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ORIGINAL ARTICLE

Exposure to Intimate Partner Violence, Psychopathology, and Functional Impairment in Children and Adolescents: Moderator Effect of Sex and Age

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Abstract This work examines the moderator effect of sex and age on the relationship between different types of exposure to intimate partner violence (IPV) and child psychopathology and functional impairment. One hundred and sixty-six Spanish children aged 4–17 years exposed to intimate partner violence were assessed using a diagnostic interview and other instruments for the measurement of psychopathology and functional impairment. Participants were classified in three groups according to the degree of exposure: witness (N=77), involved (N=63) and victim (N=26). According to mothers' self-reports and mother-child combined information, boy victims of IPV showed more mood disorders than involved or witness boys. There were no other moderator effects of either sex or age. The effect of exposure to intimate partner violence among children was not dependent, in general, on the child's sex or age, and this has important implications for the assessment, treatment, and prevention of children's exposure to IPV.

Keywords Children and adolescents · Intimate partner violence · Psychopathology · Sex · Age

There is a general consensus that exposure to intimate partner violence (IPV) has a negative impact on children's emotional and behavioral adjustment and can lead to difficulties in social functioning (Fletcher 2010; Holt et al. 2008; Sternberg et al. 2006b; Ybarra et al. 2007); moreover, the mere fact of witnessing violence represents a risk factor for low social competence and numerous behavior problems (Carpenter and Stacks 2009; Evans et al. 2008; Marks et al. 2001; Reynolds et al. 2001). Nevertheless, it remains unclear how different types of exposure to IPV (being a victim, being a witness or being both a victim and a witness) affect children's psychopathology, given the contradictory results yielded by research. Some authors found that being a victim of IPV had more negative consequences than being a witness, but the differences were not significant (Bayarri et al. 2011; Kitzmann et al. 2003). Sternberg et al. (2006a) found an additive effect, with children who had experienced violence in both forms (as a victim and as a witness) having more severe problems than children who had only witnessed it, though other researchers have failed to find such an additive effect (Kitzmann et al. 2003; Sternberg et al. 2006b; Wolfe et al. 2003).

In analyses of the effect of exposure to IPV on children's psychopathology, another important issue that has been widely considered is how this relationship could be moderated by other variables, such as children's sex and age. However, there are contrasting findings about whether or not these variables moderate the effect of IPV on children's psychopathology. Kitzmann et al. (2003), in a meta-analysis of 118 studies, found no sex-by-outcome interaction among children who had witnessed intimate partner violence; similar results were obtained by Wolfe et al. (2003) in children who were not only witnesses but also victims. In a meta-analysis of 41 studies, these authors found comparable general effect sizes in boys and girls for internalizing and externalizing symptoms. It is important to stress that although in most analyses the expected pattern of psychopathology for boys and girls is observed. That is,

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girls show higher risk for internalizing problems and boys show higher risk for externalizing symptoms. These sex differences emerge as non-significant and do not contribute to greater psychopathology in one sex or the other as a result of exposure to IPV (Moylan et al. 2010).

On the other hand, Evans et al. (2008), in a review of 60 studies on the effect of exposure to IPV on outcomes in children and adolescents, found that sex significantly predicted change in externalizing problems: boys scoring slightly higher than girls in general effect size. Similarly, McDonald et al. (2009) found a moderating effect between mother-child aggression and externalizing symptoms that was stronger in boys than in girls. However, a few studies show that girls have a greater risk of psychopathology than boys. In this direction, Sternberg et al. (2006b) found that girls were at higher risk than boys for internalizing behaviors regardless of the type of exposure. Furthermore, girls had more externalizing problems than boys in the victim and witness groups, but not in the abuse and no-violence groups.

