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The Role of Social Support in Machismo and Acceptance of Violence Among Adolescents in Europe. Lights4Violence Baseline Results

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A B S T R A C T

Purpose: To analyze the potential association between social support, experiences of violence, and sociodemographic characteristics of adolescents and the likelihood of acceptance of violence and machismo in different European countries.
Methods: Cross-sectional design. We recruited 1,555 participants ages 13−16 from secondary schools in Alicante (Spain), Rome (Italy), Iasi (Romania), Matosinhos (Portugal), Poznan (Poland), and Cardiff (UK). We used linear regression models to identify how social support from teachers and parents, experiences of violence—dating violence, bullying, cyberbullying, abuse in childhood—and sociodemographic characteristics were associated with violent thinking, specifically: machismo and acceptance of violence. The analysis was stratified by sex.
Results: Acceptance of violence was higher for those who had lower perceived social support from parents ($\beta_{girls} = -154$, $p < .001$; $\beta_{boys} = -.114$, $p = .019$) for both sexes. Perpetration of bullying and/or cyberbullying was associated with higher scores for machismo and acceptance of violence for both sexes ($\beta_{girls} = .067$, $p = .035$; $\beta_{boys} = .225$, $p < .001$; ($\beta_{girls} = .118$, $p < .001$; $\beta_{boys} = .210$, $p < .001$). Being the victim of dating violence, having suffered physical and/or sexual abuse in childhood, and lower perceived social support from teachers were associated with higher scores for both machismo and acceptance of violence. These associations differed between girls and boys.
Conclusions: Machismo and acceptance of violence are widely present amongst adolescents in different European countries. Our results suggest the importance of providing educational/

IMPLICATIONS AND CONTRIBUTION

These findings highlight the need to develop educational interventions focused on promoting knowledge about personal, family and school-based support resources to prevent violent attitudes and behaviors such as machismo and acceptance of violence.

psycho-educational interventions with boys and girls to prevent these attitudes and, in turn, prevent interpersonal violence, including bullying and dating violence.

Machismo is a sociocultural construction defined as sexist attitudes that defend and justify the superiority and dominance of men over women. Under the term machismo, men are characterized as aggressive, independent, and dominant, and women are characterized as weak, dependent, and submissive [1]. Machista attitudes among men could increase the likelihood of violence against women, in part, because of the complex relationship between machismo and self-esteem in men [2,3]. Likewise, these machista attitudes could be related to beliefs that justify violence, aggression or acceptance of violence (e.g. Sometimes you have to be violent to show that you are a man; "Real men" are not afraid of fighting). Such beliefs can be understood as normative within the social groups that individuals belong to. Acceptance of violence seems to be more associated with the normalization of violence as part of everyday life. It includes attitudes that justify aggression, attributes guilt to victims, and understates the impact and severity of violence as a problem behavior [4]. It has been estimated that approximately 70 percent of young women normalized some physical and psychological violent behaviors in their dating relationships [5]. In some longitudinal studies [6,7], acceptance of violence was a predictor of dating violence in adolescents. It is important to note that attitudes that justify the use of violence are influenced by the social context and, consequently, by gender [8]. Understanding the attitudes, norms, and beliefs behind violent behavior may aid the understanding of its causes [9]. Attitudes, norms, and beliefs are not all important. It is necessary to consider the developmental life stage of the person in question.

Adolescence is a key stage in life development. The experiences, knowledge, and skills acquired during adolescence will influence adult development opportunities. Adolescence is considered a period of adaptation to new changes; the independence of the family begins, one builds one's identity, affective relationships are created, and one acquires more autonomy. At the cognitive level, the ability for critical evaluation increases, and at the affective level, there is a search for identification with oneself [10]. Bullying at school during this period is a manifestation of violence toward peers. In the context of bullying, attitudes toward violence are also important. Some studies have found that bullies have more positive attitudes toward the use of violence in peer relationships and are more likely to misunderstand the intentions of others, considering their use of violence to be a justifiable response to peer provocation [11–13]. Since adolescence is a period that can influence the future functioning of the person, it is important to have the support of one's social circle. This support can act as a buffer to violent behavior and the consequences of being exposed to violence [14,15]. A lack of social support might increase the likelihood of "acceptance" of violence, and subsequently, attitudes that justify the perpetration of violence. The role of teachers in stimulating change for social justice and equality has been analyzed in several contexts. Teachers have a unique role in providing social support to young people, which encourages positive development through the acquisition of healthy assets [16].

