

Psychosocial Intervention

Psychosocial Intervention

https://journals.copmadrid.org/pi

Sex Differences in Adolescent Bullying Behaviours

Sandra Feijóo^a, James O'Higgins-Norman^b, Mairéad Foody^b, Rafael Pichel^a, Teresa Braña^a, Jesús Varela^a, and Antonio Rial^a

^aUniversity of Santiago de Compostela, Spain; ^bDublin City University, Ireland

ARTICLE INFO

Received 22 September 2020 Accepted 12 January 2021 Available online 3 February 2021

Keywords: Bullying Adolescence Sex differences

Palabras clave: Acoso escolar Adolescencia Diferencias sexuales

ABSTRACT

In recent decades there has been a progressive increase in concern and research into the problems of peer aggression, both in the educational setting and more recently, online. The present study sought to explore sex differences in traditional bullying and cyberbullying, since current literature has not reached a consensus in how bullying involvement could be moderated by sex. The sample consisted of 3,174 adolescents aged 12-17 years old who completed a paper survey which included the European Bullying Intervention Project Questionnaire and the European Cyberbullying Intervention Project Questionnaire. The main results found no differences in cyberbullying rates for boys and girls. In the case of bullying, there were more bully-victims among the boys, but no differences were found in the pure victims or pure perpetrators. When analysing the specific bullying behaviours suffered or perpetrated, several differences were found. However, said differences were discrete and it seems that there are not distinctly differentiated bullying patterns, which discourages the use of clearly differentiated preventive strategies for boys and girls.

Las diferencias de sexo en las conductas de acoso de los adolescentes

RESUMEN

En las últimas décadas ha ido creciendo la preocupación por las agresiones entre iguales y su investigación, tanto en el propio entorno escolar como, más recientemente, a través de la red. El presente estudio se planteó con el objetivo de explorar las diferencias de sexo tanto en el acoso tradicional como en el ciberacoso, pues la bibliografía existente no llega a un consenso sobre la forma en que la implicación en el acoso puede estar siendo moderada por el sexo o el género. La muestra constó de 3,174 adolescentes de 12 a 17 años que cumplimentaron por escrito una encuesta que incluía el European Bullying Intervention Project Questionnaire y el European Cyberbullying Intervention Project Questionnaire. Los principales resultados no mostraron diferencias en las tasas de ciberacoso de chicas y chicos. Respecto al acoso tradicional, aunque se han hallado más víctimas-agresoras en los chicos, no se han encontrado diferencias en la tasa de víctimas y agresores puros. Al analizar las conductas específicas sufridas o perpetradas, se encontraron varias diferencias entre chicas y chicos. Sin embargo, esas diferencias eran pequeñas y no parece que haya un patrón de acoso claramente diferenciado, lo que desaconseja emplear estrategias preventivas claramente diferenciadas para chicas y para chicos.

In recent decades there has been a progressive increase in concern and research into the problems of peer aggression, both in the educational setting and, more recently, online. This growing concern is encouraged by different international institutions of reference, such as the World Health Organization (WHO), that has specifically identified bullying as one of the main health problems in adolescence (Inchley et al., 2020), as well as UNESCO, UNICEF, and OECD, all stating the need to protect minors especially in the online environment (OECD, 2019; UNESCO, 2019; UNICEF, 2017). Bullying has traditionally

been defined as a form of repeated and deliberate aggression, carried out by one or several people on others with reduced ability to defend themselves (Olweus, 1993). In the case of bullying conducted online, while some authors describe cyberbullying as a type of bullying carried out through technological means (Olweus, 2012), other experts suggest that it can be differentiated from traditional bullying (Hinduja & Patchin, 2013; O'Higgins Norman, 2020; Slonje at al., 2013). Although the intent to harm is the same as in the case of traditional bullying, some of the differentiating features of the online

Cite this article as: Feijóo, S., O'Higgins-Norman, J., Foody, M., Pichel, R., Braña, T., Varela, J., & Rial, A. (2021). Sex differences in adolescent bullying behaviours. *Psychosocial Intervention*, 30(2), 95-100. https://doi.org/10.5093/pi2021a1

Funding: This study is part of a larger research project supported by Delegación del Gobierno para el Plan Nacional sobre Drogas under Grant 2018/008. Sandra Feijóo and Rafael Pichel were supported with a fund by the Government of Galicia under grant "Programa de axudas á etapa predoutoral". Mairéad Foody is supported with a fund by the Irish Research Council and the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 713279. Correspondence: sandra.sanmartin@usc.es (S. Feijóo).

setting are the greater ease with which the perpetrator can remain anonymous and establish the power imbalance with the victim (Sticca & Perren, 2013), that one act can be spread and forwarded with no further intervention from the original author (Menesini et al., 2013), and it is more likely to reach a larger audience (Slonje & Smith, 2008). Regardless of the format in which the aggressions are carried out, there are numerous behaviours that have been characterised as bullying, such as the spread of rumours and being threatened or insulted. On the other hand, other behaviours are constrained to the traditional physical format, such as being pushed or hit, while other are specific of the online format, like hacking a social networking account (Ortega-Ruiz at al., 2016).

