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Parental supervision and victims of cyberbullying: Influence of the use of social networks and online extimacy[☆]



José-María Martín-Criado^a, José-Antonio Casas^{a,*}, Rosario Ortega-Ruiz^a, and Rosario Del Rey^b

^a Universidad de Córdoba

^b Universidad de Sevilla

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ABSTRACT

Online parental supervision is considered a protective factor against cybervictimization, but it seems that this relationship is mediated by the practices of children in social networks (RRSS). This work aims to advance in this line of research. First, analyzing the direct relationship between both variables in victims of cyberbullying. Second, considering the extimacy and the use of RRSS as mediating variables. Third, analyzing the possible differences in gender and age groups in this relationship. And finally, knowing whether these variables influence the possibility of being a victim of cyberbullying. The sample is made up of 6,408 (49% girls) students in primary and secondary education, aged between 10 and 16 ($M = 12.60$, $SD = 1.65$). After selecting the victims of cyberbullying ($n = 817$), descriptive and comparative analyses of means between sexes and age groups were carried out. Two structural equation models (SEM) have been calculated with this sub-sample of cybervictims. The first one with the direct relationship between parental supervision and cybervictimization without finding an adjustment, and the second one that confirms this relationship mediated by extimacy and the use of RRSS. This model does not show differences in adjustment between sexes and age groups. Likewise, it has been found that the variables studied are important in the possibility of becoming a cybervictim. Based on these results, it can be concluded that positive parental supervision can reduce cybervictimization if it promotes monitoring of extimacy and the use of RRSS.

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Supervisión parental y víctimas de ciberbullying: influencia del uso de redes sociales y la extimidad online

R E S U M E N

La supervisión parental online se considera un factor protector frente a la cibervictimización, pero parece que esta relación es mediada por las prácticas de los y las menores en las redes sociales (RRSS). Este trabajo pretende avanzar en esta línea de investigación. Primero, analizando la relación directa entre ambas variables en víctimas de ciberbullying. Segundo, considerando la extimidad y el uso de RRSS como variables mediadoras. Tercero, analizando las posibles diferencias de sexo y grupos de edad en esta relación. Y, por último, conociendo si estas variables influyen en la posibilidad de ser o no víctima de ciberbullying. La muestra está formada por 6.408 (49% chicas) estudiantes de educación Primaria y Secundaria, con edades entre los 10 y 16 años ($M = 12.60$, $DT = 1.65$). Tras seleccionar a las víctimas de ciberbullying ($n = 817$), se han realizado análisis descriptivos y comparativas de medias entre sexos

Palabras clave:

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* Corresponding author.

E-mail address: jacasas@uco.es (J.-A. Casas).

y grupos de edad. Se han calculado dos modelos de ecuaciones estructurales (SEM) con dicha submuestra de cibervíctimas. El primero con la relación directa entre supervisión parental y cibervictimización sin hallar ajuste, y el segundo que confirma esta relación mediada por la extimidad y el uso de RRSS. Este modelo no muestra diferencias de ajuste entre sexos y grupos de edad. Igualmente, se ha encontrado que las variables estudiadas son importantes en la posibilidad de convertirse en cibervíctima. En base a estos resultados se puede concluir que una supervisión parental positiva puede reducir la cibervictimización si ésta promueve supervisar la extimidad y el uso de RRSS.

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Introduction

The use of social media platforms (SMP) and the Internet by children and adolescents has grown significantly in recent years (McDool et al., 2020). Today, virtual environments such as Instagram, WhatsApp, YouTube or TikTok have changed the forms of communication in such a way that they have become a new context for the development of minors (Greenfield & Yan, 2006). Online context, in constant transformation, in which new applications and spaces emerge and bring benefits to minors, particularly social support (Wang et al., 2019). On the other hand, research has also highlighted the existence of risks in this new context (Livingstone & Smith, 2014), especially if the connection is premature and lacks effective adult supervision (Helsper et al., 2013). Among these, cyberbullying is one of the most concerning online risks for families because of its negative consequences and significant prevalence rates (Kowalski et al., 2014; Patchin & Hinduja, 2015).

