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## Development and Validation of an Adolescent Gender-Based Violence Scale (ESVIGA)

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### ABSTRACT

The aim of this paper is the construction of a new scale to estimate adolescent gender-based violence. The scale is specifically designed for this population and incorporates new forms of violence, such as cyberviolence. The sample consisted of 701 students aged between 13 and 18 years. The internal consistency of the scale showed a high reliability value in the overall scale ( $\alpha = .965$ ), as well as in the subscales of violence committed ( $\alpha = .935$ ) and violence suffered ( $\alpha = .929$ ). The results would suggest that the new scale is not only concise and useful, but also adapted to the current reality of adolescents. With a reduction in the number of items compared to the scales currently available (it has 13 bidirectional statements) and a factorial structure with five types of violence (cyber-violence, verbal, physical, psychological, and sexual violence), the scale provides an up-to-date measure of the occurrence of this type of behavior in teen dating relationships.

## Desarrollo y validación de la Escala de Violencia de Género entre Adolescentes (ESVIGA)

### RESUMEN

El objetivo de esta investigación es la construcción de una nueva escala para estimar la violencia de género entre adolescentes y que incorpore la ciberviolencia. La muestra estuvo constituida por 701 estudiantes de edades comprendidas entre los 13 y los 18 años. La consistencia interna de la escala mostró un alto valor en la escala global ( $\alpha = .965$ ), así como en las subescalas de violencia cometida ( $\alpha = .935$ ) y sufrida ( $\alpha = .929$ ). Los resultados del presente estudio sugieren que la nueva escala no sólo es concisa y útil, sino que también se adapta a la realidad actual de los adolescentes. Con una reducción en el número de ítems respecto a las escalas hasta ahora disponibles (cuenta con 13 afirmaciones bidireccionales) y una estructura factorial con cinco tipos de violencia (ciberviolencia, verbal, física, psicológica y sexual) proporciona una medida actualizada de la ocurrencia de este tipo de comportamiento en las relaciones de pareja adolescente.

#### Palabras clave:

Adolescentes

Violencia en el noviazgo

Agresión en parejas adolescentes

Violencia de género

en las redes sociales

The Center for Disease Control and Prevention (2016) defines teen dating violence as physical, sexual, psychological, or emotional (as well as stalking) violence within a dating relationship. It can take place in person or electronically and might occur between a current or former dating partner (Centers for Disease Control and Prevention, 2016).

Studies on teen dating violence vary greatly in the figures they provide for the prevalence of this phenomenon, ranging from 9% to 65% (Fernández-Fuertes & Fuertes, 2010; Fernández-Fuertes, Orgaz, & Fuertes, 2011; Foshee et al., 2011; Menesini, Nocentini, & Calussi, 2011; Muñoz-Rivas, Graña, O'Leary, & González, 2007; Muñoz-Rivas, Graña, O'Leary, & González, 2009; Ortega, Ortega-Rivera, & Sánchez, 2008; Pichiule, Gandarillas, Díez-Gañán, Sonego, & Ordobás, 2014; Samaniego & Freixas, 2010). Studies which understand relationship

violence to mean only physical violence tend to have lower levels of prevalence; results rise considerably for those studies which comprise both physical and psychological violence.

The main difficulties in studying this type of behavior among young people are the absence of a common definition of the term "gender-based violence" and the lack of scales to collect and assess the particularities of a dating relationship where there is generally no economic dependence, family coexistence, or children in common (López-Cepero, Rodríguez-Franco, Rodríguez-Díaz, Bringas, & Paño, 2015; Rubio-Garay, Carrasco, Amor, & López-González, 2015).

In addition, violence tends to remain hidden due to adolescents' and young people's idealization of violent behaviors, based on "romantic love" and the justification and acceptance of violent

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behaviors such as jealousy or obsessive control (Pazos, Oliva, & Hernando, 2014).

The following are among the scales specifically designed or adapted for adolescents in Spanish:

- Conflict Tactics Scales (M-CTS) (Straus, 1979): adapted for adolescents by Muñoz-Rivas, Andreu, Graña, O'Leary, and González (2007), it consists of 18 bidirectional data items for the aggressor and the victim using a Likert scale ranging from 1 (*never*) to 5 (*very often*). The results give a factor structure of four factors which gather data on psychological abuse, mild physical abuse, severe physical violence, and reasoning. The results of the scale adapted for the Spanish population indicate good reliability for the factors of severe physical violence ( $\alpha = .813$  for the victims subscale and  $\alpha = .774$  for the perpetrator subscale) and mild physical abuse ( $\alpha = .816$  for the victims subscale and  $\alpha = .819$  for the perpetrator subscale) and lower reliability for the scales of psychological abuse ( $\alpha = .626$  for the victims subscale and  $\alpha = .645$  for the perpetrator subscale) and reasoning ( $\alpha = .306$  for the victims subscale and  $\alpha = .315$  for the perpetrator subscale). The scale provides an estimate of gender violence with the current partner or recent partner, thus expanding the focus of attention not only to the current relationship. On the contrary, within the limitations found, this scale only reflects behaviors that occur during a fight or an argument between couples, excluding those that may take place outside of this context. In addition, items that would not be indicative of gender violence are included, generating a factor (reasoning) that affects the reliability of the scale and cannot be considered gender violence.

