

Cyber-control and cyber-aggression toward the partner in adolescent students: Prevalence and relationships with cyberbullying

Cibercontrol y ciberagresión hacia la pareja en alumnado adolescente: Prevalencia y relaciones con el ciberbullying

<https://doi.org/10.4438/1988-592X-RE-2022-397-544>

María-Jesús Cava

<https://orcid.org/0000-0001-7737-9424>

Sofía Buelga

<https://orcid.org/0000-0001-7434-4752>

Universidad de Valencia

Laura Carrascosa

<https://orcid.org/0000-0002-3392-4678>

Universidad Internacional de Valencia

Abstract

Information and Communication Technologies (ICTs) offer new educational opportunities and are essential in students' social relationships. However, the use of these technologies can also have negative consequences. Adolescent students can use these technologies to control and attack their partner, which is similar to way some students use ICTs to attack their classmates. The objective of this study was to analyze the prevalence of various behaviors of cyber-control and cyber-aggression toward the partner in adolescent boys and girls and examine their relationships with cyberbullying. To do so, 594 adolescents (56.7% girls, 43.3% boys) from 12 to 17 years old who had a partner or had had one in the previous 12 months participated in this study. The results indicated a higher prevalence of cyber-control behaviors toward the partner (between 8.2% and 26.8%), compared

to cyber-aggression behaviors such as insults, threats, or spreading malicious rumors (between 2% and 5.4%). The prevalence of cyber-control behaviors was similar in boys and girls, but some cyber-aggression behaviors showed a higher prevalence in boys. Adolescent boys and girls with frequent cyber-control and cyber-aggression behaviors toward their partner showed higher scores on cyberbullying perpetration, both direct and indirect. Nevertheless, direct cyberbullying was a better predictor of cyber-aggression toward the partner, and indirect cyberbullying was a better predictor of cyber-control toward the partner. These results show important relationships between cyberbullying and cyber dating violence in adolescent students, and they are useful for the development of prevention programs. Considering the relationships observed between the two types of problematic behaviors in adolescents, it would be advisable to implement programs for their joint prevention in educational contexts.

Key words: adolescents, students, cyberbullying, cyber dating violence, prevalence

Resumen

Las Tecnologías de la Información y la Comunicación (TICs) ofrecen nuevas oportunidades educativas y son fundamentales en las relaciones sociales del alumnado. Sin embargo, el uso de estas tecnologías puede tener también consecuencias negativas. El alumnado adolescente puede utilizar estas tecnologías para controlar y agredir a su pareja, de forma similar al uso que hacen de las TICs algunos alumnos para agredir a sus compañeros. El objetivo de este estudio fue analizar la prevalencia de diversas conductas de cibercontrol y ciberagresión a la pareja en chicos y chicas adolescentes y examinar sus relaciones con el cyberbullying. 594 adolescentes (56.7% chicas, 43.3% chicos), entre 12 y 17 años, que tenían pareja o la habían tenido en los 12 meses previos participaron en este estudio. Los resultados indicaron una prevalencia mayor de las conductas de cibercontrol hacia la pareja (entre 8.2% y 26.8%) comparadas con las conductas de ciberagresión, tales como insultos, amenazas o difusión de rumores maliciosos (entre 2% y 5.4%). La prevalencia de las conductas de cibercontrol fue similar en chicos y chicas, pero algunas conductas de ciberagresión mostraron mayor prevalencia en los chicos. Chicos y chicas adolescentes con conductas frecuentes de cibercontrol y ciberagresión hacia la pareja mostraron puntuaciones más altas en perpetración de cyberbullying, tanto directo como indirecto. No obstante, el cyberbullying directo fue un mejor predictor de la ciberagresión a la pareja y el cyberbullying indirecto del cibercontrol a la pareja. Estos resultados constatan importantes relaciones entre el cyberbullying y la ciberviolencia de pareja en alumnado adolescente y son de utilidad para el desarrollo de programas de prevención. Teniendo en cuenta las relaciones observadas entre ambos tipos

de conductas problemáticas en adolescentes, sería conveniente implementar programas para su prevención conjunta en contextos educativos.

Palabras clave: adolescentes, alumnado, ciberbullying, ciberviolencia pareja, prevalencia

Introduction

Currently, Information and Communication Technologies (ICTs) are essential for adolescent students due to their growing impact on their social relationships with their classmates and friends and in their first romantic relationships (Baker & Carreño, 2016; Mosley & Lancaster, 2019; Smith et al., 2018; Stonard, 2020). Adolescents increasingly use ICTs in their daily lives, both for academic purposes and to initiate and maintain social relationships. Thus, according to data from the National Institute of Statistics report (INE, 2020) on the use of mobile devices and Internet in Spain, 94.5% of children and adolescents between 10 and 15 years old use the Internet, and 69.5% have their own mobile phones. Whereas 41.4% of adolescents have a mobile phone at the age of 11, at the age of 15 this percentage rises to 95.7%.

In the educational field, the importance of social relationships among students, both for their psychosocial well-being and for the teaching-learning process (Arslan, 2021; Turunen et al., 2021), is well-known. Students who experience situations of rejection, social exclusion, or bullying show greater academic difficulties, whereas inclusive school climates and sufficiently high-quality student relationships foster the learning process (Jiménez et al., 2021). Therefore, it is essential to consider the difficulties some students may have in their relationships that could be made worse by their increasing use of ICTs. In this regard, in recent decades, numerous studies have been carried out on cyberbullying and its consequences for the victim (Buelga et al., 2020; Garaigordobil & Larrain, 2020; González-Cabrera et al., 2019; Machimbarrena et al., 2018; Iranzo et al., 2019).

Cyberbullying refers to the use by one or more people of electronic devices to intentionally attack someone who cannot defend themselves

(Buelga et al., 2020; Marciano et al., 2020). In many cases, it consists of an extension of previous bullying situations between peers that originated in the classroom context and continue online in the virtual space (Iranzo et al., 2019). These online aggressions can be carried out both directly and indirectly (Aboujaoude et al., 2015; Buelga et al., 2020; Marciano et al., 2020). On the one hand, in direct cyberbullying, the victim receives direct attacks from one or more aggressors through actions such as continuous threatening text messages or insults. On the other hand, in indirect cyberbullying, the aggressors seek to harm their victims through indirect actions such as creating false profiles for them or entering their personal accounts to cause them harm (Walrave et al., 2020). Students who experience cyberbullying present serious difficulties in their school adjustment and psychosocial well-being (Garaigordobil & Larrain, 2020; Iranzo et al., 2019). For this reason, several programs have been developed for cyberbullying prevention in the educational setting (Gaffney et al., 2019; Garaigordobil & Martínez-Valderrey, 2015; Gradinger et al., 2015; Ortega-Barón et al., 2019).