Cyberbullying has been defined as a particular form of aggression that occurs when an individual or group uses digital devices to harm a person intentionally and repeatedly, who finds it difficult to prevent this harassment from continuing (Smith et al., 2008). This type of aggression has specific traits and characteristics such as viralization (Casas et al., 2020), power imbalance derived from increased digital competence (Dooley et al., 2009), intentionality and anonymity (Baldry et al., 2015) or the possibility of being victimized 24/7 (Hinduja & Patchin, 2015). Most research has pointed out that girls are more likely to be victims of cyberbullying than boys (Baldry et al., 2015; Inchley et al., 2020), although reverse results have also been found (Shapka et al., 2018). In contrast, research on age is consistent in showing that preadolescence is a stage of higher risk than later stages (Elsaesser et al., 2017; Inchley et al., 2020; Kowalski et al., 2019). Child victims of cyberbullying are highly likely to suffer damage to their mental and physical health (Lowe-Calverley et al., 2019). Particularly, psychosomatic symptoms (Garaigordobil, 2019), antisocial behaviors (Bastiaensens et al., 2016) and even suicidal ideation (Hinduja & Patchin, 2019) have been identified. Because of this, it is important to identify which factors can protect minors against this cybervictimization in every context in which they live (Zych et al., 2019). Within the family context, the important role that mothers and fathers can play to protect their sons and daughters from being victims of cyberbullying has been recognized (Miranda et al., 2019).

Specifically, parental supervision has been recognized as a relevant protective factor (Elsaesser et al., 2017; Khurana et al., 2015). However, recent systematic reviews (Elsaesser et al., 2017; Machimbarrena et al., 2019; Nocentini et al., 2019) have shown inconsistent results among the not very numerous studies analysing parental factors as protective against cybervictimization. The inconsistency of results suggests that the relationship between parental supervision and cybervictimization is complex and requires further research (Baldry et al., 2019). Along these lines, it has been pointed out that the relationship between them is indirect and that it is necessary to further explore the elements and factors that may be modulating their effect (Kowalski et al., 2019),

such as the activity that minors have in the virtual context (Inchley et al., 2020).

Internet activity, cyberbullying and parental supervision

The activity of minors on the Internet is characterized by the intense use of SMP, understood as the normalized and continuous use of SMP and virtual scenarios, together with the following, acceptance, and imitation of trends (challenges, games, videos, etc.) that are disclosed in them (Mesch, 2009), assuming that children tend to copy the behavior of people they like or share styles (Riedijk & Harakeh, 2018). In this regard, it has been described that 35% of adolescents make intensive use of SMP to communicate and share content (Inchley et al., 2020). In addition, 59% of children follow YouTubers and identify with them and 96% spend an average of eleven hours a week watching online videos (Westenberg, 2016), whose most viewed contents are oriented to identity construction (Pérez-Torres et al., 2018). Imitating youtubers, playing at being youtubers or following their challenges are online behaviors that are sometimes perceived by minors as an opportunity to gain visibility or status among their peers (Pérez-Torres et al., 2018) and simultaneously pose a greater risk of becoming a victim of cyberbullying (Baldry et al., 2019).

On the other hand, given the large amount of personal information that is made public online, activity on SMP is mediated by the search for a privacy-extimacy balance, where some minors ignore the risks or the existence of privacy settings, while others willingly sacrifice their privacy for possible advantages of such public disclosure (Bastiaensens et al., 2016). This phenomenon has been denominated by Jacques Lacan as *extimacy*; later analysed as the intimacy exposed in SMP (Tello, 2013). Regarding extimacy, it has been noted that adolescents are enthusiastic about revealing online data about their own real identity (Krämer & Schäwel, 2020). They use profiles on SMPs to display their identity, and even to construct it (Kim & Kim, 2019). This high level of exposure has been attributed to the fact that these virtual spaces constitute an enabling scenario to explore and develop different identities, away from the supervision of parents or other formal authority figures (Mazzoni & Iannone, 2014). Under this perspective, adolescents reveal personal information to improve their relationships (Trepte et al., 2018) and to expand their profile and gain popularity (Bastiaensens et al., 2016). Some studies point out that younger and adolescent girls tend to disclose more personal information, which is related to greater involvement in cybervictimization (Kowalski et al., 2019). In fact, the loss of control of that personal information and the possibility of being blackmailed with it poses one of the main risks for being victimized online (Lareki et al., 2017).

Therefore, while minors are on the Internet, they need supervision (Krämer & Schäwel, 2020). Specifically, parental supervision is understood as the activities of parents aimed at protecting their children from exposure to risky activities and dangers online (Livingstone et al., 2015). In contrast, it remains to be known how this supervision impacts the online practices of minors and whether it does so to the same extent as a function of the age and gender of sons and daughters (Livingstone et al., 2015). The need to fur-

ther explore the effectiveness of gender-differentiated monitoring is because some parental monitoring strategies have been shown to have a differential impact on boys and girls (Chan et al., 2015). Also, the age of the supervisees could act as a moderating factor, as parental supervision seems to be more effective in boys and girls, while it loses effectiveness in adolescence, as young people focus more on their peers (Kowalski et al., 2019).

