Types of Adolescent Male Dating Violence Against Women, Self-Esteem, and Justification of Dominance and Aggression

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Abstract

The recognition of the seriousness of intimate partner violence (IPV) and the need to prevent it has led to the study of its inception in relationships established in adolescence. This study uses latent class analysis to establish a typology of male adolescents based on self-reports of violence against a girl in dating relationships. The participants were 4,147 boys in Spain aged 14 to 18 years from a probabilistic sample. Four discrete, identifiable groups were derived based on 12 indicators of emotional abuse, intimidation, coercion, threats, physical violence, and violence transmitted via communication technologies. The first group consists of non-violent adolescent boys. A second group comprises those boys who isolate and control their partners. Boys who exert only medium-level emotional abuse form the third group, whereas the fourth is formed by teenage boys who frequently engage in all types of violence. Compared with the non-violent adolescents in a multinomial logistic regression, the other groups show lower self-esteem and display a greater justification of male dominance and IPV against women; greater justification of aggression in conflict resolution; they have also received more dominance and violence messages from adults in their family

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environment; and they perceive IPV behaviors against women as abuse of lesser importance.

As has been recognized by the United Nations since 1995 (United Nations, 1995, Fourth World Conference on Women), violence against women is the most extreme manifestation of the historically unequal power relations between men and women, and represents a serious obstacle to us attaining fundamental human rights. The World Health Organization Report on Violence (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002) explains the violence that some men perpetrate against women in intimate relationships as a serious problem which occurs in all countries, cultures, and social classes and which manifests itself in several forms: physical aggression, psychological abuse, sexual coercion, domination, and abusive control.

Attempts to estimate the prevalence of this problem vary greatly depending on the concepts, context, and assessment procedure used (Krug et al., 2002). The meta-analytic review by Minicuci and Andreotti (2010) of studies conducted in the European Union among women aged 25 to 64 found that one in four had been a victim of some type of physical violence, and about 7% had been sexually abused within their relationship. In a study of women aged 18 and above carried out in Spain, it was found that 10.9% indicated that they had suffered some form of gender violence at the hands of their partner in their lifetime, and 3% stated that this had happened within the last year. These percentages rise among young women (from 18 to 29 years old) to 12.3% and 3.7%, respectively (Ministry of Health, Social Services and Equality, here quoted as Ministerio de Sanidad, Servicios Sociales e Igualdad, 2011).

Research on intimate partner violence (IPV) perpetrated by males against women has identified a pattern of control which includes intimidation, emotional abuse, isolation from their environment, minimizing, denying, blaming, coercion, threats, and physical abuse (Graham-Kevan & Archer, 2003). This coercive control that some men exercise on women as part of IPV is an expression of their identification with male dominance, and acts as a "resource for demonstrating and showing a person is a man" (Hearn, 1998, p. 37). The empirically derived typologies of male IPV may represent considerable progress in understanding such problem. As Holtzworth-Munroe and Stuart

(1994) recognized, the men who abuse women are not a homogeneous group, and it is necessary to differentiate among them and to study their relationship with other variables of theoretical and practical interest. Along these lines, the general IPV typology proposed by Johnson (2006) differentiated the following types of adult violence when evaluating both partners: *intimate terrorism* or coercive controlling violence, which involves a combination of control tactics (intimidation, emotional abuse, isolation, coercion, and threats), and could be detected even in incipient cases where violence is used as a form of coercive control without the more explicit forms of violence; *situational violence*, which is not part of a general pattern of coercive control, but rather occurs when couple conflicts become arguments that turn into aggression that becomes violent but does not involve an attempt on the part of one partner to gain general control over the other; and *violence resistance*, which is the way many victims of intimate terrorism react to it, and which is more common among women (Johnson, 2006; Kelly & Johnson, 2008).

From the literature review, Holtzworth-Munroe and Stuart (1994) concluded that there are three core elements (severity of violence, generality of violence, and psychopathology) that differentiate husband abusers. Accordingly, they proposed three types: *family only* (FO), *generally violent/anti-social* (GVA), and *borderline/dysphoric* (BD). In the empirical testing of this typology with cluster analysis, Holtzworth-Munroe, Meehan, Herron, Rehman, and Stuart (2000) found these three types, and another: *low level anti-social* (LLA). Level of anger and hostility (general and spouse-specific) were related to the extent of the perpetration of violence, with the most severely violent men, the GVA and BD groups, showing the most anger and hostility (Holtzworth-Munroe, Rehman, & Herron, 2000). The FO type of violent men, whose level of violence is low, did not differ significantly from the non-violent men in terms of hostility and attitudes toward women. Examining group differences over time, Holtzworth-Munroe, Meehan, Stuart, Herron, and Rehman (2003) found that GVA and BD men did not differ significantly from each other in their levels of marital aggression or in the violence correlates, which include positive attitudes toward violence and negative attitudes toward women. Other research on male abuser typologies have often supported such results. Along these lines, using latent class analysis (LCA) and a community sample, Delsol, Margolin, and John (2003) found three types of violent husband: FO, *medium-violence*, and *general violent/psychologically distressed*. Only the more violent men (GVA-BD groups) differed significantly from the non-violent group of men in attitudes toward women and violence. Regarding control behaviors, the FO type (with a low level of violence) is similar to the non-violent group of men. By establishing a relation to the typology elaborated by Johnson (2006), Delsol et al. (2003)

concluded that the group of more violent men (GVA-BD) are engaging in *intimate terrorism*, and the other groups of violent men are engaging in *common couple violence.*