Sex differences in bullying have been explored with some studies concluding that sex is not statistically associated with the probability of suffering or being a perpetrator of traditional bullying (Del Rey et al., 2016; Hartung et al., 2011) or cyberbullying (Garaigordobil & Aliri, 2013; Hinduja & Patchin, 2008; Larrañaga at al., 2018; Smith et al., 2008). Other studies found higher rates of traditional bullying (Romera at al., 2011) and cyberbullying (Erdur-Baker, 2010; Kasahara et al., 2019) among boys while most authors have reported that both types of bullying are more frequent among girls, especially in the role of victim (Chocarro & Garaigordobil, 2019; Golpe et al., 2017; Livingstone et al., 2011; Marcum et al., 2012; Smith et al., 2019). Further research suggests that there could be cultural differences across countries (Athanasiou et al., 2018; Görzig & Ólafsson, 2013; Inchley et al., 2020) or a moderating influence by the sample age (Smith et al., 2019). This disparity of results could also be explained by social and individual differences in how sex and gender are regarded, influencing how research participants respond to questions about these variables (Foody et al., 2019), as well as how it is addressed by the researchers themselves. While sex is a biological characteristic associated with physical and physiological features, gender is a social construct related to roles, behaviours, and identities associated with either sex (Coen & Banister, 2012). Sex and gender are usually binary categorised as "female" or "male", and sometimes used in an interchangeable way due to their complex relationship (Heidari et al.,

It has been suggested that gender-normative girls have a greater vested interest than gender-normative boys in maintaining friendships and resolving conflict and as such this may explain differences in how males and females experience bullying offline and online (Ging & O'Higgins Norman, 2016). Furthermore, there is research pointing out that the differences may lie in the way bullying is carried out (Silva et al., 2013), as if there were specific behaviours more common for boys and others for girls (Chocarro & Garaigordobil, 2019; Marcum et al., 2012; Ryoo et al., 2014). Some authors have even described bullying as a way of expressing gender identity, with boys displaying a masculine identity through direct and explicit forms of aggression, and girls expressing feminine identity through social and relational aggression (Carrera-Fernández et al., 2016; Rosen & Nofzige, 2019).

Differences between boys and girls do not seem to be limited only to how the bullying is carried out, but can also extend to the outcomes of prevention programs. A recent meta-analysis concluded that bullying prevention programs seem to be effective in reducing bullying among boys, but not girls (Kennedy, 2020a). This author also warns that these data should be interpreted with caution, as another meta-analysis showed the relevance of the type of behaviour for the effectiveness of the program (Kennedy, 2020b), seeming to be more effective in those behaviours most common among boys (Chocarro & Garaigordobil, 2019; Kennedy, 2020a). It has been recommended that the bullying behaviours in which girls or boys are predominantly involved be taken into account in developing prevention and intervention methodologies targeted at specific behaviours and coping strategies (Smith et al., 2019). In this regard, girls seem to prefer coping strategies that include help-seeking or ignoring bullies,

while boys choose to defend themselves directly, make new friends, or even stay away from school (Sittichai & Smith, 2018).

Due to the disparity of results surrounding this issue, the main aim of this research was to explore sex differences in traditional bullying and cyberbullying among a sample of students in Galicia (Spain), both in the overall rates and in the specific bullying behaviours they could be engaging in. For the present research, the term employed is "sex", referred to being either "boy" or "girl". This knowledge about sex differences will contribute to reaffirm the basis for future studies and educational programmes that address cultural and social constructions that may be influencing the differential behaviours between girls and boys.

Method

Participants

This research was carried out in Galicia, Spain. It consisted of a paper survey applied to secondary school students between the ages of 12 and 17. An intentional sampling procedure was employed, contacting a total of 13 public secondary schools, with 12 schools agreeing to participate in the study. The schools were not linked to each other and represented the totality of public schools in the three municipalities to which they belonged, one of them being urban and the other two rural. The initial sample was comprised of 3,431 participants whose parents consented to their participation and individually agreed to fill the survey. The final sample consisted of 3,174 participants with a mean age of 14.44 years old (SD = 1.67), 49.6% of whom were boys and 50.4% girls. The educational level distribution was 40.7% in the first cycle of compulsory secondary education (grades 7-8), 34.6% in the second cycle of compulsory secondary education (grades 9-10), and 24.7% post-compulsory levels of secondary education (grades 11-12). Regarding the geographical area, 70.4% of the participants came from an urban setting and 29.6% from a rural one.

Procedure

Collaboration with the management of the schools was secured prior to data collection. School principals delivered letters to adolescent participants explaining the objective and date of data collection asking their parents for consent to include their children in the study. The questionnaire was administered by the researchers to small groups (20-25 students) in a classroom setting between February and April 2018. Participants were informed of the objective of the study and received a detailed explanation and set of instructions for completing the paper survey. They were also informed that participation was voluntary, that they were free to complete or to refuse to fill the questionnaire, and that the possibility to opt-out was available at any time. The average time to complete the questionnaire was 30 minutes. The study was approved by the first authors' Bioethics Committee at their University.

Materials

The questionnaire included both the European Bullying Intervention Project Questionnaire (EBIPQ) and the European Cyberbullying Intervention Project Questionnaire (ECIPQ), with a last section relating to socio-demographic information at the end of the instrument (including questions on age, sex, educational centre, and grade). For current purposes, the term "sex" referred to being either "boy" or "girl".

