exploring alternative analytical approaches, such as multilevel analysis, could enhance our understanding of the complex relationships observed in the phenomenon of bullying.

## 9 Conclusions and Practical Implications

The results of this study demonstrate that family and teacher support are crucial figures in mitigating the effects of bullying victimization on subjective well-being (SWB) among 10- and 12-year-olds. However, the buffering effect of these supports varies across countries. In both the 10- and 12-year-old age groups, the results show that these effects differ between countries. In some countries, family support exhibits an interaction effect, while in others, teacher support plays a moderating role. It is also important to note that, in the 10-year-old group, no significant interactions were observed in five countries, while in the 12-year-old group, no mediating effect from either support figure was found in eight countries. These observed differences in the number of countries showing no interaction effect at age 10 compared to the 12-year-old group also have developmental implications. Previous studies have shown that the perceived importance of adult support changes as adolescence progresses, with peer groups becoming as relevant, or even more so, than adults as sources of support. This shift suggests that schools and families should also emphasize peer support in both prevention and intervention when bullying occurs.

Furthermore, the different interaction effects observed in adult support highlight the importance of families and teachers working collaboratively to create environments where adolescents feel safe and supported in the face of interpersonal violence. This collaboration also implies the need for ongoing training, ensuring that these

adult support figures are equipped to provide active, empathetic listening, offer guidance, and avoid passing judgment on bully victims.

**Author Contributions** All authors contributed to the study design. The first author analyzed the data with the second author, wrote the first draft of the manuscript, and reviewed the final version. The second author designed the type of analysis to be conducted in the article and wrote the results section. The fourth author contributed to data collection for the project and also contributed to the final drafting of the article. The last author assisted with the literature search and drafting of the theoretical framework and provided comments on the manuscript.

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**Data Availability** The data that support the findings of this study are available from those responsible for the children's world Project (<https://iscweb.org/contact-us/>), upon request.

## Declarations

**Ethical Approval** Each country was tasked with proper handling of the ethical considerations for the data collection, and approval was obtained from the ethics committees of the universities where the researchers of the "Children's World International Survey project" work.

An international committee of the Children's Worlds managed and oversaw the design and implementation of the study, sampling protocol, and management of the data.

**Informed Consent** Children from the participating countries were explicitly informed that their data would be handled confidentially, and they were given the option to freely decide whether or not to participate in the survey. Additionally, parents received a comprehensive overview of the study's objectives and potential implications before any data collection took place. After reviewing this information, parents were required to sign an informed consent form to formally authorize their child's participation in the study.

**Research Involving Human Participants and/or Animals** The authors declare that all guidelines of the Declaration of Helsinki for research involving human participants were strictly followed in conducting this study. Ethical approval was obtained from the relevant institutional review board, and informed consent was secured from all participants prior to their involvement. Additionally, all necessary precautions were taken to ensure the confidentiality and privacy of participants' data throughout the research process.

**Competing Interests** The authors have no competing interests to disclose.

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