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ORIGINAL ARTICLE

Peer sexual cybervictimization in adolescents: Development and validation of a scale

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KEYWORDS
Peer sexual cybervictimization;
Internet;
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Invariance;
Ex *post facto study*

Abstract *Background/Objective*: The study of sexual cyberbehaviour in adolescence has received much attention in recent years, because of the risks associated with exposure to pornography, unwanted sexual solicitations, and gender-based sexual harassment. The prevalence of this phenomenon varies from study to study due to a lack of consensus around how to define and measure peer sexual cybervictimization. This study aims to contribute to this research topic by developing and validating a measure of peer sexual cybervictimization among adolescents. *Method*: 601 adolescents (mean age 14.06) from two Spanish cities participated in this study. Cross-validation was performed using EFA and CFA. In a second step, a multi-group analysis was conducted to compare the equivalence of the measure by gender. *Results*: The results confirmed a second-order model comprising two first-order factors: Ambiguous sexual Cybervictimization and Personal sexual Cybervictimization. The model was invariant by gender. Descriptive analyses showed significant differences in Ambiguous sexual aybervictimization, this being more frequent in boys than in girls. Prevalence rates varied from 17 to 26%, with less involvement observed in the Personal dimension. *Conclusions*: This work proposes a valid and gender invariant measure to analyze peer sexual cybervictimization in adolescence.

PALABRAS CLAVE
Cibervictimización sexual entre iguales;

Cibervictimización sexual entre adolescentes: desarrollo y validación de una escala

Resumen *Antecedentes/Objetivo*: El estudio de la ciberconducta sexual en la adolescencia ha recibido mucha atención en los últimos años, especialmente la referida a los riesgos que

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Internet;
adolescencia;
invarianza;
estudio *ex post facto*

suponen la exposición a la pornografía, las solicitudes sexuales indeseadas y el hostigamiento sexual basado en el género. La prevalencia del fenómeno varía entre los diferentes estudios debido a una falta de consenso en la definición y medida del constructo cibervictimización sexual. Este trabajo pretende contribuir en esta área, desarrollando y validando una escala para medir victimización sexual online. *Método*: Una muestra de 601 adolescentes de dos ciudades españolas (edad media 14,06) participaron en el estudio. Se realizó una validación cruzada empleando AFE y AFC, así como un análisis multigrupo para comparar la equivalencia de la medida por sexo. *Resultados*: se confirmó un modelo de segundo orden compuesto por dos factores (Cibervictimización sexual ambigua y Cibervictimización sexual personal) invariante por sexo. Los análisis indicaron diferencias significativas en la dimensión ambigua, siendo más frecuente en ellos. Los datos revelaron una prevalencia entre el 17 y 26%, siendo menor la implicación en la forma personal. *Conclusiones*: Se propone una medida válida e invariante en ambos sexos de la cibervictimización sexual por parte de los iguales en la adolescencia.

Internet uses and the amount of time adolescents spend connected has turned the online world into another context where they can develop and learn, engaging in developmental tasks appropriate for their age group (Denissen, Neumann, & van Zalk, 2010), such as exploring, expressing and adjusting their sexuality in line with social and cultural norms (Steinberg, 2013). Studies to date support this assertion, demonstrating how young people actively and passively participate in sexually explicit content in an online setting (Livingstone & Mason, 2015; Peter & Valkenburg, 2011). This includes exchanging erotic and pornographic material, obscene messages and even posting compromising personal information with the intention of making their sexual image public (Ringrose, Gill, Livingstone, & Harvey, 2012), flirting and initiating sexual encounters (Pujazon-Zazik, Manasse, & Orrell-Valente, 2012).

The study of sexual cyberbehaviour in adolescence has received much attention in recent years (Klettke, Hallford, & Mellor, 2014; Livingstone & Mason, 2015), not only because of the risks that these experiences may entail for young people's personal and social development (Livingstone & Smith, 2014), but also because more than half of the adolescents who receive some of this content find it disturbing and unpleasant (Jones, Mitchell, & Finkelhor, 2012). When this occurs, expressions of desire and sexual interest may become maladjusted, with some adolescents now feeling themselves at the centre of online sexual victimization (Hill & Kearl, 2011).