- Conflict in Adolescent Dating Relationship Inventory (CADRI) (Wolfe, Soctt, Reitzel-Jaffe, Wekerle, Grasley, & Pittman, 2001): adapted for the Spanish population by Fernández-Fuertes, Fuertes, and Pulido (2006), it indicates good reliability in both the original scale ( $\alpha = .83$ ) and its adaptation ( $\alpha = .85$ ). The total scale consists of 35 paired statements (relating to the behavior of the author and the recipient of an action), ten of which do not assess aggressive behavior and can be classed as distracting factors. The 25 remaining statements assess violent behavior, committed and suffered, based on five dimensions: sexual violence, control of the partner's other relationships, verbal-emotional abuse, threatening behavior, and physical abuse. The main contribution of the scale is that it allows estimating the forms of violence so far most common among adolescents, offering a complete view of gender violence among adolescents. Another contribution is the inclusion of distracting items that allow controlling the possible random answers of adolescents. In contrast to the previous scale, the responses to these items are not taken into account when performing statistical analyses, improving the reliability of the scale with respect to the Conflict Tactics Scales (M-CTS). As limitations we can point out that the statements in this scale contain explicit language which is ill-adapted to the reality of adolescents and especially affects the sexual violence factor, limiting its reliability ( $\alpha = .56$ ). This limitation has also been pointed out by the authors who made the Spanish adaptation. Likewise, the threat factor has limitations when performing the factor analysis with items that are not seen as threats but as actual behaviors and that affect, as when considering sexual violence, the validity of the factor ( $\alpha = .51$ ). Finally, no item measures the violence exerted by social networks or digital media, which causes that the scale is currently outdated.

- Questionnaire on Partner Violence (CUVINO) (Rodríguez-Franco et al., 2010): a questionnaire that covers violent behaviors in teen dating relationships, it consists of 42 statements to be answered on a four-option Likert scale. The results of the scale adapted for the Spanish population indicate good reliability for the general scale ( $\alpha = .932$ ) and its eight component factors, which are: disaffection, humiliation, sexual, coercion, physical, gender, emotional punishment, or instrumental. The main advantage of the scale is its high reliability and the range of behaviors it measures, allowing to measure from the most severe to the mildest forms of gender violence. As limitations, this scale presents a complex factorial structure composed of 8 factors,

although none collects digital behaviors. This factorial structure prevents the comparison of results with those obtained from other scales and/or populations. Also, it assumes a classification contrary to that established by the Center for Disease Control and Prevention and recommended by recent authors for the construction of future evaluation scales (Smith et al., 2015). Finally, the considered factor of instrumental violence includes behaviors that are difficult to find in minor populations (removing car keys).

- Dating Violence Questionnaire-R (DVQ-R) (Rodríguez-Díaz et al., 2017): based on the previous questionnaire, the authors have designed the abbreviated version with 20 statements while maintaining the four Likert type response options. The advantage of the abbreviated version is that it maintains good reliability indexes with more than half of the items removed ( $\alpha = .85$ ) and reduces to five (physical, sexual, humiliation, detachment, and coercion) the factors considered. As with the extended version, a factorial structure that does not conform to those established by the majority of authors is observed, preventing comparisons between different populations. Likewise, digital harassment behaviors are not included within their measurements and include behaviors that are difficult to find in minor populations (remove car keys). The age range of the people who have participated in the adaptation (between 15 and 26 years) makes it difficult to be considered a scale of gender violence among adolescents, including young adults with differential characteristics with respect to underage adolescents.

Recent studies have underlined the reliability and validity limitations of current scales in measuring adolescent gender-based violence (Exner-Cortens, Gill, & Eckenrode, 2016). In addition to their psychometric limitations, there are also construct problems in these scales. One is the need for specific supplementary material to cover unexplored aspects (sexual or cyberviolence) and another is the need to adapt the language of the scales – originally formulated for an adult audience – to suit the adolescent population (Delgado, 2014; Smith et al., 2015; Stonard, Bowen, Lawrence, & Price, 2014).

This present study therefore deals with the construction and validation of an adolescent gender-based violence scale, which will give an accurate picture of the most prevalent behaviors among this population, as well as incorporating other means of abuse which until now have remained unexplored (cyberviolence).

## Method

### Participants

The sample consisted of a total of 701 participants, 323 boys (46.1%) and 376 girls (53.6%) (two participants did not indicate gender on the answer sheet), with the following characteristics: an average age of 16.14 years ( $SD = 2.25$ ), of Spanish nationality, heterosexual, and in secondary education schools in Pontevedra (79.9% in public schools, 7.1% in private schools, and 13% in charter schools). All participants were either currently in a dating relationship or had been dating within the preceding 12-month period.

The most numerous group was formed by the students of first year of high school (29.6%) followed by those of 3rd and 4th of secondary school (23.9% and 23.7% respectively), and students in the second year of high school (22.9%). The distribution by sex and age is shown in the table below (see Table 1).