Regarding a moderator effect of age, a large part of the literature found that the effect of exposure to IPV on children's psychopathology did not depend on their age (Evans et al. 2008; Kitzmann et al. 2003; Litrownik et al. 2003; Wolfe et al. 2003). However, Sternberg et al. (2006a) found that while age did not moderate the effect of IPV on internalizing problems, it did moderate its effect on externalizing behavior problems. Thus, children aged 7–14 showed greater risk of clinically significant externalizing problems than younger children; in children aged 4–6 exposed to only one form of IPV (victim, witness or abused-witness) the risk for externalizing symptoms was similar to that of the no-violence comparison group; and among 10 to 14-year-olds, witnesses tended to be at greater risk than victims for externalizing problems.

The mixed and contrasting findings on sex and age differences in the effects of exposure to IPV on children raise the question of which factors might contribute to this variability. Use of a wide range of methodological designs among studies (longitudinal vs. cross-sectional), the disparity in sample recruitment (shelter vs. community vs. clinical) and the wide range of outcomes analyzed (Wolfe et al. 2003) have been identified as possible factors that affecting comparisons between studies. Moreover, another issue that has emerged is whether meta-analysis or mega-analysis is the better technique for exploring and summarizing the results from a wide range of studies (Sternberg et al. 2006a).

The aim of this work is therefore to explore the presence of a moderator effect of sex and age on the relationship between the degree of exposure to intimate partner violence (witness, involved and victim) and the presence and level of psychopathology and functional impairment. Regarding this question, we predicted that age and sex would not moderate the effect of exposure to IPV in children's psychopathology and functional impairment. Previous results (Bayarri et al. 2011) focused on the effect of being exposed to different types of IPV, and no differences between exposure groups were found with regard to psychopathology and functional impairment. In the current study we expected to find similar results, predicting that regardless of the type of exposure to IPV, children would be similarly at risk of suffering psychological problems and functional impairment.

Method

Participants

The present data are a part of a wider study, with a retrospective cohort design. The sample of the original study was divided into two cohorts (mothers exposed to IPV and a non-exposed cohort); the present results are based only on analysis of the effect of exposure to IPV among children in the exposed cohort.

All children aged between 4 and 17 whose mothers had attended a Gender Violence Center serving an area on the outskirts of Barcelona (Spain) were invited to participate in the study. Gender violence centers are run by local authorities' Departments for Women's Issues, and were set up in response to the growing problem of IPV. Women victims of IPV can obtain psychological (assessment and treatment) and legal assistance there. These centers are not shelters, and women do not live in them.

Inclusion criteria were as follows: the child's mother had to have been exposed to physical, sexual and/or psychological partner violence during the previous year according to cut-off scores on the Index of Spouse Abuse (Hudson and McIntosh 1981) for the Spanish population; and the women had to have children in the age range of the study. Of a total of 132 mothers, 117 agreed to participate. There were no differences by the children's sex (p=.536), age (p=.612), socioeconomic status (.128) or mother's scores on the ISA (p=.186 and p=.914) between the families that agreed to participate and those that did not.

On the basis of the mothers' responses to the *Schedule for the Assessment of Intimate Partner Violence Exposure in Children*, the initial children's sample (N=166) was organized in three categories according to degree of exposure: witness (n=77, 46.39%), involved (n=63, 37.95%) and victim (n=26, 15.66%) (described in the Measures section). Table 1 shows the characteristics of the sample.

Table 1 Sample characteristics

		Degree of exposure		
		Witness (*N*=77)	Involved (*N*=63)	Victims (*N*=26)
Sex (%)	Male	43 (55.8)	41 (65.1)	17 (65.4)
SES[a] (%)	High + Medium − High	16 (21.1)	13 (22)	8 (30.8)
	Medium + Medium − Low	37 (48.7)	31 (52.5)	13 (50)
	Low	23 (30.3)	15 (25.4)	5 (19.2)
Age (in years); mean (SD)		7.99 (3.34)	8.32 (3.37)	10.19 (3.68)
Parents with elementary education (%)		53 (72.6)	43 (72.9)	19 (73.1)
One-parent family[b] (%)		46 (60.5)	33 (53.2)	16 (61.5)
Biological mother mean age (SD)		37.21 (5.3)	36.27 (5.21)	37.23 (5.91)
Mother's education[c] (%)		69 (90.8)	55 (91.7)	24 (92.3)
Unemployed mother (%)		26 (34.2)	22 (37.3)	11 (42.3)
Biological father as aggressor (%)		70 (90.9)	60 (95.2)	24 (92.3)
White ethnicity (%)		68 (88.3)	53 (84.1)	21 (80.8)

