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# Maternal Childhood Abuse, Intimate Partner Violence, and Child Psychopathology: The Mediator Role of Mothers' Mental Health

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## Abstract

This study examined the mediator role of mothers' mental health in the relationship among maternal childhood abuse (CA), intimate partner violence (IPV), and offspring's psychopathology, and explored whether mediational pathways were moderated by children's sex. Participants were 327 Spanish outpatient children, 8 to 17 years old, and their mothers. Mothers' global psychological distress and depressive symptoms mediated the associations between mothers' violence history and children's externalizing problems. However, only depressive symptoms fully mediated these relationships. Children's sex did not have a moderating role in adjusted paths. Mothers' depressive symptoms are an important mechanism by which maternal violence experiences could affect externalizing problems in Spanish children.

## Keywords

child and adolescent psychopathology, intimate partner violence, maternal childhood abuse, mothers' mental health

Violence against women and girls is a major social problem. The literature has shown a high prevalence of women globally enduring some type of violence during their lifetime,

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such as childhood abuse (CA) and intimate partner violence (IPV), which are recognized as public health priorities (World Health Organization [WHO], 2002). In Spain, data from a national study on childhood sexual abuse indicated that 22.5% of Spanish women aged 18 to 60 reported sexual abuse during their childhood (López, 1994). Studies of abuse in childhood, with university populations, have shown that 96.4% of women reported physically abusive behavior and 16.7% some form of physical abuse sequelae (De Paúl, Milner, & Múgica, 1995), while between 14.8% and 19% reported sexual abuse in childhood (De Paúl et al., 1995; Pereda & Forns, 2007), revealing CA as a severe problem in Spanish society. With regard to IPV, findings from a national representative survey suggest that its levels in Spain are not markedly different from those found in other countries with similar cultural and economic backgrounds (Medina-Ariza & Barberet, 2003). Data from 2007 show that the Spanish judicial system received 63,347 reports from women of violence by a partner or ex-partner (Woman's Institute, Ministry of Equality, 2007), and prevalence reached 3.22 per thousand women (Queen Sofia Center for the Study of Violence, 2007). In the period from 2003 to 2007, the incidence increased by 26.47%, while prevalence showed an increase of 15.83% (Queen Sofia Center for the Study of Violence, 2007). Moreover, it is important to note that figures based on the number of reports to the judicial system are likely to underestimate the actual prevalence of IPV. A recent review by Ezpeleta and Bayarri (2010) indicates that in Spain approximately 10% of women in the general population reported IPV in the last year, while 25% of women attending health care reported some experience of IPV in their lifetime.

Despite these data, little is known about Spanish children whose mothers experienced CA in the past, or about children living in households in which they witness violent acts involving their parents. According to estimates based on data from the United Nations, 188,000 children are exposed to IPV each year in Spain (UNICEF, 2006). Offspring of mothers who suffered CA or IPV showed significant emotional and behavioral problems (Collishaw, Dunn, O'Connor, & Golding, 2007; Evans, Davies, & Dillillo, 2008), including several internalizing and externalizing symptoms (Dubowitz et al., 2001; Wolfe, Crooks, Lee, McIntyre-Smith, & Jaffe, 2003). Mothers' CA was related to children's overall psychological distress, hyperactivity, interpersonal, and behavior problems (Dubowitz et al., 2001; Roberts, O'Connor, Dunn, & Golding, 2004; Thompson, 2007), as well as to increased adjustment problems and poorer prognosis over time (Collishaw et al., 2007).

With respect to IPV, several reviews have reported that witnessing this type of violence may have a detrimental impact on children, who may exhibit traumatic symptoms; lower social competence; externalized difficulties, such as hostile and aggressive behavior; and internalized problems, including anxiety, depression, and somatic complaints (Evans et al., 2008; Holt, Buckley, & Whelan, 2008; Kitzmann, Gaylord, Holt, & Kenny, 2003; Sternberg, Baradaran, Abbot, Lamb, & Guterman, 2006; Wolfe et al., 2003). As Holt, Buckley, and Whelan (2008) point out, numerous studies have shown the relevance of directly exploring children's experience of IPV exposure, insofar as it helps us to understand how children are involved in the violence between their parents and can struggle while trying to make sense of this complex experience. Moreover, parents' reports may underestimate or overestimate their children's awareness of violence,

whereas direct reports by children may provide more accurate estimates of their perception of IPV (Grych, Seid, & Finchman, 1992).

Children are particularly vulnerable to violence, which may have an impact on them even when they are not the direct target but have a close relationship with the victim (Margolin & Gordis, 2004). Although several researchers have found that exposure to IPV may have a significant influence on children's well-being, the pathways by which this occurs require further investigation (Holt et al., 2008; Wolfe et al., 2003). In this regard, developmental psychopathology has indicated that research perspectives need to be broadened, highlighting the relevance of a pathway approach that recognizes both direct and indirect effects (Rutter & Sroufe, 2000). Wolfe, Crooks, Lee, McIntyre-Smith, and Jaffe (2003) argue that there is rarely a direct pathway leading to a particular outcome, and raised the unresolved question concerning the mechanisms that mediate the impact of violence in children.