The parents of all children under 18 were informed of the tasks to be carried out and were provided with a document (informed consent) with the objectives of the research to authorize access to their children which was collected on the day of the intervention. The study was conducted in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) and approved by the ethics committee of the university to which the authors belong. All subjects and their parents gave written

informed consent after receiving a comprehensive description of the study protocol and there was no family or any student who rejected our invitation. Participants had volunteered to be involved in this study and were not given any incentive to take part in it.

**Table 1.** Sociodemographic Characteristics of the Sample

Age	Boys		Girls	
	N	%	N	%
13	3	0.9	3	0.8
14	45	13.9	60	16.0
15	84	26.0	82	21.9
16	87	26.9	99	26.4
17	67	20.7	102	27.2
18	37	11.1	30	7.7
Total	323	46.1	376	53.6

On the day of survey administration, researchers informed all participants of the objectives of the study and reassured them of the anonymity of the data. Researchers furthermore emphasized that their participation was voluntary and that they had the right to withdraw from the study at any time, circumstance that did not occurred.

The questionnaire was administered during school hours (during the study hours that students have in their school hours and with an application time that did not exceeded 30 minutes), under the supervision of the researchers in charge of the study. The sampling was non-probabilistic, casual or accidental, since it was attended by students who were in the classroom at the time of the application. The researchers underlined the importance of providing individual responses, and emphasized that the behaviors gathered in the scale were a serious matter and not a game. Those who wished to participate were encouraged to give honest answers.

## Instrument

The scale developed for this study, the Adolescent Gender-Based Violence Scale (ESVIGA), aims to collect in a flexible and effective manner those behaviors of gender-based violence likely to occur in dating relationships among adolescents aged between 14 and 18 years old.

The following types of violence were established as a starting point for the construction of the scale: verbal, psychological, physical, sexual, and cyberviolence. Statements in relation to the first four types of violence were developed from the Conflict in Adolescent Dating Relationship Inventory (CADRI) (Wolfe et al., 2001), the Questionnaire on Partner Violence (CUVINO) (Rodríguez-Franco et al., 2010), and the Conflict Tactics Scales (M-CTS) (Straus, 1979). In addition, four new statements were included that, after the theoretical review, were considered relevant for the study of gender violence among adolescents and that had not been included in the scales consulted:

- For verbal violence: "You have made fun of what he/she says"/"She/he has made fun of what you say", "You have deliberately told him/her something bad that you knew would upset or hurt him/her"/"He/she has deliberately told you something bad that he/she knew would upset or hurt you".
- For psychological violence: "You have controlled the way he/she dresses"/"He/she has controlled the way you dress", "You have made your partner stop doing something he/she likes because you didn't like it"/"You have stopped doing something you like because your partner didn't like it".

The wording of the statements relating to cyberviolence was informed by recent research carried out both in Spain (Borrajó, Gámez-Guadix, Pereda, & Calvete, 2015) and in the English-speaking world (Zweig, Dank, Yahner, & Lachman, 2013). Statements were selected on the basis of their degree of prevalence or their relevance

to the kinds of cyberviolence associated with the population under investigation.

The researchers of the present study added a further two items, which they considered to be highly relevant, though had not been captured in previous studies: "Sharing private or embarrassing pictures/videos" and "Checking up on him/her where he/she is, what he/she is doing or who he/she is with – 10/20/30 times per day on his/her cell phone" (Baker & Carreno, 2016).

Retaining the CADRI (Wolfe et al., 2001) paired structure of violence committed and violence suffered, an initial battery of 70 statements relating to the different signs of violence in couples was developed. In order to estimate the occurrence of the 70 statements, the researchers chose a Likert-type scale with five response options corresponding to frequency: *never* (0%-20%), *rarely* (21%-40%), *sometimes* (41%-60%), *often* (61%-80%), *always* (81%-100%).

## Procedure

The scale then underwent two preliminary tests in order to ensure understanding and validity.

**A pilot study.** The pilot study was composed of 219 adolescents, aged between 12 and 18 years ( $M = 14.50$  and  $SD = 1.371$ ), who were taking part in discussions on the prevention of adolescent gender-based violence.

The original scale consisted of 40 items (20 for the violence committed and 20 for the violence suffered). The reliability of the instrument for the whole scale was very high ( $\alpha = .880$ ), with good reliability results for the subscales of violence committed ( $\alpha = .861$ ) and violence suffered ( $\alpha = .858$ ).

An exploratory factor analysis was carried out, using the principal components method, varimax rotation and, as an index of adjustment, the Bartlett sphericity test.

In the case of violence committed, the exploratory analysis of the 20 items was configured in six factors with satisfactory results ( $KMO = .784$ ,  $p < .001$ ), which represented the 47% of the total variance.

For the suffered violence subscale, the exploratory analysis was configured in seven factors with good psychometric results ( $KMO = .80$ ,  $p < .001$ ), which represented the 52% of the total variance.