[a] SES = Socioeconomic status (Hollingshead 1975)

[b] Living only with the mother

[c] Secondary education or lower

SD standard deviation

Measures

The *Index of Spouse Abuse* (Hudson and McIntosh 1981) evaluates degree of physical and non-physical partner abuse as perceived by women and reflects the severity of the violence received from their partners. Two cut-off scores that identify a woman as a victim of spouse abuse were: 10 for physical abuse and 25 for non-physical abuse (Observatorio de Salud de la Mujer 2005). In our study, presence of scores at or above the cut-off levels was used to confirm exposure to IPV. In participating mothers, the mean ISA physical abuse score was 26.7 (SD=18.8), while the non-physical abuse score was 52.1 (SD=20.8).

The *Schedule for the Assessment of Intimate Partner Violence Exposure in Children (SAIPVEC)* (UED 2005) assesses the characteristics of IPV as they may relate to children on the basis of a taxonomy described by Holden (Holden 2003). The taxonomy comprises the following areas: 1) *Degree of involvement of the child*; 2) *Characteristics of the violence on the mother*; 3) *Characteristics of the aggressor* as reported by the victim, and 4) *Type of child abuse*. All the parts were filled out by the clinician based on the mother's report. The degree of involvement of the child was used to obtain the categories of different levels of exposure. This part is based on dichotomous response items (0=Absent/1=Present), and includes 10 questions: a) *exposure during pregnancy*, b) *intercedes in the situation* (the child intervenes to try to stop the violence), c) *victim* (the child is a victim), d) *participates* (the child is forced/volunteers to participate in the aggression), e) *eye witness* (the child sees the violence), f) *hear witness* (the child hears the violence, but does not see it), g) *observes the effects* (the child observes the consequences of the violence inflicted on the mother: bites or injuries, police, ambulance, strong emotions), h) *experiences the consequences* (the child experiences the consequences: mother's depression, separation of parents, moving to another place), i) *hears about it* (the child is informed of the violence) and j) *doesn't know anything* (the child is unaware of the violence). The categories of the study were formed according to the following rule, which classifies the degree of the exposure in independent clusters (see, in brackets, the ten previous questions that form each cluster): 3) Victim (c): children suffer physical or verbal aggression during a violent incident; highest degree of exposure; 2) Involved (b, d): children are not victims but participate directly in the aggression, and 1) Witness (e, f, g, h): children not classified previously and who have seen the aggression, have heard about it, have observed the effects or have experienced the consequences, that is, witnessing the effects of IPV indirectly, through the effects on their environment; lowest degree of exposure.

Trained clinicians filled out the schedule based on the rating descriptions provided for each item. The information must be obtained from significant persons with knowledge of the situation. Generally, these individuals are women and children. In this study, women were the main reporters. Children provided information for the section *Degree of involvement of the child*, when available, in addition to the mother's report. Special care was taken not to disclose situations of which the children were unaware. Internal consistency assessed through Cronbach's alpha based on optimal scaling procedure for multilevel data was moderate (0.61) for "degree of involvement of the child".

The *Diagnostic Interview for Children and Adolescents*, DICA (Reich 2000), is a semi-structured interview adapted to the Spanish population (Ezpeleta et al. 1997) for evaluating the main psychopathologies in childhood and adolescence according to DSM-IV criteria (American Psychiatric Association 1994). Diagnoses are obtained by

combining the symptoms reported by the mother and the child. For children aged between 4 and 7 the information was taken from the mother only.