The Spanish version of the EBIPQ (Ortega-Ruiz et al., 2016) contains one scale for victimization and another scale for perpetration with

seven items each. It was designed to assess the frequency of traditional victimization and/or perpetration and the items relate to the types of bullying established in the literature, including physical (e.g., "Someone has hit me"; "I have hit others"), verbal (e.g., "Someone has insulted me"; "I've spread rumours about someone"), and relational bullying/victimization (e.g., "I have been excluded or ignored by others"). The frequency of these behaviours is estimated taking as a reference the previous two months through a Likert scale with 5 response options: *No, Yes, once or twice, Yes, once or twice a month, Yes, once a week, Yes, several times a week.* Answers from *once or twice a month, once a week* and *several times a week* were coded as involvement for both perpetration and victimization. The internal consistency evaluated through the Cronbach alpha coefficient was .79 for the victimization scale and .78 for the perpetration scale.

The Spanish version of the ECIPQ (Del Rey et al., 2015; Ortega-Ruiz et al., 2016) was employed for calculating the rates and roles of cyberbullying involvement (victims, bullies, or bully-victims). This scale has 22 items, 11 for victimization and 11 for perpetration, relating to different types of cyberbullying behaviours (e.g., "Someone threatened me through texts or online messages", "I have created a fake account, pretending to be someone else", "Someone posted embarrassing videos or pictures of me online", "I excluded or ignored someone in a social networking site, internet chat room, or a messenger app"). The frequency of these behaviours is estimated by taking the last two months as a reference timeframe using a Likert scale with the same 5 response options the EBIPQ has. The Cronbach alpha coefficient obtained in the present study was .78 for both the victimization scale and the perpetration scale.

Data Analysis

An analysis of the missing values was carried out to verify a low percentage of missing values in each of the variables and the randomness of those values. From the initial sample of 3,431 subjects, 257 were removed from the database because they had too many missing values in the questionnaire (more than 5%), had not indicated their sex, or were outside the age range targeted (12 to 17 years old). The EBIPQ and the ECIPQ were coded such that answers of at least *Yes, once or twice a month* counted as involvement in either victimization, perpetration, or both (bully-victims). This is the same criterion used by the original Spanish adaptation, as the authors consider repetition to be a requirement for bullying (Del Rey et al., 2015; Ortega-Ruiz et al., 2016). The analyses were performed with the IBM SPSS Statistics 25 statistical package. Bivariate tabulations were

carried out, with the application of contrasts χ^2 for the comparison of percentages and contingency coefficients (CC) to calculate the effect size, as well as binary logistic regression analysis to attempt to further analyse the relationship between sex and the different roles of involvement in bullying and cyberbullying behaviour.

Finally, to confirm the one-dimensionality of the scales obtained by the original authors, a confirmatory factor analysis (CFA) was performed with AMOS 23. The unweighted least squares (ULS) method was used, which in addition to robustness requires no further assumptions as to its distribution (Jöreskog & Sörbom, 1989). The model's goodness of fit was evaluated with the following indexes: GFI (goodness of fit index), AGFI (adjusted goodness of fit index), and NFI (normed fit index). In accordance with the criteria of Byrne (2009) and Kline (2005), application of a confirmatory factor analysis (CFA) showed high adjustment values for the EBIPQ in the victimization scale (GFI = .99, AGFI = .98, and NFI = .98) and in the perpetration scale (GFI = .99, AGFI = .98, and NFI = .99, and NFI = .96) and the perpetration scale (GFI = .97, AGFI = .95, and NFI = .92).

Results

The main results showed that overall rates of bullying ranged between 16.4% for traditional victims, 5.9% for traditional perpetrators, 12.1% for traditional bully-victims, 5.2% for cyber victims, 4.5% for cyber perpetrators, and 4.3% for cyber bully-victims. The sum of the different bullying roles (victims, perpetrators, and bully-victims) results in a total involvement across all roles of 34.4% for traditional bullying and 14% for cyberbullying. Regarding sex, no statistically significant results were found in the overall cyberbullying rates, while the only statistical significance in traditional bullying was in the bully-victim role. These rates are presented in detail in Table 1.

Table 1. Rates of Prevalence of the Roles Involved in Traditional Bullying and Cyberbullying. Overall and by Sex

	Traditional Bullying			Cyberbullying				
	Overall	Boys	Girls	χ^2	Overall	Boys	Girls	χ^2
Victims	16.4%	15.5%	17.3%	1.77	5.2%	4.4%	5.9%	3.18
Perpetrators	5.9%	5.5%	6.0%	0.27	4.5%	4.6%	4.5%	< 0.01
Bully-victims	12.1%	13.9%	10.3%	9.80*	4.3%	4.5%	3.9%	0.82

Note. n = 3,431. **p* < .05.