Two of the items that make up the scale show statistical problems in the factorial analysis: on the one hand, the item "You have accused him/her of flirting with somebody else" presents a factorial weight less than .40 in both the subscale of violence committed and in the scale of violence suffered; on the other hand, the item "You have done something to annoy your partner" presents a good factorial weight (.52) but it is located in the factor of verbal violence, which distorts the content of the other items.

**A discussion group.** The discussion group included 15 adolescents between 12 and 18 years old. For this, we follow a procedural qualitative approach in which we take the discourse of the group to organize information conceptually. The validity of the discourse analysis was evaluated, through the correspondence between the findings and the reality, something that we have been able to verify with the comparison between the results of the pilot application and the final one. It is observed, for example, that the contributions included had been welcome by the participants and that the new items contributed to the construct validity of the definitive scale.

The topics discussed included the target age range for the instrument, the verbal complexity of the statements, the redundant elements, the aspects not included and considered relevant, and the editorial changes.

The conclusions derived from this pilot study and the analysis of the information provided by the discussion group led us to make some decisions:

- To eliminate those items that had factorial weights below .40 ("You have accused him/her of flirting with somebody else").

- To debug the factors by eliminating items that were part of them without having a conceptual relationship ("You have done something to annoy your partner" in verbal violence).
- To limit the age range, remaining between 13 and 18. As a general rule, children under 13 did not meet the essential requirement of being in a stable relationship.
- The elimination of too long or complex items: "You have deliberately told him/her something bad that you knew would upset or hurt him/her" or "You have made your partner stop doing something he/she likes because you didn't like it."
- Finally, too explicit items were excluded, for example, "Your partner has caressed your breasts, genitals or bottom when you did not want him/her to."

In this way, the scale resulting from the double debugging process consisted of 30 items that reflect behaviors of sexual, psychological, physical, and verbal violence, as well as cyberviolence (see Table 2).

**Table 2.** Original 30-item Scale

1.	You have accessed the social network of your partner (Facebook, Twitter, etc.) without his/her permission
2.	Your partner has accessed your social network (Facebook, Twitter, etc.) without your permission
3.	You have kissed him/her when he/she did not want to
4.	Your partner has kissed you when you did not want to
5.	You have sent him/her several WhatsApp messages a day to know what he/she is doing
6.	Your partner has sent you several WhatsApp messages a day to know what are you doing
7.	You have made fun of what he/she says
8.	He/she has made fun of what you say
9.	You have felt obliged to have sex to avoid explaining why you did not want to do it
10.	Your partner has felt obliged to have sex to avoid explaining why he/she did not want to do it
11.	You have pushed him/her with violence
12.	He/she has pushed you with violence
13.	You have controlled the way he/she dresses
14.	He/she has controlled the way you dress
15.	You have criticized him/her
16.	Your partner has criticized you
17.	You have brought up something he/she did wrong in the past
18.	He/she has brought up something you did wrong in the past
19.	You have spoken to your partner in a violent or offensive tone
20.	He/she have spoken to you in a violent or offensive tone
21.	You have injured your partner with an object
22.	Your partner has injured you with an object
23.	You use your partner to satisfy your sexual desires
24.	Your partner use you to satisfy his/hers sexual desires
25.	You have taken your partner's cell phone without his/her permission
26.	Your partner has taken your cell phone without your permission
27.	You have hit your partner
28.	Your partner have hit you
29.	You have checked his/her last connection to WhatsApp
30.	He/she has checked your last connection to WhatsApp

## Results

### Exploratory Factor Analysis

The two subscales that make up the overall scale, namely violence committed and violence suffered, underwent an exploratory factor analysis, specifically using the principal components method, varimax rotation and, as the fit index, Bartlett's test of sphericity.

In the case of violence committed, an exploratory analysis on the 15 items reduced to five the list of factors with satisfactory results ( $KMO = .801$ ,  $p < .001$ ), which accounted for 55.50% of the total variance (see Table 3). Two major types of violence consisted of six and three items respectively, whilst three residual types each had two items.

**Table 3.** Exploratory Factor Analysis for the Violence Committed Subscale

	1	2	3	4	5
Take cell phone without permission	.648				
Sent messages to control	.585				
Control WhatsApp connection	.577				
Access social media without permission	.556				
Control way of dressing	.546				
Kiss without permission	.506				
Injured with some object		.827			
Hit		.819			
Pushed with violence		.517			
Make fun			.732		
Criticize			.671		
Spoke in a violent tone				.815	
Came up with something wrong				.445	
Have sex to please					.794
Use to satisfy sexual desires					.745
% of variance	23.58	10.15	8.16	7.09	6.51
% variance accumulated	23.58	33.73	41.89	48.98	55.50

Factor 1 includes two items which do not relate to cyberviolence, namely, "You have controlled the way he/she dresses" and "You have kissed him/her when she/he didn't want to". What is more, given that their loadings for other factors were greater than .40, these items were removed from subsequent analysis.

Whilst the same structure of five factors is maintained for violence suffered and even better statistical results ( $KMO = .830$ ,  $p < .001$ ), when compared to the violence committed statistics, the percentage accounting for the total variance is slightly higher (56.86%), and the distribution of factors is more regular (see Table 4).

