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Interparental Violence and Children's Long-Term Psychosocial Adjustment: The Mediating Role of Parenting Practices

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The objectives of this study were: (a) to examine the direct and indirect relationships among witnessing interparental violence, parenting practices, and children's long-term psychosocial adjustment; (b) to analyze the possible gender differences in the relationships specified. The sample consisted of 1295 Spanish university students (M age = 21.21, SD = 4.04). We performed statistical analyses using structural equation modeling. The results showed that witnessing parental violence as a child is related to poor long-term psychosocial adjustment during the child's adult years. Furthermore, we found that parenting practices fully mediated the relation between witnessing interparental violence and the child's long-term adjustment. The multigroup analyses showed that most of the relations among the variables did not differ significantly by gender. However, the relation between harsh discipline and antisocial behavior was stronger for males, whereas the relation between harsh discipline and depressive symptoms was stronger for females. Finally, we discuss the implications of these findings for the clinicians and specialists who plan and develop intervention programs for populations at risk.

Keywords: partner violence, parenting, long-term psychosocial adjustment, antisocial behavior, depressive symptoms.

Los objetivos de este estudio fueron: a) analizar las relaciones directas e indirectas entre la exposición a la violencia marital, la conducta parental y el ajuste psicossocial a largo plazo de los hijos; b) examinar la posible existencia de diferencias en las relaciones analizadas en función del sexo del participante. La muestra estuvo compuesta por 1295 estudiantes universitarios (74.4% mujeres; Medad = 21.21, DT = 4.04). Para analizar las hipótesis del estudio se estimaron varios modelos de ecuaciones estructurales. Los hallazgos sugieren que la relación entre violencia marital y ajuste psicossocial de los hijos a largo plazo se produce de forma indirecta a través de un deterioro de diversos aspectos de la conducta parental. Concretamente, las dimensiones de disciplina severa, afecto/apoyo parental y consistencia interparental e intraparental mediaron la relación entre la exposición a la violencia parental y sintomatología depresiva a largo plazo de los hijos. Por su parte, la disciplina severa y la consistencia intraparental mediaron la relación entre la violencia parental y las conductas antisociales. Los análisis por sexo revelaron que la mayoría de las relaciones observadas fueron similares entre hombres y mujeres. No obstante, la relación entre la disciplina severa y la conducta antisocial fue más fuerte para los varones, mientras que la asociación entre la disciplina severa y la sintomatología depresiva fue más elevada para las mujeres. Finalmente, se discuten las implicaciones de estos resultados para la planificación de programas de intervención con poblaciones de riesgo.

Palabras clave: violencia en la pareja, conducta parental, ajuste psicossocial a largo plazo, conducta antisocial, sintomatología depresiva.

In the past few decades, physical and psychological partner violence has been acknowledged as a crucial public health issue with important negative social and individual consequences (Ackard & Neumark-Sztainer, 2002; Almendros, Gámez-Guadix, Carrobles, Rodríguez-Carballeira, & Porrúa, 2009). One of its most important effects is suffered by the children within the family context, who are often the helpless victims of the aggressions between their parents. In this sense, researchers have found that witnessing parental violence is associated with a broad range of social, psychological, emotional, and behavioral problems in children, including aggressive and disruptive behavior (Erath, Bierman, & Conduct Problems Prevention Research Group, 2006), tendencies to internalize problems (i.e., depression, anxiety, and withdrawal) (Katz & Gottman, 1993), poor academic performance (Ghazarian & Buehler, 2010), alcohol and drug consumption (Straus, 1992), and posttraumatic stress disorder (Lang & Stover, 2008). Minors exposed to marital violence are also at risk of suffering from physical abuse by their parents (Appel & Holden, 1998).

One of the most useful mechanisms proposed to explain the relation between marital violence and the children's psychosocial adjustment is the so-called *spillover hypothesis* (Benson, Buehler, & Gerard, 2008; Bradford et al., 2004; Erel & Burman, 1995; Zimet & Jacob, 2001). According to this hypothesis, the affect and negative behaviors generated by conflict and partner violence is transferred to parent-children interactions, leading to parent's dysfunctional practices of childrearing and discipline (Krishnakumar & Buehler, 2000). In other words, if the relation between the parents is marked by a high degree of conflict, then the parents are more likely to exhibit inappropriate parenting practices, a lower number of positive interactions with their children, and more inconsistent educational strategies. In turn, these parent-child interactions may cause diverse internalizing and externalizing problem behaviors within their children (Brody, Arias, & Fincham, 1996; Sturge-Apple, Davies, & Cummings, 2006). Thus, the practices that parents employ seem to mediate the relation between marital violence and the negative consequences on their children (Buehler & Gerard, 2002).