Current study

The international literature suggests the need to delve deeper into whether parental supervision has a positive, negative, direct or indirect effect on cybervictimization, as well as into the influence of age and gender on that relationship (Smith et al., 2019). In this study, two possible behaviors related to cybervictimization and parental monitoring are analysed: extimacy and SMP use. Understanding these factors is important given the need to improve the effectiveness of parental supervision in preventing cybervictimization. In this context the study proposes: (1) to know the predictive role of parental monitoring of online activity in cyberbullying victims, (2) to analyse whether this prediction is mediated by minors' extimacy and SMP use, (3) to study possible sex and developmental moment differences in these predictive relationships, and, (4) to know to what extent parental monitoring, extimacy and SMP use predict becoming a victim or not of cyberbullying. Four research hypotheses are derived from these objectives: (H1) In cyberbullying victims, parental monitoring of online activities can predict cybervictimization; (H2) Minors' extimacy and SMP use contribute to the explanation of the influence of parental monitoring on cybervictimization; (H3) Gender and age have a moderating effect on parental supervision, extimacy and SMP use. Family supervision is more important for girls and preadolescents; and, (H4) Parental supervision, extimacy, and SMP use predict involvement as a victim or not of cyberbullying.

Method

Participants

The sample consisted of 6182 (49% girls) primary and secondary school students from 60 public schools in the eight provinces of the region of Andalusia, aged between 10 and 16 years ($M = 12.60$, $SD = 1.65$). Of which 48.2% ($n = 2980$) were pre-adolescents between 10 and 12 years of age and 51.8% ($n = 3202$) adolescents between 13 and 16 years of age; belonging to the 5th year of primary education (17.6%), 6th year of primary education (19.8%), 1st year of secondary education (23.1%), 2nd year of secondary education (21.1%), 3rd year of secondary education (20%).

Instruments

Family Supervision subscale of the *Scale for the Evaluation of the Quality of Cyberbehavior*, ESCACIBER (Ortega et al., 2012). Specifically, this dimension is composed of 4 Likert-type items with five response options referring to frequency, from 0 = never, to 4 = always. Aspects related to digital education in the family environment are described, e.g., My parents help me to make proper use of the SMP or My parents help me to solve problems that happen to me in the SMP. The higher score obtained on this scale implies better digital parental education. In the sample used, reliability is optimal with an $\alpha = .82$ and a $\omega = .84$ (.82–.86) and psychometric properties are maintained with the use of a single subscale of this instrument, which shows acceptable structure validity results: CFA χ^2 S-B = 50.76, $p < .001$, RMSEA = .06, SRMR = .02, CFI = .98, NNFI = .99).

The use of the Internet and social networks by minors was assessed with an ad hoc scale composed of 8 Likert-type items with five response options referring to frequency, from 0 = never, to 4 = always. The scale is composed of two subscales, one of 3 items related to intimacy, understood as the disclosure of personal information on the Internet with items such as I share photos and videos on my SMPs and WhatsApp about what I do every day; and another of 5 items, on the use of SMPs that assesses the normalized use of SMPs with items such as e.g. I follow youtubers and try to do the challenges that become fashionable. The overall reliability index of the scale is $\alpha = .75$, $\omega = .77$ (.73–.79), that of extimacy $\alpha = .82$, $\omega = .84$ (.82–.86) and that of SMP use $\alpha = .72$, $\omega = .75$ (.73–.77). Structure validity analyses were computed with adequate results, (CFA) (χ^2 S-B = 800.24, $p < .001$, RMSEA = .07, SRMR = .08, CFI = .95, NNFI = .95).

Cyberbullying victimization was assessed with an adaptation of the cybervictimization subscale of the ECIPQ, *European Cyberbullying Intervention Project Questionnaire* (Del Rey et al., 2015; Ortega-Ruiz et al., 2016), composed of 13 Likert-type items with 5 response options. 0 = no; 1 = yes, once, or twice; 2 = yes, once, or twice a month; 3 = yes, about once a week; and 4 = yes, more than once a week. The instrument maintains adequate psychometric properties of the original with a reliability of $\alpha = .91$, $\omega = .94$ (.92–.96) and confirmatory factor analysis (CFA) index (χ^2 S-B = 1136.44, $p < .001$, RMSEA = .05, SRMR = .07, CFI = .95, NNFI = .95).