**Table 4.** Exploratory Factor Analysis for the Violence Suffered Subscale

	1	2	3	4	5
Take cell phone without permission	.696				
Control WhatsApp connection	.667				
Access social media without permission	.645				
Sent messages to control	.618				
Make fun		.669			
Kiss without permission		.593			
Criticize		.520			
Have sex to please			.790		
Control way of dressing			.579		
Use to satisfy sexual desires			.484		
Spoke in a violent tone				.862	
Came up with something wrong				.796	
Pushed with violence					.862
Injured with some object					.809
Hit					.749
% of variance	26.49	8.95	8.03	6.91	6.45
% variance accumulated	26.49	35.45	43.49	50.40	56.86

Factor 1 includes one item which does not relate to verbal abuse: "Your partner has kissed you when you didn't want to". The same occurs in factor 3 with: "He/she has controlled the way you dress". Given that their loadings for other factors were greater than .40, both of these items were removed from subsequent analysis.



## Confirmatory Factor Analysis

Confirmatory factor analysis was performed on the set of 26 items, which, as we remember, had a number of items excluded. The confirmatory factor analysis tested the goodness of fit of the five-factor model, the variances of the latent items were set to 1.0, and for the error terms were estimated as free parameters. The maximum likelihood method was run using the AMOS 22 statistics program for Windows.

The following indices were used in order to assess model fit: Root Mean Square Error of Approximation (RMSEA), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), and Comparative Fit Index (CFI). In accordance with authors such as Kline (2016), the values show a good model fit since  $RMSEA \leq .06$ , and GFI, AGFI and CFI  $> .90$ .

The results of the analysis indicate a good model fit for the global scale, as well as for the subscales of violence committed,  $\chi^2(80) = 355.639$ ,  $RMSEA = .067$ ,  $CFI = .971$ ,  $GFI = .953$ ,  $AGFI = .923$ ,  $p < .01$ , and violence suffered,  $\chi^2(80) = 343.042$ ,  $RMSEA = .071$ ,  $CFI = .964$ ,  $GFI = .950$ ,  $AGFI = .917$ ,  $p < .01$ .

On examining the factor loadings of the items and the correlation between factors on the violence committed subscale (see Figure 1), the factors show positive correlations with each other. The strength of these relationships is between adequate and high, indicating that all dimensions or factors of the adolescent gender-based violence scale are closely related.

The factor loadings of the items and the correlation between factors for the violence suffered subscale returned similar results, in that the strength of the relationships is between adequate and high (see Figure 2).

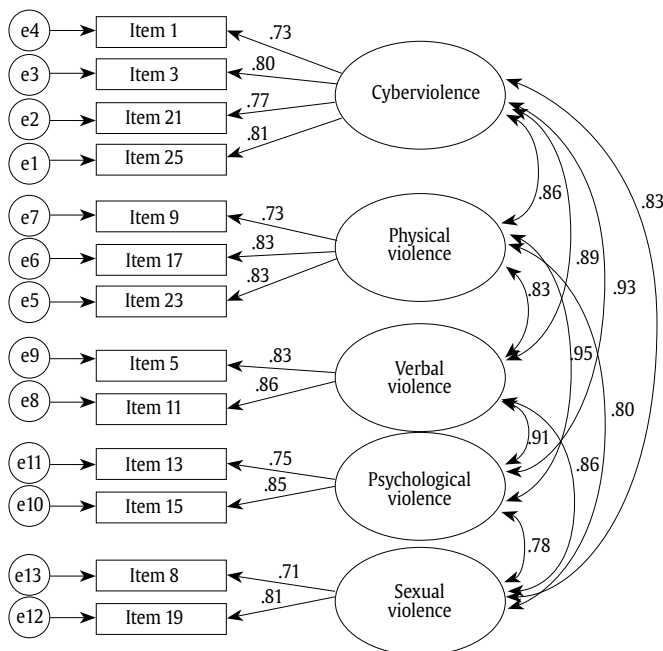


Figure 1. Confirmatory Factor Analysis for the Violence Committed Subscale.

The overall scale confirms the five-factor structure of the initial model: cyberviolence (items 1, 2, 3, 4, 21, 22, 25, and 26), sexual violence (items 7, 8, 19, and 20), physical violence (items 9, 10, 17, 18, 23, and 24), psychological violence (items 13, 14, 15, and 16), and verbal violence (items 5, 6, 11, and 12) (see Appendix).

