Article

Bullying and Cyberbullying Victimization and Associated Factors among Adolescents in Six European Countries

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Abstract: Bullying and cyberbullying victimization are significant factors that threaten adolescent development and mental health. Our study aimed to analyze how socioeconomic characteristics and personal experiences of violence are associated with adolescents' experiences of bullying and cyberbullying victimization. The study participants were 1146 students, 698 females and 448 males, aged between 13 and 16 years old, from secondary schools in Spain, Italy, Romania, Portugal, Poland and the UK. Data was collected through an online questionnaire. Prevalence ratios (PR) were calculated using Poisson regression with robust variance. In total, 37.2% of girls and 35.0% of boys reported being victims of bullying and or cyberbullying. The likelihood of bullying and or cyberbullying victimization was higher when adolescents had experienced physical and or sexual abuse before the age of 15, had witnessed domestic violence against their mother or had been victims of intimate partner violence. Perceived social support from teachers and classmates and higher self-esteem were associated with a lower likelihood of becoming a victim of bullying and or cyberbullying, but an association between experience of any other form of violence and the greater possibility of becoming a victim of bullying and or cyberbullying persisted even when self-esteem and social support were included in the model. Protecting adolescents from bullying and or cyberbullying means preventing all exposure to violent experiences in childhood and adolescence. Not having such experiences seems to be the most relevant protective factor.

Keywords: bullying; cyberbullying; adolescents; abuse in childhood; dating violence; social support; self-esteem

1. Introduction

Bullying and cyberbullying are recognized internationally as serious problems affecting young people. In Europe, high rates of cyber and orbullying have been identified, showing the necessity to prevent these behaviors through the promotion of positive development [1,2].

Bullying is a type of violence that causes fear, suffering or harm to the victim through the abuse of power, involving repetitive actions over time [3,4]. It includes not only physical and verbal violence but also relational aggression, for example, spreading rumors or exclusion [5]. Cyberbullying is a type of electronic aggression occurring within a peer group, conducted via the use of digital tools [6,7].

Previous research [8] clearly documents the risk for being a victim of cyber and or bullying, considering age, gender, poverty level, family characteristics, racial or ethnic identity, LGBT status or disability status [9,10]. With regard to protective factors against bullying, self-oriented personal competencies were the strongest buffers against victimization, and positive peer interaction the strongest protective factor against being a bully. Good academic performance and other-oriented social skills were the strongest protective factors against perpetration, whereas low frequency of technology use was the most relevant factor protecting adolescents from involvement in cyberbullying [11].

Regarding gender, boys are more likely than girls to become both victims and perpetrators of direct bullying [12,13]. Generally, the same tendency, according to meta-analyses, is observed in cases of cyberbullying, particularly in relation to perpetration, whereas girls are more likely to perpetrate relational peer violence [14,15]. However, some research show that girls may be involved in homophobic violence and relational violence mostly against other girls [16].

In addition to sex, consideration has been given to an association between bullying and age. Although the results are inconclusive, some evidence suggests bullying is more prevalent among older high school adolescents than elementary school children [17]. Verbal bullying and exclusion are more frequent among older adolescents [17]. Bullying may become increasingly attractive to adolescents as they appear to prioritize popularity over socially acceptable behavior [18] and adolescent attitudes toward bullying are becoming more permissive [19–21].

Self-esteem is a psychological construct described and defined as a person's positive or negative attitude toward him or herself [22]. High self-esteem is one of an individual's strengths that help him or her cope with difficulties [23]. Self-esteem is related to respect or acceptance by a peer group [24] and can also indicate a person's level of status and acceptance within a social group [25]. Negative peer experiences, such as group rejection or peer violence, can lower adolescents' self-esteem [26–28].

Many studies also confirm that certain characteristics of the family environment constitute a risk for being a victim of bullying [29]. These risk factors include abuse or neglect in childhood, childhood exposure to parental violence, poverty, low socioeconomic status and poor parental education [30–32]. Although positive relationships with a romantic partner can be a source of happiness during adolescence, a significant risk factor is dating partner violence [33,34]. In addition, research findings indicate a link between bullying and intimate relationship violence [35]. Longitudinal studies have shown that bullying behavior precedes physical intimate violence perpetration [36].

The impacts of experiencing cyber and or bullying on youth development is well known and described in several studies [37–39]. As healthy relationships with peers are one of the most essential resources, experience of peer violence, such as cyber and or bullying, represent a risk factor that jeopardizes positive development [23].