Research into the prevalence of peer sexual cybervictimization compared with face-to-face victimization has shown that online forms are equally or less present than the face-to-face kind (Livingstone & Mason, 2015), with prevalence rates varying from 3 to 40% (Mitchell, Ybarra, & Korchmaros, 2014; Rinehart & Espelage, 2015). One of the main reasons for this variability in results lies in the wide range of theoretical models and behaviours under analysis. From a risk perspective, the focus has turned to analyzing unwanted sexual solicitations, unintentional exposure to pornography, and sexting (Livingstone & Smith, 2014; Mitchell et al., 2014), with more than 30% of adolescents having been unintentionally exposed to sexual content (Mitchell et al., 2014), just over 12% receiving sexual images (Klettke et al., 2014), and approximately 12.5% on the receiving end of sexual solicitations (Baumgartner, Valkenburg, & Peter, 2010). As for those studies interested in interpersonal aggression and cyberbullying, sexual forms have been identified as a further expression of peer cybervictimization (Álvarez-García, Núñez, Dobarro, & Rodríguez, 2015), or the focus has turned to sexual, homophobic cyberaggression and cybervictimization (Gruber & Fineran, 2008; Rinehart & Espelage, 2015), which relates to offensive comments about the other's sexual orientation, sexual insults and spreading rumours about another's sexual behaviour. The prevalence rates in these studies varied from 4 to 38% (Fridh, Lindström, & Rosvall, 2015; Van Royen, Poels, & Vandebosch, 2016) and they are perceived as the most hurtful and devastating acts of sexual cyberaggression for victims (Van Royen, Vandebosch, & Poels, 2015). Lastly, from a developmental perspective, sexual harassment is viewed as a range of behaviours that would likely reflect rude or ineffective displays of desire and sexual interest that could evolve into actual sexual aggression (Bendixen & Kennair, 2017). These sexualized interactions would come across as ambiguous to those on both the receiving and giving ends, complicating the perception of violence for victims and perpetrators (American Association of University Women, AAUW, 2001; Ortega, Sánchez, Ortega-Rivera, Nocentini, & Menesini, 2010). From this perspective, the studies have focused mainly on sexual cybervictimization (Van Royen et al., 2015).

Another reason for this disparity of results concerns a lack of empirical consensus surrounding peer sexual cybervictimization dimensions, a limitation that is shared with studies on face-to-face sexual violence, where some authors have distinguished between gender-based sexual harassment, unwanted sexual attention and sexual coercion (Fitzgerald, Gelfand, & Drasgow, 1995), in terms of severity, from moderate to severe (Lacasse, Purdy, & Mendelson, 2003); comparing same and cross-gender sexual

victimization (Schnoll, Connolly, Josephson, Pepler, & Simkins-Strong, 2015); those who have differentiated between visual-verbal and physical sexual harassment (Vega-Gea, Ortega-Ruiz, & Sánchez, 2016); and authors who have opted for a one-dimensional construct (Chiodo, Wolfe, Crooks, Hughes, & Jaffe, 2009). At present, there are no conclusive studies on sexual cybervictimization, although theoretical (Barack, 2005) as well as exploratory (Van Royen et al., 2015) and empirical (Ybarra, Espelage, & Mitchell, 2007) studies suggest the existence of a passive form of sexual cybervictimization, which would include exposure to pornography or to another type of sexual content, and a form of cybervictimization based on sexual requests and solicitations, which would encompass more serious and disturbing forms of gender-based, homophobic victimization. For example, the YISS survey (Jones et al., 2012) has defined peer cybervictimization based on three dimensions: two of a sexual nature, namely unwanted sexual solicitations and unwanted exposure to sexual context; and non-sexual online harassment, reporting good psychometric properties (Ybarra et al., 2007). The American Association of University Women (AAUW) survey, which is widely used in the study of peer sexual harassment (Gruber & Fineran, 2008; Witkowska & Kjellberg, 2005), has recently incorporated specific questions about online sexual victimization and aggression (Hill & Kearl, 2011), but has yet to present the psychometric properties.