Sex differences were explored for the specific bullying behaviours reported in the EBIPQ (see Table 2). For this, only those involved in

Table 2. Rates of the Different Traditional Bullying Behaviours. Overall and Sex C omparison

Victimization	Overall	Boys	Girls	χ^2	CC
Someone hit me, kicked me or pushed me	17.1%	22.2%	11.7%	16.74**	.14
Someone insulted me or called me names	66.8%	73.1%	60.2%	16.18**	.14
Someone has said nasty things about me to others	56.5%	48.8%	64.5%	21.64**	.16
Someone threatened me	11.4%	14.2%	8.5%	6.58*	.09
Someone stole my stuff or broke it	7.3%	10.0%	4.4%	9.88**	.11
I have been excluded or ignored by others	19.6%	14.6%	24.9%	14.53**	.13
Someone spread rumours about me	35.4%	26.1%	45.4%	35.37**	.20
Perpetration	Overall	Boys	Girls	χ^2	CC
I have hit, kicked, or pushed someone	23.4%	32.8%	12.4%	31.48**	.23
I have insulted someone or called them names	72.0%	74.2%	69.4%	1.35	-
I said nasty things about someone to other people	66.4%	59.9%	74.2%	12.05**	.15
I've threatened someone	12.9%	19.2%	5.5%	21.75**	.20
I've stolen or broken something from someone	9.2%	13.4%	4.2%	13.07**	.16
I have excluded or ignored someone	17.8%	15.1%	20.8%	2.75	-
I've spread rumours about someone	15.2%	15.7%	14.6%	0.06	-

Note. CC = contingency coefficient; victimization n = 897; perpetration n = 566.

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

Table 3. Rates of the Different Cyberbullying Behaviours. Overall and Sex Comparison

Cybervictimization	Overall	Boys	Girls	χ^2	CC
Someone said nasty things to me or called me names using texts or online messages	50.7%	53.2%	48.4%	0.51	-
Someone said nasty things about me to others either online or through text messages	61.4%	56.5%	65.8%	2.28	-
Someone threatened me through texts or online messages	18.3%	18.8%	17.9%	0.01	-
Someone hacked into my account and stole personal information	6.5%	5.0%	7.7%	0.49	-
Someone hacked into my account and pretended to be me	6.5%	3.6%	9.1%	2.73	-
Someone created a fake account, pretending to be me	3.4%	3.6%	3.2%	-	-
Someone posted personal information about me online	7.5%	8.6%	6.5%	0.24	-
Someone posted embarrassing videos or pictures of me online	6.5%	8.6%	4.5%	1.39	-
Someone altered pictures or videos of me that I had posted online	5.8%	6.6%	5.2%	0.06	-
I was excluded or ignored by others in a social networking site, internet chat room, or a messenger app	13.3%	17.4%	9.7%	3.12	-
Someone spread rumours about me on the net	25.7%	24.3%	27.0%	0.15	-
Cyberperpetration	Overall	Boys	Girls	χ^2	CC
I said nasty things to someone or called them names using texts or online messages	48.0%	53.2%	42.5%	2.71	-
I said nasty things about someone to other people either online or through text messages	50.5%	39.7%	62.1%	12.81**	.22
I threatened someone through texts or online messages	13.3%	20.9%	5.3%	12.91**	.22
I hacked into someone's account and stole personal information	7.7%	13.5%	1.5%	12.22**	.22
I hacked into someone's account and pretended to be them	6.2%	10.6%	1.5%	8.31*	.18
I created a fake account, pretending to be someone else	5.4%	8.5%	2.2%	4.04*	.14
I posted personal information about someone online	4.7%	7.1%	2.2%	2.59	-
I posted embarrassing videos or pictures of someone online	5.1%	8.5%	1.5%	5.49*	.15
I altered pictures or videos of another person that had been posted online	1.1%	17.0%	8.2%	4.04*	.13
I excluded or ignored someone in a social networking site, internet chat room, or a messenger app	28.0%	24.1%	32.1%	1.79	-
I spread rumours about someone on the internet	12.0%	15.5%	8.2%	2.82	-

Note. CC = contingency coefficient; victimization n = 294; perpetration n = 276. *p < .05, **p < .001.

bullying were analysed. The *n* was 897 victims and 566 perpetrators, and the bully-victims were included in both categories. There were differences in all the victimization behaviours, the boys suffered more physical violence (22.2% vs. 11.7% had been hit, kicked, or pushed; 10% vs. 4.4% had suffered a theft or breakage of material), had been insulted or called names (73.1% vs. 60,2%), and had been threatened (14.2% vs. 8.5%), while girls were subjected to more relational behaviours (64.5% vs 48.8% had suffered having negative things said about them to other people; 24.9% vs. 14.6% had been excluded or ignored; and 24.9% vs. 14.6% had had rumours spread about them). In the case of perpetration, boys had higher rates in having hit, kicked or pushed (32.8% vs. 12.4%), threatened (19.2% vs. 5.5%), and stolen or broken material from other people (13.4% vs. 4.2%). The only behaviour the girls conducted significantly more than boys was saying nasty things about someone to other people (74.2% vs. 59.9%).

Although no statistically significant results were found for the overall rates of cyberbullying, it was also of interest to explore if the specific cyberbullying behaviours reported in the ECIPQ were the same for boys and girls (see Table 3). In this case, the *n* was 294 for victims and 276 for perpetrators, included bully-victims in both categories. While no significant sex differences were found for the victimization behaviours, perpetration behaviours differed according to sex. Boys reported more threatening of others (20.9% vs. 5.3%), hacking accounts for stealing personal information (13.5% vs. 1.5%), hacking accounts for impersonating the original owner of the account (10.6% vs. 1.5%), creating false accounts (8.5% vs. 2.2%), posting embarrassing new content of others (8.5% vs. 1.5%), and altering pictures that were already online (17% vs. 8.2%), while the only behaviour girls showed to a higher extent was saying nasty things about someone to other people (62.1% vs. 39.7%).