According to the available empirical evidence, four basic dimensions of parenting practices are related to the presence of marital violence (Erel & Burman, 1995; Krishnakumar & Buehler, 2000; Zimet & Jacob, 2001). First, in situations marked by marital conflict, parents are more likely to use negative and harsh disciplinary strategies, such as physical punishment (e.g. spanking and slapping) and psychological punishment (threatening, shouting, etc.), to correct their children's behaviors (Brody et al., 1996; Buehler & Gerard, 2002; Erath et al., 2006). Second, in addition to harsher disciplinary strategies, researchers have found that parents decrease the number of positive interactions with their children in situations marked by parental violence and display lower levels of support,

acceptance, and affection (Holden & Ritchie, 1991; Kaczynski, Lindahl, Malik, & Laurenceau, 2006; Mann & MacKenzie, 1996). Third, marital violence has been associated with inconsistent interparental practices; the parents disagree about their disciplinary strategies or establish inconsistent rules and regulations, thus creating an unpredictable environment for their children (Fincham, Grych, & Osborne, 1994; Holden & Ritchie, 1991; O'Leary & Vidair, 2005; Sturge-Apple et al., 2006). Finally, each parent will most likely fail to use sufficient follow-up discipline with their children, will use his or her own disciplinary strategies in an unpredictable manner, and will fail to administer contingent reinforcements or punishments, thus creating a pattern characterized by low intraparental consistency (Holden & Ritchie, 1991; Mann & MacKenzie, 1996).

Prior research has provided support for the spillover hypothesis between marital violence and parenting practices. In their meta-analysis, Erel and Burman (1995) found a global effect size of $d = .46$ in the relation between the quality of a couple's relationship and the quality of their parenting practices. The association rose to $d = .51$ when only the presence of manifest couple conflict (physical or verbal violence) was considered. A few years later, Krishnakumar and Buehler (2000) focused on the relation between marital violence and deteriorating parenting practices. These authors found a global effect size of $d = .62$ in the relation between the presence of parental violence and the use of inappropriate parenting practices.

Although the association between the presence of parental conflict and deteriorating parenting practices is a well-documented phenomenon, the evidence for the relation between spillover and the children's subsequent psychosocial behavior is fragmented and inconsistent for various reasons. First, most prior studies have either employed a general index of global quality to measure the parent-children relation or have only analyzed one or two aspects of parenting practices (Diamond & Muller, 2004; Kaczynski et al., 2006; Krishnakumar & Buehler, 2000). This approach has led to important limitations because parenting practices constitute a multidimensional construct; its components could be affected differently by marital violence and could have diverse degrees of influence on the children's psychosocial functioning (Krishnakumar & Buehler, 2000).

Second, the children's sex could moderate the relation between parental violence and the children's adjustments, although this factor is still being debated among scholars (Grych & Fincham, 2001). Although some studies have found that the psychosocial behavior of children exposed to parental violence is worse in males (Davies & Lindsay, 2001), other works have hypothesized that the impacts for males and females may be comparable but may manifest themselves differently by sex (Zimet & Jacob, 2001). Males may present more externalizing behavior problems (i.e., antisocial behavior), whereas females may manifest more

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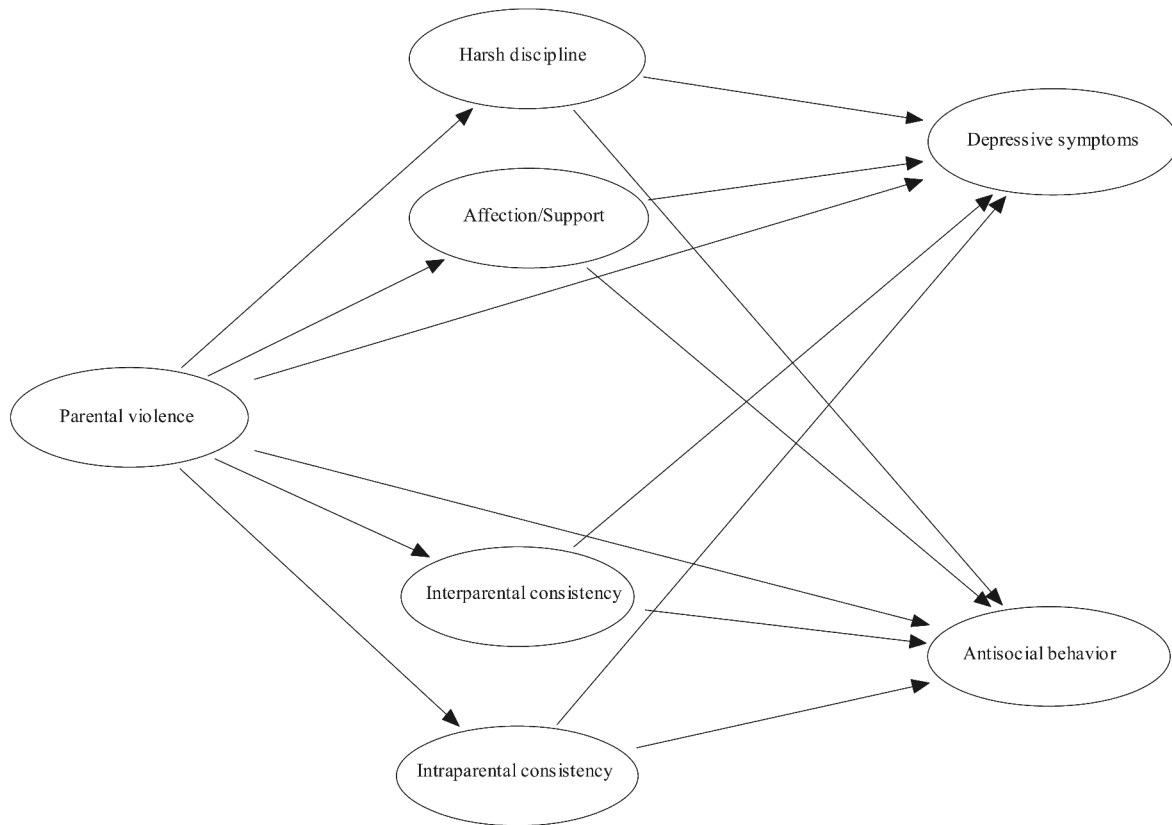