This study aims to build on this line of research by validating an instrument for measuring sexual cybervictimization in adolescence, understood as those cyberbehaviours perpetrated by peers in an online environment (Van Royen et al., 2015), and which may prove disturbing and unpleasant for the receiving party (AAUW, 2001). This covers a range of behaviours, such as unwanted sexual solicitations, receipt of pornography, obscene visual and/or verbal remarks (Hill & Kearl, 2011), and acts of sexual aggression (Van Royen et al., 2015). The AAUW Sexual Harassment Survey (AAUW, 2001) was adapted and validated for application to online contexts given that: 1) it continues to be one of the most frequently used tools in the study of face-to-face peer sexual harassment; 2) it adopts a developmental approach to the phenomenon, linking it to the expression of sexuality and the start of dating relationships, excluding issues relating to strangers and adults, commonplace in studies based on the risk model; and 3) it takes into account gender differences in experiencing this phenomenon. In this respect, some studies have found that boys and girls interpret the same behaviours differently, having a more negative impact on the female population (Biber, Doverspike, Baznik, Cober, & Ritter, 2002; Witkowska & Kjellberg, 2005). It is for this reason that the second aim will be to analyze whether the models are invariant by gender, and to examine the emotional impact on both sexes.

Given that the development of specific instruments to measure peer sexual cybervictimization in available literature is still scarce, an exploratory approach will be taken in order to determine the possible dimensions underlying the phenomenon. In this regard, and in line with previous studies (Barak, 2005; Van Royen et al., 2015; Ybarra et al., 2007), we would expect to find a two-dimensional model. However, in accordance with studies on face-to-face peer sexual victimization, we would expect the one-dimensional sexual cybervictimization model to also be adequate.

Criterion validity will be assessed by comparing peer sexual cybervictimization with online intrusiveness and victimization in dating relationships, and with sensation-seeking behaviours. Previous studies found a correlation between face-to-face peer sexual harassment and sexual victimization in dating relationships (Sánchez, Viejo, & Ortega-Ruiz, 2012) and other forms of dating violence (Chiodo et al., 2009). Assuming there is a transfer between contexts and continuity between the online and offline worlds (Subrahmanyan & Šmahel, 2011), we would expect to see positive correlations between peer and dating sexual cybervictimization. Furthermore, some studies have reported on how risky sexual cyberconduct is associated with sensation-seeking behaviours (Baumgartner et al., 2010), which is expected to produce a positive correlation between peer sexual cybervictimization and some sensation-seeking behaviours related to sexuality and dating relationships.

Method

Participants

Six hundred and one (601) secondary-level students (ESO) chosen through intentional sampling from four schools, two in Seville ($n = 345$) and two in Córdoba ($n = 256$), participated in the study. The schools were selected based on two criteria: they were public-run and were located in mid-level socioeconomic areas. Their ages ranged from 12 to 16 years ($M = 14.06$, $SD = 1.25$), with 48% being male ($n = 286$). The participants were similarly distributed across school year: 25% were in their first year of secondary education ($n = 150$), 21% in their second year ($n = 126$), 34.4% in their third year ($n = 207$), and 19.6% in their fourth year of secondary education ($n = 118$).

Instruments

Peer sexual cybervictimization (SCV). The *AAUW Sexual Harassment Survey* (AAUW, 2001) in its Spanish version (Ortega et al., 2010) was adapted to the online context. For this purpose: 1) seven of the original 13 items were removed because they involved a direct physical component (e.g., *Brushed up against you in a sexual way on purpose*); 2) the remaining items were adapted so that they specifically referred to behaviours that occurred in an online context; 3) four items were added which assessed context-specific (online) behaviours in accordance with recommendations made in previous studies concerning sexual cybervictimization (Barak, 2005; Van Royen et al., 2015); and 4) the instrument's instructions were revised explicitly asking as follows: ''Thinking about your peers, how often have the following things happened to you since the school year started via social networks or via mobile phone without you wanting it to happen? Answer by thinking about those things that have happened to you''. A five-point Likert scale was used (0 = *Never*, 4 = *Daily*).

Emotional impact. In order to analyze emotional distress in SCV, the following question was asked after each item: ''How did you feel when it happened to you?'', with response

options ranging from 0 (*It didn't bother me*) to 4 (*I felt really bad*).