Procedure

The research was carried out in accordance with the ethical standards of the A.P.A. and was approved by the Andalusian Biomedical Research Ethics Coordinating Committee, which follows the guidelines of the International Conference on Good Clinical Practice. The project and the battery of instruments used have been presented and explained to the school management and the school board, who have valued it positively and have integrated it into the school's coexistence project, thus granting informed consent to participate in the study. When the educational centres agreed to its approval, data collection began. The questionnaires were completed by the students in the presence of the teachers and the administration process was sequenced in intervals of approximately 30 minutes. Before starting, everyone was informed about the voluntary nature of participation, anonymity, and confidentiality of data, as well as the importance of answering honestly.

Data analysis

First, the psychometric properties of the scales were examined with confirmatory factor analysis (CFA) considering the fit indices proposed for categorical variables (Hu & Bentler, 1999). The validity of structure and reliability was also established. Next, the involvement in cyberbullying victimization was coded assuming the criteria proposed by the authors (Del Rey et al., 2015). Considering as victimized students those who claim to have been assaulted once or twice a month, or more frequently in any of the behaviors presented for cyberbullying victimization. Subsequently, descriptive analyses have been calculated for the selected sample of victims, performing Student's *t* mean difference tests to observe possible differences between boys and girls, and between preadolescents and adolescents. Cohen's *d* index was used as a measure of the effect size of the differences.

Subsequently, a structural equation model on the direct relationship between family supervision and cybervictimization was estimated. And then a second model where extimacy and SMP use have been included as mediating variables. Both models were calculated with latent variables made up of the observable variables described in the section on the instruments and indicated in the corresponding figures. With this second model, invariance was cal-

Table 1
Descriptive analysis and Student's t-test according to sex for the variables studied

	M	SD	Sex	M (DT)	t	p	d	Age	M (DT)	t	p	d
Online parental Supervisión Extimacy	2.31	1.18	Boy	2.18 (1,18)	-3.36	<.001*	0.24	Pre	2.76 (1.11)	17.15	<.001*	0.48
			Girl	2.47 (1,17)				Adole	2.23 (1.18)			
Use of SMP	1.81	1.02	Boy	1.24 (1.00)	-0.59	<.001*	-0.21	Pre	0.56 (0.76)	20.32	<.001*	0.70
			Girl	1.28 (0.98)				Adole	1.02 (0.91)			
Cybervictimization	0.65	0.27	Boy	2.12 (0.96)	9	<.001*	-0.65	Pre	1.50 (1.07)	0.82	<.001*	0.22
			Girl	1.49 (0.97)				Adole	1.48 (0.98)			
			Boy	0.62 (0.40)	-1.97	<.001*	0.14	Pre	0.12 (0.24)	-10.5	<.001*	0.30
			Girl	0.68 (0.41)				Adole	0.19 (0.28)			

Note. *Statistically significant differences $p < .001$.

Table 2
Polychoric correlations of latent variables in the model

	1. CBVictimization	2. Parental S.	3. Extimacy	4. Use SMP
1	-			
2	-.14*	-		
3	.32*	-.15*	-	
4	.30*	-.12*	.01*	-

* Statistically significant correlations $p < .001$.

culated with the sample of boy and girl victims and adolescent and preadolescent victims to determine the differences between these groups. To do so, the steps proposed by Byrne (2008) and Van de Schoot et al. (2012) have been followed: (1) testing the models of the compared groups, (2) configural model, with the same relationships for boys and girls; adolescents and preadolescents, but freely estimated in each group; (3) model of equal factorial saturations, which is necessary if moderating effects are to be tested; and (4) model of equal factorial saturations plus structural coefficients. Finally, a binary logistic regression model was estimated with the dichotomous dependent variable of involvement as a victim or non-victim of cyberbullying. And the variables of parental supervision, extimacy and use of SMP as independent variables.

The models have been estimated using the Least Square Robust method, appropriate to the categorical nature of the variables under study (Flora & Curran, 2004). The fit of the models has been tested with the following indices: scaled Satorra-Bentler chi-square (χ^2 S-B) (Satorra & Bentler, 2001); the comparative fit index (CFI) and the non-normality fit index (NNFI) (≥ 0.90 is adequate; ≥ 0.95 is optimal); the root mean square error of approximation (RMSEA) and the root mean square residual (SRMR) (≤ 0.08 is adequate; ≤ 0.05 is optimal) (Hu & Bentler, 1999). The equation models were developed in EQS 6.3 and SPSS 20 was used for the other analyses.

Results

The prevalence of cyberbullying victims was 13.21% ($n = 817$). In Table 1, the basic descriptive analyses, and possible differences in terms of gender and age of the selected group of subjects are presented.