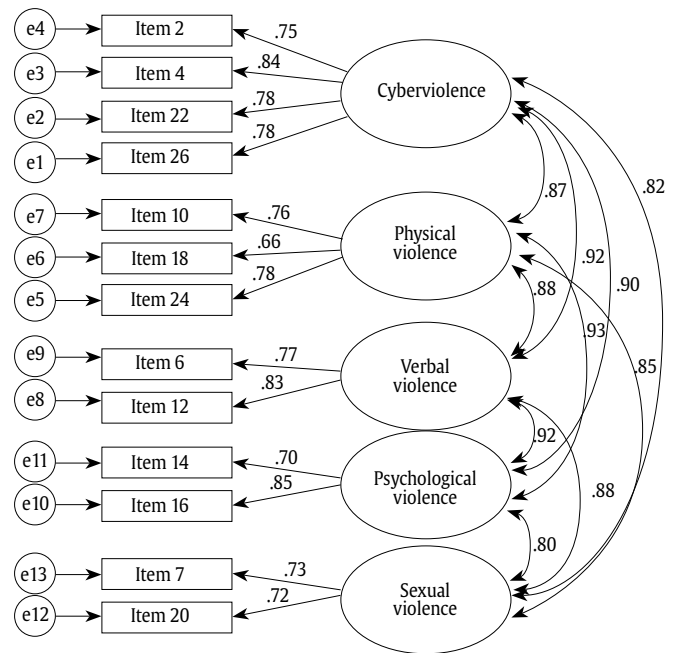


Figure 2. Confirmatory Factor Analysis for the Violences Suffered Subscale.

## Validity

The construct validity was analyzed by comparing the results obtained in CADRI with those of ESVIGA. We analyzed the items common to both scales, selecting the identical response options (rarely, sometimes, and often).

The frequency distribution in each response option shows similar behavior in the two scales. The highest percentages are in the items on sexual violence committed by boys and suffered by girls, and in the item "I have brought up something he/she did wrong in the past", committed by girls to a greater extent. The Pearson correlation coefficient ( $r$ ), indicates high correlations between the items of the ESVIGA scale and those corresponding to their theoretical counterparts in the CADRI scale. The results are: ESVIGA items 13 and 14 with CADRI item 7 ( $r = .63$  and  $.64$ ); ESVIGA items 15 and 16 with CADRI item 12 ( $r = .70$  and  $.73$ ); ESVIGA items 7 and 8 with CADRI item 13 ( $r = .76$  and  $.80$ ); ESVIGA items 5 and 6 with CADRI item 21 ( $r = .67$  and  $.73$ ); ESVIGA items 23 and 24 with CADRI item 34 ( $r = .63$  and  $.79$ ) (see Table 5).

## Items Analysis and Reliability

Table 6 shows the analysis of the items (means and standard deviations by gender, corrected item-total correlations and Cronbach's alpha if the item were deleted). An analysis of the final items by sex of participant showed no differences between boys and girls in recognizing the type of violence committed towards their partner. There was a predominance of control behaviors via social networks and electronic devices, followed by mockery and criticism of their partner.

To a greater extent than boys, girls feel that they have sex in order to please her partner more than boys, whereas boys are more likely to be subjected to their partner's mockery and criticism.

Internal consistency rates measured by Cronbach's alpha coefficient show a high reliability value in the overall scale of 26 items ( $\alpha = .965$ ). Similar values are observed for the subscales of violence committed ( $\alpha = .935$ ) and violence suffered ( $\alpha = .929$ ).

**Table 5.** Percentages by Gender and Pearson's Correlations between CADRI and ESVIGA Items

ESVIGA ITEMS	CADRI (%)		ESVIGA (%)		<i>r</i>	<i>p</i>
	Male	Female	Male	Female		
13	Rarely	15.7	23.6	15.5	.63	.003
	Sometimes	1.1	9.0	1.9		
	Often	2.2	4.5	2.3		
14	Rarely	10.1	16.9	9.8	.64	.046
	Sometimes	5.6	9.0	6.0		
	Often	1.1	6.7	1.2		
15	Rarely	5.6	22.5	4.8	.70	.034
	Sometimes	2.2	4.5	2.1		
	Often	0.0	2.2	0.0		
16	Rarely	10.1	21.3	9.2	.73	.022
	Sometimes	1.1	4.5	1.0		
	Often	0.0	2.2	0.0		
7	Rarely	22.2	4.9	20.8	.76	.001
	Sometimes	11.0	0.5	10.1		
	Often	6.3	0.0	6.1		
8	Rarely	1.5	4.6	1.2	.80	.007
	Sometimes	0.0	2.2	0.0		
	Often	0.0	1.7	0.0		
5	Rarely	5.7	5.7	5.3	.67	.043
	Sometimes	2.3	1.1	2.3		
	Often	0.0	0.0	0.0		
6	Rarely	4.5	3.4	4.1	.73	.033
	Sometimes	3.4	4.5	3.1		
	Often	0.0	0.0	0.0		
23	Rarely	6.6	12.5	5.8	.63	.012
	Sometimes	2.1	3.5	2.1		
	Often	0.0	2.2	0.0		
24	Rarely	9.1	11.3	9.2	.79	.004
	Sometimes	1.7	4.5	1.3		
	Often	0.0	2.2	0.0		

## Discussion

The psychometric results obtained show us that the Gender-Based Violence Scale (ESVIGA) is a valid tool to estimate partner violence among adolescents.

The internal consistency estimates point to a high degree of reliability and exceed that of other scales, such as the Conflict in Adolescent Dating Relationships Inventory (CADRI) by Wolfe et al. (2001), or its adaptation for the Spanish population by Fernández-Fuertes et al. (2006). Evidence from other studies has made it possible to construct this new scale that addresses the limitations of previous scales, such as the inappropriate wording of statements through the use of overly direct language and the absence of items dealing with new forms of violence among young people (cyberviolence). In addition, the type of analysis hitherto performed has not always recorded the psychometric characteristics of the scales used (Exner-Cortens et al., 2016).