Online victimization in dating relationships. Three scales were administered: the sexual and non-sexual cybervictimization among dating partners scales from the *Cyber Dating Abuse Questionnaire* (Zweig, Dank, Lachman, & Yahner, 2013) and the online intrusiveness scale in the *Cyberdating Q-A* (Sánchez, Muñoz-Fernández, & Ortega-Ruíz, 2015). All items were measured on a five-point Likert scale (0 = *Never*, 4 *Always*). The sexual and non-sexual cybervictimization scales comprised four and nine items respectively, which assessed the frequency with which they had received sexual and non-sexual abusive behaviours displayed by their dating partner (e.g., *Your partner has sent you sexual photos or naked photos of himself/herself knowing that you didn't want this; Your partner has sent you a threatening text message*). The online intrusiveness scale comprised four items that assessed the frequency with which they had received, over the last six months, constant attempts at communication by their partner following an argument (e.g., *When we're annoyed with each other and I don't respond to my partner, he or she leaves me lots of private messages*). The internal consistency indices were satisfactory: Sexual cybervictimization (α= .76), Non-sexual cybervictimization (α= .78), and Online intrusiveness (α= .81).

Sensation seeking. The cyberdating practices scale in the *Cyberdating Q-A* (Sánchez et al., 2015) was used. This scale, comprising four items measured on a five-point Likert scale (0 = *Never*, 4 = *Always*), assesses behaviours related to contacting and flirting with several people at the same time over the Internet (e.g., *I have flirted with other people via social networks whilst in a relationship)*, and giving personal contact details to people they have just met. Internal consistency was .66. Despite presenting a value slightly lower than the accepted threshold (.70), the item-total correlation corresponding to all items that made up the scale ranked higher or equal to .30, so the decision was made not to change or deviate from the original scale.

Procedure

Previously trained researchers administered the paper-and-pencil questionnaires during ordinary classroom sessions. Prior informed consent from the students' parents was obtained. Each questionnaire took on average 30 minutes to complete. Participation was voluntary and anonymity was guaranteed. Students received no rewards or incentives for taking part. The research project received a favourable report from the Research Ethics Committee of the Autonomous Region of Andalusia.

Data analysis

First, cross-validation of the instrument was performed, combining Exploratory Factor Analysis (EFA) for 50% of the sample (randomly selected) and Confirmatory Factor Analysis (CFA) for the remaining 50% in order to explore and confirm the structure of the SCV measure. In the EFA, the participants were 309 adolescents, with a mean age of 14.10 years (*SD* = 1.26, 55.2% female), and the CFA involved 292 adolescents with a mean age of 14.02 years (*SD* = 1.25, 48.6% female). The WLSMV method was employed owing to the non-normal nature of the data. The EFA utilized the Geomin rotation method. Second, given that the literature points to significant differences by gender in the behaviour under evaluation, factorial invariance by gender was tested using a multi-group analysis. The WLSMV estimation method and Theta parameterization (Muthén & Muthén, 2012) were used, breaking down the analysis into two stages: 1) in the configural model, the thresholds and factor loadings are free in both groups, the residual variances are fixed to 1 across all groups, and the factor means are fixed to 0 in both groups; and 2) in the metric-scalar model, the thresholds and factor loadings are constrained to be equal in both groups, the residual variances are fixed to 1 in Group 1 and free in the other group, and the factor means are fixed to 0 in Group 1 and free in the other group. In order to confirm factorial invariance by gender, the DIFFTEST option in Mplus 7 was applied, comparing the X^2 values of the configural and metric-scalar models. If the outcome of the test is not significant, this confirms that the model is invariant at the metric-scalar level, allowing us to compare the latent factors and measurements. In the CFA and multi-group analysis, the X^2, *RMSEA* and *CFI* fit indices were used. The recommended cut-off points were $\leq$.08 for *RMSEA* (Browne & Cudek, 1993) and $\geq$.90 for *CFI* (Bollen, 1989). The EFA, CFA and multi-group analyses were performed using Mplus 7 and the FIML method for missing data. Lastly, correlation analyses between the SCV scale and other variables were conducted in order to confirm criterion validity, and descriptive gender analyses were performed using SPSS 23.

Results

Table 1 presents a descriptive analysis of the items that assessed peer sexual cybervictimization. A significant floor effect was observed across all items, given that a large percentage of participants reported having never received any of the cyberbehaviours under examination. The skewness and kurtosis values indicated normality problems.