In one of the few attempts to find types of male adolescent dating violence (ADV) against women, Lindhorst and Beadnell (2011) used LCA on different types of violence suffered by adolescent mothers. Here they identified three patterns of IPV exposure: *battered, moderate exposure*, and *low exposure*. They conclude that LCA of ADV is useful for illustrating an underlying "level of risk" on male ADV, showing that there might be psychological abuse where physical abuse is absent, but that serious physical abuse exists in conjunction with psychological maltreatment. This methodology can be usefully applied to the main objective of this research: taking a general population sample, it can enable us to understand how different violent behaviors combine, if coercive control behaviors and other variables of the dominant masculinity profile appear in all groups of violent boys and its relation to four conditions that can be modified through educative work: the justification of male dominance and violence against women, the messages on this issue received within the family context, the perception as abuse of male IPV behaviors against women, and self-esteem. As the survey is aimed at the general population, it is expected that a large group of teenagers who show no kind of violent behavior, and various groups that differ in the type and intensity of these behaviors, will emerge. The non-violent group that we expect to find will be used as a comparison with the groups that display violent behavior.

Traditional masculinity in adult males received greater attention in the past few years (Lawson, Brossart, & Shefferman, 2010; Schartz, Kelley, & Kohli, 2012), yet the results of studies that try to prove a relationship with IPV are often unexpected, and seem to depend on how traditional masculinity is assessed. When evaluated according to individual identification with traditional masculine traits, the relationship to IPV is not apparent (Lawson et al., 2010). Nevertheless, studies that assess dominant masculinity according to the extent of adherence to gender-role beliefs—those that justify power differences between men and women, the use of violence to perpetuate them, especially in IPV, and the difficulty in recognizing as abuse those situations in which it is expressed—often find that these beliefs relate to the display of IPV (Lawson et al., 2010; Reitzel-Jaffe & Wolfe, 2001; Stith, Smith, Penn, Ward, & Tritt, 2004). The relationship between boys' dominant masculinity and boy-on-girl ADV has not been widely researched. The studies that have evaluated such a relationship have found that adhering to gender stereotypes and attitudes which accept male dominance and dating violence against women predicted ADV perpetration by males (Foshee, Linder, MacDougall,

& Bangdiwala, 2001); boys' attitudes toward dating relationships (gender-typed beliefs and the acceptance of dating violence) was a more important predictor of ADV than witnessing marital violence in childhood (Lichter & McCloskey, 2004), although the latter risk condition has been much more widely researched. A recent study conducted in China (Shen, Chiu, & Gao, 2012) found that boys' attitudes justifying boy-on-girl dating violence is the main predictor of perpetration of physical and sexual dating violence, and that boys' hostility is a significant predictor of controlling behavior. It is important to know if the relationship between gender-role beliefs and justification of boy-on-girl violence by perpetrators and different types of ADV occur in other cultural contexts, even in contexts as Spain where there have recently been significant advances toward equality. This is one of the objectives of the study presented here, as referred to in the following hypotheses: (a) all types of teenage boys using dating violence against women show patterns related to traditional dominant masculinity such as the use of abusive and coercive control, justification of male dominance and IPV against women and justification of violence as a way to resolve conflicts; (b) there are differences between violent and non-violent teenagers in the recognition of behaviors involving violence against women in dating relationships; violent boys recognize violent behavior as abuse to a lesser extent than those who are non-violent.

The development of stereotyped gender roles and acceptance of violence is often rooted in the family context (Lichter & McCloskey, 2004; Reitzel-Jaffe & Wolfe, 2001). Accordingly, certain characteristics of the family of origin (such as child abuse, exposure to violence between parents and power-asserting punishment) have been studied as important ADV risk conditions (Ehrensaft et al., 2003). However, the relationship between ADV and the messages that boys recall to have received within their family context has not been studied. The third hypothesis of our research refers to such a relationship, and proposes that teenage boys who use dating violence differ from those who do not use this type of violence by having received more messages from their family environment that justify violence and male dominance.

Since the earliest research work on this subject, it has been found that low male self-esteem has been a significant predictor of IPV against women (Kesner, Julian, & McKenry, 1997). As a possible explanation, it has been argued that low self-esteem could be the result of their difficulty in living up to the masculine sex-role stereotype. In this line, the study of self-reports by "reformed" batterers by Gondolf and Hanneken (1987) suggested a "failed macho complex" according to which these men could resort to IPV against women to overcompensate their perceived failure to match male hegemonic

gender norms they might not otherwise fulfill. These difficulties could increase in cultural contexts in which women have undergone significant changes in terms of implementing egalitarian gender status (Gallagher & Parrott, 2011). In research on adolescents, it has been found that low self-esteem among boys acts as a mediating risk variable in the intergenerational transmission of IPV (O'Keefe, 1998). However, the few attempts to predict male ADV directly through self-esteem have provided conflicting results, and such an issue needs to be researched more deeply (Foshee et al., 2001). In this line, the fourth hypothesis of this research proposes that teenage boys who use dating violence have lower self-esteem that those boys who do not use this type of violence.