Figure 1. Theoretical model for the relations between marital violence, parental behavior, and long-term psychosocial adjustment.

internalizing behavior problems (i.e., emotional distress) (Davies & Lindsay, 2001; O'Leary & Vidair, 2005). Nevertheless, the empirical evidence on this subject is inconclusive.

Finally, although various studies have analyzed the relation between violent parenting practices and the presence of behavioral problems in children (i.e., Benson et al., 2008), few works have examined their relation to adult children's psychosocial adjustment (Diamond & Muller, 2004). Most have focused only on the intergenerational transmission of violence (Davies, DiLillo, & Martinez, 2004). Therefore, little is known about the relations between parental violence, parenting practices, and children's long-term psychosocial functioning.

The present study

After considering the above limitations, we pursued two main goals. First, we analyzed the theoretical model presented in Figure 1 and explored the relations between exposure to marital violence, the long-term psychosocial adjustment of children, and the mediating role of the different aspects of parenting practices. More specifically, based on prior research and theories (Erel & Burman, 1995; Krishnakumar & Buehler, 2000; Zimet & Jacob, 2001), we

hypothesized that marital violence, whether physical (e.g., shoving and slapping) or psychological (e.g., insulting and shouting), will be more frequently associated with harsh discipline (i.e., physical or psychological punishment) against children, fewer positive parent-child interactions and displays of support towards children, and lower levels of inter- and intraparental consistency. In turn, our model specified that these parenting practices will be related to the poor long-term psychosocial adjustment of children, operationalized as antisocial behavior and depressive symptoms. That is, the relation between marital violence and poor psychosocial adjustment will be mediated by deteriorating parenting practices (See Figure 1). The choice of the dependent variables was based on the fact that they are adult expressions of externalizing and internalizing problems, which have frequently been considered dependent variables in studies with minors.

In addition to their indirect association through parenting practices (Kaczynski et al., 2006; Mann & MacKenzie, 1996), as some studies have found a direct relation between marital violence and children's psychosocial adjustment (i.e., Benson et al., 2008), the model presented in Figure 1 also specifies a direct relation between these variables.

Lastly, taking into account the above-mentioned contradictory results about the differences as a function of the

sex of the children exposed to violence (i.e., Davies & Lindsay, 2001), the second goal of this study is to examine the moderator role of the participant's sex on the specified model.

Method

Participants

The initial sample for this study consisted of 1,416 university students, which corresponded to the sample collected in the Comunidad de Madrid (Spain), as part of the *International Parenting Study* (IPS; <http://pubpages.unh.edu/~mas2/IPS.htm>), an international research project conducted by a consortium of researchers from 20 countries all over the world. All of the IPS researchers used the same questionnaire and followed the same data collection procedures with the university students. The sample was collected in two stages. First, the researchers collected a convenience sample from the Psychology and Education faculties at the Universidad Autónoma de Madrid ($n = 477$). Second, the researchers conducted random, stratified, proportional sampling by faculty and sex among the diverse faculty members of this university ($n = 938$). Both subsamples (i.e., incidental and random) were compared in the variables of the study by using Student's *t*-test. No significant differences were found between subsamples, so they were analyzed conjointly in the subsequent analyses. Thirty-nine percent of participants were students of Psychology, 18.3% of Law, 14.2% of Education, 10.5% of Economy, 9.9% of Science, and 7.3% of Art and Humanities. We excluded the participants whose parents had separated or divorced and the participants who had suffered the loss of a parent before the age of 10 (the reference age of the study) from the analyses to avoid potentially spurious results caused by the influence of these factors ($N = 121$). Thus, the sample included in the analyses consisted of 1,295 university students (74.4% women) with a mean age of 21.21 years ($SD = 4.04$, range = 18-69).

Measures

Independent variable

Parental violence. We used the Revised Conflict Tactics Scale (CTS2; Straus & Douglas, 2004), in the version in which the participant reports the physical and psychological violence perpetrated by one of the parents against the other when the participant was 10 years old. In the International Parenting Study, this time period is used because it allows the participants to make more precise estimations than if they are asked about more extensive intervals like "during childhood" or "when you were little" (Straus & Fauchier, 2007). The scale consists of eight items (e.g., "My father

destroyed something belonging to my mother or threatened to hit my mother") that are rated on a seven-point response scale ranging from 0 (*Never*) to 6 (*More than 20 times*). The internal consistency in this study was $\alpha = .80$.