Next, based on the first objective, a structural equation model was estimated, with the direct relationship between parental supervision and cybervictimization (see Figure 1). The fit indices did not show an acceptable solution: χ^2 S-B = 578.36, $p < .001$, RMSEA = .05, SRMR = .09, CFI = .89, NNFI = .88 (see Figure 1).

Subsequently, and following the second objective, the variables extimacy and SMP use have been included as mediating variables (see Figure 2). The relationships between variables in this model (see Table 2) and the β coefficients (see Figure 2) highlight that extimacy presents a high relationship ($\beta = .35$) with cybervictimization. We obtained Mardia's Coefficient (Mardia, 1970) indices of 158.81 and fit indices χ^2 S-B = 1048.36, $p < .001$, RMSEA = .03, RMSEA CI = .02-.04, SRMR = .03, CFI = .96, NNFI = .96. In this case, the

explained variance of the dependent variable cybervictimization is 30%.

Subsequently, based on the third objective, multigroup analyses were performed for tests of configuration and measurement invariance between boys and girls. This follows the four-step process recommended by Byrne (2008). First, the baseline models for boys and girls have been tested separately with adequate results (boys: $S-B\chi^2(270) = 633.97$, NNFI = .99, CFI = .99, RMSEA = .01, RMSEA CI = .01-.06; girls: $S-B\chi^2(270) = 698.91$, NNFI = .95, CFI = .95, RMSEA = .03, RMSEA CI = .02-.04). Second, configural equivalence was analysed by estimating the baseline models in the framework of a multigroup analysis. Goodness-of-fit indicators reveal positive results, with $S-B\chi^2(520) = 1247.48$, NNFI = .97, CFI = .96, RMSEA = .04, CI RMSEA = .03-.05. Third, factor saturations were matched for boys and girls, $S-B\chi^2(581) = 1248.42$, NNFI = .95, CFI = .95, RMSEA = .03, CI RMSEA = .03-.04. Finally, structural variance was tested assuming equality in the equivalence of the structural coefficients, $S-B\chi^2(590) = 1313.26$, NNFI = .99, CFI = .99, RMSEA = .05, CI RMSEA = .04-.06. Although the overall model and the more restrictive model present statistically significant differences, given that $\Delta\chi^2$ (Satorra-Bentler) = 64.86, $p < .001$ (Satorra & Bentler, 2001), and the Δ NNFI, CFI and RMSEA are higher .01 (Dimitrov, 2010). Although assuming these differences, they occur in favour of the model with more constrictions, which shows absence of differences between groups and, therefore, absence of moderation of the sex variable. A difference of .05 or less in the CFI index could be considered insignificant (Little, 1997).

Despite the absence of differences in the model configuration, the relationships between the independent variables with each other and on the dependent variables vary in both boys' and girls' models (see Figure 3). In girls, the relationship between parental supervision and extimacy has a larger inverse association ($\beta = -.19$) than in boys ($\beta = -.04$). As for boys, extimacy shows a stronger relationship with cybervictimization ($\beta = .45$) than in girls ($\beta = .26$). The independent variables explain 31% of the explained variance of cybervictimization for boys and 12% in for girls.

In the multigroup analyses, relative to age, the same procedure was followed, with the following results for preadolescents: $S-B\chi^2(270) = 633.97$, NNFI = .99, CFI = .99, RMSEA = .01, RMSEA CI = .01-.06, and adolescents $S-B\chi^2(270) = 764.69$, NNFI = .96, CFI = .96, RMSEA = .03, RMSEA CI = .02-.04). Goodness-of-fit indicators reveal positive results, with $S-B\chi^2(520) = 1386.34$, NNFI = .96, CFI = .95, RMSEA = .03, CI RMSEA = .02-.05. Third, the saturations in the factors for preadolescents and adolescents are equalized, $S-B\chi^2(581) = 1446.32$, NNFI = .95, CFI = .95, RMSEA = .03, CI RMSEA = .03-.04. Finally, the structural variance was tested assuming equality in the equivalence of the structural coefficients, $S-B\chi^2(590) = 1706.81$, NNFI = .98, CFI = .98, RMSEA = .05, CI RMSEA = .04-.06. The overall model and the more restrictive model present statistically significant differences, given that $\Delta\chi^2$ (Satorra-Bentler) = 260.49, $p < .001$ (Satorra & Bentler, 2001), and the Δ NNFI, CFI and RMSEA are higher .01 (Dimitrov, 2010). Although again, the model with more constrictions has better fit,