Supporting young people to build resources and protective factors against peer violence seems to be an important challenge for contemporary education and mental health initiatives [23]. These assumptions formed the basis of the Lights4Violence project [40]. In this study, we present a part of the results of the research conducted within this project. We aimed to analyze how socioeconomic characteristics, personal experiences of violence, and personal and environmental assets are associated with adolescents' experiences of cyber or bullying victimization, particularly aiming at:

- identification of sociodemographic factors influencing cyberbullying and or and or-bullying victimization
- identification of overlaps between cyberbullying and or bullying victimization and experiences with other kinds of violence (dating violence, physical and sexual abuse in childhood, witnessed abuse and or violence against mother);
- exploring connections between cyberbullying and or bullying victimization and perception of social support and self-esteem. In reference to the model of positive youth development, we aimed to identify factors that are positively and negatively related to

the risk of bullying and or cyberbullying victimization. We utilize this knowledge to propose recommendations for positive evidence-based prevention of different kinds of peer violence [41,42].

2. Materials and Methods

2.1. Research Questions

Research questions are: (1) What is the likelihood of becoming a victim of bullying and or cyberbullying in adolescents with different sociodemographic characteristics (students' age, sex, and parents' employment)? (2) What is the likelihood of becoming a victim of bullying and or cyberbullying in adolescents with personal experiences of violence (dating violence, physical and sexual abuse in childhood, witnessed abuse and or violence against mother)? And (3) What is the likelihood of becoming a victim of bullying and or cyberbullying in adolescents with a different perception of social support and self-esteem?

2.2. Design

The design of the study is cross-sectional. Data were collected from adolescents at their baseline engagement stage in the Lights4Violence project (2017–2019) [40]. The project was funded by the European Commission, Directorate-General for Justice and Consumers Rights, Equality and Citizen Violence Against Women Program of 2016. As a part of the project, we delivered an educational program to promote personal and external assets. The aim being to improve healthy relationships among adolescents from different European cities (Alicante, Rome, Iasi, Poznan, Matosinhos and Cardiff) [40]. An online questionnaire was used to gather the data including demographic variables, socioeconomic variables, the experience of violence, the Student Social Support Scale [43], the Rosenberg Self-Esteem Scale [44] and other scales defined by the project Lights4Violence. The study was conducted in 12 schools between October 2018 and February 2019. The program content was presented, and the opportunity to participate was offered to the school principals. All the students in selected classes were offered the opportunity to participate. The response rate was high at 98.78%.

2.3. Ethical Considerations

Data was gathered by project partners based at universities in various countries. The information collected was confidential. Participation was voluntary. Each partner was required to obtain the permission of their own ethics committees along with a signed informed consent document from the school, headteachers, parents and students. In cases where a student reported having been abused by an adult, protocols to inform the school were used. It was impossible to identify the victims, due to the anonymity of participants responding to the questionnaire. However, it was possible to give the school information about the number of students who reported cases of abuse and or violence. Schools were responsible for implementing the proper protocol to intervene.

The Lights4Violence project protocol was approved by the ethical committee of the University of Alicante, the University of Maia, Universitatea de Medicina si Farmacie Grigore T. Popa, and Adam Mickiewicz University. Waivers were obtained from the Libera Universita Maria SS. Assunta of Rome and Cardiff Metropolitan University. These ethics approvals covered the individual schools where the intervention was performed. It was also registered in ClinicalTrials.gov by the coordinator (Clinicaltrials.gov: NCT03411564. Unique Protocol ID: 776905. Date registered: 18 January 2018).

2.4. Participants

The sample was made up of 1155 participants aged between 13 and 16 years old from secondary schools. Once the missing values were eliminated (n = 9), the sample analyzed in this work included a total of 1146 students from Alicante, Spain (95 girls and 81 boys); Rome, Italy (172 girls and 64 boys); Iasi, Romania (157 girls and 96 boys); Matosinhos, Portugal (108 girls and 102 boys); Poznan, Poland (76 girls and 32 boys); and

Cardiff, UK (90 girls and 73 boys). The sample was carried out within the framework of a quasi-experimental intervention: a secondary education programme to promote positive non abusive adolescent relationships [40,45,46]. The involved schools were chosen (non-probabilistic sampling) based on authors' settings to guarantee institutional collaboration in this intervention. We performed a statistical power analysis for sample size estimation based on data from previous random effects of meta-analysis related to 23 studies on school-based interventions preventing violence and negative attitudes in adolescent dating relationships [47].