The effect size explored by the CC seemed quite low, so different binary logistic regression analyses were carried out, with the intention of assessing to what extent the answers showed by the subjects to the different bullying behaviours suffered or perpetrated were able to estimate if an individual was a boy or a girl. Specifically, four analyses were carried out: (1) one selecting only those subjects

who met the criteria necessary to be considered victims of traditional bullying; (2) another selecting only those subjects who met the criteria necessary to be considered victims of cyberbullying; (3) a third selecting only those subjects who met the criteria necessary to be considered perpetrators of traditional bullying; and (4) a fourth and last one selecting only those subjects who met the criteria necessary to be considered perpetrators of cyberbullying. As shown in Table 4, despite the fact that the resulting models were statistically significant in all four cases, their explanatory capacity was discrete (between 4.7% and 25.2%), which suggests that the differences found in the way girls and boys suffer or engage in bullying are fairly small, especially in the case of victimization.

Table 4. Results of the Logistic Regression by Bullying Role

Bullying role	χ^2	Sig.	Nagelkerke's R ²
Traditional bullying victims	99.56	< .001	.14
Traditional bullying perpetrators	68.41	< .001	.16
Cyberbulllying victims	9.90	< .01	.05
Cyberbulllying perpetrators	55.02	< .001	.25

Discussion

The current study sought to determine if the rates of bullying are different between boys and girls by engaging with a large sample of adolescents from Galicia (Spain). The main results show that traditional bullying seemed to be more common than cyberbullying, with a total involvement in any role of 34.4%, while cyberbullying summed up to a total involvement of 14%. This rate is disaggregated into 16.4% victims, 5.9% perpetrators, and 12.1% who were both at the same time (bully-victims) for traditional bullying; and into 5.2% victims, 4.5% perpetrators, and 4.3% bully-victims for cyberbullying. The only differences between boys and girls found in traditional bullying were in the rates of bully-victims (13.9% vs. 10.3%). The cyberbullying rates showed no difference in terms of sex, in line with

previous research concluding that neither sex nor gender seem to be associated with cyberbullying (Garaigordobil & Aliri, 2013; Hinduja & Patchin, 2008; Larrañaga at al., 2018; Smith et al., 2008), at least in terms of overall rates.

The traditional bullying victimization behaviours that were most common across the entire sample seemed verbal and subtler forms of bullying like being called names, having nasty things about themselves said to other people, or suffering the spread of rumours about themselves. Except for the spreading of rumours, these were the most common perpetration behaviours as well. Behaviours related to relational or psychological abuse have been found to not be taken sufficiently seriously by school staff in other research (Bauman & Del Rio, 2006), so the fact that these are the most common means awareness must be raised in schools to efficiently tackle bullying. Though there were only differences between boys and girls in the role of bully-victim, several differences in specific behaviours were found. There were differences in all the victimization behaviours, with boys experiencing more physical violence, being insulted or called names and being threatened, while girls were subjected to more relational behaviours, like the spread of rumours or being excluded or ignored by others. In the case of perpetration, boys showed higher rates than girls in almost all the differences found: executing more physical violence, insulting, and threatening others. These findings are coherent with previous literature pointing to different bullying behaviours between boys and girls (Carrera-Fernández et al., 2016; Marcum et al., 2012; Rosen & Nofzige, 2019; Ryoo et al., 2014). However, the logistic regression showed that the differences are not remarkable enough to propose preventive strategies focused on girls and others focused on boys. Although there were certain differences in specific behaviours suffered and perpetrated, it seemed that there is not a clearly defined pattern of bullying for girls and another one distinctly differentiated among boys.

Similarly to traditional bullying but with lower rates, the most common cyberbullying victimization and perpetration behaviours appeared to represent subtler forms of bullying like saying nasty things to others, spreading rumours or excluding someone in social networking sites, chat rooms, or messenger apps. It is worth mentioning that some differences were found between boys and girls regarding the cyberbullying acts they committed, but not in the ones they suffered. Boys presented higher rates in hacking accounts, threatening, creating false accounts or posting embarrassing content of others, while the only behaviour that was more prevalent for girls was saying nasty things about someone to other people. Even if the cyberbullying rates were similar for boys and girls, there seemed to be slight differences in the way boys or girls do it. Girls seem to avoid physical confrontations but resort to emotional and psychological abuse (Marcum et al., 2012), which seems to transfer to their online behaviours by avoiding direct online acts such as hacking accounts or threatening others and favouring subtler ways to bully others instead. It must still be noted that the differences found in present study are discrete. Moreover, in the case of cyberbullying, differences are even lower than in the traditional context, which might imply that the digital environment is a medium where sex differences are blurred to some extent. A greater disparity in the results on differences between girls and boys in the case of cyberbullying compared to traditional bullying has been pointed out by the literature (Garaigordobil & Aliri, 2013; Smith et al., 2019; Wright, 2020), with some authors theorizing that the explanation resides in the fact that cyberbullying involves more forms of indirect behaviours (Marcum et al., 2012).