However, cyber dating violence also poses a serious problem faced by a growing number of adolescent students (Caridade et al., 2019; Stonard, 2020). Although early romantic relationships are positive life experiences for most adolescents (Smetana et al., 2006), situations of violence arise in some of these relationships (Carrascosa et al., 2018; Cava et al., 2021; Viejo, 2014). In addition, adolescents' frequent use of ICTs is leading to an increase in behaviors of aggression and control over the partner through these technologies (Caridade et al., 2019; Cava et al., 2020; Ortega-Barón et al., 2020), although less is known about this reality, and there are fewer intervention programs for its prevention in educational contexts (Carrascosa et al., 2019; Galende et al., 2020).

Cyber dating violence is defined as the use of ICTs to control, harass, threaten, and harm a current or previous partner (Brown & Hegarty, 2018; Peskin et al., 2017; Smith et al. 2018; Temple et al., 2016). The two main ways of exercising this cyber violence are cyber-control and cyber-aggression (Borrajo et al., 2015; Branson & March, 2021; Cava & Buelga, 2018; Villora et al., 2019a, 2019b). In the case of cyber-control, the behaviors performed involve constantly monitoring the partner's activity in social networks, controlling their social contacts and demanding, for example, that they remove contacts, block friends, or delete photos. Cyber-aggression includes making direct insults and threats to the partner and

spreading or threatening to spread humiliating and denigrating rumors, photos, videos, or comments about the partner on social networks. Cyber dating violence has some important differences from dating violence outside social networks that make it especially harmful to the victim. In the virtual space, aggression and control over the partner can be carried out at any time of day or night and from any location, with the possibility of constantly having access to the victim (Borrajo et al., 2015; Paat & Markham, 2021; Peskin et al., 2017; Stonard, 2020; Zweig et al., 2013). In addition, social networks allow humiliating photos, comments, and videos of the partner to be quickly spread to large numbers of people, thus increasing the victim's feelings of helplessness due to being unable to control the personal information being disseminated (Hancock et al., 2017; Stonard, 2020; Temple et al., 2016).

Both cyber dating violence and cyberbullying use ICTs as a means to harm the victim, and, therefore, they share several characteristics (Caridade et al., 2019; Walrave et al., 2020). Although in cyber dating violence there is a romantic relationship, whether current or previous, between the aggressor and the victim, and possibly more knowledge about the victim's private information that could be humiliating if spread (Stonard, 2020), in both cyberbullying and cyber dating violence the aggressor can remain anonymous, if desired, and have constant access to the victim (Walrave et al., 2020). Moreover, the use of ICTs in both types of violence facilitates disinhibition of aggressive behaviors because aggressors do not directly observe the consequences for victims or have to face their reactions (Suler, 2004). In this regard, Stonard (2020) pointed out that some behaviors that would never be performed face-to-face are carried out using digital technologies. These common characteristics of cyberbullying and cyber dating violence could explain why students who frequently use ICTs to attack their peers also use them to attack and control their partners. These students might have integrated this form of aggression into their repertoire of behaviors and their usual way of reacting to interpersonal conflicts. Social learning processes and lack of self-control, which might make it possible to explain online aggressions (Curry & Zavala, 2020; Van Ouytsel et al., 2020), could be initiated in the context of peer relationships and continue later in early romantic relationships. In fact, links between cyberbullying and cyber dating violence have been suggested in previous studies (Caridade et al., 2019; Machimbarrena et al., 2018), and several studies have also found

the existence of relationships between bullying and dating violence in adolescents (Zych, 2021). However, there are still important aspects that warrant further research. For example, it would be useful to analyze to what extent the different types of cyberbullying, direct and indirect, may be more or less linked to the different forms of cyber dating violence, cyber-control and cyber-aggression. Whereas direct cyberbullying and cyber dating aggression both involve direct attacks against the victim, in both indirect cyberbullying and cyber-control toward partner there is no direct aggression. Therefore, the relationship between direct cyberbullying and partner cyber-aggression could be greater because they are both direct forms of online aggression that could be internalized within the behavioral repertoire of some adolescents through social learning processes (Curry & Zavala, 2020). Likewise, the relationship between indirect cyberbullying and cyber-control of the partner could also be greater, due to the internalization of the use of indirect forms of aggression by some adolescents that focus more on damaging and controlling the victim's social relationships (Curry & Zavala, 2020).

In addition, although some studies have analyzed the prevalence of cyber-control and cyber-aggression toward the partner in adolescents, it would be useful to know more about what specific behaviors are more frequent, in order to be able to intervene more specifically in these behaviors, as well as analyzing possible differences between boys and girls. Previous studies have indicated that between 12% and 33% of adolescents perform some type of cyberviolence behavior toward their partner (Peskin et al., 2017; Smith et al., 2018; Zweig et al., 2013), with the prevalence of cyber-control being higher (Borrajo et al., 2015; Cava et al., 2020; Muñoz-Rivas et al., 2019). Regarding specific behaviors, Calvete et al. (2021) found that sending insulting and/or threatening messages to the partner was the most frequent form of direct online aggression in adolescents, and using the mobile phone or Internet to control where the partner has been and with whom was the most frequent form of cyber-control. However, possible differences between boys and girls in the use of these behaviors have not been analyzed, and previous studies on gender differences in the perpetration of cyber dating violence are inconclusive. Thus, some studies have not observed significant differences (Smith et al., 2018; Zweig et al., 2013), others (Muñoz-Rivas et al., 2019) point to greater involvement of boys in cyber-aggression against partners (3.6% boys; 1.5% girls), and others (Calvete et al., 2021) find a greater

involvement of girls in cyber-control. Therefore, it is necessary to further explore gender differences in these behaviors and explore whether the relationship between cyberbullying and cyber dating violence is similar or different in boys and girls.

Furthermore, another important issue to consider when analyzing possible differences between boys and girls, and especially their relationship with cyberbullying, is the need to distinguish between their frequent or occasional involvement in cyber dating violence. Occasional cyber dating violence behaviors in adolescents have been related to their lack of previous experience in dating relationships, their use of awkward forms of courtship, and their belief in some romantic love myths that associate control with love (Cava et al., 2020a; Viejo, 2014). However, the frequent performance of these behaviors could indicate a worse psychosocial adjustment of the adolescent and, therefore, be more related to the use of other problematic behaviors, such as cyberbullying. The frequency and type of cyber dating violence perpetrated by boys and girls should, therefore, be included in the analysis of its relationship with the perpetration of cyberbullying.