Exploratory Factor Analysis (EFA)

Due to the exploratory nature of the analysis, one-factor, two-factor and three-factor extraction was requested. The three-factor solution was discarded because it yielded a solution in which a single factor was made up of less than three items. The one-dimensional solution [$X^2(27) = 84.91$; *RMSEA* = .087; *CFI* = .97] revealed a worse fit to the data than the two-dimensional solution [$X^2(19) = 48.14$; *RMSEA* = .073; *CFI* = .99], which explained 68.57% of the total variance. Table 1 outlines the factors and items for each factor. Item number 7 *(Making a sexual joke)* was excluded given that its saturation was greater than 1. The first factor included items that made reference to ambiguous sexual exchanges and which was called Ambiguous sexual Cybervictimization (ASCV). The second factor was labelled as Personal sexual Cybervictimization (PSCV), because the items corresponded to receiving insults and sexual solicitations explicitly targeted at the victim, as well as exposure to personal and/or private sexual content. All items showed communalities greater than .40 and factorial loadings higher than .60. The

Table 1 Descriptive analyses and factorial result of peer sexual cybervictimization.

Factors	Items	*M (SD)*	Skewness *(SE)*	Kurtosis *(SE)*	*Floor effect*	λ	*h*
ASCV 36.05% explained variance α= .78	1. Made sexual comments, jokes or gestures towards you on your social networking profile or via WhatsApp	0.59 (1.05)	1.91 (0.11)	2.82 (0.22)	66.9	0.68	.47
	5. Shown, given or left you sexual pictures, photographs or remarks	0.34 (0.83)	2.84 (0.11)	8.03 (0.22)	79.4	0.86	.74
	6. Written you sexual messages or shown sexual drawings	0.38 (0.84)	2.38 (0.11)	5.31 (0.22)	77	0.94	.90
	8. Talked about sex with you over the Internet	0.57 (1.06)	1.86 (0.11)	2.47 (0.22)	70.5	0.76	.59
PSCV 32.52% explained variance α= .74	2. Made jokes or spread false rumours about your sexual behaviours on your social networking profile or via WhatsApp	0.18 (0.58)	3.99 (0.11)	18.40 (0.22)	88.4	0.69	.50
	3. Called you a queer, lesbian, prostitute, homosexual etc. on your social networking profile or via WhatsApp.	0.31 (0.82)	3.03 (0.11)	8.99 (0.22)	83.2	0.80	.65
	4. Shown you their behind or other parts of the body via photos.	0.23 (0.67)	3.36 (0.11)	11.56 (0.22)	85.5	0.63	.44
	9. Hinted or asked that you send photos of a naked part of your body.	0.25 (0.70)	3.02 (0.11)	8.66 (0.22)	85	0.77	.60
	10. Sent or shown you a personal photo of a provocative nature or showing a part of the body.	0.25 (0.75)	3.58 (0.11)	13.07 (0.22)	85.2	0.96	.92

Note. ASCV = Ambiguous sexual Cybervictimization; PSCV = Personal sexual; Cybervictimization; M = Mean; *SD* = Standard deviation; Skewness = Skewness statistic; Kurtosis = Kurtosis statistic; *SE* = Standard error statistic; Floor effect = percentage of participants who responded 'never'; λ = factor loading of the rotated solution; h = communality.
The descriptive analyses correspond to the total sample (N = 601) and the results of the exploratory factor analysis correspond to approximately 50% of the sample (n = 309). The correlations between items varied from .21 to .64.

correlation between both factors was .80. The internal consistency for both factors was satisfactory (Table 1).

Confirmatory Factor Analysis (CFA)

The model with two correlated latent factors (ASCV and PSCV) was tested. The results showed a good fit [$X^2(26) = 60.94$; *RMSEA* = .069; *CFI* = .97]. However, the standardized correlation between the factors was very high (.94). As such, two models that were more parsimonious with the results found were tested: a one-dimensional model and a second-order model comprising two first-order factors, the latter recommended in scenarios where the first-order factors are substantially correlated, assuming that a higher-order factor may explain the relations among lower-order factors (Chen, Sousa, & West, 2005). The one-dimensional model produced a fit similar to the first-order two-factor model [$X^2(27) = 61.67$; *RMSEA* = .068; *CFI* = .97], whereas the fit of the second-order model was the same as the first-order two-factor model [$X^2(26) = 60.94$; *RMSEA* = .069; *CFI* = .97]. The second-order model was considered the most adequate solution given that it allowed us to analyze two forms of sexual victimization while consolidating these behaviours into one molar construct (Figure 1).