In order to control for variability among schools in the same country, we selected schools that were in neighborhoods with similar sociodemographic characteristics. In order to analyze the variability of the dependent variable between countries, first we calculated the intraclass correlation coefficient (ICC) using an empty multilevel Poisson regression model. The first level was the individual and the second level was the country. The calculation of the ICC follows the method of Sniders and Bosker. Given the lack of variability between countries (ICC: 0.078%), the association between the dependent variable and covariates was performed using single-level Poisson regressions [48]. According to the aim of analysis (correlational study), the fact that the samples are not representative of the populations in participating countries does not affect the quality of calculations.

2.5. Measures

2.5.1. Main Outcome

In this study, the main outcome was bullying and or cyberbullying victimization. Bullying and cyberbullying scales were adapted from the Lodz Electronic Aggression Questionnaire (LEAQ) [4]. The scale includes four questions exploring the last three months ("you have used bullying against others"; "others have used bullying against you"; "you have used cyberbullying against others"; "others have used cyberbullying against you"), and the scale includes Likert answers (never, once, twice, three times or more) [4,49]. In this article, we only analyzed questions about being a victim ("others have used bullying against you"; "others have used cyberbullying against you"). A dichotomous variable was constructed to answer the question of whether you have suffered from bullying and or cyberbullying in the last 3 months? The response categories were yes or no. If anyone answered the question about bullying and or cyberbullying: once, twice, three times or more his/her answer was classified as "yes, and if the answer "never" was chosen for both traditional and cyberbullying, the category was "no"".

2.5.2. Covariates

Covariates were selected based on the model of positive youth development that assume a dynamic relationship between various individual (e.g., self-esteem) and contextual (e.g., both protective and risk factors experienced in multiple ecological contexts: romantic relationships, peer, family, school, community) factors that are mutually reinforcing [23]. These assumptions were the basis of the project Lights4Violence, which gave us the opportunity to identify factors that increase the likelihood of becoming a victim of bullying and or cyberbullying in adolescents. In selecting these variables, the conditions of being a victim of violence, derived from the literature, were also considered. Thus, the following covariates were included in the model.

Sociodemographic characteristics: students' age, sex, parents' employment and parents' education. The answers were collected through a multiple-choice format. The employment variable was classified as 'paid work' and 'unpaid work' (homemaker, unemployed, retired, and unable to work because of a disability, student, deceased). The parents' education was classified as "primary" (completed at most primary school) or "secondary/university" (completed secondary school or secondary and university).

Experiences of abuse and or violence by an adult in childhood before 15 years old. Three questions with dichotomous answers (yes or no) were included: "Before you were 15 years old, did any adult—that is, someone 18 years or older—physically hurt you in any

way (for example, slapped, kicked, pushed, grabbed, or shoved you)?"; "Before you were 15 years old, did someone 18 years or older force you to participate in any form of sexual activity when you did not want to?", "Before you were 15 years old, did you witness in your family environment someone (your father or your mother's partner) physically beat or mistreat your mother?" [40].

Dating violence victimization. Participants who had been in a dating relationship were asked: "Has anyone whom you have ever been on a date with physically hurt you in any way (for example, slapped, kicked, pushed, grabbed, or shoved you)?"; "Has the person whom you have been on a date with ever attempted to force or forced you to take part in any form of sexual activity when you did not want it?"; "Has the person whom you have been on a date with ever tried to control your daily activities, for example, who you could talk with, where you could go, how to dress, check your mobile phone, etc.?"; "Has the person whom you have been on a date with ever threatened you or made you feel threatened in any way"? The exposure to dating experiences was measured by a variable created for the data analysis with the following categories: has never been in a partner relationship; has been in a relationship but never experienced violence; has been in a relationship and has experienced violence [40].

Subjective self-esteem. The Rosenberg Self-Esteem Scale consists of 10 items and measures global self-worth by assessing both negative and positive feelings about the self (e.g., "On the whole, I am satisfied with myself"; "I wish I could have more respect for myself"). A four-point Likert scale was used [44,49]. Format ranging was from strongly agree to strongly disagree. In our study, The Rosenberg Self-Esteem Scale showed satisfactory internal consistency (Cronbach's alpha) at 0.82.

