Factors related to distorted thinking about women and violence in Secondary School students[1]

Factores relacionados con las creencias distorsionadas sobre las mujeres y la violencia en estudiantes de Educación Secundaria

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Abstract

Gender-based violence (GBV) is an issue facing cultures globally, whose origin lies in gender-differentiated socialisation. The purpose of this study, which is cross-cutting in its approach and *ex-post-facto* in its design with a sample of 777 adolescents in Castilla-La Mancha, is to discover the difference between boys and girls respecting the distorted beliefs about women and the use of violence, as well as the relationship between distorted thinking and religiosity, political positioning and the consumption of pornography. The results show that boys show greater tolerance towards these beliefs than girls. Moreover, statistically-significant differences were found between those who considered themselves very religious people, who were politically positioned on the political Right and who consumed some pornography; and those who were not very or not at all religious, who were politically situated in the political centre or Left, and who consumed no or almost no pornography, respectively. The structural equation model shows that sexism is directly related to distorted thinking, while its

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relationship with religiosity and political conservatism is indirect. It underlines the importance of identifying these thoughts among adolescents so as to prevent the acceptance of violence in future couple relationships. The educational arena plays an important role in developing equality in order to build a society free of any kind of discrimination against women, an aspect that must begin in teacher training and include the gender perspective in the classrooms.

Resumen

La violencia de género (VG) es un problema que afecta a todas las culturas, cuyo origen se encuentra en la socialización diferencial. El presente estudio, de corte transversal y diseño ex-post-facto y con una muestra de 777 adolescentes de Castilla-La Mancha, tiene como objetivo conocer las diferencias entre chicos y chicas respecto a las creencias distorsionadas sobre las mujeres y el uso de la violencia, así como la relación entre estos pensamientos distorsionados con la religiosidad, el posicionamiento político y el consumo de pornografía. Los resultados evidencian que los chicos presentan mayor tolerancia hacia estas creencias que las chicas. Además, las diferencias se encuentran entre quienes se consideraban personas muy religiosas, se posicionaban políticamente en la derecha política y consumían algo de pornografía, respecto a quienes se consideraban poco o nada religiosas, políticamente situadas en el centro o a la izquierda política y consumían nada o casi nada de pornografía, respectivamente. El modelo de ecuaciones estructurales muestra que el sexismo se relaciona de manera directa con los pensamientos distorsionados, mientras que la relación con la religiosidad y con el conservadurismo político es indirecta. Se subraya la importancia de identificar estos pensamientos entre adolescentes con el fin de prevenir la aceptación de la violencia en las futuras relaciones de pareja. El ámbito educativo tiene una importante labor en el desarrollo de la igualdad con el fin de construir una sociedad alejada de cualquier forma de discriminación contra las mujeres, aspecto que ha de iniciarse con la formación del profesorado y la inclusión de la perspectiva de género en las aulas.

Introduction

Gender-based violence (GBV) is a serious public health problem in most societies and cultures (McCarthy, Mehta & Haberland, 2018). GBV is taken to refer to violence against women because of the sole fact that they are women, hence it has a social and political nature, bearing in mind the unequal power relationships between men and women that have been legitimised according to the patriarchal system (Bonilla-Algovia & Rivas-Rivero, 2020). Specifically in Spain, the Macro-survey of Violence against Women, which was conducted in 2019 by the Government Delegate's Office for Gender-based Violence, reports that the prevalence of physical violence among women who have had a partner is 11.4% and 8.9% have suffered sexual violence from a current or former partner (Delegación del Gobierno contra la Violencia de Género, 2020). It has been found that the rate of violence during courtships varies between 20% and 80% for psychological abuse (Rubio-Garay, López-González, Saúl & Sánchez-Elvira-Paniagua, 2012). These data reveal that violent behaviours during courtship are not an exception. However, it has been studied to a lesser extent than in the adult population (De la Villa, García, Cuetis & Sirvent, 2017), despite negatively affecting adolescents and it may influence how they become involved in a couple relationship in the future (Rodríguez-Franco & Rodríguez, 2009). It should be added that in the study of this prevalence in adolescents there may be an underestimation considering that there is great difficulty in identifying certain behaviours as abuse (Decker et al., 2015). Moreover, prior studies show that violence, as a means to resolve conflicts, is a common element in courtships (García-Carpintero, Rodríguez-Santero & Porcel-Gálvez, 2018), due to the gender inequalities that have traditionally been transmitted.

The acceptance of distorted beliefs about women and the use of violence have been studied as an important risk factor in maintaining GBV (Bosch & Ferrer, 2012; Fernández-Montalvo & Echeburúa, 1997). These cognitive distortions are erroneous ways to interpret reality. Moreover, they are one of the great obstacles that divert attention away from the problem, since they legitimise violence as an appropriate way to resolve conflicts (Echeburúa, Amor, Sarasua, Zubizarreta & Holgado-Tello, 2016). Some of these beliefs are based on women's responsibility for these occurrences, shifting abusers' blame, what is meant by GBV and resistance to this type of abuse. Such distortions are based on the

traditional roles that consider women inferior (Lorente, 2007; Torres & López-Zafra, 2010) and question whether abuse is really taking place, minimising its effects, blaming the victims and exonerating the aggressors (Torres, Lemos-Giráldez & Herrero, 2013). Detecting these cognitive biases about women and the use of violence has been very important in intervention with abusive men, mainly, (Echeburúa & Fernández-Montalvo, 2009), although it has also made it possible to set out guidelines for preventing it with adolescents (Fox, Hale & Gadd, 2014). Moreover, the deconstruction of these ideas may seem a starting point for the elimination of gender inequality and the distortions about the roles of men and women in couple relationships.

With respect to tolerance of these cognitive distortions, there is a greater tendency to accept them among men than among women (Bonilla-Algovia & Rivas-Rivero, 2019). The same differences (Decker et al., 2015) and similar explanatory factors (Merino et al., 2021) have been found in the adolescent population, albeit most research into these beliefs has been carried out on the adult and university population (Bonilla-Algovia & Rivas-Rivero, 2019; Echeburúa et al., 2016; Fernández-Montalvo & Echeburúa, 1997). Moreover, to understand how boys and girls construct those irrational ideas, it is necessary to know the acceptance of these concepts in adolescence, given that sex-specific behaviours are acquired in each culture; it is sociocultural factors that influence models of masculinity and femininity (Soler, Barreto & González, 2005) and determine behaviours oriented towards these social prescriptions, such that abusive and coercive behaviours could emerge (Francis & Pearson, 2019).