Mediator Variables

Harsh discipline. We used the Physical and Psychological Punishment subscale of the Dimensions of Discipline Inventory, Form A (DDI-A; Straus & Fauchier, 2007). The DDI-A is composed of 26 items that assess the frequency with which the parents employed different disciplinary strategies when the participants were 10 years old. The 10-response categories ranged from N (*Never*) through 9 (*Two or more times a day*). The psychometric properties of the DDI-A have recently been analyzed (Gámez-Guadix, Orue et al., 2010), obtaining support for an internal structure made up of four factors called Physical and Psychological Punishment, Inductive Discipline, Penalty, and Supervision. The Physical and Psychological Punishment Scale consists of seven items (e.g., "spank, smack, or slap you" and "shake you") that participants respond to twice: once for their mother and once for their father. The internal consistency in this sample was $\alpha = .87$.

Support and parental affection. We used the Warmth/Support subscale of section D from the DDI (Mode of implementation/context of the discipline). This section assesses the context and the way in which the parents administered parental discipline when the participant was 10 years old (Straus & Fauchier, 2007). The Warmth/Support subscale consists of six items (e.g., "Your parents did or said things to show that they loved and supported you"), three of which refer to the mother and three of which refer to the father. The response format has five categories ranging from 0 (*Never*) to 4 (*Always or almost always*). The reliability in this study was $\alpha = .84$.

Interparental consistency. We used the Consistency between Parents subscale included in section D of the DDI. This subscale assesses the extent to which the parents agreed on the rules and disciplinary strategies for their children (e.g., "Your mother disagreed with your father's rules for your behavior"). It consists of four items with a 5-point response format ranging from 0 (*Never*) to 4 (*Always or almost always*). The items were recoded so that high scores would reflect a higher degree of parental concordance. The Cronbach's alpha of this scale was .80.

Intraparental consistency. We used the Intraparental Consistency subscale from section D of the DDI, which assesses the extent to which the parents were consistent and predictable in their administration of discipline and control over their children. This scale is composed of three items (e.g., "Your father/mother corrected you again if you repeated misbehavior") that are answered twice: once for the mother and once for the father. The response format

has 5 alternatives ranging from 0 (*Never*) to 4 (*Always or almost always*). This scale's internal consistency in this study was adequate ($\alpha = .77$).

Dependent variables

Depressive symptomatology. We used the Major Depression Inventory (MDI; Olsen, Jensen, Noerholm, Martiny, & Bech, 2003) of the World Health Organization (WHO). The MDI consists of 12 items that cover the symptoms of depression according to the International Classification of Diseases (ICD-10). The MDI measures the presence of depressive symptoms during the past two weeks (e.g., "Have you lost interest in your daily activities?") by using a six-point scale ranging from 0 (*Never*) to 5 (*Always*). This scale has shown adequate construct validity and internal consistency in various studies (Olsen et al., 2003). In the present study, the Cronbach's alpha was .87.

Antisocial behavior. We used the reduced version of the Scale of Antisocial Behaviors and Traits from the Personal and Relationship Profile (Straus, Hamby, Boney-McCoy, & Sugarman, 1999). This version measures the presence of antisocial behaviors and traits (e.g., "I often lie to get what I want") and is composed of eight items that are rated on a four-point Likert-type scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Hines and Straus (2007) provided preliminary data about the adequate validity of the total scale. For this study, the internal consistency was $\alpha = .70$.

Control variables

Physical abuse. Because marital violence and physical abuse are correlated and because physical abuse can have important negative consequences for the children (Appel & Holden, 1998), we controlled for the presence of physical abuse in the analyses. To that end, we used the parent-children version of the Conflict Tactics Scale (CTSPC; Straus, Hamby, Finkelhor, Moore, & Runyan, 1998), which assesses the frequency with which the participants suffered some type of physical abuse. This scale consists of five items (e.g., "Hit you with a fist or kicked you hard") that are answered twice: once for the mother and once for the father. The items are rated on a seven-point scale ranging from 0 (*Never*) to 6 (*More than 20 times*). Information about its validity can be found in Straus et al. (1998). The internal consistency for this sample was $\alpha = .82$.

Social desirability. To control for the tendency of some participants to respond in a socially acceptable manner, we used the modified version of the Social Desirability Scale of the Personal and Relationship Profile (Straus et al., 1999). This scale consists of five items. The four-point Likert-type response scale ranges from 1 (*Strongly disagree*) to 4 (*Strongly agree*). In this study, the internal consistency of this scale was $\alpha = .55$.

Parents' educational level. Educational level is significantly associated with diverse parenting practices and with adult psychosocial adjustment (Gámez-Guadix, Straus, Carrobes, Muñoz-Rivas, & Almendros, 2010). Therefore, we included educational level as a control variable. We used two questions: one for the mother's educational level and one for the father's educational level. The scale included seven response alternatives ranging from 1 (*No primary studies/grade school degree*) to 7 (*Complete postgraduate title*). The Cronbach's alpha was .76.

Procedure

Before distributing the questionnaires, we informed the participants, both verbally and in writing, about the goal of the study, its voluntary and anonymous nature, and their freedom to stop participating at any time. Once the questionnaire had been returned, the participants were given the e-mail address of one of the researchers in case they wished to obtain more information about the study. The procedure was reviewed and approved by the Ethical Research Committee at the Universidad Autónoma de Madrid.

Statistical Analyses

First, we calculated the descriptive statistics and the Pearson correlations between the variables of the study. To better describe the sample, we also analyzed the association between parental violence and a child's sex by using Pearson's χ^2 test.