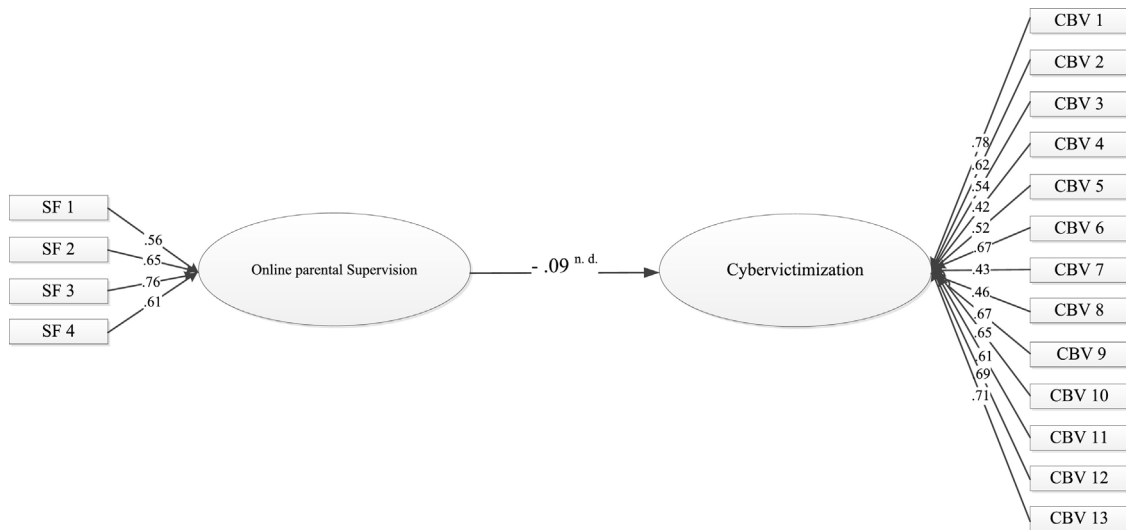
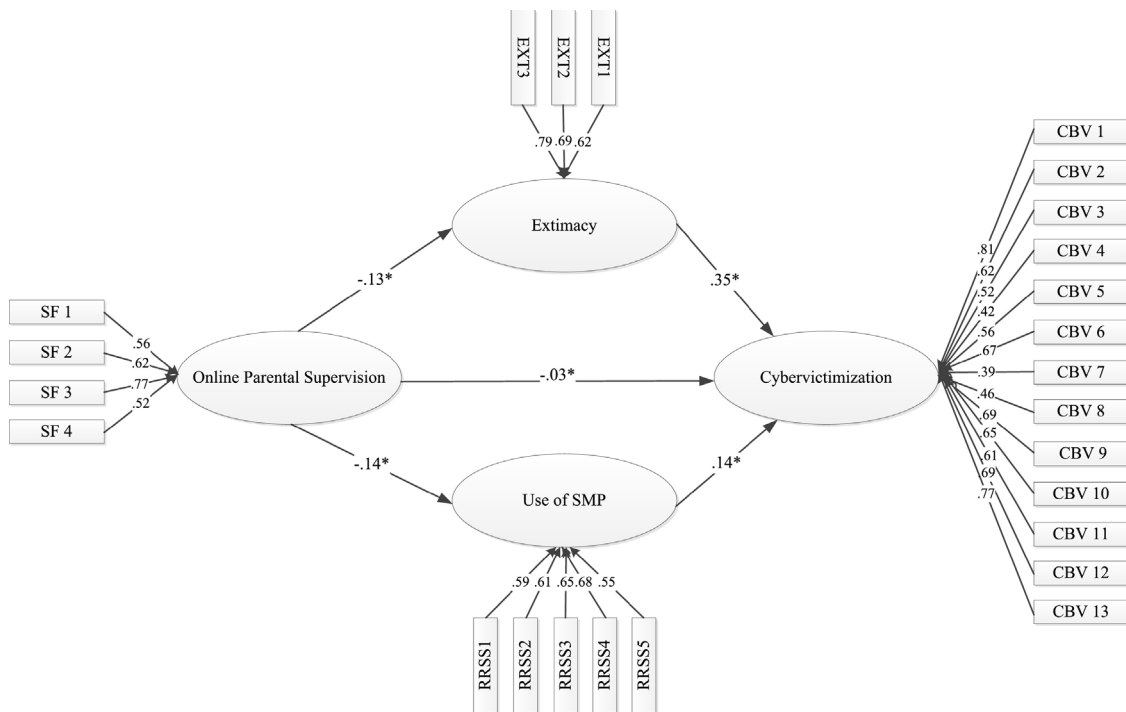


Figure 1. Graphical solution direct SEM model between supervision and cybervictimization.



* Statistically significant correlations .05

Figure 2. Hypothetical model.