The construction of these distortions is influenced by the cultural mandates that have granted a series of privileges and rights to men, both beyond and within the couple, and have traditionally legitimated power and domination over women, accepting the use of violence to control them (You & Shin, 2020). The representations of the feminine and masculine identities that are formed through socialisation are symbolic structures that lend meaning to reality and guide men's and women's behaviours. These cultural representations of gender are beliefs shared down the generations through interaction with various agents and institutions that model the behaviour (González-Anleo, Cortés & Garcelán, 2018; Spruijt, Dekker, Ziermans & Swaab, 2019). Moreover, discrimination against women originates in collective expectations

of what is considered appropriate (Perrin et al., 2019). Therefore, the normalisation of GBV lies in the prescription of discriminatory beliefs, rules and attitudes that tend to make such violence difficult to eliminate (Read-Hamilton & Marsh, 2016).

Another important predictor of GBV is sexism, by which is meant the set of "attitudes, beliefs and behaviours, as well as the organisations, institutional and cultural practices which either reflect negative assessments of people according to the gender to which they belong or support the existence unequal statuses of women and men" (Swim & Hyers, 2009, p. 407). It is an attitude that endures over time and which has an affective burden that leads to the development of discriminatory behaviours. Thus, the belief becomes established that men and women are essentially different and, therefore, must conform to different social roles and norms (Hellmer, Stenson & Jylhä, 2018). This attitudinal construction is explained under the Theory of Ambivalent Sexism (Glick & Fiske, 1996). In this theory, traditional sexism, called hostile sexism, coexists with another, much more subtle, apparently kinder sexism, but which is just as discriminatory, called benevolent sexism. Both forms of sexism perpetuate inequality and the subordination of women (Montañés, Megías, De Lemus & Moya, 2015).

Expectations about gender roles are influenced by sociocultural factors (Glick et al., 2000). Specifically, the relationship between religious practice and discriminatory attitudes towards girls and women has been examined, and it has been concluded that, upon comparing monotheistic religions, it is not a question of the specific affiliation, but rather of the degree of religiosity or the strength of a religion that predicts discrimination against women (Hannover, Gubernath, Schultze & Zander, 2018). This relationship may be direct, since the religious authorities may be explicitly teaching stereotypical viewpoints through the values inculcated by religious teaching (Mikolajczak & Pietrzak, 2014). However, religiosity has been related more to benevolent sexism than to hostile sexism (Haggard, Kaelen, Saroglou, Klein & Rowatt, 2019; Hellmer et al., 2018).

Discriminatory attitudes towards women have also been associated with ideological variables related to political conservatism (Sibley, Wilson & Duckitt, 2007), characterised by the need to preserve and maintain social traditions, that is, to traditional gender roles attributed to women that highlight their delicacy and their need to be protected by men (León

& Aizpurúa, 2020), albeit it has been statistically related to the hostile dimension of sexism (Christopher & Mull, 2006).

It should be added that the normalised use of the Internet and social media are key to the transmission of distorted attitudes and the way in which violence against women is exercised in the virtual world (Rebollo-Catalan & Mayor-Buzon, 2020). The link between consumption of pornography and sexist attitudes is relevant, since it is based on viewing women as sexual objects and justifying violence against women (Gallego & Fernández-González, 2019). Exposure to pornography has been associated with violence between adolescent couples since, with the proliferation of the Internet, adolescents can easily access sexually-explicit material (Rostad et al., 2019). It has also been shown that frequent exposure to pornography is related to acts of sexual aggression and violence during courtship in adolescence (Wright, Tokunaga & Kraus, 2016). The content of the scenes represented and the frequency with which it is consumed could contribute to the development of a culture that supports abuse of women, favouring attitudes of tolerance of the use of violence against them (Sun, Bridges, Johnson & Ezzell, 2016). Moreover, some studies refer to the fact that, the greater the use or consumption of pornographic content, the greater the frequency of physical and sexual violence against women (Brem et al., 2020). It is important to state that high rates of adolescents who depend upon pornography for sexual education have been found; this is a group that is liable to be influenced due to their identity being in the process of being construction since their inexperience makes it a critical period (Rothman, Kaczmarsky, Burke, Jansen & Baughman, 2015).

Nevertheless, the abundant scientific evidence shows that, although there has been a great advance in recent years with regards to the equality between women and men, discriminatory attitudes remain in developed societies and among younger groups (Esteban & Fernández, 2017; León & Aizpurúa, 2020). Therefore, carrying out research in the adolescent population is fundamental to prevention, since there is a positive relationship between the acceptance of such beliefs and attitudes and GBV (Ubillos-Landa, Goiburu-Moreno, Puente-Martínez, Pizarro-Ruiz & Echeburúa-Odriozola, 2016). Moreover, adolescence is a crucial step in the development of skills that promote healthy affective links in such relationships (Muñoz-Fernández, Ortega-Rivera, Nocentini, Menesini & Sánchez-Jiménez, 2019). Given the importance of socialisation in

the maintenance of distorted ideas and ideas that discriminate against women, it is necessary to intervene through co-education to challenge these highly damaging prescriptions that sustain inequality (Glass et al., 2018; Navarro-Pérez, Carbonell & Oliver, 2019).

For all these reasons, the purpose of this study was to analyse the distorted beliefs about women and about the use of violence in a sample of adolescents from Castilla-La Mancha. It also seeks to discover the influence of discriminatory attitudes in the acceptance of cognitive distortions, as well as their relationship with religiosity, political positioning and the consumption of pornography as influential factors in such acceptance. Given that these irrational beliefs are a risk factor for GBV, studying what variables may predict these distortions could prevent their assimilation and prevent them from affecting their couple relationships in the future.