Taking into account the relevance of this problem, this study had the following objectives: (1) to analyze the prevalence of specific cyber-control and cyber-aggression behaviors toward the partner performed by adolescent boys and girls, considering possible gender differences; (2) to analyze the correlations between the perpetration of cyber-control of the partner, cyber dating aggression, indirect cyberbullying, and direct cyberbullying in boys and girls; (3) to examine the differences in cyberbullying perpetration (indirect and direct) as a function of the frequency (never, occasional, and frequent) with which boys and girls perform cyber-control and cyber-aggression behaviors toward the partner; (4) to analyze the association between indirect and direct cyberbullying and cyber-control and cyber-aggression behaviors toward the partner in boys and girls. With regard to these objectives, the following hypotheses were established: (1) The prevalence of cyber-control behaviors will be higher than the prevalence of cyber-aggression behaviors in both boys and girls, with significant gender differences in some specific behaviors; (2) Cyber-control and cyber-aggression behaviors toward the partner will show significant positive correlations with the perpetration of cyberbullying in boys and girls; (3) Boys and girls with frequent cyber-control and cyber-aggression behaviors toward their partners will

show higher scores on indirect and direct cyberbullying perpetration, compared to those who never engage in these behaviors; (4) Direct cyberbullying will show greater links with cyber dating aggression than indirect cyberbullying, whereas indirect cyberbullying will have greater links with cyber-control of the partner.

Method

Sample

From an initial sample of 1063 secondary school students from three schools in the Valencian Community, in this study, we included those who had a partner or had had a partner during the previous 12 months. Previously, they were asked to consider as a couple relationship a romantic relationship that had been significant to them and had lasted longer than a single date. If they had had several relationships during the previous 12 months, they were asked to answer the questions with their last relationship in mind. The final sample consisted of 594 students (43.3% boys, 56.7% girls) from 12 to 17 years old ($M = 14.31$; $SD = 1.58$). The mean age of boys ($M = 14.22$; $SD = 1.59$) and girls ($M = 14.37$; $SD = 1.57$) was similar. Most students were 13 years old (25%), 14 years old (19.1%), and 15 years old (18.6%), with lower percentages of students aged 12 years (12.6%), 16 years (11.6%), and 17 years (13.1%). Regarding the duration of their relationship, the majority (52.9%) indicated that it lasted between 1 and 6 months, 15.8% less than 1 month, 17.5% between 6 months and 1 year, and 13.4% more than 1 year.

Instruments

Cyber-Violence in Adolescent Couples Scale, Cib-VPA (Cava & Buelga, 2018). This scale consists of two subscales: cyber-violence perpetrated and cyber-victimization. In this study, only the cyber-violence perpetrated subscale was used, which is composed of 10 items distributed in two factors: cyber-control and cyber-aggression. The cyber-control factor includes 5 items that describe various behaviors of control over the

partner's activities and social relationships through electronic devices (e.g., "I have made him/her delete or block friends from his/her networks or mobile phone, so that he/she does not have contact with them"). The cyber-aggression factor consists of 5 items that describe different behaviors involving direct aggression and harm to the partner using electronic devices (e.g., "I have insulted or threatened my boy/girlfriend in private"). Students indicate the frequency with which they engage in these behaviors, with four options: 1 (*never*), 2 (*sometimes*), 3 (*often*), and 4 (*always*). The reliability (Cronbach's) in this sample was .74 for the cyber-control factor and .88 for the cyber-aggression factor.

Cyber-Aggressor Scale, CYB-AGS (Buelga et al., 2020). This scale consists of 18 items grouped in two factors: direct cyberbullying and indirect cyberbullying. The direct cyberbullying factor includes 10 items that describe different situations of direct aggression using electronic devices (e.g., "I have criticized or made fun of comments, photos, or videos that a person has uploaded on social networks or in groups such as WhatsApp"). The indirect cyberbullying factor consists of 8 items that describe situations in which the harm to the victim with electronic devices is done indirectly (e.g., "I have created a fake profile on the Internet with someone's personal data to say or do bad things, impersonating him/her"). Students answer by indicating how often they have performed these behaviors in the past 12 months: 1 (*never*), 2 (*once or twice*), 3 (*three to five times*), 4 (*six to ten times*), 5 (*more than ten times*). Reliability (Cronbach's) in this sample was .90 for the direct cyberbullying factor and .82 for indirect cyberbullying.

Procedure

To select the participants, several schools were contacted to request a first meeting. At this meeting they were informed in detail about the study objectives, any doubts were resolved, and their participation was requested. The three schools that attended this initial meeting agreed to participate. The families of the students were also informed by letter about the research objectives, the confidentiality of the data obtained, and the possibility of contacting the research team for further information; at the same time, they were asked for their consent for their children's participation. Only 2% of the families indicated that they did not want

their children to participate. The students completed the scales in their regular classrooms in the presence of a member of the research team. Previously, the students were informed of the voluntary nature of their participation, the possibility of leaving the study at any time, and the confidentiality of all data. The importance of sincerity in responding was emphasized. None of the students refused to participate.

Data analysis

First, we analyzed the frequency of different cyber-control and cyber-aggression behaviors carried out by boys and girls, analyzing possible gender differences using χ^2 and the effect size with Cramer's V. Next, we calculated the correlations (Pearson) between the variables of cyber-control, cyber-aggression, perpetration of indirect cyberbullying, and perpetration of direct cyberbullying in boys and girls separately, as well as descriptive statistics (M , SD) of these variables, analyzing the significance of the differences in means between boys and girls with the Student's t test. Then, we compared the scores on perpetration of indirect cyberbullying and direct cyberbullying in students with different levels of involvement (never, occasional, and frequent) in cyber-control and cyber-aggression behaviors toward the partner using multivariate analyses (MANOVA). Based on criteria used in previous studies (Marini et al., 2006), we considered the mean + 1 SD as the cut-off point to differentiate between adolescents with frequent and occasional involvement. The adolescents with scores above the mean + 1 SD on cyber-control (girls: score > 1.48; $M = 1.17$, $SD = 0.31$; boys: score > 1.56; $M = 1.21$, $SD = 0.35$) were assigned to the "frequent cyber-control" group (19.5% of the boys; 12.2% of the girls); those with scores below this cut-off point were assigned to the "occasional cyber-control" group (16% of the boys; 23.7% of the girls); and those who indicated that they did not engage in any of these behaviors were assigned to the "no cyber-control" group (64.5% of the boys; 64.1% of the girls). This same criterion (girls: score > 1.21; $M = 1.03$, $SD = 0.18$; boys: score > 1.36; $M = 1.08$, $SD = 0.28$) was used to differentiate between adolescents with frequent involvement in cyber-aggression (9.7% of the boys and 9% of the girls were assigned to this group), occasional involvement (4.3% of the boys; 3.3% of the girls), and not involved (86% of the boys; 94.1% of the girls). Finally, regression

analyses were performed to estimate, in boys and girls, the predictive capacity of indirect and direct cyberbullying on the variables of cyber-control and cyber-aggression toward the partner.