Exploring the roles of machismo and acceptance of violence may be useful to develop strategies that contribute to preventing not only general violence but more specific violence, such as dating violence [17]. To our knowledge, this is the first study that relates both the social support experiences of children and their sociodemographic characteristics to machismo.

This study is based on the European Project "Lights, Camera and Action against Dating Violence" (Lights4Violence) funded by the European Commission Directorate-General for Justice and Consumers Rights, Equality and Citizen Violence Against Women Program 2016 for the period 2017–2019. The goal of the project is to promote healthy dating relationship assets among secondary school students [18]. In this study, we aimed to analyze the potential association between social support, experiences of violence, and sociodemographic characteristics among adolescents and the likelihood of acceptance of violence and machismo in different European countries.

Method

The study has a cross-sectional design. Data was gathered from adolescents at the baseline stage of their engagement in the Lights4Violence project [19]. The data was collected using an online questionnaire distributed to the schools of each country during the 2018–2019 school year.

This quasi-experimental study used a nonprobabilistic sample of 1,555 high school students ages 13–16 in Alicante, Spain (n = 255, 50.98% girls), Rome, Italy (n = 285, 72.28% girls), Iasi, Romania (n = 343, 62.39% girls), Matosinhos, Portugal (n = 259, 48.26% girls), Poznan, Poland (n = 190, 71.05% girls) and Cardiff, UK (n = 204, 54.90% girls). School selection was carried out by contacting different secondary education centers from the city as considered appropriate by the members of the research team (nonrandom sample). A statistical power analysis was performed for sample size estimation (initial sample designed for 1,300 students), based on data from a previously published random-effects meta-analysis of 23 studies about school-based interventions that aimed to prevent violence and negative attitudes in teen dating relationships [20]. Data was gathered in 12 school settings between October 2018 and February 2019 from two schools per country. The percentage of participation was 98.78 percent.

There were differences in the schools in terms of their sociodemographic characteristics ($p < .001$). The students from the educational centers in Spain were those who most reported at least one parent being an immigrant (n = 142), followed by Italy (n = 80), Portugal (n = 47), UK (N = 40), Romania (n = 19) and Poland (n = 8). In Romania, parents tended to have higher levels of education (mothers: n = 193 university; fathers: n = 155 university), followed by Poland (mothers: n = 140 university; fathers: n = 116 university), Italy (mothers: n = 111 university; fathers n = 93 university), Portugal (mothers: n = 105 university; fathers n = 116 university); UK (mothers: n = 103 university; fathers n = 85 university) and Spain (mothers: n = 19

university; fathers 15 university). In terms of parents' employment, Spain was the country in which more women were dedicated exclusively to the home (n = 106) or were unemployed (n = 25), and where there were more unemployed men (n = 25). It should also be noted that there were many cases of missing data for these two variables.

The Maudsley Violence Questionnaire (MVQ) [4] was used to measure violent thinking. The MVQ is made up of two factors, acceptance of violence and machismo, each of which measures a range of cognitions relating to violence drawn from clinical and theoretical perspectives. The MVQ proposes that violence is used in response to embarrassment associated with backing down from a situation of threat or conflict and as a means of protecting fragile self-esteem [3].