Method

Participants

The sample in this research consisted of 777 adolescent in 3rd and 4th year of Secondary School (ESO), of which slightly more than half were women. The average age of the sample is around 14 years. 54.3% were in 3rd year at Secondary School. More than 90% were Spanish nationals. Around 50% lived in settlements with more than 10,000 inhabitants. One in three participants were from the province of Toledo. Around 50% of the people who participated were considered not very or not at all religious, were politically positioned more on the Left and more than 63% did not consume pornography (Table 1).

TABLE I. Sociodemographic characteristics of the sample.

	%	n	M (SD)
Sex			
Women	49.5	385	
Men	50.5	392	
Age			14.47 (.891)
12-14	55.1	428	
15-18	44.8	348	
Year			
3rd	54.3	422	
4th	45.7	355	
Nationality			
Spain	92.1	716	
Foreign	7.9	61	
Province			
Albacete	10.7	83	
Ciudad Real	27.8	216	
Cuenca	9.9	77	
Guadalajara	17.8	138	
Toledo	33.8	263	
Rurality			
< 2,000	4.2	32	
From 2,000 to 9,999	46.7	363	
> 10,000	49.1	382	
Religiosity			2.17 (1.453)
None/low	53.3	414	
Somewhat religious	28.6	222	
Very religious	18.1	141	
Political tendency			2.37 (1.345)
Left	46.1	358	
Center	27.5	214	
Right	16.1	125	
Consumption of pornography			1.27 (1.526)
None	63.6	494	
Very low	12.6	98	
Low	21.4	166	

Measurement instruments

Sociodemographic and contextual characteristics. Ad hoc questions were created for gender, age, place of residence and degree of religiosity, political positioning and consumption of pornography, coded on a six-value Likert scale, from 0 (not at all) to 5 (very/high for religiosity and consumption of pornography), and from 0 (extreme Left) to 5 (extreme Right).

Inventory of Distorted Thoughts about Women and the Use of Violence - Revised (IPDMUV-R) (Echeburúa et al., 2016). It consists of one factor and a total of 21 items that assess irrational beliefs about women and violence against them. The response of each of these items is dichotomous (Yes/No) and the score ranges between 0 and 21 points, hence, the higher the score, the greater the acceptance of the distorted beliefs. The validation of the scale returned a Cronbach's Alpha coefficient of .74. In this study, the Cronbach's Alpha was slightly slower (.705).

Adolescent Sexism Detection (ASD) *Scale* (Recio, Cuadrado & Ramos, 2007). It consists of 26 items and two factors: 16 items designed to detect the hostile component of sexism (items 2, 4, 5, 7, 9, 10, 12, 14, 16, 18, 19, 20, 22, 23, 25, 26) and 10 items concerning the benevolent component of sexism (items 1, 3, 6, 8, 11, 13, 15, 17, 21, 24), on a six-value Likert scale (from 1 (strongly disagree) to 6 (strongly agree)). The scale validation found an excellent level of internal consistency (.90). In this study, Cronbach's Alpha was .927.

Procedure

The study, which has a quantitative methodology and an *ex-post-facto* design, was carried out at secondary schools in the Region of Castilla-La Mancha. The university's Ethics Committee gave its approval to undertake the project (CEI/HU/2019/39). The research team contacted the centres' management; they were informed of the study's purpose. A timetable was set out to be able to administer the instrument in a three-week range (second half of September and first week of October 2019). Informed consent was given to the teachers responsible for the groups, who signed the authorisations to give the questionnaire, in which the anonymity of the participants, as well as the confidentiality of the data,

were guaranteed. Filling out the questionnaire took approximately 40 minutes.

Data analysis

The database was created with the statistical program SPSS (IBM 25.0). *Chi-square* statistics were used to analyse gender differences in each IPDMUV-R item. The continuous variables were analysed using Student's t-test for independent samples. The size of the effect between the variables through *Cohen's d* statistic; the relationship is small if $d \leq .20$, medium if $d \leq .50$ and large if $d \geq .80$. The acceptance of distorted ideas about women and the use of violence, as measured by percentile scores for religiosity, political positioning and consumption of pornography, were calculated with the one-factor *ANOVA* test. *Post-hoc* multiple comparisons were made to contrast the means on the distorted ideas scale. A multiple linear regression analysis was performed to calculate which variables predict cognitive distortions about GBV. Finally, the relationship between sexism, distorted thoughts about women and the use of violence, and sociocultural factors, was analysed using Structural Equation Models (SEM). The program AMOS was used (IBM AMOS 24.0). The overall model fit analysis was performed using the *Generalised Least Squares* technique. The following indicators were used to determine the goodness of fit: GFI, AGFI, CFI, NFI $\geq .95$, RMSEA $\leq .70$.

Results

As Table 2 shows, the acceptance of distorted ideas about women and the use of violence, in a range of 0 to 21, it was lower than 5. On the ASD, the average was 48 points. Finally, very close scores as between hostile and benevolent sexism were obtained.

TABLE II. Descriptive data on the sum of the sexism scale, the hostile and benevolent sexism components and the IPDMUV-R sum.

	M	SD	Asymmetry	e	*Curtosis*	e
IPDMUV-R	4.50	2.852	.606	0.99	.318	.198
ASD Sexism	48.14	17.986	.945	.088	.430	.175
Hostile sexism	24.72	10.491	1.633	.088	2.368	.175
Benevolent Sexism	23.41	9.261	.489	.088	-.293	.175

Table 3 shows the sex differences for each IPDMUV-R item. In general, there was greater acceptance of cognitive distortions among boys than among girls in the sample. Only in item 8 (for many women, abuse by their partners is a sign of concern for them) was there greater percentage acceptance in the women's group. There were statistically significant differences between boys and girls in biases related to women's supposed inferiority and traditional gender roles (items 1, 2 and 4). There are also differences in the distortions that blame women for violence (items 10 and 11) and in those that exonerate the aggressor (items 16, 19, 20 and 21); men's acceptance was nearly 48% and 62% for items 20 and 21, respectively.

TABLE III. Differences in the acceptance of IPDMUV-R according to sex.