Results

Table I shows the prevalence of different behaviors of cyber-control and cyber-aggression toward the partner. This table shows a higher prevalence of cyber-control behaviors (items 1 to 5), with no significant differences between boys and girls. The cyber-control behavior with the highest prevalence is “showing anger if the partner is online and does not answer right away”, with 26.8% of adolescents engaging in it (18.9% do it sometimes and 7.9% often/always), whereas the lowest prevalence corresponds to “forcing their partner to block or delete friends”, with 8.2% (5.6% do this sometimes and 1.7% often/always). The most frequently performed cyber-aggression behavior is “sending or uploading photos, videos, or messages to social networks that the partner did not want people to see, without his/her permission” (5.4%), with a significantly higher prevalence in boys (8.9%) than in girls (2.7%). Moreover, boys more frequently perform the cyber-aggression behaviors of “spreading rumors or lies about their girl/boyfriend on social networks” (5.9% boys; 1.8% girls) and “making public comments about their partner on the Internet and in WhatsApp groups that made them feel bad” (8.2% boys; 2.1% girls). The least frequently performed cyber-aggression behavior (2%) is “telling the partner that, if he/she breaks up, I will say or post things about him/her on social networks”.

TABLE I. Prevalence of cyber-control and cyber-aggression toward the partner in adolescent students.

	Never	Sometimes	Often/ Always	χ^2	Cramer's V
1. I get angry if I see that my boy/ girlfriend is online and doesn't answer me right away Boys Girls Total	190(73.9%) 245(72.7%) 435(73.2%)	46(17.9%) 66(19.6%) 112(18.9%)	21(8.2%) 26(7.7%) 47(7.9%)	.29 ($p=.866$)	.02
2. I am aware of whether my boy/ girlfriend is online, on the mobi- le phone, or connected to social networks. Boys Girls Total	208(80.9%) 289(85.8%) 497(83.7%)	31(12.1%) 36(10.7%) 67(11.3 %)	18(7%) 12(3.6%) 30(5.1%)	4.07 ($p=.130$)	.08
3. I don't let him/her chat with some friends, and if he/she does, I get angry and make him/her feel bad Boys Girls Total	221(86%) 293(86.9%) 514(86.5%)	29(11.3%) 36(10.7%) 65(10.9%)	7(2.7%) 8(2.4%) 15(2.6%)	.13 ($p=.935$)	.02
4. I made him/her delete or block friends from his/her networks or mobile phone, so that he/she doesn't have contact with them Boys Girls Total	233(90.7%) 318(94.4%) 551(92.8%)	20(7.8%) 13(3.9%) 33(5.6%)	4(1.6%) 6(1.8%) 10(1.7%)	4.30 ($p=.116$)	.09
5. I get jealous about his/her com- ments, photos, or videos in social networks, and I make him/her delete them Boys Girls Total	227(88.3%) 307(91.1%) 534(89.9%)	18(7%) 23(6.8%) 41(6.9%)	12(4.7%) 7(2.1%) 19(3.2%)	3.19 ($p=.202$)	.07
6. I have spread rumors or lies about my girl/boyfriend in social networks Boys Girls Total	242(94.2%) 331(98.2%) 573(96.5%)	10(3.9%) 4(1.2%) 14(2.4%)	5(2%) 2(0.6%) 7(1.2%)	7.03* ($p=.030$)	.11

	Never	Some-times	Often/ Always	χ^2	Cra-mer's V
7. I have insulted or threatened my girl/boyfriend privately					
Boys	241(93.8%)	11(4.3%)	5(2%)	3.70 ($p=.157$)	.08
Girls	327(97%)	7(2.1%)	3(0.9%)		
Total	568(95.6%)	18(3%)	8(1.4%)		
8. I have told him/her that, if he/she breaks up with me, I will say or publish his/her personal things on social networks					
Boys	248(96.5%)	4(1.6%)	5(2%)	5.11 ($p=.078$)	.09
Girls	334(99.1%)	1(0.3%)	2(0.6%)		
Total	582(98%)	5(0.8%)	7(1.2%)		
9. I have made public comments about my boy/girlfriend on the Internet and in WhatsApp groups that have made him/her feel bad					
Boys	236(91.8%)	16(6.2%)	5(2%)	12.10** ($p=.002$)	.14
Girls	330(97.9%)	5(1.5%)	2(0.6%)		
Total	566(95.3%)	21(3.5%)	7(1.2%)		
10. I have sent or uploaded to social networks photos, videos or messages that he/she did not want people to see without his/her permission.					
Boys	234(91.1%)	18(7%)	5(1.9%)	11.66** ($p=.003$)	.14
Girls	328(97.3%)	6(1.8%)	3(0.9%)		
Total	562(94.6%)	24(4%)	8(1.4%)		

Note: Frequency (%); * $p<.05$, ** $p<.01$

Table II shows significant positive correlations between cyber-control and cyber-aggression, and between both forms of cyber dating violence and indirect and direct cyberbullying, in both boys and girls. Some correlations were significantly higher in girls than in boys. This is the case of the correlations between cyberbullying and cyber-aggression toward the partner ($r = .39$ in boys; $r = .52$ in girls; $Z = -1.976$; $p < .05$), between cyber-control toward the partner and indirect cyberbullying ($r = .28$ in boys; $r = .44$ in girls; $Z = -2.216$; $p < .05$), and between cyber-aggression and direct cyberbullying ($r = .36$ in boys; $r = .59$ in girls; $Z = -3.61$; $p < .01$). Regarding gender differences, boys showed significantly higher scores on cyber-aggression toward the partner, indirect cyberbullying, and direct cyberbullying.

TABLE II. Correlations among variables (boys above the diagonal), means, and standard deviations.

	Cyber-control partner	Cyber-aggression partner	Indirect Cyberbullying	Direct Cyberbullying
Cyber-control Partner		.39**	.28**	.23**
Cyber-aggression Partner	.52**		.29**	.36**
Indirect Cyberbullying	.44**	.35**		.65**
Direct Cyberbullying	.33**	.59**	.68**	
Boys M (SD)	1.21 (.35)	1.08** (.28)	1.49** (.58)	1.16* (.38)
Girls M (SD)	1.17 (.31)	1.03** (.18)	1.38** (.47)	1.09* (.31)

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

Table III shows the differences in cyberbullying (indirect and direct) according to the students' involvement (never, occasional, and frequent) in cyber-control toward their partners. In boys, those with frequent cyber-control behaviors showed significantly higher scores on direct and indirect cyberbullying than those who never engaged in these behaviors. No significant differences in direct and indirect cyberbullying were observed between boys with occasional cyber-control behaviors toward their partner and those who did not engage in cyber-control behaviors. In girls, those with frequent cyber-control toward their partner showed higher scores on direct and indirect cyberbullying compared to those who never engaged in these behaviors and those who occasionally engaged in these behaviors. Girls with occasional cyber-control behaviors had higher scores on indirect cyberbullying than those who did not engage in these behaviors.

TABLE III. Means (and standard deviations) for indirect and direct cyberbullying in boys and girls with different levels of involvement in cyber-control toward their partner.