*Statistically significant correlations .05.

which also indicates absence of differences between groups as the difference of .05 or less in the CFI index could be considered insignificant (Little, 1997).

Despite this similarity between groups, in the preadolescent model, the relationship between parental supervision and SMP use (see Figure 4), possesses the largest inverse association ($\beta = -.21$) than in adolescents ($\beta = -.13$) and extimacy presents greater relationship with cybervictimization ($\beta = .60$ vs $\beta = .15$) (see Figure 4). The independent variables explain 38% of the explained variance of cybervictimization for preadolescents and 16% for adolescents.

To analyse the prediction of involvement (or not) as a victim of cyberbullying, logistic regression analysis was used, categorizing the dependent variable into victims (695) and non-victims

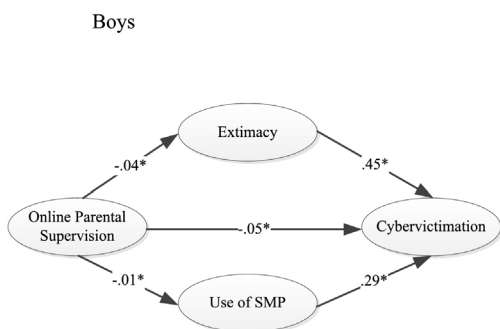
Table 3

Number and percentage of cases correctly classified in predicting cybervictimization

Observed	Forecasted			
	No victim	Victim	% correct	
Cybervictimization	No victim	4330	16	99.6%
	Victim	688	7	1.0%
Overall percentage				86%

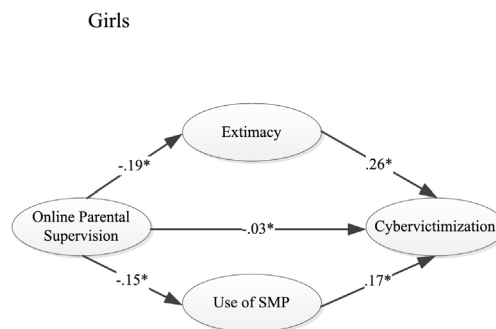
Cut-off value is .500.

(4,346). The model allows a correct estimation ($\chi^2=239.18$, $p < .001$) of 86 % of the cases (see Table 3), entering the equation as predictor variables: parental supervision (SP) (Wald = 8.77,



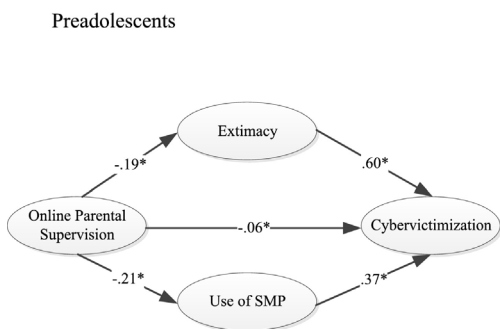
*Statistically significant differences $p < .001$

Figure 3. Gender segregated models.



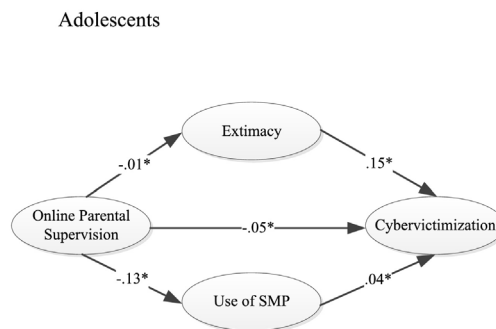
*Statistically significant differences $p < .001$

*Statistically significant differences $p < .001$.



*Statistically significant differences $p < .001$

Figure 4. Age-segregated models.



*Statistically significant differences $p < .001$

*Statistically significant differences $p < .001$.

$p = .003$), extimacy (Ext) (Wald = 143.71, $p = .001$) and the use of SMP (UR) (Wald = 32.57, $p = .001$). Following the proposals of (Hosmer & Lemeshow, 2004) and (Kleinman & Norton, 2009), the regression equation obtained is as follows: $\frac{1}{(1+e^{(-H)})}$; $H = -2.46 - .10SP + .52Ext + .24UR$. Presenting Cox and Snell's R2 values of .046 and Nagelkerke's R2 of .084.