Mothers' mental health has been identified as an important factor that may influence children's psychological well-being, particularly when mothers have a history of violence. Experiences of CA were associated with a wide variety of health and functioning problems in survivors, even long after the abuse had ended (Kendall-Tackett, 2002). In women with CA experiences, research has found a high probability of their suffering from mental health problems such as increased levels of depression, anxiety and anger (Springer, Sheridan, Kuo, & Carnes, 2007), panic disorders, alcohol and drug abuse/dependence, bulimia nervosa, and attempted suicide (Kendler et al., 2000). In addition to the long-term effects of CA, the association between IPV and mental health problems in women has been well documented, and also includes a broad range of negative consequences (Golding, 1999). According to Herman (1992), mothers who experience IPV may present a complex syndrome whose diagnosis is similar to that of posttraumatic stress disorder (PTSD), but which includes additional symptoms such as depression and anxiety. Pico-Alfonso et al. (2006) have shown that IPV-affected Spanish women had a higher incidence and severity of depressive and anxiety symptoms, PTSD, and suicidal thoughts than a control group. Several studies have reported that the psychological problems of children living in violent homes are substantially related to mothers' poor mental health, such as maternal depression (English, Marshall, & Steward, 2003; Graham-Bermann, DeVoe, Mattis, Lynch, & Thomas, 2006), anger and anxiety (Jarvis, Gordon, & Novaco, 2005), and trauma symptoms (Bogat, DeJonghe, Levendosky, Davidson, & von Eye, 2006). Similarly, the mental health problems of mothers who suffered CA in the past may affect their children's well-being (Lang, Gartstein, Rodgers, & Lebeck, 2010).

Studies exploring the mediator role of maternal mental health have suggested that mothers' violence history can lead to maternal psychopathological symptoms, which in turn can have a negative impact on children's functioning (Koverola et al., 2005; Morrel, Dubowitz, Kerr, & Black, 2003). However, there are still mixed findings on this topic. Levendosky and Graham-Bermann (2001) found that maternal CA and IPV were significant predictors of mothers' negative psychological functioning (a global index), which influenced their children's adjustment. Furthermore, mothers' psychological functioning had a direct impact on children's adjustment problems, including effects such as emotional and behavioral difficulties, depression, lower social competence, and global self-worth. The authors suggest that even if mothers are able to engage in proper parenting, fluctuations in their mood could have

a harmful effect on their children's well-being. In this line of research, some studies found that maternal depression fully mediated the effects of mothers' violence history (CA, IPV) on children's internalizing behavior problems (Koverola et al., 2005; Morrel et al., 2003;), and partially mediated its effects on externalizing problems (Morrel et al., 2003). Others studies reported that IPV affected both the internalizing and externalizing problems of children through maternal depression (Dehon, 2005) and overall psychological distress (Owen, Thompson, Shafer, Jackson, & Kaslow, 2009; Street, King, King, & Riggs, 2003). Research has also shown that maternal affective symptoms significantly mediated the association between maternal CA and children's adjustment problems (Collishaw et al., 2007), while anxiety symptoms partially mediated this association (Roberts et al., 2004). Conversely, McCloskey, Figueredo, and Koss (1995) found that even though mothers experiencing IPV were more likely to have mental health problems, this did not mediate the effects of IPV on children's psychopathology. Other research findings fail to support the mediating role of depression in the relationship between maternal CA and children's problems (Roberts et al., 2004; Thompson, 2007). To summarize, some studies suggest a relationship among CA, IPV, and children's problems that is completely or partially mediated by mothers' mental health, whereas other studies have found no support for such mediation. These disparate findings could be related to methodological variability across studies, such as the samples' characteristics or the methods for assessing mediation.

Some research has suggested that children's sex may modify the relationship between IPV and children's outcomes (Evans et al., 2008; Holt et al., 2008; Jaffe, Wolfe, Wilson, & Zack, 1986; Reynolds, Wallace, Hill, Weist, & Nabors, 2001) as well as the associations between parents' and children's psychopathology (Crawford, Cohen, Midlarsky, & Brook, 2001). From this perspective, Cummings, Pepler, and Moore (1999) argued that the mechanisms linking the risk to well-being may be different for boys and girls. Nevertheless, studies examining sex differences showed discrepant findings. For instance, in girls, maternal distress and marital discord were significantly associated with internalizing symptoms; however, in boys the associations between these variables were statistically nonsignificant (Crawford et al., 2001). In contrast, Street, King, King, and Riggs, (2003) found that marital violence affected internalizing and externalizing problems of both girls and boys through mothers' psychological distress.