	Men	**Women**	**χ2**
1. Women are inferior to men.	3.6% (13)	1.1% (4)	4.804*
2. If the man is the breadwinner, the woman must be subordinate to him.	3.9% (14)	1.1% (4)	5.670*
3. The man is the head of the family, so the woman must obey him.	2.2% (8)	0.8% (3)	2.252
4. The woman must have lunch and dinner ready for when the man gets home.	7.5% (27)	3.6% (13)	5.190*
5. The woman's obligation is to have sexual relations with her partner, even if she does not want to at that time.	2.5% (9)	0.8% (3)	2.984
6. A woman should not contradict her partner.	4.1% (15)	2.8% (10)	.979
7. A woman who continues to live with a violent women must have a serious problem.	55.5% (196)	53.4% (183)	.331
8. For many women, abuse by their partners is a sign that they are concerned for them.	20.3% (72)	30.5% (107)	9.707**
9. When a man hits his partners, she knows why	8.6% (31)	5.6% (20)	2.521
10. If women really wanted to, they could prevent new episodes of violence.	35.9% (127)	22.6% (79)	15.050***
11. Many women deliberately provoke their partners so that they will lose control and hit them.	9.4% (34)	5.6% (20)	3.717*
12. The fact that most women do not call the police when they are being abused is evidence that they want to protect their partners.	33.1% (118)	29.4% (104)	1.118
13. Schoolteachers are right to use physical punishment against children who are repeatedly obedient and rebellious.	18.8% (67)	11.0% (39)	8.417**
14. Children are really not aware that their fathers abuse their mother unless they witness a fight.	53.9% (192)	49.1% (169)	1.617
15. To abuse a woman you have to hate her.	36.1% (125)	30.9% (107)	2.101
16. Most men who attack their partners feel ashamed and guilty about it.	25.5% (89)	15.2% (53)	11.333***
17. What happens within a family a matter for the family and the family alone.	28.5% (102)	23.9% (84)	1.904
18. Very few women have physical or psychological sequelae due to abuse.	15.1% (53)	13.5% (47)	.362
19. Men often abuse their partners because they annoy them.	18.3% (65)	12.9% (45)	3.915*
20. Most people who use violence are failures or "losers".	47.4% (166)	34.7% (120)	11.678***
21. People who use violence have serious psychological problems and often do not know what they are doing.	61.7% (211)	53.9% (186)	4.265*

Note: *p ≤ .05; **p ≤ .01; ***p≤ .001

The results also show differences between boys and girls in the scores obtained in the sum of the IPDMUV-R, as well as on the ASFD in the hostile component of sexism (Table 4). A moderate effect size was observed for the ASD ($d = .317$) and, to a greater extent, for the hostile component ($d = .435$). Differences should be noted between both groups with respect to political positioning and consumption of pornography, with the size of the effect on the consumption of pornography being very high ($d = 1.032$).

TABLE IV. Difference in averages according to sex with respect to the sum of the IPDMUV-R, the ASD, the hostile and benevolent components and religiosity.

	Men		Women				
	M	SD	M	SD	t	Cohen d	CI 95%
IPDMUV-R	4.88	2.868	4.11	2.770	3.317***	.273	.131 - .414
ASD Sexism	50.20	18.738	44.60	16.540	4.161***	.317	.175 - .458
Hostile sexism	26.80	11.175	22.35	9.196	6.060***	.435	.292 - .577
Benevolent sexism	23.77	9.226	22.59	9.306	1.783	.127	-.013 - .268
Religiosity	2.09	1.519	2.26	1.379	-1.638	-.117	-.257 - .023
Political tendency	2.50	1.407	2.23	1.264	2.736**	.201	.052 - .350
Consumption of pornography	1.97	1.554	.57	1.123	14.252***	1.032	.881 - 1.184

Note: *p ≤ .05; **p ≤ .01; ***p≤ .001

After establishing that differences exist, *post-hoc* comparisons were made using the Bonferroni method (Table 5). The results confirm that statistically significant differences were found in those who considered themselves very religious, who were on the political Right, and who consumed some pornography.

TABLE V. *Post hoc* test on the distorted thinking by religiosity, political leanings and consumption of pornography.

	Religiosity (I)	Religiosity (J1)	Difference of means (I-J1)	Religiosity (J2)	Difference of means (I-J2)
IPDMUV-R	Not at all	Somewhat	-.471	Very	-.857*
	Somewhat	Not at all	.471	Very	-.385
	Very	Not at all	.857*	Somewhat	.385
	Political tendency (I)	Political tendency (J1)	Difference of means (I-J1)	Political tendency (J2)	Difference of means (I-J2)
IPDMUV-R	Left	Centre	-.434	Right	-1.088**
	Centre	Left	.434	Right	-.654
	Right	Left	1.088**	Centre	.654
	Consumption of pornography (I)	Consumption of pornography (J1)	Difference of means (I-J1)	Consumption of pornography (J2)	Difference of means (I-J2)
IPDMUV-R	Not at all	Almost none	-.429	Low	-.817*
	Almost none	Not at all	.429	Low	-.388
	Low	Not at all	.817*	Almost none	.388

A multiple linear regression analysis was undertaken using the *Introduction* method to study whether the independent variables sexism (hostile and benevolent), gender, religiosity, political leanings and consumption of pornography predict cognitive distortions as measured by the IPDMUV-R scale (Table 6). According to the results obtained, the hostile (β = .369; p < .05) and benevolent (β = .232; p < .05) components significantly explain the IPDMUV-R score positively, which indicates that the higher the hostile and benevolent sexism score, the higher the scores that are obtained for cognitive distortions. With regards to the coefficient of determination, we obtain a score equal to adjusted R^2 = .316. This indicates that both variables (hostile and benevolent) predict 31.6% of the variability of the cognitive distortions variable. The variables sex, religiosity, political conservatism and consumption of pornography do not predict cognitive distortions (p > .05).

TABLE VI. Prediction of the distorted thinking according to the components of sexism, religiosity, political leanings and consumption of pornography.

	B	SE	Standardised B	t	p	VIF
Constant	.116	.620		.187	.852	
Hostile sexism	.099	.013	.369	7.645	.000	1.863
Benevolent sexism	.073	.015	.232	4.960	.000	1.760
Sex	-.155	.232	-.027	-.668	.504	1.300
Religiosity	.021	.140	.005	.147	.883	1.121
Political conservatism	.206	.140	.054	1.464	.144	1.083
Consumption of pornography	.047	.138	.014	.342	.732	1.284

Note: B = Unstandardised coefficient; SE = standard error; standardised B = standardised coefficient; t = Student's T; p = significance; VIF = variance inflation factor.