We tested the hypotheses of this study by estimating structural equation models with the EQS 6.1 software (Bentler, 2005). Because the prior analyses revealed that the data deviated from multivariate normality (i.e., the Mardia's Normalized Coefficient was 197.15), we used the maximum-likelihood method with the Satorra-Bentler Scaled Chi-Square (S-B χ^2), which provides robust estimations if the variables fail to meet the normality assumption. To assess the fit of the models, we used the robust versions of the normed fit index (NFI), the non-normed fit index (NNFI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). In general, NFI, NNFI, and CFI values of .90 or higher indicate a good fit. Likewise, RMSEA values lower than .08 reflect an acceptable fit, and RMSEA values lower than .05 indicate an excellent fit (Browne & Cudeck, 1993; Byrne, 2008).

Results

Descriptive Analyses and Bivariate Correlations

Table 1 presents the descriptive statistics (i.e., *M* and *SD*) and the Pearson correlations for the variables in this study. The highest correlation, $r^2 = .46$, was found between

Table 1
Pearson Correlations, Descriptive Statistics, and Cronbach's Alphas for the Study Variables

Variables	1	2	3	4	5	6	7	8	9	10
1. Marital violence										
2. Harsh discipline	.33***									
3. Affection/Support	-.24***	-.42***								
4. Interparental consistency	-.28***	-.27***	.28***							
5. Intraparental consistency	-.26***	-.03	.36***	.15***						
6. Depressive Symptomatology	.19***	.25***	-.25***	-.20***	-.15***					
7. Antisocial Behaviors and Traits	.14***	.28***	-.19***	-.11***	-.11***	.21***				
8. Physical abuse	.34***	.46***	-.25***	-.18***	-.08**	.16***	.20***			
9. Social Desirability	-.15***	-.21***	.24***	.13***	.12***	-.24***	-.39***	-.11***		
10. Parents' educational level	.04	.04	.05	.03	.11***	-.02	.08**	.03	-.02	
Mean	.29	1.6	2.90	2.88	2.82	1.12	1.53	0.85	2.83	3.59
Standard Deviation	.48	1.25	.80	.89	.67	.74	.41	.41	.42	1.65
Internal Consistency (Cronbach's α)	.80	.87	.84	.80	.77	.70	.87	.82	.55	.76

** $p < .01$. *** $p < .001$.

physical abuse and harsh discipline, which indicates a low risk of multicollinearity among the variables (Tabachnick & Fidell, 2007). All of the correlations between the independent variables, the mediator variables, and the dependent variables were in the expected directions.

Of the participants, 38.1% of the males and 39.6% of the females, $\chi^2(1, N = 1295) = .22, ns$, reported having witnessed some type of psychological aggression from their fathers against their mothers. In addition, 39.7% of the males and 40.4% of the females witnessed psychological aggression from their mothers against their fathers, $\chi^2(1, N = 1295) = .05, ns$. In the sample, 4.0% of the men and 2.1% of the women reported witnessing physical violence by the father against the mother, $\chi^2(1, N = 1295) = 3.55, ns$, and 4.1% of the men and 2% of the women reported having witnessed some kind of physical aggression by their mothers against their fathers, $\chi^2(1, N = 1295) = 3.56, ns$.

Analysis of the Mediation Model

To examine the mediating role of parenting practices, we followed the recommendations of Holmbeck (1997). According to Holmbeck, the first step is to verify whether the independent variable is related to the dependent variables in the absence of the mediators. For this purpose, we estimated a *direct effect model* in which we only included the direct relations between parental violence, depressive symptomatology, and antisocial behavior. Once we had verified a significant direct relation, we calculated a *mediator effect model* that included parenting practices as the mediator variables (model shown in Figure 1). If mediation exists, the size of the relation between marital violence and the dependent variables observed in the direct effect model should decrease (i.e., partial mediation) or become non-significant (i.e., complete mediation) when the