Perceived social support. The Child and Adolescent Social Support Scale is a 60-item, multidimensional scale made for measure the social support perceived by students with a range of 12–72 for each area: support from parents, teachers, classmates, friends and "other people at school" (e.g., principal, counselor). It includes 12 items in each subscale with six Likert-type response categories that range from never to always. Students rate each behavior on two dimensions: availability (six-point rating scale) and frequency (three-point rating scale) [43]. The trend of both dimensions related to dependent variables and co-variables was similar, so in this study, we analyzed only the results of the frequency dimension. Internal consistency was satisfactory, and Cronbach's alpha ranged 0.96.

2.6. Statistical Analyses

A description of the total sample was carried out for each of the variables included in the study. In case of interval variables, the mean and standard deviations have been calculated. To understand which variables were associated with bullying and or cyberbullying victimization, we calculated prevalence ratios (PR) using Poisson regression with robust variance. Statistical significance was a *p*-value < 0.05. We used *t*-test and Chi-square test to calculate statistical significance. Stata 15.1 was used. All the models were adjusted by country. This means that in the Poisson regression, we include the variable "country", and therefore the results we obtain are independent of the country. This is done to eliminate the possible variability that could exist between countries, both culturally and in the collection of information.

3. Results

3.1. Descriptive Analysis of the Sample

Table 1 shows descriptive analysis of the sample. In the research sample, 60.9% are girls and 39.1% boys. Most of the participants' mothers were in paid employment. Almost 9% witnessed violence against mother, 18.5% of participants experienced abuse before 15 years old was by and 19% dating violence. Mean respondent's age is 14.3 years (SD = 1.50).

Table 1. Descriptive analysis of the sample (n = 1155).

	N	%
Sex		
Girls	698	60.9
Boys	448	39.10
Mother's employment		
No paid work	257	23.26
Paid work	848	76.74
Mother's education		
Primary	151	13.18
Secondary/university	995	86.82
Dating violence		
Never dating	432	37.80
Yes	217	18.99
No	494	43.21
Has witnessed abuse and or violence against mother		
Yes	98	8.48
No	1057	91.52
Has suffered physical and or sexual abuse before 15 by an adult		
Yes	213	18.49
No	939	81.51
	Mean (SD)	
Age	14.22 (1.5)	

3.2. Statistics on Bullying and or Cyberbullying Victimization

Table 2 shows data for the whole sample about being or not being a victim of bullying and or cyberbullying. In total, 37.25% of girls and 35.04% of boys reported being victims of bullying and or cyberbullying. The average age is higher among people who are victims of bullying and or cyberbullying than among those who are not (14.24; 14.02).

There were more people with an experience of bullying and or cyberbullying who had secondary/university-educated mothers than primary ones (38.09%; 27.15%). About 20.5% of the girls and 18.7% of the boys indicated that they had suffered dating violence in their current or previous relationships. There were more people with an experience of bullying and or cyberbullying who have suffered dating violence (50.69%) than those who have never dated (33.56%) or have dated but not experienced dating violence (33.20%). Being a witness to family violence against the mother is related to bullying and or cyberbullying victimization (among those who had this kind of experience, 60.20% suffered bullying and or cyberbullying, whereas among the rest of the adolescents, it was 34.53%). There were more adolescents with an experience of bullying and or cyberbullying who had suffered physical and or sexual abuse before 15 by an adult (52.11%) than those who had not experienced childhood abuse (33.12%).

The mean social support from teachers for people who have been victims of bullying and or cyberbullying was 47.21 (SD = 12.51), whereas for those who were not bullied, it was 52.56 (SD = 12.03). Furthermore, the average support from classmates was significantly lower among bullying and or cyberbullying victims 44.49 (SD = 12.33) than non-victims 50.80 (SD = 12.09). Self-esteem for those who have been victims of bullying and or cyberbullying was lower (26.67; SD = 0.27) than those who have not been victims (29.11; SD = 0.21).

Table 2. Bullying and or cyberbullying victimization by sociodemographic variables, physical abuse and social support.