BOYS						
	No Cyber-control (1)	Occasional Cyber-control (2)	Frequent Cyber-control (3)	p	η^2	Post-hoc
	M (SD)	M (SD)	M (SD)			
Indirect cyberbullying	1.38(0.50)	1.58(0.48)	1.84(0.75)	<.001	.098	1<3
Direct cyberbullying	1.10(0.31)	1.18(0.36)	1.36(0.55)	<.001	.068	1<3
GIRLS						
	No Cyber-control (1)	Occasional Cyber-control (2)	Frequent Cyber-control (3)	p	η^2	Post-hoc
	M (SD)	M (SD)	M (SD)			
Indirect Cyberbullying	1.27(0.40)	1.42(0.40)	1.88(0.62)	<.001	.170	1<3, 1<2, 2<3
Direct Cyberbullying	1.06(0.27)	1.08(0.18)	1.27(0.57)	<.001	.048	1<3, 2<3

The differences in indirect and direct cyberbullying according to the different levels of involvement (never, occasional, and frequent) in cyber-aggression toward their partner are shown below (Table IV). Boys and girls with frequent cyber-aggression behaviors toward the partner showed significantly higher scores on indirect and direct cyberbullying than boys and girls who did not engage in these behaviors or who did so occasionally. Girls with occasional cyber-aggression toward their partners also showed higher scores on indirect cyberbullying, compared to girls who never engaged in these behaviors.

TABLE IV. Means (and standard deviations) for indirect and direct cyberbullying in boys and girls with different levels of involvement in cyber-aggression toward the partner.

BOYS						
	No Cyber-aggression (1)	Occasional Cyber-aggression (2)	Frequent Cyber-aggression (3)	p	η^2	Post-hoc
	M (SD)	M (SD)	M (SD)			
Indirect Cyberbullying	1.44(0.55)	1.75(0.31)	1.93(0.72)	<.001	.072	1<3
Direct Cyberbullying	1.12(0.34)	1.14(0.19)	1.54(0.59)	<.001	.104	1<3;2<3
GIRLS						
	No Cyber-aggression (1)	Occasional Cyber-aggression (2)	Frequent Cyber-aggression (3)	p	η^2	Post-hoc
	M (SD)	M (SD)	M (SD)			
Indirect Cyberbullying	1.34(0.42)	1.70(0.54)	2.18(1.08)	<.001	.098	1<2, 1<3
Direct Cyberbullying	1.06(0.22)	1.16(0.19)	1.96(1.18)	<.001	.212	1<3, 2<3

Finally, Table V shows the results of the regression analyses, considering cyber-control and cyber-aggression as dependent variables and indirect cyberbullying and direct cyberbullying as predictor variables. For cyber-control, the only significant predictor variable was indirect cyberbullying in both boys and girls. This variable explained 7.6% of the variance in cyber-control behaviors in boys, $F(1, 255) = 21.947, p < .001$, and 19.5% in girls, $F(1, 334) = 81.967, p < .001$. However, in the case of cyber-aggression toward the partner, indirect cyberbullying was not a significant predictor, but direct cyberbullying was. In both boys and girls, direct cyberbullying was a significant predictor variable, explaining 12.6 % of cyber-aggression in boys, $F(1, 255) = 38.025, p < .001$, and 35% of cyber-aggression in girls, $F(1, 334) = 181.582, p < .001$. The high percentage of variance in cyber-aggression toward the partner explained by this particular variable in girls is noteworthy.

TABLE V. Regression analysis. Dependent variables: cyber-control and cyber-aggression

	CYBER-CONTROL					
	Boys			Girls		
	b	t	p	b	t	p
Indirect Cyberbullying	.28	4.69	<.001	.44	9.05	<.001
Direct Cyberbullying	.08	.99	.322	.05	.81	.420
	CYBER-AGGRESSION					
	Boys			Girls		
	b	t	p	b	t	p
Indirect Cyberbullying	.10	1.28	.203	-.09	-1.59	.113
Direct Cyberbullying	.36	6.17	<.001	.59	13.48	<.001

Conclusions

The first objective of this study was to analyze the prevalence of various cyber-control and cyber-aggression behaviors toward the partner in adolescent students. The results obtained confirmed that cyber-control behaviors are more prevalent than cyber-aggression behaviors in adolescents (Borrajo et al., 2015; Calvete et al., 2021; Muñiz-Rivas et al., 2019), as hypothesized, with similar percentages of cyber-control used by boys and girls. The prevalence of cyber-control behaviors in this study ranged from 8.2% (forcing them to block or delete friends from their social networks or mobile, so that they do not have contact with them) to 26.8% (getting angry if the partner is online and does not answer right away), whereas the prevalence of cyber-aggression behaviors ranged from 2% (threatening to tell or post personal information on social networks if they break off the relationship) to 5.4% (uploading photos, videos, or messages to social networks that they did not want people to see without their permission).

On the one hand, the higher prevalence of cyber-control behaviors could be associated with their lower perception of these behaviors as

a form of cyber dating violence. Beliefs in certain romantic myths that associate jealousy and control with love, present in many adolescents, have been related to their involvement in partner cyber-control behaviors (Cava et al., 2020; Rodríguez-Castro et al., 2018, 2021) and could contribute to less awareness of these behaviors as cyber dating violence. In the educational context, it would be necessary to discuss some of these beliefs with students. In addition, because, contrary to what was hypothesized, no significant differences were found between boys and girls on any cyber-control behavior, it is important to reflect on beliefs and myths about romantic relationships with both boys and girls. More specifically, it is necessary to talk to them about their need to continuously be aware of whether their boy/girlfriend is online, on the mobile phone, or connected to social networks. In this study, 5.1% of the adolescents acknowledged that they exercised this type of control over their partner often or always, and 11.3% did it sometimes. ICTs are deeply integrated into the lives of adolescents (Baker & Carreño, 2016; Mosley & Lancaster, 2019; Stonard, 2020), and they make it easy to constantly control and monitor other people's activities in the virtual space, including their partner. Therefore, adolescent students need to be better educated about the negative consequences of partner control and increase their ability to establish healthy and positive relationships, given their lack of previous experience (Carrascosa et al., 2019; Viejo, 2014). In addition, early dating relationships have an enormous influence on subsequent couple relationships in adulthood because certain relationship patterns are consolidated and tend to continue (González-Ortega et al., 2008). For this reason, it is essential to carry out interventions with students about these issues, about which both boys and girls need training.

On the other hand, cyber-aggression toward the partner, although less prevalent, also make it necessary to discuss with students the damage and negative consequences for the victim of this use of ICTs. As Suler (2004) points out, ICTs favor the disinhibition of aggressive behaviors that would never be carried out face to face, given the emotional distance from the victim that these technologies allow. Thus, for example, the fact that 4.4% of adolescents admit to having insulted or threatened their partner in private (1.4% often or always) is worrisome and highlights the need to intervene with these adolescents regarding their use of these technologies. In addition, in the case of cyber-aggression toward the partner, the results, in line with the initial hypothesis, show gender

differences in some specific behaviors. Thus, although both boys and girls engage in cyber-aggression behaviors toward their partners, boys had higher percentages on the behaviors of “spreading rumors about their partners on social networks” (5.9% boys; 1.8% girls), “sending or uploading to social networks photos, videos, or messages that the partner did not want people to see without his/her permission” (8.9% boys; 2.7% girls), and “making public comments about the partner on the Internet and in WhatsApp groups that made him/her feel bad” (8.2% boys; 2.1% girls). These differences could be linked to a greater influence of sexist attitudes in boys, as observed in some previous studies (Cava et al., 2020; Ramiro-Sánchez et al., 2018). However, research on gender differences in cyber dating violence is still scarce, and these aspects should be analyzed in greater depth in future investigations.