Considering the heterogeneity of research findings, the present study set out to extend current knowledge about the associations between women's violence history and their offspring's psychological problems. Given the high prevalence of violence against women and girls in Spain, both CA and IPV, and the risk of adverse consequences of these experiences, the aim of this study was to examine the mediator role of mothers' mental health in the relationship among maternal CA, IPV, and psychopathology in Spanish children and adolescents. In addition, this study explored whether the mediational pathways were moderated by children's and adolescents' sex. As the literature review reveals, these issues have not yet been studied in a Spanish population. Since recent findings have shown that IPV-exposed Spanish children have high functional impairment (Olaya, Ezpeleta, de la Osa, Granero, & Domènech, 2010), this outcome was also examined. Thus, it was hypothesized that: (a) maternal CA and IPV would be positively associated with psychopathological

problems and functional impairment in children and adolescents; (b) maternal CA and IPV would be positively associated with mothers' mental health problems; (c) mothers' mental health problems would be positively associated with children's and adolescents' psychopathological problems and functional impairment; and 4) the relationship between maternal CA, IPV, and children psychopathological problems would be mediated by mothers' mental health problems. Because of the inconclusive evidence on the moderating effect of children's sex, no specific hypothesis was proposed for an analysis in this regard.

## Method

### Sample

This study was part of a wider research project on risk and protective factors for children's and adolescents' psychopathology problems, and participants were recruited from psychiatric outpatient settings within the public health network in Barcelona, Spain. Exclusion criteria were the presence of mental retardation or pervasive developmental disorders. An initial sample of 547 mothers and one of their offspring were asked to complete a series of mental health measures, 327 of whom (61.8%) completed all the measures included in this analysis. There were no significant differences between those who completed all the measures and those who did not as regards child's sex ( $p = .294$ ), child's age ( $p = .775$ ), mother's age ( $p = .341$ ), ethnicity ( $p = .300$ ), or socioeconomic status ( $p = .495$ ).

With respect to the participants in this study ( $N = 327$ ), children's age ranged from 8 to 17 years (mean age = 13.3;  $SD = 2.3$ ), and 44.3% ( $N = 145$ ) were girls and 55.7% ( $N = 182$ ) boys. Mothers' mean age was 40.4 years ( $SD = 5.7$ ). Participants' ethnicity was predominantly Caucasian (97.9%). According to the Hollingshead Socioeconomic Index (Hollingshead, 1975), 62.3% were of the middle and lower-middle level, 24.9% lower level, and 12.8% high and middle-high level. Of the 327 participating mothers, approximately 23% ( $N = 75$ ) had been exposed to some experience of violence in their lifetime. A total of 9.8% ( $N = 32$ ) of the mothers reported CA only, 9.2% ( $N = 30$ ) IPV only, and 4% ( $N = 13$ ) both CA and IPV. The group of mothers not exposed to violence and those who had suffered from any type of violent experience (CA, IPV, or both) were similar with regard to socioeconomic status ( $p = .812$ ), child's age ( $p = .702$ ), and mothers' and fathers' age ( $p = .265$  and  $p = .731$ , respectively). The only significant difference concerned child's sex ( $p = .006$ ), with a higher percentage of boys than girls in the group of mothers that were not exposed to any violent experiences and in the IPV-exposed group.

Ninety-three percent of children included in this study showed some form of psychopathological disorder (based on a structured interview at intake). The clinical characteristics of the children and mothers in this sample are shown in Table 1.

### Measures

**Maternal CA and IPV.** Mothers' experiences of CA and children's IPV exposure were assessed through the Schedule of Risk Factors (SRF; Unitat d'Epidemiologia i Diagnòstic

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

<i>Children's psychopathology problems-CBCL</i>	Mean	SD	T ≥ 70 (%)
Anxious/depressed	62.9	14.6	29.2
Withdrawn/depressed	61.7	15.4	26.9
Somatic complaints	62.8	16.5	26.7
Social problems	60.7	13.5	23.7
Thought problems	58.8	15.9	20.5
Attention problems	63.2	12.2	28.4
Rule-breaking behavior	58.3	14.2	18.3
Aggressive behavior	64.7	14.0	34.8
Internalizing	65.4	15.0	36.3
Externalizing	64.0	14.4	33.0
Total behavior problems	66.2	13.3	35.5
<i>Functional impairment</i>	Mean	SD	
CAFAS Total	60.0	30.9	
<i>Mothers' mental health problems</i>	Mean	SD	
SCL-90-R GSI	0.67	0.55	
SCL-90-R DEP	0.96	0.80	
SCL-90-R ANX	0.61	0.61	
SCL-90-R HOST	0.57	0.67	