The *Child and Adolescent Functioning Assessment Scale, CAFAS* (Hodges and Wong 1996), assesses functional impairment in children and adolescents aged 8–17. It consists of eight scales reflecting different areas of functioning. Each scale is scored at four levels of impairment: 0, indicating no impairment (or minimal); 10, denoting mild problems or distress; 20, moderate impairment, and 30, severe impairment. For each severity level, multiple items (behavioral descriptions) are given and the rater selects those items that refer to the child's most severe level of functioning. Scale scores are generated with the highest level of severity according to the information from the mother and child. For preschool children, the information was taken from the mother only using the version for 3 to 7-year-olds (PECFAS; Hodges 1999) (see scales in Table 4). Due to the asymmetric scoring distribution of the CAFAS/PECFAS versions, the answers were analyzed with a binary scale: 0= minimal or low impairment and 1= moderate or severe impairment. The average score of all the scales was also used. This instrument has optimal psychometric properties for the Spanish population (Ezpeleta et al. 2006).

The *Child Behavior Checklist, CBCL* (Achenbach and Rescorla 2001) is a dimensional measure of child psychopathology completed by the mother. It has 113 items with 3-point Likert-type scale responses (0=Not True, 1= Somewhat or Sometimes True, 2=Very true or Often True) and shows satisfactory psychometric properties for Spanish population (Cronbach's alpha over .80; Sardinero et al. 1997). For the present sample, internal consistency was .89 and .92 for internalizing and externalizing problems, respectively, and .93 for total behavior problems. The preschool version was also used for children aged 4–5 (Achenbach and Rescorla 2000). Cronbach's alphas for the preschool version were .91 for internalizing, .90 for externalizing and .93 for total behavior problems. T-scores of the empirical scales for those aged 6–18 and 1½–5 were used, permitting us to analyze common scales for the school and preschool versions (see Table 3).

The *Youth Self Report, YSR* (Achenbach and Rescorla 2001) is a self-report inventory completed by children aged 11–18. It has 118 items with 3-point Likert-type scale responses (0=Not True, 1= Somewhat or Sometimes True, 2=Very true or Often True) and has satisfactory psychometric properties for Spanish population (Cronbach's alpha over .80; Abad et al. 2000). Internal consistency for the present study was .88 for internalizing problems, .81 for externalizing problems and .89 for total behavior problems. T-scores of the empirical scales were analyzed (see Table 3).

For both the CBCL and YSR, the combination of the items makes it possible to obtain scores on empirical scales assessing specific psychopathology together with three global scores for internalizing, externalizing, and total problems.

Procedure

The study was approved by the Ethics Review Committee of the Universitat Autònoma de Barcelona. Informed written consent was obtained from the mothers and confidentiality was guaranteed.

The psychologist from the Gender Violence Center invited the women to participate in the study, filled out the SAIPVEC, and gave mothers the ISA questionnaire. Specialists in child psychopathology, previously trained in the use of the diagnostic interview and the other measures included in the study, evaluated the mother and the child simultaneously. With the information from the diagnostic interview the clinicians rated functional impairment on the corresponding scale. Finally, mothers and children filled out the CBCL and the YSR. After assessment, the mothers were informed of the results.

Statistical Analysis

Statistical analysis was carried out using the PASW Statistics 17.0.2 package. The data in this research has a nested structure (some siblings had the same parents), but due to the extremely low level of hierarchy (58% of families had only one child, 38% had two children and 4% three children: the mean number of children per family was 1.47), multi-level models did not allow a satisfactory adjustment (Hox 2002). To account for data dependency at the lower data level and prevent some estimation bias, the random factor "family" was included in multiple mixed models through Generalized Estimating Equations (GEE procedure in SPSS system) that compared the presence and level of psychopathology and functional outcomes for the three groups of the study. These models were adjusted with the Binomial distribution and the Logit link-function for binary criteria and with the Normal distribution and the Identity link-function for quantitative outcomes. The generalized estimating equations were adjusted according to sex and age, when no interaction was found, and always by period of exposure to IPV and comorbidities.

Since the groups created for this study represent different levels of exposure to intimate partner violence, polynomial contrasts in GEE were used to explore whether the increment in exposure level presented linear and/or quadratic trends in psychopathology and functional impairment.