To understand the context of this research, the rapid changes toward equality between men and women that have been developed in Spain in recent decades should be taken into consideration. These changes are especially clear in the rejection and awareness of what is known as "gender violence," as defined in the Act on Integrated Protection Measures Against Gender Violence (Ministry of Equality, 2009). This Act defines gender violence as violence inflicted on women by those who are or have been the spouse or who are or have been linked to them by similar affective relationships, cohabiting or otherwise. The Act emphasizes the need to prevent this form of gender violence. The research here presented aims to contribute to this objective providing insight into what prevention strategies can be incorporated into school curricula.

Method

Design

The design was a sample survey with stratified cluster sampling. The primary sampling unit was the school and random selection of one or more classes depending on the center size. The sample framework was the list of schools in the 17 Spanish regions supplied by the education authorities. The sampling design was stratified by region (17) and type of secondary education (compulsory, academic, and vocational) with sizes proportional to the population. In the Spanish educational system, secondary education is divided into compulsory (12-16 years old) and non-compulsory (17-18 years old), and the latter is further divided into academic and vocational. To establish the effective sample size controlling the possible effects of the variance between centers, an intra-class correlation of 0.10 was considered. In practice, the effect of school on the main variables (IPV) was only 0.02, and so the design effect was not corrected in the statistical analysis.

The study included 4,147 Spanish teenage boys, aged 14 to 18 (M_{age} = 16.36, SD = 1.60). The initial sample consisted of 5,150, of which those with no dating experience with girls (determined by an explicit question in the questionnaire) were not selected, as the objective was to study heterosexual dating relationships. Hence, 1,003 students were excluded because of no dating experience.

The participants were enrolled at 288 secondary schools for compulsory and non-compulsory secondary education. The mean number of participants per school was 20, ranging from 8 to 84 and with a median of 17. The number of participants studying at public schools was 2,408 (58.1%) and the participants from private schools numbered 1,739 (41.9%). The high percentage of students from private schools with state funding was due to the fact that many such centers specialized in vocational training. The percentage of participants from compulsory secondary education was 44.77%, and in non-compulsory education 30.7% were from academic secondary education and 24.5% from vocational education. The corresponding percentages in the population are 44.8%, 29.1%, and 26.1%, respectively. A total of 3,487 students (92.8%) reported that they were native-born.

Procedure

The principals of the schools selected were notified and their participation requested for the study. We also asked for informed consent from the parents of the students chosen. Data collection at the school was carried out via the Internet. Students were instructed that the survey was voluntary, they could withdraw at any time, and that their responses were anonymous. A teacher remained in the room as the survey was administered to answer questions and resolve potential computer problems. The average time required to complete the questionnaire was 50 min.

Measures

All measures, except self-esteem, come from previous research (Díaz-Aguado et al., 2011), and the technical aspects of the psychometric properties of the measures in that research are available for inspection. *Indicators of Male ADV* and *Perception of Abuse* have been defined by experts on this subject according to the behaviors that form part of the pattern of violence, with coercive control identified in research into male IPV against women (Graham-Kevan & Archer, 2003; Johnson, 2006; Kelly & Johnson, 2008). The items of two scales, *Justification of Male Dominance and Violence* and *Messages Received From the Family Environment*, were first defined in

individual interviews and group discussions with adolescents and subsequently discussed and selected by a panel of experts on male IPV against women.

Indicators of male ADV against women. A questionnaire was drawn up composed of 12 indicators referred to different forms of aggression to women: physical, relational, emotional, and via communication technologies. The indicators were the following: (a) insults; (b) humiliation; (c) trying to isolate the girl from her friends; (d) trying to control her behavior and decisions; (e) terrifying her; (f) physical aggression; (g) threats of aggression to force her to do things; (h) intimidation by phrases, insults, or behaviors of a sexual nature; (i) pressure to perform sexual activities; (j) sending insulting, threatening, and offensive messages by Internet/mobile phone; (k) posting photos or images of her via Internet or mobile phone without her permission; and (l) accusing her of provoking the violence in any of the above situations.

The response format was a Likert-type scale with four points: never, sometimes, frequently, and many times. These 12 behaviors were the observed indicators used in the LCA to construct the typology. Because many students reported no involvement in aggression, the distributions of most of the items are highly skewed and with kurtosis. In the present study, the items were dichotomized into two categories: never (0) and sometimes (1).

An exploratory factor analysis based on tetrachoric correlations was carried out with FACTOR 8.1 software (Lorenzo-Seva & Ferrando, 2011). A maximum likelihood extraction produced one identifiable factor explaining 80% of the variance and with loadings greater than 0.70. The alpha coefficient for the 12 items was 0.91. As the aim of the research was to determine types of boys defined by their different behavior patterns, we used all indicators separately instead of using a summative measure of the 12 indicators.

Self-esteem. We used the 10 items in the Self-Esteem scale (Rosenberg, 1965). Validation studies support the one-dimensional nature of this scale, which exhibits an internal consistency of 0.79 in the study sample.

Justification of violence and male dominance. A scale to measure justification of male dominance, male IPV against women in partner relationships and justification of violence as a way to resolve conflicts, consisting of 10 Likert-type items with 4 points (0-3), was used. Exploratory factor analysis by principal axis factoring and Promax rotation showed two factors. The first factor of seven items can be interpreted as "justification of male dominance and IPV against women" ($\alpha = .76$): "For the sake of her children, a women who puts up with violence from her husband or partner should not report him to the

police"; "If a woman has been abused by her partner, she must have done something to provoke him"; "A proper father should make his family know that he is the boss"; "If a woman is battered by her partner and she does not leave him, it must surely be because she is not entirely unhappy in such a situation"; "For a relationship between a man and a woman to prosper, the women should avoid contradicting her partner"; "The violence that takes place at home is a family matter and should be kept in the family"; "A man is justified in assaulting his wife or girlfriend when she decides to leave him."