The results obtained also confirm the second hypothesis, given that positive correlations were found between the perpetration of cyber dating violence and the perpetration of cyberbullying in both boys and girls. Adolescents who engage in cyberbullying behaviors also exert more cyber-control and cyber-aggression toward their partners. It is possible that the same social learning processes and lack of self-control (Curry & Zavala, 2020; Van Ouytsel et al., 2020), as well as similar emotional distancing from the victim (Suler, 2004), are present in both forms of violence perpetrated using ICTs. Likewise, the data from this study allow us to confirm the third hypothesis because boys and girls with frequent cyber-control and cyber-aggression behaviors toward the partner showed significant differences from those who never performed these behaviors, in terms of greater perpetration of direct and indirect cyberbullying. This result is especially interesting because in adolescents with occasional cyber-control and cyber-aggression behaviors, the differences from those who never perform these behaviors were much smaller. These data support, therefore, the existence of occasional and low-severity aggressive behaviors in adolescent couples, possibly linked to limited previous experience in romantic relationships and the use of awkward and rough forms of courtship (Carrascosa et al., 2018; Viejo, 2014). Although these occasional aggressions also indicate the need for more education about healthy dating relationships, the cases of frequent cyber-control and cyber dating aggression are the ones that require early detection and intervention and are more linked to the perpetration of cyberbullying.

Finally, regarding the fourth hypothesis about the different links depending on the type of cyberbullying (direct and indirect) and cyber dating violence (cyber-control and cyber-aggression) perpetrated by adolescents, the results confirmed that indirect cyberbullying was a better predictor of cyber-control, and direct cyberbullying was a better predictor of partner cyber-aggression, in both boys and girls. These stronger links between partner cyber-control and indirect cyberbullying could be related to the fact that both involve indirect attacks against the victim. Thus, in cyber-control, the victim may not know that this control and supervision is taking place, and in indirect cyberbullying, the victim may not know who is impersonating his/her identity or creating false profiles to harm him/her. In these indirect attacks, the cyber-aggressor may be less impulsive, and the violence may be more planned. In contrast, in direct cyberbullying and cyber-aggressions against a partner, the cyber-aggressor directly attacks the victim, and there is a direct confrontation with the victim. These direct attacks could be more related to learning violent ways of responding to interpersonal conflicts, internalization of cyber-aggression behaviors, and greater difficulties with self-control. These different potential explanatory factors of direct and indirect online aggressions should be further analyzed in future research.

The present study has some limitations. First, given that it is a cross-sectional study, it is not possible to establish causal relationships between cyberbullying and cyber dating violence, making it necessary to conduct longitudinal studies in order to discover how these variables influence each other. Another limitation is the use of self-reports to measure the variables. Although this type of measure is frequent in studies on adolescent violence (Muñiz-Rivas et al., 2019), it would be advisable to complement these data with other sources and obtain information from both partners. Moreover, a further limitation is that some adolescents might have dating relationships in which both partners engage in cyber-control and cyber-aggression behaviors. Occasional mutual aggressions are highly prevalent in adolescent couples (Viejo, 2014), with some adolescents being both aggressors and victims at the same time. This aspect should be considered in future studies.

However, despite these limitations, this study provides interesting results about the prevalence of different cyber-control and cyber-aggression behaviors toward the partner in adolescent students, revealing a higher prevalence of cyber-control. Strong links are also found between

cyber dating violence behaviors and cyberbullying perpetrated by boys and girls, which highlights the need to develop joint prevention strategies for both problems, making students aware of the dangers of misusing ICTs. Possible inadequate regulation of emotions and management of interpersonal conflicts, as well as greater disinhibition of aggressive behavior in the virtual space, are important elements common to both forms of online violence, which justifies the need to intervene in preventing both at the same time. Along the same lines, there are programs aimed at the simultaneous prevention of various problems in adolescents, such as Fourth R (Wolfe et al., 2011), as well as programs specifically designed for the combined prevention of bullying and offline dating violence in adolescents (Carrascosa et al., 2019; Foshee et al., 2014), which have been found to be effective. Therefore, it would also be advisable to develop interventions to simultaneously prevent cyberbullying and cyber dating violence in adolescent students.

References

- Aboujaoude, E., Savage, M.W., Starcevic, V., & Salame, W.O. (2015). Cyberbullying: Review of an old problem gone viral. *Journal of Adolescent Health, 57*, 10-18. <https://doi.org/10.1016/j.jadohealth.2015.04.011>
- Arslan, G. (2021). School belongingness, well-being, and mental health among adolescents: exploring the role of loneliness, *Australian Journal of Psychology, 1-11*. <https://doi.org/10.1080/00049530.2021.1904499>
- Baker, C.K., & Carreño, P.K. (2016). Understanding the role of technology in adolescent dating and dating violence. *Journal of Child and Family Studies, 25*, 308–320. <https://doi.org/10.1007/s10826-015-0196-5>
- Borrajó, E., Gámez-Guadix, M., Pereda, N., & Calvete, E. (2015). The development and validation of the cyber dating abuse questionnaire among young couples. *Computers in Human Behavior, 48*, 358-365. <https://doi.org/10.1016/j.chb.2015.01.063>
- Branson, M., & March, E. (2021). Dangerous Dating in the Digital Age: Jealousy, hostility, narcissism, and psychopathy as predictors of Cyber