To control Type-I error due to multiple comparisons, Bonferroni's adjustment was used through SPSS macros (Doménech 2007).

Results

DSM-IV Diagnoses

Table 2 shows prevalence of DSM-IV diagnoses for the different levels of IPV exposure. A significant interaction was found for mood disorders and sex (p=.045): boy victims of IPV showed more mood disorders than boys who witnessed it (odds ratio [OR]=12.3; 95% CI=2.29–65.57) and boys who were involved (OR=25; 95% CI=4–100).

Dimensional Psychopathology (CBCL - YSR)

Means of the CBCL and YSR scores are shown in Table 3. There was no significant interaction of sex or age: regardless of the degree of exposure to IPV, the psychopathology associated with the exposure is equal for boys and girls aged 4–17. According to mothers' responses on the CBCL there were no significant differences between exposure groups. On the other hand, comparisons of YSR mean scores revealed differences between victims and witnesses. Victims self-reported more anxiety-depression (mean difference [MD]= 12.31; 95% CI=2.14–22.49), thought problems (MD= 12.39; 95% CI=3.40–21.38), aggressive behavior (MD=7.99; 95% CI=.85–15.12) internalizing problems (MD=12.60; 95% CI=1.52–23.68) and externalizing problems (MD=7.94; 95% CI=.45–15.42) than witnesses.

Functional Impairment

There was no moderator effect of sex or age on the CAFAS/PECFAS scores (Table 4), which means that functional impairment associated with being exposed to IPV does not depend on these variables. No significant differences were found between exposure groups.

Table 2 Degree of exposure to intimate partner violence and DSM-IV diagnoses

Variables		Exposure[b] (%)			Trends (p)	
		Witness (N=77)	Involved (N=63)	Victims (N=26)	Linear	Squared
Any DSM disorder		70.1	79.5	84.5	.245	.824
Disruptive behavior disorders		39.0	36.5	46.2	.789	.396
Mood disorders	Girls	17.6	45.5	33.3	.033*	.036*
	Boys	14	7.3	52.9[a]		
Anxiety disorders		42.9	55.6	61.5	.191	.613
Elimination disorders		11.7	15.9	23.1	.519	.937
Tic disorders		9.1	11.1	7.7	.372	.209
Attention-deficit hyperactivity disorder		22.1	20.6	34.6	.473	.207
Oppositional defiant disorder		31.2	23.8	34.6	.296	.216
Dissocial disorder		5.2	9.5	11.5	.762	.473
Major depression		10.4	15.9	34.6	.133	.278
Dysthymia		5.2	4.8	15.4	.194	.159
Separation disorder		15.6	27	30.8	.065	.927
Generalized anxiety		15.6	17.5	30.8	.377	.308
Simple phobia		27.3	25.4	15.4	.028*	.854
Social phobia		5.2	11.1	7.7	.797	.297
Obsessive compulsive disorder		2.6	7.9	11.5	.343	.808
Post traumatic stress disorder		6.5	9.5	11.5	.810	.707
Enuresis disorder		10.5	14.5	23.1	.447	.858
Chronic or transitory tics		7.8	9.5	7.7	.458	.516
Stereotyped movement disorder		21	29.3	16.7	.470	.257
Preschool sleeping disorders[c]		20	14.3	50	.362	.304
Child eating disorder		7.5	3.4	28.6	.170	.116

*Significant comparison (p<0.05)

[a] Significant difference comparing Victims vs. Witnesses vs. Involved

[b] Comparison adjusted according to sex, age, comorbidities and period of exposure