Discussion

This study was conducted to investigate the complex relationship between family supervision and victims of cyberbullying. The first results, in line with previous studies (Baldry et al., 2015; Chen et al., 2017; Livingstone & Smith, 2014; Zych et al., 2019), allow us to affirm that parental monitoring of online activity does not directly predict victimization in cyberbullying, which allows us to refute the first hypothesis put forward. In contrast, the results regarding the second objective show that parental supervision can be an important protective factor against cyberbullying if the parents' actions influence the specific online activities performed by their sons and daughters: that is, if they influence the use of SMP and extimacy on the Internet and in SMP. In this sense, the results indicate that when family supervision is focused on such activities, behaviors that are related to greater cybervictimization, such as commenting daily on everything that happens to me on SMP or leaving profiles open, decrease (Kowalski et al., 2019; Peluchette et al., 2015), which confirms the second hypothesis of the study.

Regarding possible differences in the family supervision-cybervictimization relationship, mediated by SMP use and extimacy practices, as a function of sex and age, the results do not

confirm the third hypothesis. Sex and age do not clearly show a mediating effect as the model found is valid for the groups compared. This result reinforces the importance of the second objective, since the model shows adequate results in the sex and age comparison. These results support the explanation of cybervictimization based on parental supervision, if this is mediated by SMP activities and intimacy. In other words, when girls, boys, adolescents and preadolescents perceive correct parental supervision of the personal information they disseminate or publish on SMPs and of the behaviors normalized on the web, their possible involvement as victims of cyberbullying is prevented.

Apart from this, it is possible to interpret that the relationships between the independent variables and the percentage of explained variability of cyberbullying do not coincide exactly between boys and girls, nor between preadolescents and adolescents. It seems that family supervision is more relevant in explaining cybervictimization in boys and preadolescents. In contrast, for girls this supervision seems to impact more on their online practices, both in relation to use and extimacy, consistent with previous studies (Livingstone et al., 2015). In contrast, in the case of boys, although parental supervision impacts less on internet use practices, this smaller change seems to influence more in the reduction of cybervictimization. These differences in the relationships found may be explained given the greater likelihood of girls to be victims of cyberbullying (Barlett & Coyne, 2014), as well as to post personal information about themselves on SMP (Kowalski et al., 2019). This possible difference has been explained by the double standard in the interpretation of that same behavior for both sexes and by the normative gender pressure associated with stereotyp-

ing girls (Lippman & Campbell, 2014). In other words, it could be deduced from these results that, although there are no differences in the variables that explain cybervictimization, it does seem that the importance of each of them is relatively different between boys and girls.

On the other hand, even assuming the absence of differences according to age, it seems that parental supervision in preadolescents could protect them to a greater extent from cybervictimization and online practices than in adolescents. These results are in line with previous studies that point to greater effectiveness of family supervision at this developmental stage (Mesch, 2009) and that family supervision loses effectiveness in adolescence, as young people focus more on their peers (Elsaesser et al., 2017; Kowalski et al., 2019). This would imply that strategically it would be more appropriate for mothers and fathers to put more effort into supervising their children's practices in virtual environments at an earlier age (Padilla-Walker et al., 2020), trying to teach them an optimal balance between intimacy-extimacy and the value of privacy in this online context in which minors share experiences necessary for the acquisition of social development competencies (Kim & Kim, 2019).

Likewise, the regression results go in the same direction. Clearly extimacy, SMP use and parental supervision, in this order, largely explain being involved as a cybervictim or not, which confirms the fourth hypothesis of the study. That is, parental supervision is necessary to prevent cybervictimization (Sasson & Mesch, 2017), but it must also be accompanied by a change in the online practices of minors (Baldry et al., 2015; Khurana et al., 2015). This finding is especially relevant given that it points to the need to continue investigating what factors, in addition to parental supervision, are explaining the online practices of minors, such as the peer context, since it tends to gain relevance in the adolescent years (Casas et al., 2020). Therefore, this study provides relevant information for the educational practice of families about virtual environments and technological applications, since it points out that parental supervision is a protective factor against cybervictimization when it is directed towards specific behaviors and based on the information disseminated by minors in these applications. In other words, strategies should be developed to help make minors aware that these behaviors are risky and can lead to negative consequences, such as cybervictimization (Katz et al., 2019; Legate et al., 2019).

Despite the contributions of this study, there are also limitations. First, the use of self-report measures may entail some biases and social desirability effects, and even greater when teachers are the ones who administer it, even if they are instructed to do so. In addition, the sample is limited to a specific geographical context and was selected incidentally, which prevents generalization of the results. In future research, it would be interesting to test whether the model's relationships are confirmed in longitudinal studies. Similarly, the victim model does not consider the role of other potentially important variables, which could be mediators, or modulators of the relationships examined in this study. For example, previous studies have highlighted the importance of peer pressure (Monks et al., 2016) in adolescents and the moderating effect of age relative to gender (Barlett & Coyne, 2014).

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