A factor structure of five types of violence (cyberviolence, verbal, physical, psychological, and sexual violence), both committed and suffered, provides an up-to-date measure of the occurrence of this type of behavior in teen dating relationships.

The results of the study suggest that the scale of 26 items is an improvement over the previous instruments developed to estimate this type of violence. The most interesting contributions focus on: having reduced the number of items to measure a construct as complex as that of gender violence in adolescent couples, which, in other studies, took the form of 35 items (Fernández-Fuertes et al.,

2006), 36 items (Muñoz-Rivas, Andreu et al., 2007), and 42 items (Rodríguez-Franco et al., 2010).

Another noteworthy aspect is to have a scale that studies in a single application the behavior of adolescents in all manifestations of gender violence in the relationship of adolescent couples. In previous studies, cyberviolence was left out by studying it separately and concluding, some of those studies, that young people believe that there is more violence online than offline (Donoso, Rubio and Vilà, 2017), but until now nobody had incorporated it into existing scales. A greater presence of cyberviolence is shown in our prevalence results, in comparison to those that happen in the physical world. These results come to confirm a gradual increase of this type of violence (Modecki, Minchin, Harbaugh, Guerra & Runions, 2014).

These digital harassment behaviors are self-reported with the same frequency by men and women, which matches other studies that do not show gender-specific differences in this dimension (Durán & Martínez-Pecino, 2015).

Analyzing the behaviors that occur outside the digital world, there is a greater incidence of verbal and psychological violent actions with a differential pattern depending on gender. Women play the role of aggressors and men identify themselves as victims, something already reflected by other authors (Bagner, Storch, & Preston, 2007; Kuppens, Grietens, Onghen, Michiels, & Subramanian, 2008; Povedano, 2014).

Finally, another potential of the scale is its easy administration and its adjustment to the language and sensitivity of adolescents, an aspect achieved thanks to the incorporation of the changes suggested by them in the discussion group, before making the massive application of the scale. With this, the limitations of other existing scales that use a language of the adult population and with too direct expressions are overcome (Delgado, 2014; Smith et al., 2015; Stonard et al., 2014). These expressions have been found to be unusual among Spanish adolescents.

Behaviors considered as sexual violence outnumber those considered as physical violence. A subtler wording of the items in the questionnaire may be the explanation, as these items depict behaviors where the victims agree to have sex in order to please their partner or where they feel used as sexual objects. In these latter questions of sexual violence, the results indicate that, despite the subtle nature of these actions, women continue to suffer from this type of violence and men acknowledge themselves as perpetrators, in line with what has been observed so far (Díaz-Aguado & Carvajal, 2011).

Before concluding, we must point out the limitations of our study. First, the results refer to adolescents of Spanish nationality, who are currently in a stable relationship, or have been in the last 12 months. Our findings, therefore, cannot be used to draw general conclusions or describe other populations.

We have only been able to base the validity of ESVIGA on one of the scales that has served as a reference, the CADRI. This has been due to the fact that it was the only one that conserved identical items. In the case of the other scales, the change of words to adapt the language or the given turn to meet the expectations of the adolescent population has meant that we did not find homologous items that would allow comparison.

An additional limitation of this study is its only focus on heterosexual dating relationships. Relationship models have changed and now it is necessary to take into account other models, such as homosexual or transexual couples, or any other type of relationship between genders.

For all these reasons, the findings should be treated with the necessary caution and should be considered as a first focus of a study on gender violence in young couple relationships at the beginning of the 21st century.