Note: SD: Standard deviation.

en Psicopatología del Desarrollo, 1997). The SRF is a structured interview based on the Service Utilization and Risk Factors interview (Goodman et al., 1998). It comprises a comprehensive set of factors and events that may affect mental disorders in children and adolescents. There are versions for parents and children. In this study different sections providing categorical data (presence/absence) were used. The first of these was mothers' reports of their CA experiences (psychological, physical, and/or sexual). Mothers were rated as having experienced CA if they answered affirmative to any of six items: During your childhood, (a) did you receive any physically abusive behaviors? (Examples of violent acts were given, such as being pushed or slapped); (b) were you forced to submit to any sexual contact? (c) did you experience both physically and sexually abusive behavior? (d) did you receive any psychologically abusive behavior (e.g., being threatened, scared, or controlled); (e) did you experience both psychologically and physically abusive behavior? (f) did you experience both psychologically and sexually abusive behaviors? The interviewers also recorded whether more than one of the six categories listed were experienced. On the other hand, children were asked about their exposure to IPV. Items measuring IPV were adapted from the Child's Perception of Interparental Conflict Scale (CPICS; Grych



et al., 1992); specifically, this study used a question about whether children have ever seen their parents hitting each other during an argument. These children's reports were used as a direct measure of children's exposure to violence, as well as a proxy measure of their mothers' experiences of IPV. The SRF has demonstrated good psychometric properties in research on IPV-exposed Spanish children (Olaya et al., 2010), as well as on other risk factors (Ezpeleta, Granero, & Doménech, 2005). Inter-interviewer reliability and concurrent validity were found to be acceptable in a Spanish population (Guillamón, 1999).

**Children's psychopathology problems.** The Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001) was completed by mothers. The CBCL is a widely used inventory for assessing a range of behavioral and emotional problems in children and adolescents aged 6 to 18. It has 113 items with three response options (0 = *not true*; 1 = *somewhat or sometimes true*; and 2 = *very true or often true*). Two broad scales were used in this study: the Internalizing scale, which mainly reflects problems within the self, and includes the Anxious/Depressed, Withdrawn/Depressed, and Somatic Complaints Syndromes subscales; and the Externalizing scale, which represents conflicts with other people and their expectation about children's behavior, and is made up of the Aggressive Behavior and Rule-Breaking Behavior Syndromes subscales. The CBCL has been adapted for Spanish populations and has satisfactory psychometric properties. Factorial studies confirmed the original internal structure of this instrument, and reliability and accuracy were excellent (Cronbach's  $\alpha$  values above .80; Sardinero, Pedreira, & Muñiz, 1997).

**Children's functioning.** Interviewers rated the Child and Adolescent Functioning Assessment Scale (CAFAS; Hodges, 1997). The CAFAS is a multidimensional measure of level of functional impairment in children and adolescents between the ages of 7 to 17. It contains the following eight psychosocial areas: role performance at school, at home and in the community; behavior toward others; mood/emotion; self-harmful behavior; substance use; and thinking. Each area is scored on an ordinal scale with four impairment levels (0 = *no impairment*; 10 = *mild*; 20 = *moderate*; and 30 = *severe*). A total score, generated as a linear combination of the direct scores on the 8 subscales, was used for this analysis. In this study the higher (poorer) of the two scores resulting from the information from parents or children was used. The psychometric properties of this instrument have been studied in Spanish populations with satisfactory results. Agreement between interviewers ranged from good to very good (kappa values from .79 to .94), except for behavior towards others (.45) and for substance use (.64; Ezpeleta, Granero, de la Osa, Doménech, & Bonillo, 2006).

**Mothers' mental health problems.** Mothers were asked to report on their own mental health using the Symptom Checklist 90 items-Revised (SCL-90-R; Derogatis, 1983). The SCL-90-R is a multidimensional self-administered questionnaire measuring psychopathology and psychiatric distress levels. It includes 90 items grouped in nine symptom dimensions. Participants answer each item on a Likert-type 5-point scale from 0 (*never*) to 4 (*very much*). In this study three symptom dimensions were used: depression (DEP), anxiety (ANX), and hostility (HOST). The Global Severity Index (GSI), a widely used global index, was also used. This is the average rating given to all 90 items and represents the extent or depth of the present psychiatric disturbance. These indicators include the key maternal mental health problems associated with children's behavior problems. The SCL-90-R has been adapted to



Spanish populations, with a high reliability (internal consistency;  $\alpha = .96$ ) for the assessment of psychiatric symptoms (Robles, Andreu, & Peña, 2002).