The model analyses the direct and indirect relationships between five observable variables (Figure 1): the hostile component, the benevolent component, distorted thinking about women and the use of violence (IPDMUV-R), political conservatism and religiosity. The model's goodness of fit is acceptable: χ^2 = 19.872, gl = 5, p-value = .001, GFI = .990, AGFI = .969, NFI = .930, CFI = .946, RMSEA = .62. As can be seen, the structural model explains 25% of distorted thoughts, 3% of political conservatism and 5% of religiosity.

FIGURE I. Proposed structural model
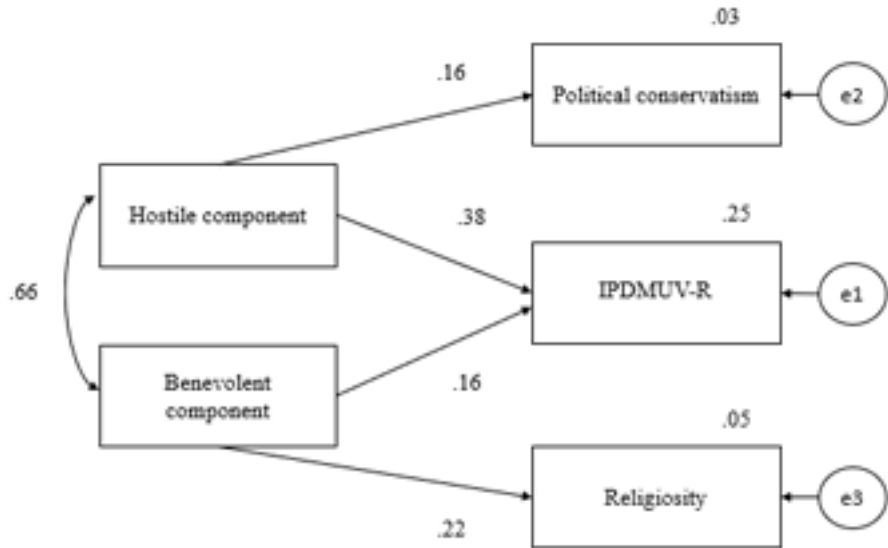
The significance of the relationships between the different variables was studied to analyse the suitability of the model (Table 7). All the weights are significant at the $p < .05$ level. The components of sexism directly affect distorted thinking ($\beta_{hostile} = .382$, p = .000 and $\beta_{benevolent} = .161$, $p = .000$); the hostile component has a direct effect on political conservatism ($\beta = .160$, $p = .000$) and the benevolent component has a direct impact on religiosity ($\beta = .217$, $p = .000$).

TABLE VII. Standardised regression weights in the model's relationships.

Causal relationships			Standardised regression weights	P
Hostile sexism	ó	Benevolent sexism	.656	.000
Hostile sexism	ð	IPDMUV-R	.382	.000
Benevolent sexism	ð	IPDMUV-R	.161	.000

Causal relationships			Standardised regression weights	P
Hostile sexism	ð	Political conservatism	.160	.000
Benevolent Sexism	ð	Religiosity	.217	.000

Discussion and conclusions

Identify the cognitive biases related to gender stereotypes and the justification of violence is essential within primary prevention (Echeburúa et al., 2016). This paper therefore analyses the acceptance of distorted ideas about women and the use of violence among adolescents in Castilla-La Mancha and reports new gender difference data, as well as data on the relationship between these cognitive biases about sexism and other variables such as religiosity, political conservatism and consumption of pornography, given that they could influence the beliefs that sustain inequality and GBV among adolescents.

To begin with, the mean accepted biases among adolescent boys and girls in the sample was 4.50 and the mean score with respect to sexism was 48 points; scores were similar in both components of sexism. As for other characteristics of the participants, more than half of the adolescent boys and girls considered themselves not very or not at all religious, about 46% were on the political Left and more than 63% stated that they had not consumed any pornography. In line with what other studies of adolescents have found (Ubillos-Landa et al., 2017), there are differences between boys and girls; the degree of acceptance of cognitive biases was greater among boys. A greater percentage was only found in the girls' group with respect to item 8, related to the idea thar abuse could be a sign of concern for them, hence studying these distorted ideas among adolescents is fundamental bearing in mind that there are difficulties in recognising certain behaviours as abuse and not as a demonstration of love (Francis & Pearson, 2019; Rivas-Rivero & Bonilla-Algovia, 2020). Sexism scores by sex were also found to be higher for boys than for girls in the study, in line with other research with adolescents (Montañés et al., 2015; Recio et al., 2007), albeit, although some papers have reported higher levels of benevolent sexism in girls (Recio et al., 2007), in general,

the boys in the sample were more likely to agree with both the hostile and the benevolent components of discriminatory attitudes against women.

It should be noted that the results show a moderate effect association between sex and the hostile component of sexism ($d = .43$). Differences were also found between both groups by political leanings, with boys being more Right-leaning than girls, as was greater exposure to pornographic content, a relationship in which the analyses reveal a high effect size ($d = 1.03$). These findings are particularly relevant, since this consumption is an important risk factor in the committing GBV (Brem et al., 2020; Sun et al., 2016; Wright et al., 2016) and in the representation of women as sexual objects (Gallego & Fernández-González, 2019), which makes evident the need for intervention, since there appear to be high rates among the adolescents who resort to pornography for sexual education (Rothman et al., 2015). However, the adolescent boys and girls in this study reported that the consumption of pornography was low, although the boys self-reported having consumed it to a greater extent than girls. Lastly, no differences have been found in religiosity according to sex, although the mean was slighter higher in the group of adolescent girls.

Therefore, the data show that there is a greater degree of acceptance among boys in the sample with respect to the traditional gender stereotypes, the use of violence as a normalised way of resolving conflicts in couples and discriminatory attitudes towards women, which may be a reflection of the privileges that have been granted to men in which male domination is legitimised (Rodríguez et al., 2006) through various agents of socialisation (Perrin et al., 2019; Spruijt et al., 2019), making it difficult to eliminate GBV (Read-Hamilton & Marsh, 2016). Research into adolescents is therefore necessary to show evidence of a problem that requires immediate educational intervention (Bonilla-Algovia & Rivas-Rivero, 2019; Muñoz Fernández et al., 2019; Navarro et al., 2019), as well as development of specific training plans for the teaching staff.