**Table 6.** Item Analysis

Subscale	Type of violence	Item	$r_{it}^c$	$\alpha-i$	Male		Female	
					<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Violence committed	Cyberviolence	1	.694	.930	0.80	0.595	0.87	0.710
		3	.754	.928	0.99	0.830	1.15	0.988
		21	.719	.929	1.28	0.958	1.17	1.043
		25	.748	.931	1.71	1.152	1.75	1.532
					<b>1.19</b>	<b>0.754</b>	<b>1.24</b>	<b>0.926</b>
	Physical violence	9	.715	.930	0.76	0.479	0.83	0.608
		17	.721	.930	0.76	0.504	0.76	0.485
		23	.718	.930	0.76	0.499	0.81	0.592
					<b>0.76</b>	<b>0.475</b>	<b>0.80</b>	<b>0.519</b>
	Verbal violence	5	.754	.927	1.08	1.013	1.18	0.980
		11	.781	.927	1.09	0.937	1.16	0.965
					<b>1.08</b>	<b>0.894</b>	<b>1.16</b>	<b>0.906</b>
	Psychological violence	13	.714	.930	1.16	1.023	1.30	1.139
		15	.794	.927	0.92	0.693	1.06	0.886
					<b>1.04</b>	<b>0.797</b>	<b>1.18</b>	<b>0.917</b>
	Sexual violence	8	.600	.933	1.15	1.204	0.90	0.806
		19	.682	.930	0.93	0.839	0.84	0.676
					<b>1.04</b>	<b>0.906</b>	<b>0.87</b>	<b>0.672</b>
Violence suffered	Cyberviolence	2	.710	.923	0.87	0.747	0.88	0.735
		4	.780	.919	1.18	1.044	1.35	1.191
		22	.718	.922	1.22	1.114	1.21	1.079
		26	.716	.925	1.39	1.262	1.71	1.501
					<b>1.16</b>	<b>0.883</b>	<b>1.28</b>	<b>0.980</b>
	Physical violence	10	.712	.924	0.79	0.550	0.81	0.571
		18	.582	.926	0.76	0.480	0.76	0.490
		24	.708	.924	0.79	0.552	0.78	0.524
					<b>0.78</b>	<b>0.497</b>	<b>0.78</b>	<b>0.498</b>
	Verbal violence	6	.715	.922	1.13	1.015	1.08	1.030
		12	.768	.920	1.04	1.018	0.90	1.028
					<b>1.08</b>	<b>0.930</b>	<b>0.99</b>	<b>0.944</b>
	Psychological violence	14	.728	.922	1.02	1.062	1.05	1.218
		16	.739	.921	0.95	0.770	1.08	0.941
					<b>0.98</b>	<b>0.852</b>	<b>1.06</b>	<b>1.004</b>
	Sexual violence	7	.618	.926	0.99	1.240	1.19	0.923
		20	.626	.925	0.97	0.919	0.94	0.853
					<b>0.98</b>	<b>0.957</b>	<b>1.06</b>	<b>0.826</b>

Note. Item Total-Correlation ( $r_{it}^c$ ); Cronbach's alpha if item deleted ( $\alpha-i$ ); Mean (*M*); Standard Deviation (*SD*).

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## Appendix

## Adolescent Gender-Based Violence Scale (ESVIGA) (Spanish vVersion)

## Escala de violencia de género adolescente

A continuación te presentamos una serie de frases que recogen situaciones que han podido suceder en el transcurso de una relación de pareja y que no han sucedido en un entorno lúdico o de broma (para meterme con él/ella, de broma, etc)

Por favor indica (señala con una **cruz**) con **SINCERIDAD** con qué frecuencia se han producido los siguientes episodios en tu relación **ACTUAL**. En caso de no contar con pareja en este, momento señala en función de tu relación **MÁS RECIENTE** en función de la siguiente escala de frecuencia:

- 1 = Nunca (0% – 20%)  
 2 = Rara vez (21% - 40%)  
 3 = A veces (41% - 60 %)  
 4 = A menudo (61% - 80%)  
 5 = Siempre (81% - 100%)

No hay respuestas correctas ni incorrectas. No pienses mucho la respuesta sino que es mejor que señales lo primero que hayas pensado al leer la cuestión que te planteamos.

El cuestionario es **ANÓNIMO** y nadie tendrá acceso a él

1. Has utilizado la contraseña de tu pareja sin su permiso para acceder a su perfil de las redes sociales	1	2	3	4	5
2. Tu pareja ha utilizado tu contraseña sin tu permiso para acceder a tu perfil de las redes sociales	1	2	3	4	5
3. Le has mandado varios mensajes (Whatsapp) al día al teléfono móvil para controlar donde y con quién está	1	2	3	4	5
4. Te ha mandado varios mensajes (Whatsapp) al día al teléfono móvil para controlar donde y con quién estás	1	2	3	4	5
5. Te burlas de lo que dice	1	2	3	4	5
6. Se burla de lo que dices	1	2	3	4	5
7. Has accedido a mantener relaciones sexuales con la intención de agradar a tu pareja	1	2	3	4	5
8. Tu pareja ha accedido a mantener relaciones sexuales con la intención de agradarte	1	2	3	4	5
9. Le has empujado con violencia	1	2	3	4	5
10. Te ha empujado con violencia	1	2	3	4	5
11. Le has criticado	1	2	3	4	5
12. Te ha criticado	1	2	3	4	5
13. Has sacado a relucir algo malo que él/ella había hecho en el pasado	1	2	3	4	5
14. Ha sacado a relucir algo malo que habías hecho en el pasado	1	2	3	4	5
15. Le has hablado en un tono violento u ofensivo	1	2	3	4	5
16. Te ha hablado en un tono violento u ofensivo	1	2	3	4	5
17. Le has herido con algún objeto	1	2	3	4	5
18. Tu pareja te ha herido con algún objeto	1	2	3	4	5
19. Le utilizas para satisfacer tus deseos sexuales	1	2	3	4	5
20. Tu pareja te utiliza para satisfacer sus deseos sexuales	1	2	3	4	5
21. Has cogido su móvil sin su permiso	1	2	3	4	5
22. Ha cogido tu móvil sin tu permiso	1	2	3	4	5
23. Le has golpeado	1	2	3	4	5
24. Te ha golpeado	1	2	3	4	5
25. Has controlado su última conexión a Whatsapp	1	2	3	4	5
26. Ha controlado tu última conexión a Whatsapp	1	2	3	4	5