Factorial invariance of the SCV instrument by gender

The factorial invariance of the second-order model between boys and girls was tested by means of a multi-group analysis. Both the configural model [$X^2(52) = 116.16$; *RMSEA* = .066; *CFI* = .98] and the metric-scalar model [$X^2(84) = 139.45$; *RMSEA* = .049; *CFI* = .98] showed a good fit. Given that the comparison of increment between the chi-squared of the two nested models ($\Delta Trd = 38.99$; $gl = 32$; $p = .18$) was not

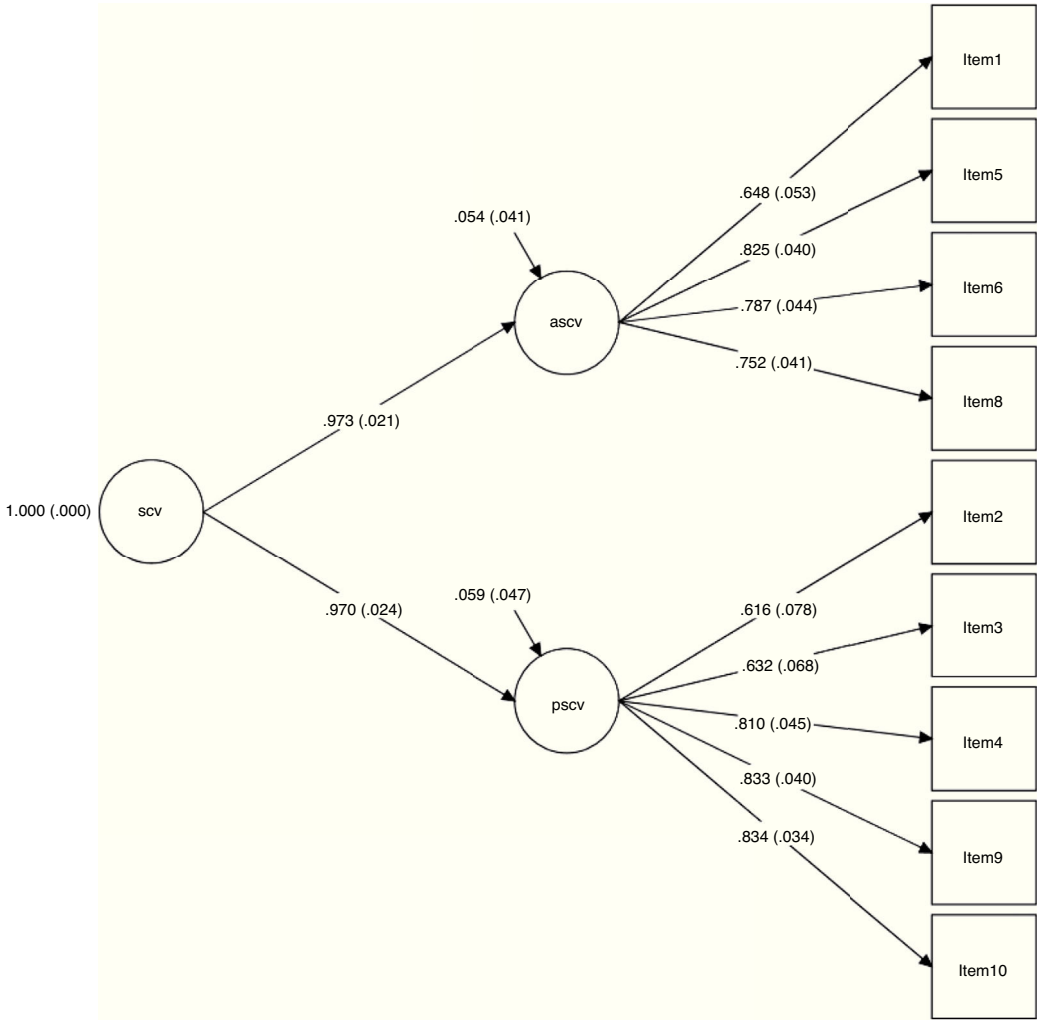

Figure 1 Diagram of the second-order model for sexual cybervictimization.
Note. SCV = Sexual cybervictimization (α=.84); ASCV = Ambiguous sexual Cybervictimization; PSCV = Personal sexual Cybervictimization; all values shown in the diagram are standardized; the standardized errors appear in brackets. $n = 292$.

significant, the level of metric-scalar invariance between genders was accepted.