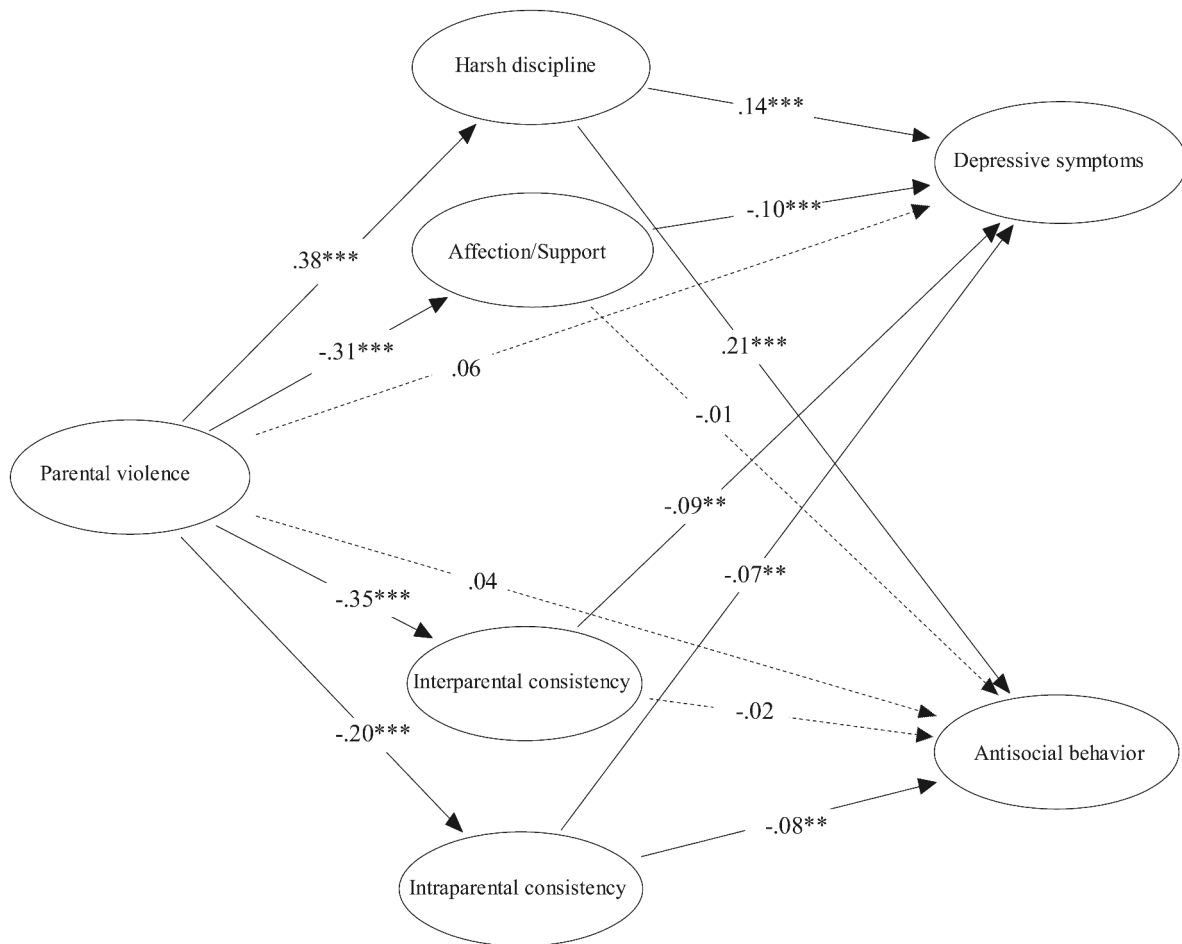
parenting practices are included in the mediator effect model. In the last step, we used Sobel's test to analyze whether each one of the indirect effects was statistically significant on an individual level.

Direct effect model. As expected, parental violence was significantly related to depressive symptomatology ($\beta = .21, p < .001$) and to antisocial behaviors ($\beta = .16, p < .001$). In general, the model showed a good fit to the data: $S-B\chi^2(25, N = 1295) = 70.60, p < .001, NFI = .96, NNFI = .96, CFI = .97$, and $RMSEA = .038$ (90% C.I. = .027 - .048). Thus, we established the first condition to test the existence of mediation.

Mediator effect model. The second model included the control variables (i.e., physical abuse, social desirability, and educational level) and the four aspects of parenting practices (i.e., harsh discipline, affection/support, interparental consistency, and intraparental consistency) as mediator variables. Figure 2 presents the structural model calculated. The model presented an adequate fit: $S-B\chi^2(167, N = 1295) = 865.11, p < .001, NFI = .90, NNFI = .90, CFI = .92$, and $RMSEA = .057$ (90% C.I. = .053 - .061). The final model explained 12% of the variance in depressive symptomatology and 25.6% of the variance in antisocial behaviors.

The size of the direct relation between parental violence and depressive symptomatology was $\beta = .21 (p < .001)$ in the direct effect model but became non-significant ($\beta = .06, ns$) in the mediator effect model. A similar effect occurred with respect to antisocial behavior. The direct relation between antisocial behavior and parenting practices was $\beta = .16 (p < .001)$ in the direct effect model but became non-significant ($\beta = .04, ns$) in the mediator effect model, as shown by the dotted lines in Figure 2. Both findings suggest that parenting practices completely mediate the relation between marital violence and the long-term psychosocial

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S-B χ^2 (167) = 865.11, $p < .001$, *NFI = .90, *NNFI = .90, *CFI = .92, *RMSEA = .057 [90% IC = .053 - .061]

Note. ** $p < .01$; *** $p < .001$. Solid lines represent significant relations among the variables. The estimations included the physical abuse, social desirability, and educational level control variables.

Figure 2. Theoretical model for the relations between marital violence, parental behavior, and long-term psychosocial adjustment.

adjustment of children for both antisocial behavior and depressive symptomatology.

In addition, the four hypothesized relations between marital violence and parental behavior were significant and in the expected directions. These relations ranged from $\beta = -.20$ (Marital Violence and Intraparental Consistency) to $\beta = .38$ (Marital Violence and Harsh Discipline). Moreover, six of the relations between parenting practices and adult behavior were statistically significant and in the hypothesized directions. These relations ranged from $\beta = -.08$ ($p < .01$) (Intraparental Consistency and Antisocial Behavior) to $\beta = .21$ ($p < .001$) (Harsh Discipline and Antisocial Behavior). Two of the relations (i.e., Affection/Support and Antisocial Behavior [$\beta = .02$, *ns*] and Interparental Consistency and Antisocial Behavior [$\beta = .01$, *ns*]) were non-significant.