The differences between boys and girls could be explained by taking into account gender socialization and normative expectation of different behaviour from boys or girls (Smith et al., 2019; Wright, 2020), as well as understanding bullying as a behaviour where the sexes perform in accordance with the gender expected of them (Carrera-Fernández et al., 2016; Rosen & Nofzige, 2019). As stated by previous research, bullying prevention programs should incorporate

explanations of gender and promote acceptance of gender diversity (Rosen & Nofzige, 2019). This will allow encouraging positive personal characteristics regardless of the gender to which they are attributed, and at the same time should help to reduce the bullying suffered by people with diverse gender identities and sexual orientation. It may also facilitate for boys to be more open about their experience, as they seem to underreport bullying as to not show weakness (Lai & Kao, 2018) and avoid coping strategies that include help-seeking behaviour (Sittichai & Smith, 2018). However, conducting differential intervention efforts between girls and boys does not seem adequate to prevent bullying, as they do not have clearly divergent patterns to suffer nor to perpetrate bullying. Nevertheless, it should also be noted that it has been stated that prevention programs seem to be more effective among boys by being more effective in bullying behaviours that are most prevalent among them (Chocarro & Garaigordobil, 2019; Kennedy, 2020a; Kennedy, 2020b; Smith et al., 2019). From this and the fact that relational or psychological abuse is considered less serious by school staff (Bauman & Del Rio, 2006), it can be inferred that more subtle or indirect behaviours may not be sufficiently addressed in current prevention and intervention programmes and may require further development in the future.

Finally, this study has three main limitations that should be mentioned. The first is the non-probability sampling used. Although it has allowed us to analyse a large sample (a total of 3,174 adolescents), the results are less generalizable to the wider population. Second, the small sample size of those involved in cyberbullying hinders the exploration of sex differences, as sometimes the rates of one group doubled the other but were not statistically significant. Thirdly, using sex instead of gender can be a superficial analysis and requires further research from a gender perspective. Despite these limitations, the results presented here add to the growing literature investigating sex differences in bullying and inform about the current situation in Galicia for adolescents in this regard. Mainly, this study shows that in the assessment of bullying from a gender perspective it may be key to focus on behaviours that females and males engage in, even if the overall rates seem similar. Future research should look into cultural and social constructions that may be mediating different behaviours expressed by boys and girls. This will in turn favour the development of more effective intervention and preventive strategies for traditional bullying and cyberbullying (Espelage et al., 2004; Smith et al., 2019).

Conflict of Interest

The authors of this article declare no conflict of interst.

References

Athanasiou, K., Melegkovits, E., Andrie, E. K., Magoulas, C., Tzavara, C. K., Richardson, C., Greydanus, D., Tsolia, M., & Tsitsika A. K. (2018). Crossnational aspects of cyberbullying victimization among 14-17-year-old adolescents across seven European countries. *BMC Public Health*, 18, 800. https://doi.org/10.1186/s12889-018-5682-4

Bauman, S., & Del Rio, A. (2006). Preservice teachers' responses to bullying scenarios: Comparing physical, verbal, and relational bullying. Journal of Educational Psychology, 98(1), 219-231. https://doi. org/10.1037/0022-0663.98.1.219

Byrne, B. M. (2009). Structural equation modeling with AMOS: Basic concepts, applications, and programming (2nd ed.). Psychology Press.

Carrera-Fernández, M. V., Lameiras-Fernández, M., & Rodríguez-Castro, Y. (2016). Performing intelligible genders through violence: Bullying as gender practice and heteronormative control. *Gender and Education*, 30(3) 341-359. https://doi.org/10.1080/09540253.2016.1203884

30(3), 341-359. https://doi.org/10.1080/09540253.2016.1203884

Chocarro, E., & Garaigordobil, M. (2019). Bullying y cyberbullying: diferencias de sexo en víctimas, agresores y observadores [Bullying and cyberbullying: gender differences in victims, aggressors and observers]. Pensamiento Psicológico, 17(2), 57-71. https://doi.org/10.11144/javerianacali.PPSI17-2.bcds

Coen, S., & Banister, E. (Eds.) (2012). What a difference sex and gender make: A gender, sex and health research casebook. Canadian Institutes of Health Research. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2199670