## Procedure

Ethical approval was obtained from the Ethics Committee of our institution. Children and adolescents attending public mental health centers in Barcelona were recruited once they were referred to clinicians for mental health problems. The referred youngsters and their parents were invited to participate in a study on child mental health problems. After obtaining written consent from mothers and verbal consent from the children and adolescents, mothers and children/adolescents were interviewed at the same time and separately by interviewers trained in the use of all the assessment instruments. Based on the reports of the interviews, the interviewers assessed the children's functioning through the CAFAS. Finally, mothers responded to the CBCL and the SCL-90-R. These questionnaires were given to mothers to be returned at a later time, but were administered verbally if mothers had reading difficulties. Once the assessment was complete, the researchers gave a full report to clinicians at the mental health centers, who carried out the follow-up on all the individuals involved, including those who returned all the questionnaires and those who did not.

## Statistical Analysis

Data were analyzed with PASW17.0.1 and EQS6.1. To test the mediational hypotheses, Structural Equation Models (SEM) were adjusted. The mediation analyses considered maternal CA and IPV as predictors, mothers' mental health (GSI, DEP, ANX, HOST) as mediators, and children's psychopathology (CBCL) as outcome. To examine the role of each hypothesized mediator in explaining the relationship among maternal CA, IPV and children's psychopathological problems, two-step mediation analyses were carried out. In the first step, each potential mediator was tested using individual mediator analyses. Thus, four individual structural equation models were constructed with maternal CA and IPV as predictors; GSI, DEP, ANX, or HOST as a mediator; and CBCL behavior problems as the outcome variable. In the second step each variable that had previously demonstrated mediation was included in a single and integrated model, with the exception of GSI, which was an indicator of overall psychological distress. Each mediator's specific pathway was evaluated to establish which variables significantly mediated the effect of maternal CA and IPV on CBCL behavior problems, while jointly analyzing all the mediators in the same model. All the structural equation models included children's sex and age as covariates.

According to the procedures defined by Baron and Kenny (1986), the mediational path was considered as adequate for the data when the following criteria were met: (a) maternal CA or IPV (predictor) was associated with children's psychopathology problems (outcome) and mothers' mental health (hypothesized mediator); (b) mothers' mental health (hypothesized mediator) was associated with children's psychopathology problems (outcome); and (c) maternal CA and IPV (predictor) had limited or no effect on children's

**Table 2.** Intercorrelations Among Study Variables.

	1	2	3	4	5	6	7	8	9
1. Maternal CA	—								
2. IPV	.19*	—							
3. SCL-90-R GSI	.25*	.26*	—						
4. SCL-90-R DEP	.21*	.25*	.92*	—					
5. SCL-90-R ANX	.15*	.23*	.90*	.80*	—				
6. SCL-90-R HOST	.22*	.27*	.76*	.65*	.68*	—			
7. CBCL internalizing	.04	.07	.37*	.32*	.34*	.29*	—		
8. CBCL externalizing	.11*	.21*	.39*	.42*	.34*	.40*	.40*	—	
9. CAFAS total	.10	.19*	.15*	.17*	.12*	.11	.34*	.50*	—

Note: \* $p < .05$ .

psychopathological problems (outcome) when mothers' mental health (hypothesized mediator) was controlled for. Goodness-of-fit of the final models was assessed with the usual indexes:  $\chi^2$  test, Comparative Fit Index (CFI), and the Root Mean Squared Error of Approximation (RMSEA). In this study, a fit was considered to be good if: the  $\chi^2$  did not achieve a significant result ( $p > .05$ ), the CFI coefficient was higher than .90, and the RMSEA was lower than .08 (Byrne, 2001). Effect sizes for path analyses were estimated through  $R^2$  coefficients and 95% confidence intervals (Preacher & Hayes, 2008).

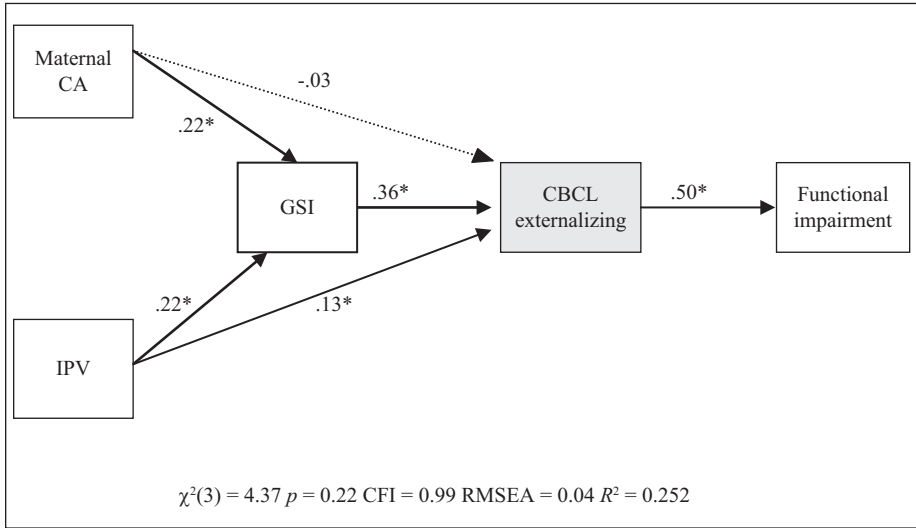
Finally, the moderating role of children's sex on the relationship between mothers' mental health problems and CBCL behavior problems was tested through multiple regression models. The moderation effect was considered to be present if there was a significant interaction ( $p < .05$ ) between children's sex and mothers' mental health problems. If the interaction terms were significant, path models were adjusted separately for girls and boys.