Significance of the indirect effects. The results of Sobel's test indicated that the four indirect effects of marital violence on depressive symptomatology through harsh discipline,

affection/support, interparental consistency, and intraparental consistency were significant ($z = 4.19$, $p < .001$; $z = 3.12$, $p < .01$; $z = 2.66$; $p < .01$; and $z = 2.29$, $p < .05$, respectively). Likewise, the two indirect effects of marital violence on antisocial behavior through harsh discipline ($z = 5.52$, $p < .001$) and intraparental consistency ($z = 2.32$, $p < .05$) also reached statistical significance.

The Moderator Role of Sex

We performed a multigroup analysis to determine whether the relations observed between the variables differed as a function of the participants' sex. To that end, we estimated two new models. First, we constructed an unrestricted model in which all of the factor loadings and structural relations specified in Figure 1 were freely estimated for each sex. Second, we constructed a restricted model in which the factor loadings and the structural relations were

fixed as identical for the two groups (i.e., males and females). The difference in the χ^2 value between the restricted and the unrestricted models was significant (i.e., $\Delta\chi^2(36, N = 1295) = 80.1, p < .001$), which indicated that the relations were not equivalent for males and females. To determine which elements of the model generated the differences, we inspected the results of the Lagrange Multiplier Test (LM) that was provided by the EQS software. This test revealed that three significant differences existed between males and females. First, the association between marital violence and expressions of acceptance and affection was higher for females ($\beta = -.31, p < .001$) than for males ($\beta = -.11, ns$). Second, the relation between harsh discipline and antisocial behavior was higher for males ($\beta = .28, p < .001$) than for females ($\beta = .14, p < .001$), although the relation was significant in both cases. Third, the association between harsh discipline and depressive symptomatology was higher for females ($\beta = .17, p < .001$) than for males ($\beta = .09, ns$), for whom this relation did not reach the level of significance. When these three restrictions were removed, the rest of the relations were statistically equivalent in both sexes: $\Delta\chi^2(33, N = 1295) = 44.78, ns$.

Discussion

The first goal of this study was to examine whether the different dimensions of parenting practices mediate the relation between exposure to marital violence and the psychosocial adjustment of children. The results suggest that parental violence is associated with adult psychosocial adjustment through its relation with diverse aspects of parenting practices. Specifically, harsh discipline, the degree of support and affection, and interparental and intraparental consistency mediated the relation between marital violence and depressive symptomatology. With respect to antisocial behavior, two dimensions (i.e., harsh discipline and intraparental consistency) were significant mediators. This study extends prior empirical evidence by focusing on the relation of the spillover processes among marital violence, parents' behaviors, and children's adult psychosocial adjustment, an aspect that has previously received little empirical attention in the literature.

Of the various parenting practices, harsh discipline (i.e., physical and psychological punishment) had the strongest relation with parental violence and children's long-term psychosocial adjustment. This result is consistent with Krishnakumar and Buehler's (2000) findings, which showed that harsh discipline suffers the most deterioration in situations marked by marital violence. Through social learning, children can learn that physical and verbal coercion are appropriate and acceptable means of modifying others' behaviors; as a result, these children may develop diverse behavioral problems, such as aggression (Bandura, 1977). Moreover, harsh discipline can also lead to avoidance behaviors and

isolation, which over time may stabilize and manifest themselves in the form of long-term emotional distress (O'Leary & Vidair, 2005), as suggested in the findings of this study. These results are also consistent with the chain of adverse events described by Patterson (1982). As marital conflict escalates, parents are more prone to using aversive and coercive disciplinary strategies with their children, which, in turn, increases the risk that the children will develop a pattern of aggressive and defiant behaviors (Patterson, 1982).

Our results support the intraparental consistency hypotheses. Higher frequency of marital violence is associated with parenting practices that are less predictable and less contingent on the children's behavior, which, in turn, increases the probability of developing long-term depressive and antisocial symptoms. These findings are consistent with those of previous studies that have analyzed the immediate consequences of parental violence and intraparental consistency (Schoppe-Sullivan, Schermerhorn, & Cummings, 2007). In situations marked by marital conflict, parenting practices can become more disorganized, which makes it more difficult for the parents to respond consistently to their children's inappropriate behavior (Patterson, 1982; Sturge-Apple et al., 2006). Such inconsistencies can generate feelings of confusion and anxiety among the children. These feelings can put the children at risk for developing dysphoria and long-term difficulties in establishing limits.

The hypotheses regarding the affection/support and interparental consistency dimensions were only partially supported by the results of our study. Although a low level of support and affection was related to more depressive symptomatology, its relation to antisocial behavior was not significant. Interparental consistency had a negative relation to depressive symptomatology, but its association with antisocial behavior did not reach statistical significance. Therefore, our study indicated that, despite the significant relation found at the bivariate level, affection/support and interparental consistency were not associated with antisocial behavior after including the rest of the model's variables. The type of sample employed—university students with a high educational level and no extreme scores for the variables studied (e.g., antisocial behavior)—may have attenuated this relation. Nevertheless, the associations with depressive symptomatology reveal the importance of affection/support and interparental consistency. In this sense, conflict and parental violence could reduce parents' ability to recognize and respond to their children's needs (Fincham et al., 1994; O'Leary & Vidair, 2005). Also, children can perceive this lack of attention and support as a sign of rejection, which may in turn be associated with poor psychological adjustment (Fincham et al., 1994).