- Dating Abuse, *Computers in Human Behavior*, *119*, 106711. <https://doi.org/10.1016/j.chb.2021.106711>.
- Brown, C., & Hegarty, K. (2018). Digital dating abuse measures: A critical review. *Aggression and Violent Behavior*, *40*, 44-59. <https://doi.org/10.1016/j.avb.2018.03.003>
- Buelga, S., Postigo, J., Martínez-Ferrer, B., Cava, M.J., & Ortega-Barón, J. (2020). Cyberbullying among adolescents: Psychometric properties of the CYB-AGS cyber-aggressor Scale. *International Journal of Environmental Research and Public Health*, *17*, 3090. <https://doi.org/10.3390/ijerph17093090>
- Calvete, E., Fernández-González, L., Orue, I., Machimbarrena, M., & González-Cabrera, J. (2021). Validación de un cuestionario para evaluar el abuso en relaciones de pareja en adolescentes (CARPA), sus razones y las reacciones. *Revista de Psicología Clínica con Niños y Adolescentes* *8(1)*, 60-69. <https://doi.org/10.21134/rpcna.2021.08.1.8>
- Caridade, S., Braga, T., & Borrajo, E. (2019). Cyber dating abuse (CDA): Evidence from a systematic review. *Aggression and Violent Behavior*, *48*, 152-168. <https://doi.org/10.1016/j.avb.2019.08.018>
- Carrascosa, L., Cava, M.J., & Buelga, S. (2018). Perfil psicosocial de adolescentes españoles agresores y víctimas de violencia de pareja. *Universitas Psychologica*, *17*, 1-10. <https://doi.org/10.11144/Javeriana.upsy17-3.ppa>.
- Carrascosa, L., Cava, M.J., Buelga, S., & de Jesus, S.N. (2019). Reduction of sexist attitudes, romantic myths, and aggressive behaviors in adolescents: efficacy of the DARSÍ program. *Psicothema*, *31(2)*, 121-127. <https://doi.org/10.7334/psicothema2018.245>
- Cava, M.J. & Buelga, S. (2018). Propiedades psicométricas de la escala de ciberviolencia en parejas adolescentes (Cib-VPA). *Suma Psicológica*, *25*, 51-61. <https://doi.org/10.14349/sumapsi.2018.v25.n1>
- Cava, M.J., Buelga, S., & Tomás, I. (2021). Peer victimization and dating violence victimization: The mediating role of loneliness, depressed mood, and life satisfaction. *Journal of Interpersonal Violence*, *36*, 2677-2702. <https://doi.org/10.1177/0886260518760013>
- Cava, M.J., Martínez-Ferrer, B., Buelga, S., & Carrascosa, L. (2020). Sexist attitudes, romantic myths, and offline dating violence as predictors of cyber dating violence perpetration in adolescents. *Computer in Human Behavior*, *111*, 106449. <https://doi.org/10.1016/j.chb.2020.106449>

- Curry, T.R., & Zavala, E. (2020). A multi-theoretical perspective on cyber dating abuse victimization and perpetration within intimate relationships: a test of general strain, social learning, and self-control theories. *Victims & Offenders, 15*, 499-519. <https://doi.org/10.1080/15564886.2020.1734996>
- Gaffney, H., Farrington, D.P., Espelage, D.L., & Ttofi, M.M. (2019). Are cyberbullying intervention and prevention programs effective? A systematic and meta-analytical review. *Aggression and Violent Behavior, 45*, 134-153. <https://doi.org/10.1016/j.avb.2018.07.002>
- Foshee, V.A., Reyes, L.M., Agnew-Brune, C.B., Simon, T.R., Vagi, K.J., Lee, R.D., & Suchindran, C. (2014). The effects of the evidence-based Safe Dates dating abuse prevention program on other youth violence outcomes. *Prevention Science, 15*(6), 907-916. <https://doi.org/10.1007/s11121-014-0472-4>
- Galende, N., Ozamiz-Etxebarria, N., Jaureguizar, J., & Redondo, I. (2020). Cyber dating violence prevention programs in universal populations: A systematic review. *Psychology Research and Behavior Management, 13*, 1089-1099. <http://doi.org/10.2147/PRBM.S275414>
- Garaigordobil, M., & Larrain, E. (2020). Acoso y ciberacoso en adolescentes LGTB: Prevalencia y efectos en la salud mental. *Comunicar, 62*, 79-90. <https://doi.org/10.3916/C62-2020-07>
- Garaigordobil, M., & Martínez-Valderrey, V. (2015). Cyberprogram 2.0: Effects of the intervention on 'face-to-face' bullying, cyberbullying, and empathy. *Psicothema, 27*, 45-51. <https://doi.org/10.7334/psicothema2014.78>
- González-Cabrera, J., Machimbarrena, J.M., Ortega-Barón, J., & Álvarez-Bardón, A. (2019). Joint association of bullying and cyberbullying in health-related quality of life in a sample of adolescents. *Quality of Life Research, 29*, 941-952. <https://doi.org/10.1007/s11136-019-02353-z>
- González-Ortega, I., Echeburúa, E., & Corral, P. (2008). Variables significativas en las relaciones violentas en parejas jóvenes: una revisión. *Behavioral Psychology, 16*, 207-225.
- Gradinger, P., Yanagida, T., Strohmeier, D., & Spiel, C. (2015). Prevention of cyberbullying and cyber victimization: Evaluation of the ViSC Social Competence Program. *Journal of School Violence, 14*(1), 87-110. <https://doi.org/10.1080/15388220.2014.963231>
- Hancock, K., Keast, H., & Ellis, W. (2017). The impact of cyber dating abuse on self-esteem: The mediating role of emotional distress.

- Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 11. <https://doi.org/10.5817/CP2017-2-2>
- INE-Instituto Nacional de Estadística (2020). *Encuesta sobre Equipamiento y Uso de Tecnologías de Información y Comunicación en los Hogares*. Madrid. https://www.ine.es/prensa/tich_2020.pdf
- Iranzo, B., Buelga, S., Cava, M.J., & Ortega-Barón, J. (2019). Cyberbullying, psychosocial adjustment and suicide ideation in adolescence. *Psychosocial Intervention*, 28(2), 75-81. <https://doi.org/10.5093/pi2019a5>
- Jiménez, T.I., Moreno-Ruiz, D., Estévez, E., Callejas, J.E., López-Crespo, G., & Valdivia, S. (2021). Academic competence, teacher-student relationship, and violence and victimisation in adolescents: The classroom climate as a mediator. *International Journal of Environmental Research and Public Health*, 18, 1163. <https://doi.org/10.3390/ijerph18031163>
- Machimbarrena, J.M., Calvete, E., Fernández-González, L., Álvarez-Bardón, A., Álvarez-Fernández, L., & González-Cabrera, J. (2018). Internet risks: An overview of victimization in cyberbullying, cyber dating abuse, sexting, online grooming and problematic internet use. *International Journal of Environmental Research and Public Health*, 15, 2471. <https://doi.org/10.3390/ijerph15112471>
- Marciano, L., Schulz, P.J., & Camerini, A. (2020). Cyberbullying perpetration and victimization in youth: A Meta-analysis of longitudinal studies. *Journal of Computer-Mediated Communication*, 25, 163-181. <https://doi.org/10.1093/jcmc/zmz031>
- Marini, Z.A., Dane, A.V., Bosack, S.L., & YLC-CURA (2006). Direct and indirect bully-victims: differential psychosocial risk factors associated with adolescents involved in bullying and victimization. *Aggressive Behavior*, 32, 551-569. <https://doi.org/10.1002/ab.20155>
- Mosley, M.A., & Lancaster, M. (2019). Affection and abuse: Technology use in adolescent romantic relationships. *The American Journal of Family Therapy*, 47, 52-66. <https://doi.org/10.1080/01926187.2019.1586592>
- Muñiz-Rivas, M., Vera, M., & Povedano-Díaz, A. (2019). Parental style, dating violence and gender. *International Journal of Environmental Research and Public Health*, 16, 2722. <https://doi.org/10.3390/ijerph16152722>