## Results

### *Degree of Association Between the Variables of the Study*

Table 2 shows the bivariate associations among maternal CA, IPV, children's outcomes and the mediator variables. Maternal CA correlated significantly with CBCL externalizing problems, while IPV was significantly correlated with CBCL externalizing problems and children's functional impairment.

As expected, maternal CA and IPV were significantly associated with all maternal indicators of mental health problems, so that mothers' experiences of CA and IPV correlated with higher levels of mothers' GSI and DEP, ANX, and HOST symptoms. Likewise, as predicted, all the variables related to mothers' mental health problems (GSI, DEP, ANX, HOST) were significantly and positively correlated with CBCL externalizing and internalizing behavior problems, as well as with children's functional impairment (exception for HOST).



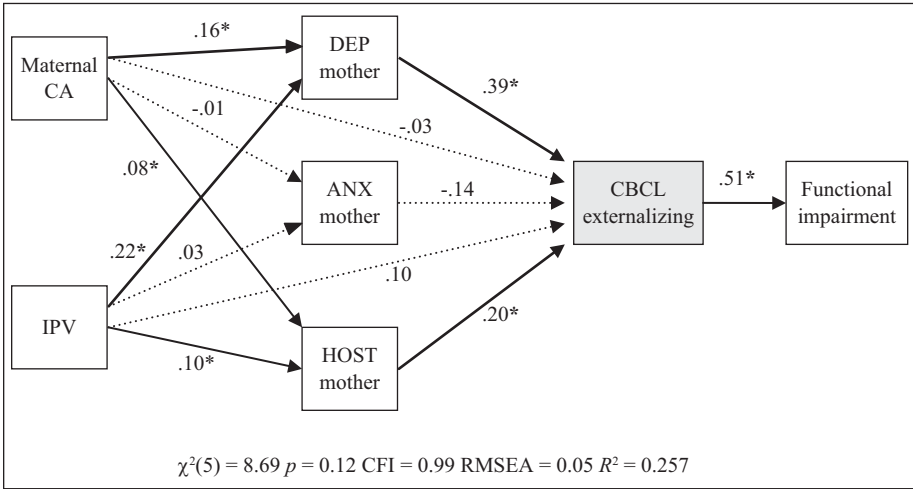
**Figure 1.** Mediation model: Effects of maternal CA, IPV on CBCL externalizing problems through GSI. Note: Dashed lines represent effects that were not statistically significant. \* $p < .05$ .

According to the first criteria for mediation (Baron & Kenny, 1986), CBCL internalizing behavior problems could not be included as outcome variables in the mediational models because they did not significantly correlate with the predictors, maternal CA or IPV. On the other hand, all maternal mental health variables met conditions 1 and 2 to test for a mediator variable. Therefore, mothers' GSI and DEP, ANX and HOST symptoms were examined as potential mediators in the relationship among maternal CA, IPV, and children's externalizing behavior problems.

### The Mediating Effects of Mothers' Mental Health Problems

First-step analyses showed that all four maternal mental health variables had mediating effects in the relationship among maternal CA, IPV, and children's CBCL externalizing behavior problems. Individual mediation analyses showed good fit indexes for the GSI model (see Figure 1). Mothers' GSI fully mediated the relationship between maternal CA and CBCL externalizing problems ( $z = 3.356 p < .001$ , 95% CI [2.00, 7.10]). As expected, maternal CA was positively and significantly associated with GSI, and mothers' GSI was positively associated with CBCL externalizing problems. On the other hand, mothers' GSI partially mediated the association between IPV and CBCL externalizing problems ( $z = 3.418 p < .001$ , 95% CI [1.83, 7.12]). IPV was positively associated with GSI, and mothers' GSI and CBCL externalizing symptoms were positively associated.

The individual mediational analyses also showed good fit values for the DEP ( $\chi^2(3) = 3.65 p = .30$ ; CFI = 1.00; RMSEA = .03;  $R^2 = .252$ ), ANX ( $\chi^2(3) = 3.93 p = .27$ ; CFI = .99;



**Figure 2.** Mediation Model: Effects of Maternal CA, IPV on CBCL externalizing problems through DEP, ANX, HOST.

Note: Dashed lines represent effects that were not statistically significant. \* $p < .05$ .