- Del Rey, R., Casas, J. A., Ortega-Ruiz, R., Schultze-Krumbholz, A., Scheithauer, H., Smith, P., Thompson, F., Barkoukisf, V., Tsorbatzoudisf, H., Brighig, A., Guarinig, A., Pyzalski, J., & Plichta, P. (2015). Structural validation and cross-cultural robustness of the European Cyberbullying Intervention Project Questionnaire. Computers in Human Behavior, 50, 141-147. https://doi.org/10.1016/j.chb.2015.03.065
- Del Rey, R., Lazuras, L., Casas, J. A., Barkoukis, V., Ortega-Ruiz, R., & Tsorbatzoudis, H. (2016). Does empathy predict (cyber) bullying perpetration, and how do age, gender and nationality affect this relationship? *Learning and Individual Differences*, 45, 275-281. https://doi.org/10.1016/j.lindif.2015.11.021
- Erdur-Baker, Ö. (2010). Cyberbullying and its correlation to traditional bullying, gender and frequent and risky usage of internetmediated communication tools. *New Media & Society, 12*(1), 109-125. https://doi.org/10.1177/1461444809341260
- Espelage, D. L., Mebane, S. E., & Swearer, S. M. (2004). Gender differences in bullying: Moving beyond mean level differences. In D. L. Espelage & S. M. Swearer (Eds.), Bullying in American schools: A social-ecological perspective on prevention and intervention (pp. 15-35). Lawrence Erlbaum Associates Publishers.
- Foody, M., McGuire, L., Kuldas, S., & O'Higgins-Norman, J. (2019). Friendship quality and gender differences in association with cyberbullying involvement and psychological well-being. Frontiers in Psychology, 10, 1723. https://doi.org/10.3389/fpsyg.2019.01723
- Garaigordobil, M., & Aliri, J. (2013). Ciberacoso ("Cyberbullying") en el País Vasco: diferencias de sexo en víctimas, agresores y observadores [Cyberbullying in the Basque Country: Gender differences in victims, perpetrators and observers]. Behavioral Psychology, 21(3), 461-474. https://www.behavioral.psycho.com/
- https://www.behavioralpsycho.com/
 Ging, D., & O'Higgins Norman, J. (2016). Cyberbullying, conflict management or just messing? Teenage girls' understandings and experiences of gender, friendship, and conflict on Facebook in an Irish second-level school. Feminist Media Studies, 16(5), 805-821. https://doi.org/10.1080/14680777.2015.1137959
- Golpe, S., Gómez, P., Harris, S. K., Braña, T., & Rial, A. (2017). Diferencias de sexo en el uso de Internet en adolescentes españoles [Sex differences in Internet use among Spanish teenagers]. *Behavioral Psychology*, 25(1), 129-146. https://www.behavioralpsycho.com/producto/diferencias-de-sexo-en-el-uso-de-internet-en-adolescentes-espanoles/
- Görzig, A., & Ólafsson K. (2013). What makes a bully a cyberbully? Unravelling the characteristics of cyberbullies across twenty-five European countries. *Journal of Children and Media*, 7(1), 9-27. https://doi.org/10.1080/17482798.2012.739756
- Hartung, C. M., Little, C. S., Allen, E. K., & Page, M. C. (2011). A psychometric comparison of two self-report measures of bullying and victimization: Differences by sex and grade. School Mental Health: A Multidisciplinary Research and Practice Journal, 3(1), 44-57. https://doi.org/10.1007/ s12310-010-9046-1
- Heidari, S., Babor, T. F., De Castro, P., Tort, S., & Curno, M. (2016). Sex and gender equity in research: Rationale for the SAGER guidelines and recommended use. *Research Integrity and Peer Review* [digital publication]. https://doi.org/10.1186/s41073-016-0007-6
- Hinduja, S., & Patchin, J. W. (2008). Cyberbullying: An exploratory analysis of factors related to offending and victimization. *Deviant Behavior*, 298(2), 129-156. https://doi.org/10.1080/01639620701457816
- Hinduja, S., & Patchin, J. W. (2013). Social influences on cyberbullying behaviors among middle and high school students. *Journal of Youth and Adolescence*, 42(5), 711-722. https://doi.org/10.1007/s10964-012-9902-4
- Inchley, J., Currie, D., Budisavljevic, S., Torsheim, T., Jåstad, J., Cosma, A., Kelly, C., Arnarsson, A. M., & Samdal, O. (2020). Spotlight on adolescent health and well-being. Findings from the 2017/2018 Health Behaviour in School-aged Children (HBSC) Survey in Europe and Canada. International report (Volume 2. Key data). WHO Regional Office for Europe.
- Jöreskog, K. G., & Sörbom, D. (1989). LISREL 7 User's reference guide. Scientific Software
- Kasahara, G. M., Houlihan, D., & Estrada, C. (2019). Gender differences in social media use and cyberbullying in Belize: A preliminary report. International Journal of Psychological Studies, 11(2), 32-1. https://doi. org/10.5539/ijps.v11n2p32
- Kennedy, R. S. (2020a). Gender differences in outcomes of bullying prevention programs: A meta-analysis. Children and Youth Services Review, 119, 105506. https://doi.org/10.1016/j.childyouth.2020.105506
- Kennedy, R. S. (2020b). A meta-analysis of the outcomes of bullying prevention programs on subtypes of traditional bullying victimization: Verbal, relational, and physical. Aggression and Violent Behavior, 55, 101485. https://doi.org/10.1016/j.avb.2020.101485
- Kline, R. B. (2005). Principles and practice of structural equation modeling (2 ed.). The Guilford Press.
- Larrañaga, E., Navarro, R., & Yubero, S. (2018). Socio-cognitive and emotional factors on perpetration of cyberbullying. *Comunicar*, 26(56), 19-28. https://doi.org/10.3916/C56-2018-02