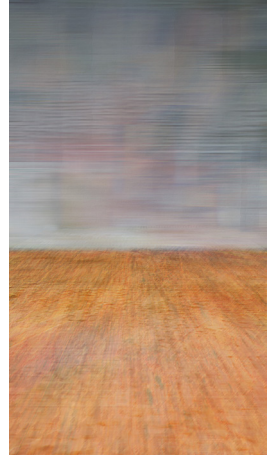
- Ortega-Barón, J., Buelga, S., Ayllón, E., Martínez-Ferrer, B., & Cava, M.J. (2019). Effects of intervention program Prev@cib on traditional bullying and cyberbullying. *International Journal of Environmental Research and Public Health*, *16*(4), 527. <https://doi.org/10.3390/ijerph16040527>
- Ortega-Barón, J., Montiel, I., Machimbarrena, J.M., Fernández-González, L., Calvete, E., & González-Cabrera, J. (2020). Epidemiology of cyber dating abuse victimization in adolescence and its relationship to health-related quality of life: A longitudinal study. *Youth and Society*, 1-19. <https://doi.org/10.1177/0044118X20980025>
- Paat, Y., & Markham, C. (2021). Digital crime, trauma, and abuse: Internet safety and cyber risks for adolescents and emerging adults in the 21st century. *Social Work in Mental Health*, *19*(1), 18-40. <https://doi.org/10.1080/15332985.2020.1845281>
- Peskin, M.F., Markham, C.M., Shegog, R., Temple, J.R., Baumler, E.R., Addy, R.C., & Emery, S.T. (2017). Prevalence and correlates of the perpetration of cyber dating abuse among early adolescents. *Journal of Youth and Adolescence*, *46*, 358-375. <https://doi.org/10.1007/s10964-016-0568-1>
- Ramiro-Sánchez, T., Ramiro, M.T., Bermúdez, M.P., & Buela-Casal, G. (2018). Sexism in adolescent relationships: A systematic review. *Psychosocial Intervention*, *27*, 123-132. <https://doi.org/10.5093/pi2018a19>
- Rodríguez-Castro, Y, Alonso-Ruido, P., Lameiras-Fernández, M., & Faílde-Garrido, J. M. (2018). Del sexting al cibercontrol en las relaciones de pareja de adolescentes españoles: análisis de sus argumentos. *Revista Latinoamericana de Psicología*, *50*(3), 170-178. <http://dx.doi.org/10.14349/rlp.2018.v50.n3.4>
- Rodríguez-Castro, Y., Martínez-Román, R., Alonso-Ruido, P., Adá-Lameiras, A., & Carrera-Fernández, M. (2021). Intimate partner cyberstalking, sexism, pornography, and sexting in adolescents: new challenges for sex education. *International Journal of Environmental Research and Public Health*, *18*, 2181. <https://doi.org/10.3390/ijerph18042181>
- Smetana, J.G., Campione-Barr, N., & Metzger, A. (2006). Adolescent development in interpersonal and societal contexts. *Annual Review of Psychology*, *57*, 255-284. <https://doi.org/10.1146/annurev.psych.57.102904.190124>

- Smith, K., Cénat, J.M., Lapierre, A., Dion, J., Hébert, M., & Côté, K. (2018). Cyber dating violence: Prevalence and correlates among high school students from small urban areas in Quebec. *Journal of Affective Disorders, 234*, 220-223. <https://doi.org/10.1016/j.jad.2018.02.043>
- Stonard, K.E. (2020). "Technology was designed for this": Adolescents' perceptions of the role and impact of the use of technology in cyber dating violence. *Computer in Human Behavior, 105*, 106211. <https://doi.org/10.1016/j.chb.2019.106211>
- Suler, J. (2004). The online disinhibition effect. *CyberPsychology and Behavior, 7*, 321-326. <http://doi.org/10.1089/1094931041291295>
- Temple, J.R., Choi, H.J., Brem, M., Wolford-Clevenger, C., Stuart, G.L., Peskin, M.F., & Elmquist, J. (2016). The temporal association between traditional and cyber dating abuse among adolescents. *Journal of Youth and Adolescence, 45*, 340-349. <https://doi.org/10.1007/s10964-015-0380-3>
- Turunen, T., Poskiparta, E., Salmivalli, C., Niemi, P., & Lerkkanen, M.-K. (2021). Longitudinal associations between poor reading skills, bullying and victimization across the transition from elementary to middle school. *PLoS ONE 16(3)*, e0249112. <https://doi.org/10.1371/journal.pone.0249112>
- Van Ouytsel, J., Ponnet, K., & Walrave, M. (2020). Cyber dating abuse: Investigating digital monitoring behaviors among adolescents from a social learning perspective. *Journal of Interpersonal Violence, 35*, 5157-5178. <https://doi.org/10.1177/0886260517719538>
- Viejo, C. (2014). Violencia física en las relaciones sentimentales adolescentes: hacia la comprensión del fenómeno. *Infancia y Aprendizaje, 37*, 785-815. <https://doi.org/10.1080/02103702.2014.977110>
- Víllora, B., Yubero, S., & Navarro, R. (2019a). Cyber dating abuse and masculine gender norms in a sample of male adults. *Future Internet, 11*, 84. <https://doi.org/10.3390/fi11040084>
- Víllora, B., Yubero, S., & Navarro, R. (2019b). Associations between feminine gender norms and cyber dating abuse in female adults. *Behavioral Sciences, 9*, E35. <https://doi.org/10.3390/bs9040035>
- Walrave, M., Van Ouytsel, J., & Ponnet, K. (2020). Aggression through mobile communication: Unravelling its motives and consequences. In Ling, R., Goggin, G., Fortunati, L., Lim, S. S., & Li, Y (Eds.), *The*

Oxford Handbook of Mobile Communication and Society (pp. 580-600). Oxford University Press.

- Wolfe, D.A., Crooks, C.V., & Hughes, R. (2011). The Fourth R: A school-based adolescent dating violence prevention program. *Psychosocial Intervention, 20*(2), 193-200. <https://doi.org/10.5093/in2011v20n2a7>
- Zweig, J.M., Dank, M., Yahner, J., & Lachman, P. (2013). The rate of cyber dating abuse among teens and how it relates to other forms of teen dating violence. *Journal of Youth and Adolescence, 42*, 1063-1077. <https://doi.org/10.1007/s10964-013-9922-8>
- Zych, I., Viejo, C., Vila, E., & Farrington, D.P. (2021). School bullying and dating violence in adolescents: A systematic review and meta-analysis. *Trauma, Violence, & Abuse, 22*(2), 397-412. <https://doi.org/10.1177/1524838019854460>

Contact address: María-Jesús Cava, University of Valencia, Facultad de Psicología. Department of Social Psychology. Avda. Blasco Ibáñez, 21, CP 46010, Valencia (Spain). E-mail: Maria.J.Cava@uv.es



Research