Consistent with the findings of previous studies (Kaczynski et al., 2006; Mann & MacKenzie, 1996), parenting practices completely mediated the relation between marital violence and children's psychosocial adjustment. When we included different aspects of parenting practices

in the model, the direct relations among marital violence, depressive symptomatology, and antisocial behavior did not reach statistical significance. Instead, we found that these relations were mediated by parenting practices. These results provide additional empirical support for the hypothesis that parental behavior serves as an important mediator of the relation between exposure to marital violence and children's psychosocial adjustment (Benson et al., 2008).

Although this study focused on the importance of parenting practices as mediators, other additional mechanisms that have previously received empirical attention in this field may explain other aspects of the relation between marital conflict and children's psychosocial adjustment. These explanations include the role of social learning (Bandura, 1977), the role of cognitive variables and the minor's interpretation (Grych & Fincham, 1990), and the feelings of emotional insecurity created by the parental conflict (Davies & Cummings, 1994). These processes constitute complementary explanatory mechanisms whose relation with the spillover hypothesis should be further investigated (Zimet & Jacob, 2001).

Our analysis of the moderating role of sex indicates that no differences were found between males and females for most of the relations in question. This result is consistent with previous findings in the literature (Erel & Burman, 1995; Kitzmann, Gaylord, Holt, & Kenny, 2003). Nevertheless, three important differences with regard to sex emerged. First, the relation between marital violence and parental displays of affection and support was stronger for females than for males. This finding suggests that in situations of conflict, the parents display less affection and more behaviors suggesting rejection towards their daughters. This finding follows Krishnakumar and Buehler's (2000) report, which claimed that when parents are aggressive towards each other, they seem to act in a more hostile and negative manner towards their daughters. The authors hypothesized that the daughters may have more frequently attempted to intervene in conflict situations and, therefore, were penalized more frequently for their interference.

In addition, we found that the association between harsh discipline and antisocial behavior was stronger for the males and that the relation between harsh discipline and depressive symptomatology was stronger for the females. These results are consistent with the findings of previous studies, which have reported that girls exhibit more behaviors associated with internalizing problems (i.e., emotional distress) and that boys exhibit more behaviors associated with externalizing problems (i.e., antisocial behavior) as a consequence of harsh discipline and parental violence (Davies & Lindsay, 2001; Zimet & Jacob, 2001).

These differences can be explained by the *theory of gender roles* (Helgeson, 1994), which emphasizes the experiential differences in socialization between boys and girls. In females, socialization promotes expressive characteristics, such as emotionality, affectivity, and

sensitivity towards interpersonal relations. In males, however, socialization promotes instrumental traits, such as autonomy, independence, and assertiveness (Escartí, 1994). These gender roles may, in turn, serve as mechanisms through which children channel parental conflict and dysfunctional behaviors. Thus, girls may manifest a higher degree of emotional distress and internalizing behavior problems. In turn, boys may direct their distress towards external sources by manifesting behavioral problems, such as aggressiveness or antisocial behavior, to reestablish the autonomy and assertiveness threatened by parental violence or inadequate discipline (Davies & Lindsay, 2001).

Limitations and future lines of research

This study has several limitations. Because the research is cross-sectional, caution must be exercised when inferring causal relations. Likewise, this design did not allow studying how the consequences of exposure to marital violence may change over time (i.e., childhood or adolescence vs. adulthood). Future longitudinal designs should shed some light on these issues.

Second, the results are based on retrospective information provided by the participants about matters that happened years before. The elapsed time may have biased their recall. Nevertheless, Hardt and Rutter (2004) recently reviewed the empirical research on the validity of retrospective data about negative experiences suffered in childhood. The empirical evidence from their study indicates that, despite the possible existence of false negatives, the information recalled after several years is likely correct. Even so, the participants' self-reports should be complemented with information from their parents in future studies.

Finally, because the representativeness of the university sample is limited, caution should be exercised when generalizing the findings of this study. Future studies should replicate these results in non-university samples.

Ultimately, the results of this study contribute to our understanding of the relation between parental violence and the children's subsequent psychosocial adjustment. In this sense, the findings suggest that poor long-term psychosocial adjustment in children results from exposure to parental violence. Likewise, the results underscore the mediating role of different aspects of parenting practices on the relation between marital violence and the children's long-term psychosocial adjustment. This information has important practical implications for planning and developing secondary prevention and intervention programs. In conjunction with previous evidence, these findings allow us to counsel clinicians and specialists about the specific ways in which marital violence harms the relations between parents and children and, ultimately, affects the children's long-term adjustment. As a result, interventions in at-risk populations (i.e., couples in conflict) can be strengthened if the focus is expanded from the couple's relationship to include other

family processes, such as the interactions between parents and children. Because adequate parenting practices can buffer the effect of marital conflicts on children, it seems important to deal with this aspect in treatment programs for both the victims of and aggressors in partner violence.

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