[c] Insomnia, Nightmares, Somnambulism, Night Terrors

Table 3 Degree of exposure to intimate partner violence and CBCL - YSR problems

CBCL variables	Adjusted means[a]			Trends (p)	
	Witness (*N*=77)	Involved (*N*=63)	Victims (*N*=26)	Linear	Squared
Anxious-depressed	63.34	64.23	66.30	.498	.858
Withdrawn-depressed	60.84	60.87	61.90	.817	.876
Somatic complaints	60.85	61.36	63.18	.653	.856
Attention problems	58.81	58.36	60.08	.682	.647
Aggressive behavior	62.92	64.15	62.36	.886	.587
Internalizing	64.97	65.10	66.78	.705	.829
Externalizing	61.96	63.33	60.61	.707	.438
Total CBCL score	63.10	64.37	65.21	.594	.940
Social problems[b]	56.01	58.79	60.07	.213	.772
Thought problems[b]	56.35	59.60	64.83	.126	.797
Rule-breaking behavior[b]	58.06	58.92	55.11	.364	.348
Emotionally reactive[c]	61.55	66.84	67.97	.062	.195
Withdrawn[c]	56.94	57.17	47.80	.012*	.353
Sleep problems[c]	58.33	64.23	58.33	1.000	.234
YSR variables	Witness (*N*=16)	Involved (*N*=15)	Victims (*N*=10)		
Anxious–depressed	49.06	53.99	61.37	.022*	.757
Withdrawn–depressed	46.25	55.13	55.17	.067	.317
Somatic complaints	50.30	53.18	59.46	.083	.654
Social problems	49.71	52.50	56.73	.035*	.810
Thought problems	47.23	49.20	59.62	.004*	.200
Attention problems	50.23	53.74	56.15	.129	.876
Rule-breaking behavior	48.84	52.46	55.14	.025*	.907
Aggressive behavior	47.63	51.77	55.62	.015*	.954
Internalizing	47.59	55.49	60.20	.024*	.731
Externalizing	48.01	52.36	55.94	.007*	.896
Total YSR score	60.45	64.15	69.55	.037*	.796

*Significant difference ($p<0.05$)

[a] Comparison adjusted according to sex, age and period of exposure

[b] CBCL 6–18 years old variables

[c] CBCL 1–5 years old variables

Linear and Quadratic Trends Between Level of IPV Exposure, Psychopathology and Functional Impairment

Comparing DSM-IV diagnostic categories, a positive linear trend was observed in the prevalence of mood disorders: the higher the level of exposure, the higher the risk of psychopathology for boys (Table 2). A negative linear trend was observed in the prevalence of simple phobia (higher exposure corresponded to lower prevalence), and a squared trend was observed in the prevalence of mood disorders (lower risk in involved boys).

According to the mothers' reports in the preschool version of the CBCL (Table 3), a negative linear trend was observed for the withdrawn scale (the higher the level of exposure, the lower the risk of psychopathology). Children's reports in the YSR showed a positive linear trend on the anxious-depressed, social problems, thought problems, rule-breaking behavior, aggressive behavior, internalizing, externalizing and total score scales (Table 3), which indicates that psychopathology increases as exposure increases.

Scores in functional impairment did not follow a linear or a squared trend (Table 4).

Discussion

Our results can be summarized in two main points: first, psychopathology and functional impairment of children

Table 4 Degree of exposure to intimate partner violence and functional impairment (CAFAS/PECFAS)

Variables[b]	Exposure[a] (%)			Trends[a] (p)	
	Witness (*N*=77)	Involved (*N*=63)	Victims (*N*=26)	Linear	Squared
School	27	28.6	44.4	.335	.393
Home	23.4	39.7	28	.709	.083
Community	2.6	3.2	0	.220	.444
Behavior towards others	11.7	14.3	8	.533	.528
Moods/emotions	36.4	49.2	60	.121	.954
Self harmful	2.6	3.2	8	.506	.722
Substance use	2.7	2.9	5.6	.734	.831
Thinking problems	2.6	4.8	0	.271	.363
	Adjusted means[a]				
CAFAS: Total average	4.77	6.02	5.72	.260	.259