	Bullying and or Cyberbullying Victimization		
	Yes n (%)	No n (%)	*p*-Value *
Sex			
Girls	260 (37.25)	438 (62.75)	0.449
Boys	157 (35.04)	291 (64.96)	
Mother's employment			
No paid work	97 (37.74)	160 (62.26)	0.704
Paid work	309 (36.44)	539 (63.56)	
Mother's education			
Primary	41 (27.15)	110 (72.85)	0.009
Secondary/university	379 (38.09)	616 (61.91)	
Dating violence			
Never dating	145 (33.56)	287 (66.44)	<0.001
Yes	110 (50.69)	107 (49.31)	
No	164 (33.20)	330 (66.80)	
Has witnessed abuse and or violence against mother			
Yes	59 (60.20)	39 (39.80)	<0.001
No	365 (34.53)	692 (65.47)	
Has suffered physical and or sexual abuse before 15 by an adult			
Yes	111 (52.11)	102 (47.89)	<0.001
No	311 (33.12)	628 (66.88)	
	Mean (SD)	Mean (SD)	*p*-Value **
Age	14.42 (1.35)	14.02 (1.36)	<0.001
Social Support Teacher	47.21 (12.51)	52.56 (12.03)	<0.001
Social Support Classmates	44.49 (12.33)	50.80 (12.09)	<0.001
Self-esteem	26.67 (0.27)	29.11 (0.21)	<0.001

* Chi-square test, ** *t*-test.

3.3. Bullying and or Cyberbullying Victimization and Associated Factors

Table 3 shows the robust Poisson regression crude model. Tables 4–6 show the robust Poisson adjusted regression. In Table 4, Model 1 is adjusted by sociodemographic variables, and in Table 5, Model 2 is adjusted by experience of violence. In Table 6, Model 3 is adjusted by Self-esteem and Social Support.

The likelihood of being a victim of bullying and or cyberbullying [PR (CI 95%): 1.146 (1.085, 1.209)] (Table 3) was slightly higher for older adolescents. Taking as a reference those who have never been in a dating relationship, the likelihood of being a victim of bullying and or cyberbullying was higher when adolescents were in a romantic or dating relationship and had been a victim of intimate partner violence [PR (CI 95%): 1.510 (1.250, 1.820)]. The likelihood of bullying and or cyberbullying victimization was lower when adolescents had not witnessed domestic violence against the mother [PR (CI 95%): 0.574 (0.479, 0.688)] and had not experienced physical and or sexual abuse before 15 years old by an adult [PR (CI 95%): 0.636 (0.543, 0.744)] (Table 3).

Moreover, the likelihood of bullying and or cyberbullying victimization was lower for those adolescents who are characterized by higher self-esteem [PR (CI 95%): 0.952 (0.939, 0.964)] and higher perceived social support from teachers [PR (CI 95%): 0.979 (0.973, 0.985)] and classmates [PR (CI 95%): 0.976 (0.970, 0.981)]. (Table 3).

Table 3. Factors Associated with bullying and or cyberbullying victimization (Crude Model).

Variable (Reference)	Bullying and or Cyberbullying Victimization			
	PR	CI 95%		*p*-Value
Age	1.146	1.085	1.209	<0.001
Sex (Reference group: "girls")				
Boys	0.941	0.803	1.103	0.451
Mother's employment (Reference group: "no paid work")				
Paid work	0.965	0.806	1.156	0.703
Dating violence (Reference group: "I have never been in a dating relationship")				
Yes	1.510	1.253	1.820	<0.001
No	0.989	0.824	1.187	0.906
Has suffered physical and or sexual abuse before 15 by an adult (Reference group: "yes")				
No	0.636	0.543	0.744	<0.001
Has witnessed abuse and or violence against mother				
No	0.574	0.479	0.688	<0.001
Self-esteem	0.952	0.939	0.964	<0.001
Social Support Teacher	0.979	0.973	0.985	<0.001
Social Support Classmates	0.976	0.970	0.981	<0.001

Table 4. Factors Associated with bullying and or cyberbullying victimization (Model 1. Sociodemographic Characteristics).

Variable (Reference)	Model 1. Sociodemographic Characteristics			
	PR	CI 95%		*p*-Value
Age	1.115	1.011	1.229	0.030
Sex (Reference group: "girls")				
Boys	0.984	0.839	1.154	0.840
Mother's employment (Reference group: "no paid work")				
Paid work	0.892	0.740	1.074	0.227

The negative age effect is explained when violence-related variables are included in the model (Model 2 Table 5). In the final model, it was confirmed that adolescents who experience various types of violence are more likely to experience bullying and or cyberbullying victimization (Tables 5 and 6). Using as a reference those who have never been in a dating relationship, the likelihood of bullying and or cyberbullying victimization was higher when adolescents are in a romantic or dating relationship and had been victims of intimate partner violence [PR (CI 95%): 1.327 (1.094, 1.610)] (Model 2, Table 5), regardless of the exposure to other types of violence. When adolescents had not experienced physical and or sexual abuse before 15 by an adult [PR (CI 95%): 0.729 (0.615, 0.864)] and had not witnessed domestic violence against the mother [PR (CI 95%): 0.648 (0.535, 0.784)], the likelihood of bullying and or cyberbullying victimization was lower compared to those who have had such experiences of violence (Table 5).