Differences between groups when it comes to religiosity, political leanings and consumption of pornography should be added to the list of distorted ideas about women and the use of violence. As the *post hoc* tests showed, there were differences between those who scored higher on religiosity, political conservatism and who consumed some pornography. These findings are significant, given that there is not an abundance of studies referring to these variables according to distorted ideas about

GBV, above all at a developmental stage at which adolescent boys and girls are acquiring competences in developing affective relationships (Muñoz-Fernández et al., 2019) in which it is necessary to identify the influence of the prescriptions that sustain inequality (Bonilla-Algovia & Rivas-Rivero, 2019; Glass et al., 2018; Navarro-Pérez et al., 2019). Even so, it is discriminatory attitudes towards women, in both its hostile and its benevolent components, that predict the distorted ideas about women and the use of violence, as reflected in the results of the regression analysis.

According to the structural equation model, sexism is directly related to distorted thoughts about women and the use of violence (IPDMUV-R); however, its relationship with religiosity and political conservatism is indirect, since, in the model's fit, religiosity is related to the benevolent component and political conservatism to the hostile component. Consumption of pornography was eliminated from the equation due to the low quality of the fit indices in their interaction with other variables. However, the adolescent boys and girls in the sample show a low percentage of pornography consumption that may have influenced these results. Although evidence has been found about the relationship between religiosity and sexism (Haggard et al., 2019; Hellmer et al., 2018; Mikolajczak & Pietrzak, 2014), political conservatism and sexism (Christopher & Mull, 2006; Sibbley et al., 2007), in this paper they are indirectly related to distorted thinking, hence new approaches are opened in the study of this association.

This paper has some limitations. To begin with, the sample size would have to be increased, since the sample is not representative of adolescents as a whole, although it does provide relevant information to trace other perspectives in research into adolescents. On the other hand, an instrument would have to be included to study social desirability, since the explicit formulation of some statements may cause them to be under-represented. It should be noted that IPDMUV-R refers to heterosexual relationships. In this regards, it should be added that the sexual orientation of the people who took part in the study was unknown; this aspect could be considered in future papers. It would be desirable in future research to expand the sample and include the affective and behavioural dimensions of attitudes, as well as to delve deeper into the variables that analyse religiosity, the consumption of pornography and political positioning using proven instruments, and to include sexual

orientation and study this variable with respect to the social cognition analysed. Even so, the paper presents significant information and makes it possible to delve deeper into the cognitive biases among adolescents that legitimise violence, given that the study of these distorted thoughts is relevant both to detecting the acceptability of violence, and in educational intervention (Echeburúa et al., 2016; Fox et al., 2014). The data underline the importance of co-education and of including the gender lens in teacher training in order to prevent and eradicate any type of sexist attitudes (Rivas-Rivero & Bonilla-Algovia, 2020), aimed at achieving the gender equality laid out in the Sustainable Development Goals and at building societies and cultures that have eradicated all forms of violence and discrimination against women. Bearing in mind that GBV is a serious health public health problem (McCarthy et al., 2018), that tolerating it affects all age groups and that the figures for violence during courtship are alarming (Rubio-Garay et al., 2012), it is necessary to continue to contribute to eliminating it through intervention programmes based on equality, deconstructing the distorted ideas about women and the gender roles traditionally transmitted, as well as to detect the risk factors that promote the socialisation of these distorted beliefs that slow development and social progress.

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References

Bonilla-Algovia, E. & Rivas-Rivero, E. (2019). Creencias distorsionadas sobre la violencia contra las mujeres en docentes en formación de Colombia. *Revista Colombiana de Educación*, 77, 87-106. https://doi.org/10.17227/rce.num77-9571

Bonilla-Algovia, E. & Rivas-Rivero, E. (2020). Violencia contra las mujeres y las niñas en España. In G. Zaldúa, M. Lenta & R. Longo (coords.). *Territorios de precarización, feminismos y políticas del cuidado.* Buenos Aires: Teseo.

Bosch, E. & Ferrer, V. (2012). Nuevo mapa de los mitos sobre la violencia de género en el siglo XXI. *Psicothema*, 24, 548-554. Recuperado de: https://www.redalyc.org/articulo.oa?id=72723959007

Brem, M.J., Garner, A.R., Griporian, H., Florimbio, A, Wolford-Clevenger, C., Shorey, R.C. & Stuart, G. (2020). Problematic pornography use and physical and sexual intimate partner violence perpetration among men in batterer intervention programs. *Journal Interpersonal Violence,* 886260518812806. https://doi.org/10.1177/0886260518812806

Christopher, A.N. & Mull, M.S. (2006). Conservative Ideology and Ambivalent Sexism. *Psychology of Women Quarterly,* 30, 223-230. https://doi.org/10.1111/j.1471-6402.2006.00284.x

De la Villa, M., García, A., Cuetis, G. & Sirvent, C. (2017). Violencia en el noviazgo, dependencia emocional y autoestima en adolescentes y jóvenes españoles. *Revista Iberoamericana de Psicología y Salud, 8*(2), 96-107. https://doi.org/10.23923/j.rips.2017.08.009

Decker, M.R., Latimore, A.D., Yasutake, S., Haviland, M., Ahmed, S., Blum, R.W., …, Astone, N.M. (2015). Gender-Based Violence Against Adolescent and Young Adult Women in Low- and Middle-Income Countries. *Journal of Adolescent Health,* 56, 188-196. https://doi.org/10.1016/j.jadohealth.2014.09.003

Delegación del Gobierno contra la Violencia de Género (2020). *Macroencuesta de Violencia contra la Mujer 2019.* Madrid: Ministerio de Igualdad.