The MVQ is a self-report questionnaire containing 56 items (dichotomous scale; true-false), which represent rules and beliefs that justify and support violence. It includes two subscales; "Machismo" (42 items; range 0–42) and "Acceptance" of violence (14 items; range 0–14). "Machismo" relates to violence being important for manliness and for being strong and associates weakness with nonviolence or embarrassment over backing down. It also relates to justifying violence as an appropriate response to threats. Examples of machismo questions include; "I expect real men to be violent" and "You will not survive if you run away from fights and arguments." "Acceptance" of violence includes items about the enjoyment of and acceptance of violence generally (e.g., in the media and in sports) and injunctions against or rejection of violence as an acceptable behavior.

In terms of MVQ psychometric properties, the instrument has good internal consistency with a Cronbach's alpha being from .72 to .91 between factors and being higher for male participants and the machismo factor [4]. The MVQ has been validated for use in general population samples [4,21], samples of people with an offending history [2,22], and with adults [23] and adolescents [4,24]. The use of this scale allowed us to predict how machismo is represented differently by sex.

The following covariates were also used for this study:

- Child and Adolescent Social Support Scale. This questionnaire evaluates social support. The CASSS is a 60-item, multidimensional scale that measures the social support perceived by students from parents, teachers, classmates, friends, and "other people" (e.g., principal, counselor). Students respond by rating each item for two aspects: frequency and importance. For this study, we only analyzed the results of the frequency dimension for the parent and teacher' subscales (range 12–72 for each area) because the association of both dimensions that was related to dependent variables and covariables was very similar. The five option answers for the "importance" dimension make up a Likert scale that ranges from totally disagree to totally agree [25].
- Sociodemographic characteristics—students' age, sex and parents' employment. The answers were collected through a multiple choice format. The employment variable was classified as "paid work" and "unpaid work." The option "unpaid work" included the following categories: homemaker (exclusively), unemployed, retired and unable to work because of a disability, student, died, or do not know.
- Different types of exposure to violence:
  - Exposure to dating violence: Those who had ever been in a dating relationship were asked: "Has anyone that you have ever been on a date with physically hurt you in any way? (For example, slapped you, kicked you, pushed, grabbed, or shoved you)"; "Has a person that you have been on a date with ever attempted to force you to take part in any form of sexual activity when you did not want to?"; "Has a person that you have been on a date with ever threatened you or made you feel unsafe in any way?"; "Has a person that you have been on a date with ever tried to control your daily activities, for example, whom could you talk with, where you could go, how to dress, check your mobile phone, etc.?"
  - Experiences of abuse and/or violence by an adult in childhood before 15 years old. Three questions with dichotomous answers (yes/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 you, kicked you, 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?"
- Bullying and cyberbullying scales—adapted from the Lodz Electronic Aggression Questionnaire (LEAQ). The tool measures bullying and cyberbullying, understood as a serious form of peer violence that is regular, intentional and involves an imbalance of power and includes the involvement of a perpetrator and a victim, also in the context of current or former romantic partners. The four questions referred to the last three months, and the scale includes Likert answers (never-3 times or more) [26].

Ethical considerations

Data was collected by project partners based at universities in various countries. The data was collected and stored anonymously, and participants created a unique participant code for themselves at the first data collection point. Participation was voluntary, and each partner university was required to obtain the permission of their own ethics committees. Schools provided a signed informed consent document from the school directors, as did parents of the participants and the students themselves.

In cases in which a student reported having been abused by an adult, each country used its own protocol to inform the school. Due to the anonymity of the questionnaire, it was impossible to identify the victims. However, it was possible to inform the school about the number of student reports of abuse. Each school was responsible for following the respective protocol to intervene.

The Lights4Violence protocol was approved by the ethical committee of the University of Alicante, Instituto Universitario da Maia/Maiêutica Cooperativa de Ensino Superior CRL. Maia, Universitatea de Medicina si Farmacie Grigore T. Popa, Adam Mickiewicz University, Libera Universita Maria SS. Assunta of Rome and the Cardiff Metropolitan University. It was also registered in ClinicalTrials.gov by the coordinator (Clinicaltrials.gov: NCT03411564. Unique Protocol ID: 776905. Date registered: 18–01–2018).