The second factor consists of three items referred to as "justification of violence as conflict resolution" ($\alpha = .77$): "An assault on someone is justified if they have taken something that was yours," "It is right to threaten someone in order to let them know who the boss is," "It is right to hit someone who has offended you."

Perception of male IPV behaviors against women as abuse. Adolescents rated on a scale from 0 to 3 the seriousness of 14 types of abusive behaviors against women that are typical in dating. Exploratory factor analysis (principal axis factoring) produced one identifiable factor: seriousness of behaviors related to abuse ($\alpha = .95$): "tell her that she is worthless," "make her feel fear," "insult her," "break something of hers," "tell her who she can or cannot speak to or socialize with," "prevent her from seeing her friends," "controlling everything that she does," "insist on having sex when she does not want to," "tell her that if she leaves him, she will hurt him," "hitting her," "forcing her with threats to do things she does not want to do," " record her on a mobile phone or on video, or take pictures of her without her knowing," "send messages on the Internet or by mobile phone which startle or threaten her," and "disseminate messages, insults or images of her without her permission."

Adolescents rated on a scale from 0 to 3 the frequency (never, sometimes, frequently, and many times) with they have received messages from the adults in their family context that encourage *male dominance* and *violence.* Exploratory factor analysis (principal axis factoring) produced one identifiable factor (5 items, $\alpha = .53$): "If someone hits you, hit them back"; "If someone tries to pick a fight with you, try to convince him/her that there is another way out"; "Jealousy is an expression of love"; "To maintain a good relationship, it's better if the man is slightly superior to the woman, in terms of age, the money he earns, etc . . . "; "A good relationship between a man and a women should put both members on an equal footing."

Summary scores were obtained by adding up the scores for the items of the corresponding factors and dividing them by the number of items to maintain the scores within the original scale (0-4 in self-esteem, and 0-3 in the other factors). Before computing the summary scores, the items' missing

values were imputed using IBM SPSS v.19 software with the Expectation-Maximization (E-M). Algorithm. The procedure is iterative and other variables are used to attribute a value (Expectation) followed by checks to see whether that is the most likely value (Maximization). If not, it re-imputes a more likely value. This continues until the most likely value is reached (Enders, 2010).

Data Analysis

The main procedure used for data analysis was LCA using Latent Gold 4.5 software (Vermunt & Magidson, 2005). Data preparation was carried out by IBM SPSS v.19 software. LCA is a person-centered statistical approach that classifies individuals into groups based on their patterns of responses to sets of observed variables (Hagenaars & McCutcheon, 2002). The primary goal is to maximize the homogeneity within groups and maximize the heterogeneity between groups. These groups are represented by a categorical latent variable, which is inferred from the response patterns on observed variables. The determination of the optimal number of classes from successive models is necessary. The designation of the best-fitting model is determined using a variety of statistical indices. Bayesian Information Criteria (BIC; Schwarz, 1978) were used to adjust the likelihood ratio statistics for a number of model parameters. Lower values suggest more parsimonious and well-fitting models (Bozdogan, 1987).

Important model parameters include the estimated probabilities associated with membership of a particular latent class and the posterior class probabilities, which indicate how well the different classes account for the sample response profiles. To compare successive models, the Bootstrapped Likelihood Ratio Test (McLachlan & Peel, 2000) was used. This statistic estimates a difference distribution by which different models can be compared. It compares complex models with less complex models. Other indicators used were classification errors and the entropy index. Values near to 1 indicate a good fit. The final aim was to answer questions related to the relationships between group membership and covariates specified in the hypotheses. As is usual with LCA, we proceeded by following these three steps: (a) an LC model is built for the set of dating violence indicators; (b) subjects are assigned to latent classes based on their posterior class membership probabilities; and (c) the association between the assigned class membership and external variables (covariates) is investigated using multinomial logistic regression. This final analysis was carried out with SPSS v.19 software.

Table 1. Tetrachoric Correlations Among ADV Indicators (Lower Matrix) and Prevalence (Main Diagonal).

Indicators of Dating Violence	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12
I1 Insult	_.11_											
I2 Humiliate	.81	_.04_										
I3 Try to isolate	.53	.69	_.13_									
I4 Try to control her behavior and decisions	.57	.70	.71	_.15_								
I5 Terrify her	.66	.81	.60	.63	_.07_							
I6 Physical aggression	.75	.88	.71	.74	.86	_.03_						
I7 Threats of aggression	.74	.88	.72	.72	.87	.95	_.02_					
I8 Intimidation by phrases, insults, or behaviors of a sexual nature	.69	.84	.63	.66	.80	.90	.93	_.04_				
I9 Pressure for sexual activities	.62	.75	.61	.62	.73	.87	.88	.84	_.05_			
I10 Send messages through Internet/mobile phone with insults, threats, and offenses	.73	.86	.70	.70	.78	.91	.91	.88	.84	_.03_		
I11 Posting photos or images via Internet or mobile phone without permission	.72	.86	.73	.73	.81	.92	.92	.88	.88	.93	_.02_	
I12 Accusing her of provoking the violence in any of the above situations	.70	.82	.72	.72	.80	.90	.90	.86	.84	.89	.92	_.04_

Note. ADV = adolescent dating violence.