- Lai, T., & Kao, G. (2018). Hit, robbed, and put down (but not bullied): Underreporting of bullying by minority and male students. *Journal of Youth and Adolescence*, 47(3), 619-635. https://doi.org/10.1007/ s10964-017-0748-7
- Livingstone, S., Haddon, L., Görzig, A., & Ólafsson, K. (2011). Risks and safety on the internet. The perspective of European children: Full findings and policy implications from the EU Kids Online survey of 9-16 year old and their parents in 25 countries. EU Kids Online Network.
- Menesini, E., Nocentini, A., & Camodeca, M. (2013). Morality, values, traditional bullying, and cyberbullying in adolescence. *British Journal of Developmental Psychology*, 31(1), 1-14. https://doi.org/10.1111/j.2044-835X.2011.02066.x
- Menesini, E., Marcum, C. D., Higgins, G. E., Freiburger, T. L., & Ricketts, M. L. (2012). Battle of the sexes: An examination of male and female cyberbullying. *International Journal of Cyber Criminology*, 6(1), 904-911. https://www.cybercrimejournal.com/
- O'Higgins Norman, J. (2020). Tackling bullying from the inside out: Shifting paradigms in bullying research and interventions. *International Journal of Bullying Prevention*, 2(3), 161-169. https://doi.org/10.1007/s42380-020-00076-1
- OECD. (2019). PISA 2018 results (volume III): What school life means for students' lives. OECD Publishing. https://www.oecd.org/publications/pisa-2018-results-volume-iii-acd78851-en.htm
- Olweus, D. (1993). Bullying at school: What we know and what we can do. Blackwell Publishers.
- Olweus, D. (2012). Cyberbullying: An overrated phenomenon? European Journal of Developmental Psychology, 9(5), 520-538. https://doi.org/10.1080/17405629.2012.682358
- Ortega-Ruíz, R., Del Rey, R., & Casas, J. A. (2016). Evaluar el bullying y el cyberbullying: validación española del EBIP-Q y del ECIP-Q [Assessing bullying and cyberbullying: Spanish validation of EBIP-Q and ECIP-Q]. Psicología Educativa, 22(1), 71-79. https://doi.org/10.1016/j.pse.2016.01.004
- Romera, E. M., Del Rey, R., & Ortega-Ruiz, R. (2011). Factores asociados a la implicación en bullying: un estudio en Nicaragua [Factors associated with involvement in bullying: A study in Nicaragua]. Psychosocial Intervention, 20(2), 161-170. https://doi.org/10.5093/in2011v20n2a4
- Rosen, N. L., & Nofzige, S. (2019). Boys, bullying, and gender roles: How hegemonic masculinity shapes bullying behavior. *Gender Issues, 36,* 295-318. https://doi.org/10.1007/s12147-018-9226-0
- Ryoo, J. H., Wang, C., & Swearer, S. M. (2014). Examination of the change in latent statuses in bullying behaviors across time. *School Psychology Quarterly*, 30(1), 105-122. https://doi.org/10.1037/spq0000082
- Silva, M. A., Pereira, B., Mendonça, D., Nunes, B., & de Oliveira, W. A. (2013). The involvement of girls and boys with bullying: An analysis of gender differences. *International Journal of Environmental Research and Public Health*. 10(12), 6820-6831. https://doi.org/10.3390/jierph10126820
- Health, 10(12), 6820-6831. https://doi.org/10.3390/ijerph10126820
 Sittichai, R., & Smith, P. K. (2018). Bullying and cyberbullying in Thailand:
 Coping strategies and relation to age, gender, religion and victim
 status. Journal of New Approaches in Educational Research, 7(1), 2430. https://doi.org/10.7821/naer.2018.1.254
- 30. https://doi.org/10.7821/naer.2018.1.254
 Slonje, R., & Smith, P. K. (2008). Cyberbullying: Another main type of bullying? Scandinavian Journal of Psychology, 49(2), 147-154. https://doi.org/10.1111/j.1467-9450.2007.00611.x
- Slonje, R., Smith, P. K., & Frisén, A. (2013). The nature of cyberbullying, and strategies for prevention. *Computers in Human Behavior*, 29(1), 26-32. https://doi.org/10.1016/j.chb.2012.05.024
- Smith, P. K., López-Castro, L., Robinson, S., & Görzig, A (2019). Consistency of gender differences in bullying in cross-cultural surveys. Aggression and Violent Behavior, 45, 33-40. https://doi.org/10.1016/j.avb.2018.04.006
- Smith, P. K., Mahdavi, J., Carvalho, C., Fisher, S., Russell, S., & Tippett, N. (2008). Cyberbullying: Its nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry*, 49(4), 376-385. https://doi.org/10.1111/j.1469-7610.2007.01846.x
- Sticca, F., & Perren, S. (2013). Is cyberbullying worse than traditional bullying? Examining the differential roles of medium, publicity, and anonymity for the perceived severity of bullying. Journal of Youth and Adolescence, 42(5), 739-750. https://doi.org/10.1007/s10964-012-9867-3
 UNESCO. (2019). Behind the numbers: Ending school violence and
- UNESCO. (2019). Behind the numbers: Ending school violence and bullying. United Nations Educational, Scientific and Cultural Organization (UNESCO). https://hivhealthclearinghouse.unesco.org/library/documents/behind-numbers-ending-school-violence-and-bullying
- UNICEF. (2017). Child privacy in the age of web 2.0 and 3.0: Challenges and opportunities for policy. Innocenti Publications. https://www.unicefirc.org/publications/926-child-privacy-in-the-age-of-web-20-and-30-challenges-and-opportunities-for-policy.html
- challenges-and-opportunities-for-policy.html
 Wright, M. F. (2020). The role of technologies, behaviors, gender, and gender stereotype traits in adolescents' cyber aggression.

 Journal of Interpersonal Violence, 35(7-8), 1719-1738. https://doi.org/10.1177/0886260517696858