Analyses

All selected covariates were previously related to at least one of our main outcomes and/or the likelihood of violent behavior. Collinearity was assessed between the exploratory variables before introducing them into the model. There was no collinearity because the value did not exceed 10 (mean VIF = 1.82).

A descriptive analysis based on means—through a *t*-test of difference of means by sex—typical deviations, frequencies and percentages was carried out to analyze the distribution of both the dependent and explanatory variables of the sample. We performed linear regression models to identify how social support from teachers and parents, experiences of violence, and sociodemographic characteristics were associated with machismo and acceptance of violence. The analyses were adjusted by the school. We used this model because the dependent variable (MVQ scale) is quantitative and has no cutoff point. Thus, we fitted a stepwise forward model to each dependent variable. This model consists of starting with no variables in the model and testing the addition of each independent variable using a chosen Akaike Information Criterion. To examine whether the variables associated with our dependent variables differed between girls and boys, we explored the interactions by sex. Given the presence of interactions, the results were stratified by sex.

Results

Once we eliminated missing data (n = 19), the final sample included 922 girls and 614 boys. The mean age of the sample was 14.3 years (SD = 1.5). Most of the sample had mothers and fathers in paid employment, but there were more mothers classified as homemakers than fathers (27.7%; 15.5%). Likewise, 57.2 percent of girls and 66.5 percent of boys reported that they were in a dating relationship, and 20.5 percent of girls and 18.7 percent of boys indicated that they had suffered dating violence in their current or previous relationships. The frequency of students that reported physical and/or sexual abuse before age 15 years by an adult was 18.8 percent among girls and 22.1 percent among boys. Witnessing violence was lower (10.9% of girls; 8.3% of boys). About 37.4 percent of students reported that they had been exposed to bullying and/or cyberbullying in the last three months, and 16.6 percent had bullied or cyberbullied someone else. The total mean for parents' social support was 52.2, SD: .303, and for teachers' social support it was 50.16, SD: .32. Boys perceived more social support from parents and teachers than girls ($p < .001$) (Table 1).

As Table 2 shows, the mean for machismo was 8.2, SD: 7.5, and for acceptance of violence 5.6, SD: 3.5. In both cases, the mean was higher in boys than in girls ($p < .001$).

Machismo

For both girls and boys (Table 3), bullying someone ($\beta_{girls} = .067, p = .035; \beta_{boys} = .225, p < .001$), was associated with higher machismo scores. For girls, having a lower family socioeconomic level ($\beta = .084, p = .007$) (parents with no paid work), having been a victim of dating violence ($\beta = .153, p < .001$) (compared to those who had been in a dating relationship but had not been victim of IPV), and lower perceived social support from parents ($\beta = -.144, p < .001$) were associated with increased likelihood of machismo.

For boys, being between age 14–15 ($\beta = .173, p = .007$) (compared to those under age 14); having suffered child physical and/or sexual abuse by an adult before age 15 ($\beta = .151, p < .001$) and lower perceived social support from teachers ($\beta = -.121, p = .007$) were associated with higher machismo scores (Table 4). Having been in a dating relationship and having been a victim of IPV were associated with higher machismo scores compared to those who had been in a dating relationship but had not been a victim of IPV. ($\beta_{dating\ violence} = .100, p = .018$).

Acceptance of violence

Regarding acceptance of violence, for both girls and boys, having bullied someone ($\beta_{girls} = .118, p < .001; \beta_{boys} = .210, p < .001$) and having lower perceived social support from parents ($\beta_{girls} = -154, p < .001; \beta_{boys} = -.114, p = .019$) were associated with higher scores for both models.

For girls, having lower perceived social support from teachers ($\beta = -096, p = .012$) was associated with higher scores for acceptance of violence.

For boys, having been in a dating relationship ($\beta = .148, p = .001$) (compared to those who had been in a dating relationship but had not been a victim of IPV) was associated with lower scores in acceptance of violence. For boys, having suffered physical and sexual abuse before age 15 ($\beta = .085, p = .037$) was associated with higher scores in terms of acceptance of violence (Table 4).

