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Child-to-parent violence: The role of exposure to violence and its relationship to social-cognitive processing

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ABSTRACT

Research suggests that child-to-parent violence (CPV) is related to a previous history of violence within the family setting. The current study was aimed to explore the exposure to violence in different settings (school, community, home, and TV) and its relationship to some variables of the social-cognitive processing (hostile social perception, impulsivity, ability to anticipate the consequences of social behaviors and to select the appropriate means to achieve the goals of social behaviors) in a group of juveniles who assaulted their parents. It is also examined how they differ from other young offenders and non-offender adolescents. The sample included 90 adolescents from Jaén (Spain). Thirty of them were juveniles who had been reported by their parents for being violent towards them and 30 were juveniles who had committed other types of offences. The third group was made up of 30 adolescents without any criminal charge. Adolescents answered measures of exposure to violence, perception of criticism/rejection from parents, hostile social perception, and social problem-solving skills. Results revealed that juveniles who abused their parents reported higher levels of exposure to violence at home when comparing to the other groups. In addition, exposure to violence at home was significantly correlated to the hostile social perception of adolescents in CPV cases. Implications for prevention and treatment are discussed.

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Violencia filio-parental: el papel de la exposición a la violencia y su relación con el procesamiento sociocognitivo

RESUMEN

La investigación sugiere que la violencia filio-parental está relacionada con la historia previa de violencia en el seno familiar. Este estudio tuvo como objetivo explorar la exposición a la violencia en diferentes contextos (colegio, calle, hogar y TV), así como su relación con algunas variables del procesamiento socio-cognitivo (impulsividad, percepción social hostil, habilidad para anticipar y comprender las consecuencias de conductas sociales y para seleccionar los medios apropiados para lograr objetivos de conductas sociales), en un grupo de menores denunciados por maltrato hacia sus padres. Se examinó también si existían diferencias respecto a otros menores infractores y menores no infractores. La muestra estuvo compuesta por 90 adolescentes procedentes de Jaén (España). De ellos, 30 eran menores denunciados por maltrato hacia sus padres y 30 eran menores que había cometido otros delitos. El tercer grupo estuvo compuesto por menores no infractores. Los adolescentes cumplieron cuestionarios sobre exposición a la violencia, percepción de crítica/rechazo de los padres, percepción social hostil y habilidades de resolución de problemas sociales. Los resultados mostraron que los menores que agredían a sus padres presentaban mayores niveles de exposición a la violencia en el hogar. Además, la exposición a la violencia en el hogar se relacionaba significativamente con la percepción social hostil de los adolescentes. Se discuten las implicaciones de los resultados para la prevención y el tratamiento en casos de violencia filio-parental.

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Research on family violence has been traditionally focused on both partner violence and parent-to-child abuse. However, another type of violence within the family has risen in the latest decade, with an increasing number of cases where violence is exerted by children and adolescents towards parents, which is known as child-to-parent violence (CPV). This subtype of family violence, defined by Cottrell (2001) as “any act of a child that is intended to cause physical, psychological, or financial damage to gain power and control over a parent” (p. 3), has become a matter of concern not only for society in general, but also among professionals and researchers from different countries (Calvete, Gámez-Guadix, & García-Salvador, 2014; Contreras & Cano, 2014a, 2014b; Ibabe, Arnoso, & Elgorriaga, 2014; Pagani et al., 2004, 2009; Routt & Anderson, 2011). However, similarly to other forms of family violence, victims tend to hide the abuse. To be precise, parents are unwilling to report their children’s abuse in the Juvenile Court, which increases the probability of being an underestimated phenomenon in terms of the number of official reports. Nevertheless, an important source of information about the extent of CPV is provided by the studies, especially with community samples, in which children and adolescents (perpetrators) report the information about CPV incidents.

Data from the United States report that CPV occurs between 7 and 18% in two-parent families, increasing to 29% in single-parent homes, whereas prevalence rates in Canada and France are lower (see review by Kennair & Mellor, 2007). Recently, Margolin and Baucom (2014) conducted a study with a community sample of adolescents from the US, assessing the prevalence of CPV by using an ad hoc questionnaire. These authors found that 22% of adolescents had attacked physically one of their parents, and that 75% had attacked them verbally. In Spain, a recent study with a community sample of 1,698 adolescent students (CPV was measured by using the Child-to-Parent Aggression Questionnaire; Calvete et al., 2013) revealed that 13.7% of participants had physically assaulted their parents at least once in the past year, and almost all adolescents had displayed some behavior regarded as psychological aggression against their parents (92% towards the mother and 86% towards the father) (Calvete, Gámez-Guadix, & Orue, 2014).