Criterion validity

In order to examine criterion validity, a subsample of participants (305 adolescents, mean age 14.19; $SD = 1.16$, 61% male) were asked to complete the scales corresponding to cybervictimization in dating relationships, online intrusiveness and cyberdating practices. The correlations obtained are shown in Table 2.

ASCV and PSCV were positively associated with cybervictimization and online intrusiveness in dating relationships, with an effect size between small and medium. Cyberdating practices were positively associated with ASCV across both genders, and only with PSCV for girls.

Descriptive analysis and emotional impact

Frequency and prevalence by gender was analyzed for the total sample (Table 3). In order to calculate prevalence rates, the ASCV and PSCV scores were dichotomized, with 0 corresponding to those who reported never having received any of the behaviours and 1 being those who experienced this on occasions. Prevalence in ASCV and PSCV was similar across both sexes, although boys confirmed having experienced more ASCV ($t(557) = 13.79$; $p = .01$; $d = 1.17$). No statistically significant differences by gender were found for PSCV ($t(557) = 8.03$; $p = .06$). Emotional impact was assessed only among those involved. No differences in perceived emotional impact were observed for either ASCV or PSCV. However, girls reported feeling more bothered than their male counterparts when it came to ASCV [$X^2(1) = 4.32$; $p = .04$].

The analysis of co-occurrence for both forms of victimization revealed that 49.1% ($n = 79$) of all those involved confirmed having received ASCV and PSCV; 37.9% ($n = 61$) only experienced ASCV; and 13% ($n = 21$) PSCV alone. Girls found themselves more involved in PSCV than their male peers (16 vs. 5) and those doubly involved reported feeling more bothered than the other two groups regardless of gender.

Table 2 Correlations between sexual cybervictimization, cybervictimization and online intrusiveness in dating relationships and cyberdating practices by gender (girls in brackets).

	ASCV	PSCV	SCV
Online intrusiveness	.35** (.38**)	.38** (.30**)	.39**(.39**)
Non-sexual cybervictimization	.35**(.43**)	.29**(.43**)	.34**(.40**)
Sexual cybervictimization	.26** (.43**)	.32** (.38**)	.30**(.41**)
Cyberdating practices	.25** (.35**)	.10 (.25*)	.21*(.33**)

Note. ** $p \leq .01$; * $p \leq .05$; ASCV = Ambiguous sexual Cybervictimization; PSCV = Personal sexual Cybervictimization; SCV = Sexual cybervictimization; $n = 305$.

Table 3 Descriptive statistics of Sexual Cybervictimization by gender.

	Frecuency		Prevalence		Emotional impact	
	ASCV	PSCV	ASCV	PSCV	ASCV	PSCV
Boys	0.59 (0.85)	0.32 (0.61)	25.8%	18.4%	39.2%	40.4%
Girls	0.42 (0.65)	0.24 (0.49)	24.9%	16.8%	56.7%	56.6%

Note. Standard deviation is shown in brackets; ASCV = Ambiguous sexual Cybervictimization; PSCV = Personal sexual Cybervictimization; $n = 601$.

Discussion

The aim of this study was to analyze peer sexual cybervictimization in adolescence based on the adaptation and validation of the Sexual Harassment Survey (AAUW, 2001) to the online context. The results of the EFA and CFA confirmed a second-order model comprising two dimensions: Ambiguous and Personal sexual Cybervictimization, invariant by gender. This result lends potential to the model obtained, given that one of the main challenges in measuring sexual victimization is the different ways in which boys and girls interpret this phenomenon (Hill & Kearl, 2011). This has led to different gender-based models for face-to-face sexual victimization (Witkowska & Kjellberg, 2005) and female-specific models (Ortega et al., 2010).

The first factor, Ambiguous sexual cybervictimization, encompassed sexual exchanges whose content did not make direct reference to the person receiving these messages. This was the most frequent factor across both genders, with 25% being involved, and it was associated with cyberdating practices. This relationship may account for adolescents' need for sexual exploration (Subrahmanyan & Smahel, 2011), as they use the Internet and social networks as another means of communication, searching for sexual content, and displaying sensation-seeking behaviours (Baumgartner et al., 2010). Furthermore, the fact that boys were involved more frequently and that the emotional impact was less in boys than in girls would support the view that, according to the male population, sharing sexual content should not be seen in an overly negative light (Ringrose et al., 2012), reflecting a different development and experience of sexuality for both genders (Steinberg, 2013). The second factor, Personal sexual cybervictimization, made reference to receiving insults about the victim's behaviour and sexual identity, as well as requests for unwanted personal sexual images. In this case, the tone of these behaviours was more aggressive and focused on specific and intimate aspects of the victim, something which previous studies have described as sexual harassment (Barak, 2005) or homophobic bullying (Rinehart & Espelage, 2015). Prevalence data revealed that approximately one in five adolescents confirmed having received these behaviours at least once, and of these students, half said that they felt bothered by it, which is consistent with earlier studies (Van Royen et al., 2015).