Table 5. Factors Associated with bullying and or cyberbullying victimization (Model 2: Model 1 and Experience of Violence).

Model 2. Experience of Violence				
Variable (Reference)	**PR**	**CI 95%**		*p*-**Value**
Age	1.063	0.961	1.176	0.235
Sex (Reference group: "girls")				
Boys	0.951	0.809	1.118	0.542
Mother's employment (Reference group: "no paid work")				
Paid work	0.911	0.315	0.760	1.093
Dating violence (Reference group: "I have never been in a dating relationship")				
Yes	1.327	1.094	1.610	0.004
No	1.101	0.917	1.321	0.302
Has suffered physical and or sexual abuse before 15 by an adult (Reference group: "yes")				
No	0.729	0.615	0.864	<0.001
Has witnessed abuse and or violence against mother				
No	0.648	0.535	0.784	<0.001

Table 6. Factors Associated with bullying and or cyberbullying victimization (Model 3: Model 2 and Self-esteem and Social Support).

Model 3. Self-Esteem and Social Support				
Variable (Reference)	**PR**	**CI 95%**		*p*-**Value**
Age	1.008	0.911	1.116	0.872
Sex (Reference group: "girls")				
Boys	0.963	0.814	1.138	0.656
Mother's employment (Reference group: "no paid work")				
Paid work	0.953	0.791	1.149	0.616
Dating violence (Reference group: "I have never been in a dating relationship")				
Yes	1.254	1.028	1.530	0.026
No	1.126	0.939	1.351	0.200
Has suffered physical and or sexual abuse before 15 by an adult (Reference group: "yes")				
No	0.834	0.700	0.995	0.043
Has witnessed abuse and or violence against mother				
No	0.695	0.571	0.845	<0.001
Self-esteem	0.976	0.962	0.990	0.001
Social Support Teacher	0.990	0.983	0.998	0.009
Social Support Classmates	0.988	0.981	0.995	0.001

Including the Child and Adolescent Social Support Scale and Rosenberg Self-Esteem Scale in Model 3 (Table 6) shows that the effect of experiences of violence on higher likelihood of becoming a victim of bullying and or cyberbullying remains.

Moreover, perceived social support from teachers [PR (CI 95%): 0.990 (0.983, 0.998)] and classmates [PR (CI 95%): 0.988 (0.981, 0.995)] and higher self-esteem [PR (CI 95%): 0.976 (0.962, 0.990)] were associated with a lower likelihood of becoming a victim of bullying and or cyberbullying (Table 6, Model 3).

4. Discussion

In our sample, more than one-third of both girls and boys have been bullied and or have been cyberbullying victims. The prevalence found in this study is noteworthy considering the young age of the sample. Bullying and or cyberbullying likelihood, as well as other forms of violence experienced by adolescents such as violence in romantic relationships, is related to age as shown in previous studies that concluded the likelihood of suffering dating violence is higher in older adolescents [50]. However, in our research, the slightly negative age effect on bullying and or cyberbullying is explained when violence-related variables are included in the model. Thus, answering the first research question, the sociodemographic variables did not increase the likelihood of becoming a victim of bullying and or cyberbullying.

Thus, it can be hypothesized that the accumulated experiences of violence to which children and adolescents are subjected increase the risk of later victimization, as the likelihood of bullying and or cyberbullying victimization is higher when victims suffer from other forms of violence. Youth who are or were in romantic or dating relationships and have been victims of intimate partner violence are at increased risk for bullying and or cyberbullying. The likelihood of bullying and or cyberbullying victimization is lower when adolescents had not experienced physical and or sexual abuse by an adult before 15 years old and had not witnessed domestic violence against their mother. Adolescents who have experienced violence in childhood are at increased risk for repeat violent experiences such as bullying and or cyberbullying. In contrast, the absence of childhood experience of violence is a protective factor against peer violence. It is worth noting that according to the tenets of developmental psychopathology, maladaptive patterns such as entering abusive relationships and experiencing distress, can consolidate into maladaptive developmental pathways, resulting in a persistent pattern of psychopathology and pose a developmental risk in the future [51]. Given the findings and assumptions of the positive youth development model, it is important to make targeted contextual changes [23] as early as possible. Our findings also suggest the validity of introducing programs for young people to address peer violence and dating violence. In response to the second research problem, experiences of violence in childhood and adolescence increase the likelihood of becoming a victim of bullying and or cyberbullying.