Discussion

This study analyzed the potential association between social support, experiences of violence, and sociodemographic characteristics of adolescents and its relationship to violence acceptance and machismo in six European countries. We found that students who perceived higher levels of parental social support registered lower levels of acceptance of violence, in both sexes. The lack of social support from teachers was associated with higher machismo scores in boys as well. The girls who did not perceive social support from teachers were more likely to get higher scores for acceptance of violence, and those who did not perceive social support from parents scored higher on machismo. For both sexes, having bullied someone was more likely to be associated with higher scores on both scales, with higher levels of violent cognition overall. Dating violence experiences also seemed to increase the likelihood of high scores on machismo. In the case of boys, age (being 14–15 years old) and having experienced child physical and/or sexual abuse were associated with high scores for machismo and acceptance of violence. We observed an increase in machismo among girls who reported a lower family socioeconomic level (parents with no paid work). Having been exposed in the past or present to dating violence increased the likelihood of violence acceptance among girls.

According to our results, social support from close circles (e.g. parents and teachers) could be important in preventing machismo and acceptance of violence for both boys and girls. A possible explanation of this is that social support from adults (not only from parents) acts as a buffer, although violence has been witnessed in the family. Having social support improves interpersonal relationships by promoting a positive sense of self [27], and the quality of interpersonal relationships acts as a moderator of the relationship between community violence exposure and later depressive symptoms [15]. Some studies

Table 1
Sociodemographic characteristics of the sample and violence variables by sex

	Total	Girls	Boys	p value[a]
	n (%)	n (%)	n (%)	
City where students currently live				<.001
Alicante (Spain)	255 (16.4%)	130 (14.1%)	125 (20.3%)	
Rome (Italy)	295 (18.9%)	206 (22.3%)	79 (12.8%)	
Iasi (Romania)	343 (22.0%)	214 (23.2%)	129 (21.0%)	
Matosinhos (Portugal)	260 (16.7%)	125 (13.5%)	134 (21.8%)	
Poznan (Poland)	192 (12.3%)	135 (14.6%)	55 (8.9%)	
Cardiff (UK)	210 (13.5%)	112 (12.1%)	92 (14.9%)	
Age				<.001
13 years	482 (31.0%)	255 (27.6%)	224 (36.4%)	
14–15	729 (46.8%)	437 (47.4%)	283 (46.0%)	
16 years	344 (22.1%)	230 (24.9%)	107 (17.4%)	
Mother's employment				.006
Paid work	1,124 (72.3%)	691 (74.95%)	421 (68.57%)	
No paid work	431 (27.7%)	231 (25.05%)	193 (31.43%)	
Father's employment				.145
Paid work	1,314 (84.5%)	791 (85.79%)	510 (83.06%)	
No paid work	241 (15.5%)	131 (14.21%)	104 (16.94%)	
Knowing a female victim of IPV[b]				<.001
Yes	560 (36.0%)	400 (43.3%)	149 (24.2%)	
No	995 (63.9%)	522 (56.6%)	465 (75.7%)	
Knowing a male victim of IPV[b]				<.001
Yes	1,395 (10.3%)	73 (7.92%)	81 (13.19%)	
No	160 (89.7%)	849 (92.08%)	533 (86.81%)	
Victim of dating violence				<.001
I have never been in a dating relationship	547 (35.5%)	367 (39.68%)	179 (29.68%)	
I have been in a dating relationship and I have been victim of IPV	314 (20.4%)	188 (20.48%)	113 (18.74%)	
I have been in a dating relationship but I have not been victim of IPV	679 (44.1%)	363 (39.54%)	311 (51.58%)	
Has suffered physical and/or sexual abuse before 15 by an adult				.118
Yes	321 (20.7%)	173 (18.8%)	135 (22.0%)	
No	1,228 (79.20%)	746 (81.1%)	476 (77.9%)	
Has witnessed abuse and/or violence				.102
Yes	155 (9.9%)	100 (10.8%)	51 (8.3%)	
No	1,398 (90.0%)	821 (89.1%)	562 (91.6%)	
Victim of bullying				.473
Yes	581 (37.30%)	347 (37.6%)	220 (35.8%)	
No	974 (62.6%)	575 (62.3%)	394 (64.1%)	
Bullying another person				<.001
Yes	258 (16.6%)	127 (13.7%)	127 (20.7%)	
No	1,296 (83.40%)	795 (86.2%)	486 (79.2%)	
Social support from parents	Mean: 52.25 SD: .303	Mean: 52.43 SD: 12.02	Mean: 55.13 SD: 11.05	<.001
Social support from teachers	Mean: 50.16 SD: .32	Mean: 49.29 SD: 12.44	Mean: 51.85 SD: 12.86	<.001