Both encountered dimensions are similar to those outlined by Barak (2005), where the author distinguished between active and passive forms of online sexual harassment. Active forms would be those targeted at a particular person, and would resemble the PSCV observed in this study, whereas passive forms would be less direct, the target audience here being potential recipients of the content, especially when said material is posted in public virtual spaces. Although we are unable to determine whether ASCV in this study took place publicly or privately, what is certain is that passive forms (Barak, 2005) and ASCV share the same ambiguity of the message. Future studies could explore whether these behaviours are experienced in public or private places, and if this determines the fact that they are perceived as more or less disturbing. In short, the two dimensions differ not only in sexual cybervictimization content but also in frequency and involvement, which in turn lends substantive validity and contributes to the debate surrounding the nature of sexual cybervictimization in adolescence. Given the few studies available that address the dimensions of sexual cybervictimization among adolescents (Ybarra et al., 2007), this research represents a contribution to the study of the phenomenon and to the development and validation of a scale in Spain. Future studies using more representative samples would allow us to confirm the findings.

Despite the varying prevalence across both dimensions, perceived emotional impact by adolescents has delivered controversial results. More than half of boys and approximately 40% of girls who reported having experienced these

behaviours were not bothered by it, which seems to indicate a normalization of this sexual cyberconduct, as we have seen with face-to-face sexual victimization (Bendixen & Kennair, 2017). Future studies could examine whether the gender of the perpetrator (Schnoll et al., 2015), attitudes of acceptance and the reasons justifying these behaviours (Vance, Sutter, Berin, & Heesacker, 2015) are affecting this normalization, as observed in face-to-face sexual victimization. This suggests the need to design psychoeducational interventions that teach young people to develop and express their sexuality without having to be rude or aggressive, thus raising awareness of the risks associated with these behaviours.

Moreover, the assessment of perceived emotional impact could be accompanied by other measures, for example, psychological adjustment. Previous literature on the psychological correlates of face-to-face sexual victimization has found that peer sexual victimization affects the mental health and psychological adjustment of young people, who possess depressive and/or anxious symptomatology (Dahlqvist, Landstedt, Young, & Gadin, 2016; Fridh et al., 2015). Analyzing this relationship would give us a more accurate understanding of whether both forms of cybervictimization are associated in the same way with adolescent psychological adjustment.

The relationship observed between peer and couple sexual cybervictimization, especially among girls, is another of this study's relevant findings. Considering previous research into the predictive role of peer face-to-face sexual victimization on dating sexual victimization (Chiodo et al., 2009), we expected to observe the same association in an online context. The design of this study, however, does not allow for a conclusion to be drawn about the directionality of this relationship. Future longitudinal studies will help to confirm whether peer sexual cybervictimization is a risk factor for sexual cybervictimization in dating relationships and whether this risk is greater in girls.

This study sought to adapt and validate the peer sexual victimization scale to the online context in the Spanish adolescent population. The observed fit indices indicated that the measure is valid for analyzing the phenomenon across both sexes and represents one of the first contributions in Spain. However, this research has some limitations that are worth mentioning. The approach taken in this study was to consider two sexual victimization factors and one second-order factor, but further studies are needed to confirm this two-dimensional structure. Moreover, this study did not look at whether instances of sexual cybervictimization came from same or cross-gender peers, information that would enable us to analyze whether the perceived emotional impact depends upon the sex of the perpetrator (Bendixen & Kennair, 2017) and whether the contextual factors that predict peer sexual victimization differ according to gender in the perpetrator-victim dyad (Schnoll et al., 2015). To conclude, given the speed at which the Internet grows and evolves and the new uses offered by new technologies, the behaviours under assessment run the risk of partiality. From this perspective, including items such as blackmailing the victim with threats of releasing compromising or erotic material (Álvarez-García et al., 2015) could enhance the instrument by covering a wider range of behaviours.

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