The last research question concerned self-esteem and social support. The results indicate higher self-esteem has reduced the likelihood of becoming a victim of bullying and or cyberbullying. As noted in the results of previous research, victimization by peers can have a long-term negative impact on self-esteem [26–28], but also low self-esteem can be a risk factor for children becoming victims of violence [26]. The results obtained are consistent with the positive youth development model, which assumes that high self-esteem is one of the individual's strengths [23] and enables competent coping with difficulties.

In our study, school resources such as support from teachers and classmates are important protective factors associated with a lower likelihood of becoming a victim of bullying and or cyberbullying. Furthermore, previous research indicates a relationship between various aspects of the school environment and peer violence. For example, stronger school bonding, acceptance and care from adults at school are associated with lower levels of physical violence among adolescents [52]. Low social support perception from peers and school increased the likelihood of relational, verbal and physical bullying victimization [53,54]. Previous research also demonstrates that teachers can play an important role in anti-violence programs and

should be seen as intervention targets. According to research by René Veenstra et al. [55] in the fight against bullying, it can be essential for students to have teachers they perceive as taking on the promotion of anti-bullying norms and effective approaches to reducing bullying. Our results support the findings that school support is an important protective factor against peer violence.

However, the inclusion of the Child and Adolescent Social Support Scale and the Rosenberg Self-Esteem Scale in the model shows that the association of experiences of violence with a greater likelihood of becoming a victim of bullying and or cyberbullying persists (although the relationship is slightly explained). This means that such experiences place individuals at increased probability for subsequent victimization regardless of perceived support and self-esteem. Our research findings support the effectiveness of positive youth development as an approach to change developmental opportunities by shaping, for example, social skills to seek social support. In addition, we can also assume that helping young people who have experienced violence in childhood and in their dating relationships, using positive strategies based on reinforcing resources (e.g., social support), may not be enough and risk reduction strategies will also be necessary. In fact, young people in high-risk groups need more comprehensive assistance interventions [56]. In relation to high-risk adolescents, risk reduction and resource promotion should be complementary strategies [23].

In interpreting our results, some limitations should be taken into account. The study is cross-sectional, and all causal relationships are derived from theory and should be confirmed in longitudinal studies. The sampling procedure does not allow us to generalize the survey results to the population of each country. It was calculated to have sufficient statistical power to analyze the results as a whole. Perceptions of exposure to violence may vary depending on the cultural context of the students. To address this, our models have been adjusted by country, but there may be residual confounding factors.

The way the questionnaire measures experiences of violence does not differentiate between the severity of incidents. This may subsequently affect the strength of connection between peer victimization and other forms of earlier victimization. Finally, the subject of the questionnaire is intrusive, and some young respondents may choose not to reveal their traumatic experiences.

5. Conclusions

The present study offers fundamental clues to support prevention and intervention programs focused on individual, family, social and community strengths, competencies and resources. As determined by multiple risk and protective factors, bullying and cyberbullying must be understood as a complex phenomenon which requires robust action.

According to our results, early interventions to strengthen family resources, develop positive parenting practices and protect families from perpetrators of domestic violence are important. In the same way, programs to prevent dating violence must be disseminated among schools, involving teachers and peers.

An important conclusion is that adolescents' mental health is not only supported during adolescence, but it is especially important that children are protected from all forms of violence. It is essential to educate the parents of young children about non-violent parenting and the relationship between parents. From a practice perspective, it is important to make targeted contextual changes as early as possible, such as support for constructive parenting practices and family resources and protecting families from domestic violence perpetrators. Further research should be carried out to better understand the association between suffering previous physical and or sexual violence and being exposed to different types of bullying and cyberbullying.

Referring to the results regarding personal and environmental assets, stimulating a healthier environment is key. This requires investment in a model of education focused on positive youth development, encouraging a school climate where violence is unacceptable, and where protective mechanisms are visible and recognizable.

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