[a] Chi-square test.
[b] Intimate partner violence.

reveal gender differences in social support patterns and the perception of social support. Girls usually perceive more social support from their social circle than boys [14]. Likewise, girls are more likely to seek emotional support and are more likely to seek and receive support from women. This could be related to feminine and masculine roles [28]. These results show the importance of promoting adolescents' awareness of personal, family, school, and community resources that they can use to solve conflicts in the best way possible. These resources are also recognized as "health assets" [29]. Satisfaction with school and family social support are important predictors of children's and adolescents' well-being [14]. It is not only necessary to be aware of these assets, but also to focus interventions on using these assets to promote healthy relationships. It is also important to provide tools for teachers to increase their ability to support the most troubled adolescents.

According to our results, machismo and acceptance of violence are more present among boys than girls, as shown in

Table 2
Means and standard derivations of the sample in terms of machismo, acceptance of violence and violent thinking by sex

	Total			Girls			Boys			p value[a]
	n	Mean	SD scores	n	Mean	SD scores	n	Mean	SD scores	
Machismo	1,543	8.2	7.5	916	6.1	5.9	608	11	8.4	<.001
Acceptance of violence	1,543	5.6	3.5	916	4.2	3	608	7.5	3.2	<.001

[a] t-test of differences between girls and boys.

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Table 3
Multivariable linear regression for machismo by sex[a]

	Girls		Boys	
	Standardized Beta	*p* value	Standardized Beta	*p* value
Age (Unexposed group: 13 years)				
14–15 years	.090	.124	.173	.007
15–16 years	.084	.201	.118	.088
Father's employ (Unexposed group: "paid work")				
No paid work	.084	.007	.065	.085
Bullying another person				
Yes	.067	.035	.225	<.001
Dating violence (Unexposed group: "I have been in a dating relationship, but I have not been victim of IPV")				
I have never been in a dating relationship	−.062	.076	−.762	.065
I have been in a dating relationship and I have been victim of IPV	.153	<.001	.100	.018
Child sexual and physical abuse				
Yes	.020	.541	.151	<.001
Perceived social support from parents	−.144	<.001	−.005	.904
Perceived social support from teachers	−.056	.139	−.121	.007

[a] Adjusted by school.

previous studies [2,4,21–23]. These gender differences were also confirmed in terms of other attitudes, such as sexism [30,31] and aggressiveness [32]. Thus, it can be said that cognitions relating to violent offenses may operate differently depending on sex [4].

Violence and aggression are not exclusively male characteristics. Still, "being a male" is associated with strength and assertiveness. There is an assumption that if you are violent, you are stronger, and consequently, more of a man than those who back down or do not fight. This may increase the likelihood of violent thinking due to machismo [4]. Machismo plays an important role in violent attitudes and behavior in boys, because it promotes masculinity that is misunderstood in terms of aggression and violence [33].

Masculinity—the meaning of which can vary according to the culture-may change in relation to the economic and political processes of social change. However, it is based on the same understanding of unequal power relations based on gender. Changing these attitudes in men is difficult because of resistance to change and because hegemonic masculinity has been used to describe men and their behavior. It is important to know the different factors that can influence the maintenance and

reinforcement of that masculinity to achieve change. Interventions must be focused on providing support to boys and men and reflecting on the costs of hegemonic masculinity and the benefits of gender-equitable attitudes and behaviors. Likewise, it is necessary to develop strategies to promote transformative masculinities that can cope with gender inequalities and dating violence [34].