[a] Comparison adjusted according to sex, age and period of exposure

[b] Binary Scale 0: Minimal—Low Impairment/1: Moderate—Severe Impairment

exposed to intimate partner violence do not, in general, depend on their sex or age; and second, children are similarly affected regardless of the degree of the exposure. The present findings are consistent with those which found no moderating effect either for sex (Fletcher 2010; Moylan et al. 2010) or for both sex and age (Evans et al. 2008; Kitzmann et al. 2003; Wolfe et al. 2003) between exposure to IPV and psychopathology. In light of this, the decision to treat or intervene in children exposed to violence should not be taken only on the basis of children's sex or age, since exposure to IPV compromises all children's psychological welfare and adjustment in different areas of functioning of their lives. Furthermore, we should stress that, although this was not the main objective of the present study, our results regarding differences in psychopathology and functional impairment depending on the degree of exposure were found to converge with those obtained in previous research (Bayarri et al. 2011; Litrownik et al. 2003; Sternberg et al. 2006b), reinforcing the argument that no matter whether children exposed to IPV suffer direct physical or verbal aggression, participate in the aggression against the mother, or witness the aggression without directly suffering the consequences themselves, they are similarly at risk of having psychological problems.

Just one significant sex difference was found: boys showed more mood disorders than girls and, among them, boy victims showed a higher prevalence of mood disorders. This result is consistent with the findings of Reynolds et al. (2001), who showed how boys exposed to IPV had more depressive symptoms than girls. In general, boys receive more corporal punishment than girls (Gershoff 2002), and some authors have shown corporal punishment to be associated with depressive symptoms (Gershoff 2002; Harper et al. 2006). This relationship may explain the fact that boy victims in our sample, who have mainly suffered physical aggression, are at higher risk of mood disorders.

This study is one of the few that provides evidence on the absence of a general moderator effect of sex and age in children exposed to IPV in the Spanish population. The study uses dimensional and categorical measures of psychopathology, which allows us to compare two forms of assessment. The diagnostic interview is filled out by the clinician based on mother and child reports, and the data are analyzed combining symptoms reported by the mother and the child. Furthermore, the questionnaires allow the subjects to report in a more introspective manner, minimizing the social desirability bias, and the data are analyzed separately, permitting us to obtain measures of psychopathology from each informant. In addition, the study incorporates the assessment of functional impairment, reporting the consequences associated with exposure to intimate partner violence in several areas of children's lives, and showing that the effects are equal regardless of sex and age. It also uses a comprehensive instrument to assess multiple characteristics of intimate partner violence.

There are four main limitations of the study. First, the original retrospective study design precludes conclusions regarding causation, but permits us to find at least some association between variables. On the other hand, the chosen design is the only one among observational designs that provides: a) a guarantee that the independent variable of the study, child's exposure to IPV, has already happened at the time of starting the research, and b) the capacity to evaluate multiple outcomes of the given exposure (Tager 1998). Second, due to the characteristics of the center from which the sample was recruited, the type of family violence on which our results are based is exclusively male-to-female violence, making it impossible to determine the effect of other types of family violence, for example, women's IPV against men, that have been shown to be important as regards their impact on children (McDonald et al. 2009). Third, given that some women attended the

gender violence center secretly, it was not possible to obtain information from teachers, which could have helped us to better understand how exposure to IPV affects the children's academic performance and relationships with peers. And finally, low accuracy of self-reports from over-11s meant that only small numbers of older adolescents remained in each group when the sample was divided according to degree of exposure.

Our results presented here highlight the fact that with few exceptions, all children and adolescents, regardless of their age and sex, and irrespective of their level of exposure to IPV, are equally at risk of experiencing psychological problems, and should therefore be considered similarly with regard to detection, prevention, and treatment. Future research is needed to better clarify the effect of sex and age as possible moderators between exposure to IPV and children's psychopathology, but also to determine and clarify the effect of other variables which recent studies have identified as possible moderators of this relationship, such as the quality of mother-child relationship (Johnson and Lieberman 2007), the social support perceived by children (Owen et al. 2008), the extent and length of child exposure to IPV (Graham-Bermann and Perkins 2010) or the mother's mental health (Graham-Bermann et al. 2011). Another area of interest would be the study of those variables that make children resilient to the exposure to IPV (Martinez-Torteya et al. 2009). Knowledge about these topics would help to improve preventive interventions and treatment for children exposed to IPV.

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