RMSEA = .03;  $R^2 = .257$ ), and HOST models ( $\chi^2(3) = 7.94$ ,  $p = .05$ ; CFI = .97; RMSEA = .07;  $R^2 = .248$ ). Tests on the significance of mediational paths demonstrated that the relationship between maternal CA and CBCL externalizing problems was fully mediated by mothers’ DEP ( $z = 2.951$ ,  $p = .003$ , 95% CI [1.56, 6.47]) and HOST symptoms ( $z = 2.964$ ,  $p = .003$ , 95% CI [1.42, 6.62]). Mothers’ ANX symptoms did not mediate this relationship ( $z = 1.881$ ,  $p = .059$ , 95% CI [0.437, 4.22]). On the other hand, the association between IPV and CBCL externalizing problems was partially mediated by mothers’ DEP ( $z = 3.356$ ,  $p < .001$ , 95% CI [1.75, 7.06]), HOST ( $z = 3.679$ ,  $p < .001$ , 95% CI [2.06, 7.50]), and ANX symptoms ( $z = 2.986$ ,  $p = .002$ , 95% CI [1.15, 5.63]). Lastly, all these individual models indicated that CBCL externalizing problems were significantly and positively related to functional impairment in children.

Second-step analyses showed that the integrated model had good fit indexes (see Figure 2), and demonstrated that mothers’ DEP symptoms were the sole pathway that significantly and fully mediated the association among maternal CA, IPV, and CBCL externalizing behavior problems ( $z = 2.371$ ,  $p = .018$ , 95% CI [1.12, 8.08];  $z = 2.888$ ,  $p = .004$ , 95% CI [1.41, 7.57], respectively). Even though mothers’ HOST symptoms were significantly associated with maternal CA and IPV, as well as with CBCL externalizing problems, the significance of the mediational path test showed that HOST did not act as a mediator ( $z = 1.566$ ,  $p = .117$ , 95% CI [0.649, 4.91];  $z = 1.763$ ,  $p = .078$ , 95% CI [0.903, 5.83]). In a similar way to the cases of the mediation models described above, children’s externalizing problems were positively associated with functional impairment.

### *Sex Differences in the Mediation Models*

Multiple regression analyses did not show any significant interactions between mothers' mental health problems (DEP, ANX, and HOST symptoms) and children's sex for the CBCL externalizing behavior problems ( $p = .256$ ). These results indicate that children's sex did not have a moderating effect on the examined relationship.

### **Discussion**

This study examined the mediating role of mothers' mental health in the relationship among maternal CA, IPV, and psychopathological problems in Spanish children and adolescents. It also explored the moderating role of children's sex in this relationship. The results confirmed that mothers' violence history, CA and IPV, was significantly associated with children's externalizing problems. As predicted, these associations were mediated by mothers' mental health problems, including global psychological distress and depressive symptoms. The results also showed that children's sex did not moderate the mediational pathways tested. In addition, all mediational models showed that children's externalizing problems significantly increased their functional impairment.

Consistent with the findings of previous studies, these results confirm that mothers who have suffered violence in the past exhibit a variety of mental health problems, which may negatively affect their children's well-being (Collishaw et al., 2007; Levendosky & Graham-Bermann, 2001; Owen et al., 2009; Street et al., 2003). The findings provide evidence on two forms of violence against women and girls, CA and IPV. Moreover, they support the view that the individual functioning of mothers exposed to these experiences is an important factor significantly contributing to the explanation of children's psychopathology problems. In this regard, Lieberman, Van Horn, and Ozer (2005) suggested that the level of life stress experienced by mothers can be understood as a risk factor predisposing children to behavior problems, while the negative impact of stressful life events on mothers' psychological functioning is the mechanism that actualizes this risk.

With respect to the mediation models analyzed, maternal depressive symptoms was the main variable mediating the relationship among maternal CA, IPV, and children's externalizing problems. These findings corroborate those of previous research indicating that maternal depression is a significant predictor of psychological problems in children who live in violent homes (English et al., 2003; Graham-Bermann et al., 2006; Graham-Bermann, Gruber, Howell, & Girz, 2009), as well as in those whose mothers experienced CA (Lang et al., 2010). The findings also support those of earlier studies in which maternal depressive symptoms were found to be an important path through which maternal history of violence adversely affected children's externalizing problems (Dehon, 2005; Morrel et al., 2003). Maternal depression is very frequent in women who suffered from violence (Golding, 1999; Graham-Bermann et al., 2009; Kendall-Tackett, 2002). Depressed mothers may show reduced levels of social interaction and responsiveness, thus being less emotionally available or increasing negative affect towards their children (Cummings & Davies, 1994). Children who have experienced negative-quality interactions with depressive mothers are more likely to show higher levels of externalizing problems, possibly

because such children develop poor interactional skills or learn to respond negatively during an interaction (Harnish, Dodge, & Valente, 1995).