According to our results, the likelihood of machismo is also higher among older boys and girls. This result confirms that violent attitudes and behavior tend to increase when adolescents are between 14–15 years old and decrease later in adulthood. These results can be explained by the fact that aggressive behaviors, like pushing or hitting, can be normalized in boys' relationships in the context joking [35,36].

As has been previously observed [37], we also noted that bullying is associated with higher machismo scores and acceptance of violence in both sexes. This can be explained by anger, which is a consequence of violent thinking. Anger is associated with bullying and violent behavior, such as physical dating violence. These findings regarding the relationship between bullying and violent thinking and behavior suggest the need to develop interventions focused on equality, tolerance, and respect

Table 4
Multivariable linear regression for acceptance of violence by sex[a]

	Girls		Boys	
	Standardized Beta	*p* value	Standardized Beta	*p* value
Age (Unexposed group: 13 years)				
14–15 years	.086	.138	.089	.181
15–16 years	.111	.090	.065	.363
Father's employ (Unexposed group: "paid work")				
No paid work	.041	.189	.044	.262
Bullying another person				
Yes	.118	<.001	.210	<.001
Dating violence (Unexposed group: "I have been in a dating relationship, but I have not been victim of IPV")				
I have never been in a dating relationship	−.045	.202	−.148	.001
I have been in a dating relationship and I have been victim of IPV	.062	.083	−.050	.254
Child sexual and physical abuse				
Yes	.055	.096	.085	.037
Perceived social support from parents	−.154	<.001	−.114	.019
Perceived social support from teachers	−.096	.012	−.054	.247

[a] Adjusted by school.

for people, and, more specifically, the need to avoid using violence in schools.

Our findings detected differences between sexes in terms of violent experiences in childhood. These experiences are associated with higher machismo scores and acceptance of violence in boys. According to other studies, being the victim of childhood sexual or physical abuse or witnessing violence can be a risk factor for the development of violent behavior [38–40]. This shows how important it is to detect childhood abuse situations and implement an early intervention to prevent, as much as possible, the development of violent attitudes in adolescence and adulthood.

In interpreting our results, it is necessary to consider several limitations. First, the convenience sample was too small to allow us to generalize the study results to the population of each country. The sample size was calculated to be able to analyze the results globally. Also, as this was a pilot study, it was more difficult to obtain the consent of the participating educational centers. In addition, in some cases, we were unable to obtain information related to sociodemographic characteristics because the adolescents declined to provide it. Because some adolescents were not aware of their parents' education level, they did not report it, and a high percentage of the answers to this question were marked as "do not know." A separate analysis of dating violence and experiences of violence in childhood was not possible because the sample size for each option was too small. Fourth, the cross-sectional design of our study does not allow us to identify a cause and effect relationship between the variables.

Despite the limitations mentioned above, there are several important implications for future interventions. This study results suggest the importance of carrying out educational interventions with both boys and girls to prevent attitudes of machismo and other types of interpersonal violence, such as bullying and dating violence. Also, it is important to promote protective factors that contribute to healthy relationships due to the relevance of social support in the prevention of violent thinking, machismo, and acceptance of violence. It is also important to engage the entire academic community, especially teachers, in preventing and combating all forms of violence. It is crucial to provide adolescents with tools to identify the signs of violence and to identify family, friendship, and community assets that can help them cope with violence [30].

Conclusions

Unfortunately, machismo and acceptance of violence are quite present in the attitudes of adolescents from different European countries. Experiences of violence in childhood and adolescence, low socioeconomic level, and low social support from parents and teachers seem to increase the likelihood of machismo and acceptance of violence. Positive development approaches can play a significant role in empowering boys and girls not only to be more aware of their own competencies and resources but also to identify signs of risk and danger in their interpersonal relationships.

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