Results

Prior to the specification of the latent class models, tetrachoric correlation values were computed for the observed indicators involved in that process. All relationships for items included in the latent class model were positive, high, or significant ($p < .001$). Table 1 shows these correlations between ADV indicators (triangular lower matrix) and the prevalence of ADV behaviors (proportions) on the main diagonal, and these are given in italics. As seen in Table 1, the prevalence of the ADV behaviors was very low, ranging from

Table 2. Summary of Iterative LCA Process With ADV Indicators.

N of Classes	L²	df	p value	BIC	Classification Errors	Entropy Rsq
1 class	6,516.31	4,083	<.0001	21,125.01	0.0000	1.000
2 classes	2,049.33	4,070	1	16,767.12	0.0070	0.908
3 classes	1,111.24	4,057	1	15,937.32	0.0543	0.697
4 classes	9,23.51	4,044	1	15,857.89	0.1013	0.625
5 classes	8,49.51	4,031	1	15,892.18	0.1012	0.622

Note. LCA = latent class analysis; BIC = Bayesian information criteria.

0.02 ("posting photos or images via the Internet or mobile phone without permission," "threats of aggression to force her to do things") to 0.15 ("trying to control her behavior and decisions").

Table 2 shows the fit statistics corresponding to the sequence of models tested with LCA. The likelihood ratio test (L2) shows the amount of variation left among the variables in the model after extracting the classes. Smaller numbers indicate a better fit. The BIC progressively shrank with the addition of classes and parameters up to four classes, and with five it increased again. The most parsimonious model appeared to contain four classes.

In all specifications, the best log-likelihood values were replicated several times using different random starting values, suggesting that local maxima were not a problem. The models with three, four, and five classes show acceptable values. The Bootstrapped Likelihood Ratio test allows rejection of the three-class model in favor of the four-class specification (−2 log likelihood ll = 187.82, $p < .0001$). The four-class model was ultimately selected owing to the fact that it had a low BIC value relative to the other specifications. The percentage of the classification errors is 10.13% and the entropy index is 0.625, a relatively high value that indicates the security of the classification.

Figure 1 shows the profile in terms of response probabilities for the 12 indicators, and the four-class model is described in Table 3. According to the results in Figure 1, members of the first class (Group 1, 76%, $n = 3,152$) had probabilities close to 0 on all ADV items, and based on the response pattern, this class was termed *non-violent* because almost none of the members had inflicted abusive behavior on their female partners. There are three groups of adolescents who report having exercised these behaviors to some extent. Members of the second class (Group 2, 17%, $n = 705$) had probabilities close to 0 in most items except in the two related to isolation and abusive control behaviors; with mean probabilities, and based on this response pattern, this
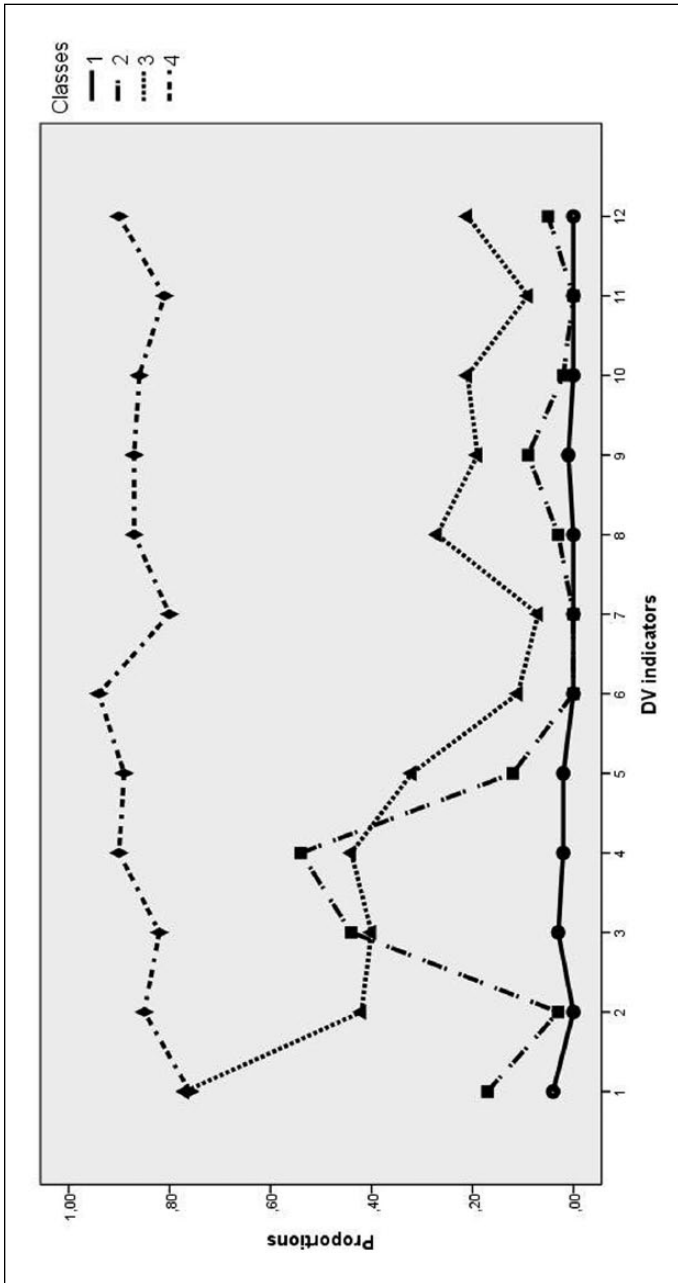
Figure 1. Probability of responding "Yes" to ADV indicators for the four classes.