Echeburúa, E., Amor, P.J., Sarasua, B., Zubizarreta, I. & Holgado-Tello, F.P. (2016). Inventario de pensamientos distorsionados sobre la mujer y el uso de la violencia- revisado (IPDMUV-R): propiedades psicométricas. *Anales de Psicología*, *32*(3), 837-846. Recuperado de: https://revistas.um.es/analesps/article/view/analesps.32.3.231901

Echeburúa, E. & Fernández-Montalvo, J. (2009). Evaluación de un programa de tratamiento en prisión de hombres condenados por violencia grave contra la pareja. *International Journal of Clinical and Health Psychology, 9*, 5-20. Retrieved from: https://www.redalyc.org/pdf/337/33712020001.pdf

Esteban, B. & Fernández, P. (2017). ¿Actitudes sexistas en jóvenes?: Exploración del sexismo ambivalente y neosexismo en población universitaria. *Femeris, 2*, 137-153. https://doi.org/10.20318/femeris.2017.3762

Fernández-Montalvo, J. & Echeburúa, E. (1997). Variables psicopatológicas y distorsiones cognitivas de los maltratadores en el hogar: un análisis descriptivo. *Análisis y Modificación de Conducta, 23*(88), 151-180. Recuperado de: https://academica-e.unavarra.es/handle/2454/27958

Fox, C., Hale, R. & Gadd, D. (2014). Domestic abuse prevention education: listening to the views of young people. *Sex Education, 14*(1), 28-41. https://doi.org/10.1080/14681811.2013.816949

Francis, L. & Pearson, D. (2019). The recognition of emotional abuse: adolescents´responses to warning sings in romantic relationships. *Journal of Interpersonal Violence, 22,* 1-25. https://doi.org/10.1177/0886260519850537

Gallego, C. & Fernández-González, L. (2019). ¿Se relaciona el consumo de pornografía con la violencia hacia la pareja? El papel moderador de las actitudes hacia la mujer y la violencia. *Behavioral Psychology/Psicología Conductual, 27*(3), 431-454. Retrieved from: https://search.proquest.com/openview/f503827d510024a98b6d92c72cd59847/1.pdf/advanced

García-Carpintero, M.A., Rodríguez-Santero, J. & Porcel-Gálvez, A.M. (2018). Diseño y validación de la escala para la detección de violencia en el noviazgo en jóvenes en la universidad de Sevilla. *Gaceta Sanitaria, 32*(2), 121-128. https://doi.org/10.1016/j.gaceta.2017.09.006

Glass, N., Perrin, N., Clough, A., Desgroppes, A., Kaburu, F.N., Melton, J., …, Marsh, M. (2018). Evaluating the communities care program: best practice for rigorous research to evaluate gender-based violence prevention and response programs in humanitarian settings. *Conflict and Health*, *12*(5). https://doi.org/10.1186/s13031-018-0138-0

Glick, P. & Fiske, S.T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology,* 70, 491-512.

Glick, P., Fiske, S.T., Mladinic, A., Saiz, J.L., Abrams, B., Masser, B., …, López, W. (2000). Beyond prejudice as simple antipathy: hostile and benevolent sexism across cultures. *Journal of Personality and Social Psychology, 79*(5), 763-775.

González-Anleo, J.M., Cortés, M. & Garcelán, D. (2018). Roles y estereotipos de género en publicidad infantil: ¿Qué ha cambiado en las últimas décadas? *aDResearch ESIC: Revista Internacional de Investigación en Comunicación, (18)*18, 80-99. https://doi.org/10.7263/adresic-018-05

González, E. & Molina, T. (2018). Relaciones románticas tempranas y su asociación con comportamientos de riesgo en la salud durante la adolescencia. *Revista Chilena de Obstetricia y ginecología, 85*(4), 368-376. https://doi.org/10.4067/s0717-75262018000400368

Haggard, M.C., Kaelen, R., Saroglou, V., Klein, O. & Rowatt, W.C. (2019). Religion's Role in the Illusion of Gender Equality: Supraliminal and Subliminal Religious Priming Increases Benevolent Sexism. *Psychology of Religion and Spirituality, 11*(4), 392-398. https://doi.org/10.1037/rel0000196

Hannover, B., Gubernath, J., Schultze, M. & Zander, L. (2018). Religiosity. Religious fundamentalism, and ambivalent sexism toward girls and women among adolescents and young adults living in Germany. *Frontiers in Psychology, 9*, 2399. https://doi.org/10.3389/fpsyg.2018.02399

Hellmer, K., Stenson, J.T. & Jylhä, K.M. (2018). What's (not) underpinning ambivalent sexism?: Revisiting the roles of ideology, religiosity, personality, demographics, and men's facial hair in explaining hostile and benevolent sexism. *Personality and Individual Differences,* 122, 29-37. https://doi.org/10.1016/j.paid.2017.10.001

León, C.M. & Aizpurúa, E. (2020). ¿Persisten las actitudes sexistas en los estudiantes universitarios? Un análisis de su prevalencia, predictores y diferencias de género. *Educación XXI, 23*(1), 275-296. https://doi.org/10.5944/educxx1.23629

Lorente, M. (2007). Violencia de género, educación y socialización: acciones y reacciones. *Revista de Educación*, 342, 19-35. Retrieved from: https://sede.educacion.gob.es/publiventa/violencia-de-genero-educacion-y-socializacion-acciones-y-reacciones/sociologia/23486

McCarthy, K.J., Mehta, R. & Haberland, N.A. (2018). Gender, power, and violence: a systematic review of measures and their association with male perpetration of IPV. *Plos One, 13*(11), e0207091. https://doi.org/10.1371/journal.pone.0207091

Merino, E., Díaz-Aguado, M.J., Falcón, L. & Martínez-Arias, R. (2021). Masculine Gender Role Stress as a Mediator of the Relationship Between Justification of Dominance and Aggression and Male

Adolescent Dating Violence Against Women. *Psicothema*, *33*(2), 206-213. https://doi.org/10.7334/psicothema2020.275

Mikolajczak, M. & Pietrzak, J. (2014). Ambivalent sexism and religion: connected through values. *Sex Roles,* *70*(9-10), 387-399. https://doi.org/10.1007/s11199-014-0379-3

Montañés, P., Megías, J.L., De Lemus, S. & Moya, M. (2015). Influence of early romantic relationships on adolescents' sexism. *International Journal of Social Psychology, 30*(2), 219-240. https://doi.org/10.1080/21711976.2015.1016756