The present findings suggest that children's sex does not act as a moderator in the mediational pathways examined. They do not confirm those from previous studies on IPV-exposed children, which indicated that mothers' psychological adjustment is a better predictor of daughters' adjustment than sons' (Cummings et al., 1999). Nonetheless, the findings are in line with several reports showing no differences in the outcomes of girls and boys living in violent households (Kitzmann et al., 2003; Sternberg et al., 2006; Wolfe et al., 2003). Moreover, they are in agreement with evidence reflecting that youngsters, regardless of their sex, may be negatively affected by mothers' psychopathology (McCauley et al., 2005). In concordance with Street et al. (2003), the results of this study suggest that the relationship among mothers' violence history, mental health problems, and their offspring's externalizing problems is similar for boys and girls. Kitzmann, Gaylord, Holt, and Kenny (2003) suggested that other child characteristics (e.g., coping strategies) could be more important than sex in predicting the outcomes of IPV-exposed children. Bearing in mind the inconsistency of results in the literature and the paucity of research in Spanish populations, further research is required to clarify the role of children's sex in the analyzed relationship.

In this study maternal experiences of violence (CA and IPV) were significantly associated with children's externalizing problems, but not with internalizing problems. As highlighted by Evans, Davies, & Dilillo (2008), the literature has shown several different patterns of IPV-related outcomes. Violence is a general risk factor for childhood problems (Margolin, 2005) and children may have diverse adjustment profiles related to individual, maternal, and family characteristics (Graham-Bermann et al., 2009). On the other hand, and in agreement with prior research, the present study found (at the bivariate level) that IPV was significantly associated with an alteration in the psychological functioning of children.

There are some limitations to consider on interpreting these findings. First, the use of a cross-sectional design and the subsequent data based on retrospective reports: maternal CA was assessed through the self-reports of mothers who provided data on their own adverse experiences in childhood, something which might have entailed recall biases (Koverola et al., 2005). Nonetheless, several studies have suggested that CA is underreported, which implies that many adults recalling abuse experiences are likely to have had them (Springer et al., 2007). Second, experiences of violence suffered by mothers (CA and IPV) were measured using a screening instrument, so that specific experiences were not assessed in detail, and this could be related to the low levels of violence found in the study. Studies that include more comprehensive measures of these types of violence are necessary in the future. Third, the role of IPV-perpetrator and/or IPV-victim was not assessed in this research; moreover, mothers' reports about their experiences of IPV were not obtained. Instead, the focus was on children's perceptions and reports of violence between parents. Previous research has found that episodes of children's IPV exposure are underreported by some parents, compared to what their offspring might describe (O'Brien, John, Margolin, & Erel, 1994). In any case, future research would benefit from the use of multiple informants. Fourth, children's behavioral problems were measured only through mothers'

reports, and it is possible that the women's mental health problems influenced the way they reported their children's problems. Nevertheless, no significant differences have been found among evaluations of children's behavior provided by depressed mothers, by mothers in a neutral mood, and by independent observers (Jouriles & Thompson, 1993). Fifth, the results of this research are based on a clinical sample only and cannot be generalized to other populations.

The results of this study have practical implications, insofar as they confirm the clinical relevance of considering the effects of women's CA and IPV not only on their own mental health, but also on their children's psychopathology. The findings suggest that targeting different mental health problems in mothers who have experienced violence could be an important objective in relation to prevention and intervention in children and adolescents with behavior problems, and that incorporating the assessment of mothers' mental health may help clinicians design intervention plans. Following Koverola et al. (2005), early identification of mothers who suffered from violence, mainly through screening for maternal history of victimization, as well as early intervention to provide support services, may help reduce the risk of children's problems. Furthermore, it is important to help mothers seek adequate treatment for depression (Graham-Bermann et al., 2006) and to consider such symptoms in the design of therapeutic programs for victimized mothers (Morrel et al., 2003). In addition, clinicians could help develop healthy attachment relationships between mothers and their children, and improvements in maternal mental health would result in fewer problems among their children. In this line of research, Graham-Bermann et al. (2009) pointed out that the absence of maternal mental health problems characterized IPV-exposed resilient children and could be considered a key protective feature. Additional studies are required to examine how different characteristics of women's violent experiences (CA, IPV), such as their severity or their episodic/continuous nature, might modify development aspects in their children. Future research should also focus on cumulative victimization across the mothers' life span, its associations with diverse areas of maternal and family functioning (e.g., parenting practices, social support) and the mechanisms that might explain outcomes in their children. Finally, further work on the identification of individual and contextual factors operating as protective resources in mothers and children affected by violence would appear to be a crucial challenge for clinical research.

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