Note. 1. Insult; 2. Humiliate; 3. Try to isolate; 4. Try to control her behavior and decisions; 5. Terrify her; 6. Physical aggression; 7. Threats of aggression; 8. Intimidation by phrases, insults or behaviors of a sexual nature; 9. Pressure for sexual activities; 10. Send messages through Internet/mobile phone with insults, threats, and offenses; 11. Posting photos or images via Internet or mobile phone without permission; 12. Accusing her of provoking the violence in any of the above situations. ADV = adolescent dating violence; DV = dating violence.

Table 3. Probabilities of Male ADV Against Woman Indicators as a Function of Latent Class Membership (*N* = 4,147).

Latent Class Characteristics	Class 1: Non-Violent	Class 2: Control and Isolation	Class 3: Emotional Abuse	Class 4: Multiple Abuse
	n = 3,152 (76%)	*n* = 705 (17%)	*n* = 207 (5%)	*n* = 83 (2%)
Probability of score of 1				
Insult	0.04	0.17	0.77	0.76
Humiliate	0.00	0.03	0.42	0.85
Try to isolate	0.03	0.44	0.40	0.82
Try to control her behavior and decisions	0.02	0.54	0.44	0.90
Terrify her	0.02	0.12	0.32	0.89
Physical aggression	0.00	0.00	0.11	0.94
Threats of aggression	0.00	0.00	0.07	0.80
Intimidation by phrases, insults, or behaviors of a sexual nature	0.00	0.03	0.27	0.87
Pressure for sexual activities	0.01	0.09	0.19	0.87
Send messages through Internet/mobile phone with insults, threats, and offenses	0.00	0.02	0.21	0.86
Posting photos or images via Internet or mobile phone without permission	0.00	0.00	0.09	0.81
Accusing her of provoking the violence in any of the above situations	0.00	0.05	0.21	0.90

Note. ADV = adolescent dating violence.

class was termed *control & isolation.* Members of the third class (Group 3, 5%, *n* = 207) claim to have exercised other forms of emotional abuse, in addition to the two previous behaviors. They showed probabilities with mean or moderated values on items of emotional abuse, control, and isolation, and close to 0.25 on items related to intimidation. We named this class *emotional abuse.* Finally, members of the fourth class (Group 4, 2%, *n* = 83) had a high

Table 4. Descriptive Statistics of the Covariates and "Post Hoc" Contrasts.

Covariates	1. Non-Violent		2. Control Isolation		3. Emotional Abuse		4. Multiple Abuse		Post Hoc (p < .01)
	M	SD	M	SD	M	SD	M	SD	
Self-esteem	3.14	0.63	3.02	0.63	2.88	0.69	2.51	0.88	1 > 2 = 3 >4
Justification of male dominance and IPV	0.31	0.40	0.49	0.46	0.67	0.51	1.39	0.89	4 > 3 > 2 > 1
Justification of violence as conflict . . .	0.68	0.67	0.95	0.70	1.15	0.81	1.61	0.92	4 > 3 > 2 > 1
Messages from adults in the family . . .	0.74	0.52	0.94	0.56	1.15	0.61	1.60	0.71	4 > 3 > 2 > 1
Perception of male IPV as abuse	2.22	0.76	1.96	0.78	1.70	0.84	1.46	0.80	1 > 2 > 3 = 4

Note. Maximum scores are 4 for self-esteem, and 3 for the rest of the variables. The numbers before names of groups are used in the last column termed "Post-hoc" for illustrating significant differences among groups. IPV = intimate partner violence.

probability of endorsing all the ADV items, including physical assault, sexual coercion, and abuse via new technologies, and based on this response pattern this class was defined as *multiple abuse*.

Possible differences among classes in terms of age and type of education were explored. Age revealed significant differences among groups with a very small effect size, $F(3, 4143) = 18.1$, $p < .001$, $\eta^2 = .01$. The Bonferroni post hoc contrast showed that subjects in Group 2 are older than those in Groups 1 and 4 ($Ms = 16.7$, 16.3, 16.2; $p < .05$). The chi-squared contrast showed a significant association between class and type of education, $\chi^2(6, 4147) = 76.3$, $p < .001$, Cramer's $V = .10$. The standardized residuals showed more subjects of classes two and three than randomly expected among vocational education students.

Latent class membership was regressed on the covariates of interest using multinomial logistic regression. The covariates were those mentioned in the hypotheses: self-esteem, justification of male dominance and IPV against women, justification of violence as conflict resolution, recognition of male IPV against women as abuse, dominance and violence messages received from adults in their family environment, interactions of self-esteem with justification of male dominance and IPV against women, and justification of violence as conflict resolution. All variables were typified, including those implied in the interactions. Table 4 shows descriptive

Table 5. Likelihood Ratio Tests of Predictors.