Muñoz-Fernández, N., Ortega-Rivera, J., Nocentini, A., Menesini, E. & Sánchez-Jiménez, V. (2019). The Efficacy of the "Dat-e Adolescence" Prevention Program in the Reduction of Dating Violence and Bullying. *International Journal of Environmental Research and Public Health, 16*(3), 408. https://doi.org/10.3390/ijerph16030408

Navarro-Pérez, J.J., Carbonell, A. & Oliver, A. (2019). Eficacia de una app psicoeducativa para reducir el sexismo en adolescentes. *Revista Psicodidáctica, 24*(1), 9-16. https://doi.org/10.1016/j.psicod.2018.07.002

Perrin, N., Marsh, M., Clough, A., Desgroppes, A., Phanuel, C.Y., …., Glass, N. (2019). Social norms and beliefs about gender-based violence scale: a measure for use with gender-based violence prevention programs in low-resource and humanitarian settings. *Conflict and Health, 13*(6). https://doi.org/10.1186/s13031-019-0189-x

Read-Hamilton, S. & Marsh, M. (2016). The communities care programme: changing social norms to end violence against women and girls in conflict-affected communities. *Gender & Development, 24*(2), 261-276. https://doi.org/10.1080/13552074.2016.1195579

Rebollo-Catalan, A. & Mayor-Buzon, V. (2020). Adolescent Bystanders Witnessing Cyber Violence Against Women and Girls: What They Observe and How They Respond. *Violence Against Women, 26*(15-16), 2024-2040. https://doi.org/10.1177%2F1077801219888025

Recio, P., Cuadrado, I. & Ramos (2007). Propiedades psicométricas de la Escala de Detección del Sexismo en Adolescentes (DSA). *Psicothema, (19)*3, 522-528. Retrieved from: https://www.redalyc.org/articulo.oa?id=72719324

Rivas-Rivero, E. & Bonilla-Algovia, E. (2020). Percepción subjetiva y socialización de las relaciones románticas de pareja en futuros y

futuras docentes. *Revista de Estudios e Investigación en Psicología y Educación, 7*(1), 1-11. https://doi.org/10.17979/reipe.2020.7.1.5756

Rodríguez-Franco, L. & Rodríguez, F.J. (2009). Violencia doméstica: una revisión bibliográfica y bibliométrica. *Psicothema, 21*, 248-254. Retrieved from: https://www.redalyc.org/articulo.oa?id=72711654012

Rostad, W.L., Gitins-Stone, D., Huntintong, C., Rizzo, C.J., Pearlman, D. & Orchowski, L. (2019). The association between exposure to violent pornography and teen dating violence in grade 10 high school students. *Archives of Sexual Behavior, 48*, 2137-2147. https://doi.org/10.1007/s10508-019-1435-4

Rothman, E.F., Kaczmarsky, C., Burke, N., Jansen, E. & Baughman, A. (2015). Without porn… I wouldn´t know half the things I know now: a qualitative study of pornography use among a sample of urban, low-income, black and Hispanic youth. *Journal of Sexual Research, 52*(7), 736-746. https://doi.org/10.1080/00224499.2014.960908

Rubio-Garay, F., López-González, M.A., Saúl, L.A. & Sánchez-Elvira-Paniagua, A. (2012). Directionality and violence expression in dating relationships of young people. *Acción Psicológica, 9*, 61-70. https://doi.org/10.5944/ap.9.1.437

Sibley, C.G., Wilson, M.S. & Duckitt, J. (2007). Antecedents of Men's Hostile and Benevolent Sexism: The Dual Roles of Social Dominance Orientation and Right-Wing Authoritarianism. *Personality and Social Psychology Bulletin, 33*(2), 160-172. https://doi.org/10.1177/0146167206294745

Soler, E., Barreto, P. & González, R. (2005). Cuestionario de respuesta emocional a la violencia doméstica y sexual. *Psicothema, 17*(2), 267-274. Retrieved from: https://www.unioviedo.net/reunido/index.php/PST/article/view/8267/8131

Spruijt, A.M., Dekker, M. C., Ziermans, T.B. & Swaab, H. (2019). Linking parenting and social competence in school-aged boys and girls: Differential socialization, diathesis-stress, or differential susceptibility? *Frontiers in Psychology*, 9, 2789. https://doi.org/10.3389/fpsyg.2018.02789

Sun, C., Bridges, A., Johnson, J.A. & Ezzell, M.B. (2016). Pornography and the male sexual script: an analysis of consumption and sexual relations. *Archives of sexual behaviour, 45*(4), 983-994. https://doi.org/10.1007/s10508-014-0391-2

Swim, J.K. & Hyers, L. (2009). Sexism. In T.D. Nelson (dir.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 407-430).

New York: Psychology Press/Taylor and Francis. https://doi.org/10.4324/9781841697772

Torres, A., Lemos-Giráldez, S. & Herrero, J. (2013). Violencia hacia la mujer: características psicológicas y de personalidad de los hombres que maltratan a su pareja. *Anales de Psicología, 29*(1), 9-18. https://doi.org/10.6018/analesps.29.1.130621

Torres, E. & López-Zafra, E. (2010). Diferencias en cultura del honor, inteligencia emocional y pensamientos distorsionados sobre las mujeres en reclusos y no reclusos. *Boletín de Psicología,* 100, 71-88. Retrieved from: https://www.uv.es/seoane/boletin/previos/N100-5.pdf

Ubillos-Landa, S., Goiburu-Moreno, E., Puente-Martínez, A., Pizarro-Ruiz, J.P. & Echeburúa-Odriozola (2016). Evaluación de pensamientos distorsionados sobre la mujer y la violencia de estudiantes vascoparlantes de enseñanzas medias. *Revista Psicodidáctica, 22*(1), 1-8. https://doi.org/10.1016/S1136-1034(17)30037-0

Wright, P.J., Tokunaga, R.S. & Kraus, A. (2016). A meta-analysis of pornography consumption and actual acts of sexual aggression in general population studies. *Journal of Communication, 66*(1), 183-205. https://doi.org/10.1111/jcom.12201

You, S. & Shin, K. (2020). Influence of patriarchal sex-role attitudes on perpetration of dating violence. *Current Psychology*. https://doi.org/10.1007/s12144-020-00632-4

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