Effect	Model-Fitting Criteria		Likelihood Ratio Tests		
	BIC of Reduced Model	−2 Log Likelihood	χ^2	df	Significance
Intercept	11,043.71	10,868.87	5,441.45	3	.000
Self-esteem	5,636.80	5,461.9	34.55	3	.000
Justification of dominance and IPV against women	5,675.18	5,500.34	72.92	3	.000
Justification of violence as conflict resolution	5,646.98	5,472.14	44.72	3	.000
Messages from adults in the family environment	5,624.87	5,450.03	22.61	3	.000
Perception of male IPV against women as abuse	5,646.67	5,471.83	44.41	3	.000
Self-esteem × Justification of dominance and IPV . . .	5,603.76	5,428.93	1.51	3	.680
Self-esteem × Justification of violence as conflict . . .	5,604.95	5,430.11	2.70	3	.441

Note. BIC = Bayesian information criteria; IPV = intimate partner violence.

statistics of the covariates for the four latent classes as well as the "post hoc" contrasts. Alpha for significance was set at .01. The *F* contrast was carried out using the Brown–Forsythe (B-F-T) test because the Levene test does not support the assumption of equality of variances. The "post hoc" contrasts were conducted by the Games-Howell test. The results from the B-F-T and effect sizes measured by eta squared were the following: self-esteem, $F(3, 295.1) = 27.4$, $p < .001$, $\eta^2 = .03$; justification of male dominance and IPV against women, $F(3, 180.7) = 94.2$, $p < .001$, $\eta^2 = .13$; justification of violence as conflict resolution, $F(3, 334.1) = 63.7$, $p < .001$, $\eta^2 = .06$; messages from adults in the family environment, $F(3, 307.4) = 79.0$, $p < .001$, $\eta^2 = .08$; and perception of male IPV against woman as abuse, $F(3, 452.1) = 57.3$, $p < .001$, $\eta^2 = .04$.

Table 6. Latent Class Analyses With Covariates: Multinomial Logistic Regression (*N* = 4,147).

Covariates of Class Membership	Control and Isolation	Emotional Abuse	Multiple Abuse
	OR (95% CI)	OR (95% CI)	OR (95% CI)
Self-esteem	0.90 [0.83, 0.98]	0.76 [0.64, 0.89]	0.50 [0.38, 0.66]
Justification of dominance and IPV against women	1.24 [1.13, 1.37]	1.36 [1.16, 1.60]	2.32 [1.86, 2.89]
Justification of violence as conflict resolution	1.25 [1.15, 1.36]	1.41 [1.20, 1.65]	1.67 [1.28, 2.19]
Messages from adults in the family environment	1.17 [1.07, 1.29]	1.37 [1.16, 1.61]	1.29 [1.01, 1.65]
Perception of IPV against women as abuse	0.82 [0.75, .88]	0.70 [0.61, 0.81]	0.69 [0.56, 0.86]
Self-esteem × Justification of dominance and IPV . . .	1.08 [0.93, 1.27]	0.97 [0.76, 1.24]	1.10 [0.82, 1.48]
Self-esteem × Justification of violence as conflict . . .	1.00 [0.86, 1.17]	1.21 [0.94, 1.27]	1.16 [0.83, 1.63]

Note. Non-violent class is the reference class. The covariates are quantitative and were standardized such that the unit is one standard deviation. OR = odds ratio; CI = confidence interval; IPV = intimate partner violence.

The results from the multinomial logistic regression are presented in Tables 5 and 6. The reference for comparison was the non-violent class. The odds ratios indicated the predicted change in the odds of membership in a particular class compared with the non-violent class for a one standard deviation increase in the covariate, all other variables in the model remaining constant. The Alpha for significance was set at .05.

The final model is statistically significant, $\chi^2(21) = 558, 2, p < .001$, indicating that at least one of the predictors in the model is not equal to zero. The value of Nagelkerke pseudo R^2 is .165. Table 5 shows the Likelihood Ratio Tests where each element of the model is compared with the full model in such a way as to allow determination of its inclusion in the full model. We can see that the interactions of self-esteem with justification of male dominance and IPV against women and self-esteem with justification of violence as conflict resolution display a non-significant chi-square ($p = .68$ and $p = .44$,

respectively) indicating that they could be dropped from the model and the overall fit would not be significantly reduced.

First, predictors of membership in the control and isolation class compared with the non-violent class were considered. An increase of one standard deviation in the self-esteem scale decreased the odds of membership in the control and isolation class by 10%, whereas an increase of one standard deviation in the perception of male IPV against women as abuse decreased the odds of membership by 18%. By contrast, increases of one standard deviation in the justification of male dominance and IPV against women significantly increased the odds of membership in the control and isolation class by 24%, by 25% in the case of the justification of violence as conflict resolution, and by 17% in the case of messages from adults within the family environment.

Next, predictors of membership in the *emotional abuse class* were considered. Increases of one standard deviation in self-esteem and perception of male IPV against women as abuse decreased the odds of membership in the emotional abuse class by 24% and 30%, respectively. By contrast, an increase of one standard deviation in justification of male dominance and IPV against women, justification of violence as conflict resolution, and messages from adults within the family environment, increased the odds of membership by 36%, 41%, and 37%, respectively.

Finally, predictors of membership in the multiple abuse class compared with the non-violent class were taken into account. Increases of one standard deviation in self-esteem and perception of male IPV against women as abuse decreased the odds of membership in the multiple abuse class by 50% and 31%, respectively. By contrast, an increase of one standard deviation in justification of male dominance and IPV against women, justification of violence as conflict resolution, and messages from adults within the family environment increased the odds of membership by 132%, 67%, and 29%, respectively.

Discussion

LCA of the self-reporting by Spanish teenage boys of their dating experiences with girls shows that most (*non-violent*, 76%) have not exercised any form of abuse against their partners. According to the first hypothesis proposed, the three groups who report having manifested dating abuse behavior show a pattern of abusive control related to traditional dominant masculinity that Johnson (2006) defined as *coercive control violence.* However, there is no group of teenage boys who report exercising a combination of behaviors that match the pattern of *situational couple violence*, without isolation and

abusive control, identified in Johnson's typology of IPV between adults. Nor is there any group of boys that resembles the type of FO violent men (differing from *non-violent* men only in a low level of violence against wives without abusive control or justification of violence), as identified in other typologies of adult batterers (Delsol et al., 2003; Holtzworth-Munroe, Meehan, et al., 2000; Holtzworth-Munroe et al., 2003). The main difference detected here among the three groups of adolescents who abuse is the seriousness of the combination of violent behaviors that they admit to having displayed. These results show, as Lindhorst and Beadnell (2011) emphasize, that LCA of male ADV is useful for illuminating an underlying "level of risk" in the spiral of control and violence detected in previous research on male IPV against women (Graham-Kevan & Archer, 2003), which may include: intimidation, emotional abuse, isolation, minimizing, denying, blaming, coercion, threats, and physical abuse. But abusers do not necessarily deploy all these behaviors: Such a coercive pattern is detected even in incipient cases where violence is used as a form of coercive control without further explicit forms of violence (Kelly & Johnson, 2008). These results are consistent with those obtained by Lindhorst and Beadnell (2011) regarding patterns of abuse experienced by adolescent mothers: Psychological abuse can exist in the absence of physical abuse, but serious physical abuse occurs in conjunction with psychological maltreatment. The research presented here has enabled us to show this pattern from the point of view of boys who perpetrate such abuse.

Moreover, the typology defined in this study highlights the possibility of detecting from adolescence two groups of boys that resemble two types found in other adult batterer typologies (Delsol et al., 2003; Holtzworth-Munroe et al., 2000; Holtzworth-Munroe et al., 2003). The *multiple abuse* group of boys exerts various kinds of severe violent behavior, including abusive control. The main predictors of belonging to this group are justification of male dominance and violence, justification of violence as a way of resolving conflicts, and low self-esteem. Accordingly, the *multiple abuse* group of boys resembles the group of more violent adult men (GVA *and* BD) in adult batterer typologies. The *psychologically abusive* group shows a high level of verbal aggression, a medium level of abusive control, intimidation, and some sexual and physical abuse. The main predictors for membership of this group are justification of violence as a way of resolving conflicts, messages of dominance and violence received from adults in the family, and self-justification of male dominance and violence. Hence, the *psychologically abusive* group of boys is similar to the LLA (Holtzworth-Munroe et al., 2000; Holtzworth-Munroe et al., 2003) and *medium violence* (Delsol et al., 2003) groups in adult batterer typologies.

Another contribution of our typology is the use of a reference group of non-violent adolescents, which has allowed us to detect the group of *abusive control* in which such abuse takes place without any other more serious form of abuse. The main predictors of belonging to this group are: justification of male dominance and violence, aggression for conflict resolution, perception of abuse in IPV, and messages of dominance and violence received from adults in the family. These results reflect the importance of detecting all types of male adolescent abuse, even milder cases that present only abusive control, to understand the conditions of risk and how to prevent them.

The regression analysis results provide important information on how to proceed to bolster prevention. According to Hypotheses 1 and 2, these results confirm that all groups of teenage boys using dating violence display a greater justification of male dominance and violence and have more difficulty in acknowledging IPV behaviors against women as abuse. Such results show the need for prevention strategies to help alter the mentality that justifies male dominance and violence, the strongest predictor of male ADV against women, as Shen et al. (2012) and Lichter and McCloskey (2004) have also found in other cultural contexts. These results reflect that may be appropriate preventing ADV by means of programs to counter all forms of violence, by teaching non-violent alternatives to resolve conflicts and of paying special attention to getting boys to recognize the abusive nature of the various behaviors of dominance and aggression toward girls in dating relationships, including behaviors of abusive control.

The relationship observed between male ADV and messages received from adults in the family, predicted by Hypothesis 3 and not explored in previous studies, reflects the need to detect and modify those messages as well as the importance of involving in the prevention not only peers and teachers but families too.

The fact that the three groups of boys who perpetrated ADV against women have low self-esteem, as predicted by Hypothesis 4, coincides with the results found in previous research on adults (Kesner et al., 1997) but not on adolescents (Foshee et al., 2001). Thus, ADV prevention programs must include opportunities for boys to acquire a sense of male empowerment through values of equality, and detect and modify the influence of messages of dominance according to the values that our society is now trying to instill to build a more equal world.

Limitations of the Research

Along with the strengths of the study (such as the use of appropriate statistical procedures, a large and representative sample and the use of a non-violent

group of adolescents as reference group), the research also has some limitations that are important to consider when interpreting the results. First, as the data are based on responses from self-reporting, they should be supplemented by other kinds of data, such as qualitative interviews, focus groups, and partner reports. Second, any future research should include a longitudinal follow-up of adolescents to study the evolution of the problem detected in this investigation.

Declaration of Conflicting Interests

Funding

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