As Brezina (1999) pointed out, this type of family violence presents some peculiarities, especially concerning the victim and the perpetrator who are implied, which makes it a special issue, since adolescents abuse those who should represent authority and should be their carers (Ibabe & Bentler, 2016). Thus, it represents a different category of family violence characterized by an inversion of normal family power relationships among family members whereby teenagers believe they are “in charge” of the home (Tew & Nixon, 2010). In respect of the perpetrator gender, results vary according to the research methodology used. Studies with forensic samples reveal that the majority of offenders are males, whereas the victims are usually females (Condry & Miles, 2014; Contreras & Cano, 2014b; Kethineni, 2004; Ibabe et al., 2014; Routt & Anderson, 2011), being the peak age of offending between 14 and 17 years (Condry & Miles, 2014; Kethineni, 2004). However, research with community samples reports different results according to the perpetrator and the victim gender, along with the type and severity of violence. For example, Calvete et al. (2013) found that girls showed higher rates of aggression than boys in psychological and physical aggression against parents, with no significant differences in severe physical aggression. Regarding parents gender, the prevalence of psychological aggression against the mother was greater than against the father, although there were no differences in terms of severe psychological aggression. Otherwise, Ibabe, Jaureguizar, and Bentler (2013) reported that in general, adolescents were found to be more psychologically violent and emotionally violent towards mothers than towards fathers, with no differences for physical violence. Furthermore, sons directed more physical violence towards

their parents than daughters, whereas there were no significant differences for psychological and emotional violence.

There are different frameworks to explain the variables underlying the development of CPV, which are briefly described below. The ecological theories, as for example The Nested Ecological Theory (Cottrell & Monk, 2004) and The Social Ecology Theory (Hong, Kral, Espelage, & Allen-Meares, 2012), propose that there are multiple levels of influence concerning CPV, emphasizing the reciprocal interactions of these levels. Thus, there are diverse variables, from the immediate setting of the individual to a broader cultural and social context: family variables, individual features, a history of previous violence within the family, cultural values, socialization of the male power, and so on. On the other hand, some strain and social learning theorists posed that CPV represents a functional response to family adversity (or strain) (Brezina, 1999). Related to this perspective, the influence of violence exposure within the family setting is one of the approaches gaining momentum in the literature on this issue that could partially explain the development of CPV. Exposure to family violence can be direct (when children are victimized, that is, parent-to-child abuse) and indirect (when children witness violence, as inter-parental violence). Thus, on the basis of results from the intergenerational transmission of violence approach (e.g., Kwong, Bartholomew, Henderson, & Trinke, 2003; McCloskey & Lichter, 2003; Stith et al., 2000), it is hypothesized that, through observational learning and imitation of an adult model (Bandura, 1977), children from violent homes could become aggressors themselves, as they internalize that using aggression is an appropriate way to deal with interpersonal conflicts.

A number of studies in the field of CPV have obtained results in line with this hypothesis. Concretely, previous research suggests that witnessing inter-parental violence seems to be related to abusive behaviors from children toward their parents (e.g., McCloskey & Lichter, 2003). As for parent-to-child violence as precursor of CPV, Pagani et al. (2004, 2009) conducted a longitudinal study with a community sample and found an association between parents’ use of physical and verbal punishment to their children and adolescents’ physical and verbal aggression to their parents. In this line, Margolin and Baucom (2014) carried out a prospective longitudinal study with adolescents and their parents, demonstrating that the risk for CPV was related to prior parental aggression and, specifically, that mother-to-child physical aggression was the strongest indicator of physical CPV. In addition, other studies with community samples reveal that adolescents in families where both inter-parental and parent-to-child violence were present are more likely to engage in CPV when comparing to those adolescents who did not suffered violence at home (Calvete, Orue, & Sampedro, 2011; Gámez-Guadix & Calvete, 2012; Ibabe et al., 2013; Routt & Anderson, 2011). Research with clinical and forensic samples has reported similar results (Boxer, Lakin, & Mahoney, 2009; Ibabe, Jaureguizar, & Díaz, 2009). In fact, there is evidence supporting that inter-parental violence and parent-to-child violence are likely to coexist within the same family (Cui, Durtschi, Donnellan, Lorenz, & Conger, 2010; Holt, Buckley, & Whelan, 2008; Slep & O’Leary, 2005). Although some authors have not found differences by sex (e.g., Gámez-Guadix & Calvete, 2012), other studies reported that the bidirectionality of family violence is higher in sons than in daughters (Ibabe & Jaureguizar, 2011; Ibabe et al., 2013). In this regards, an explanation of this finding could be the interaction between different socialization practices and the modelling of same-gender parent behavior, that is, sons’ abusive behavior could be influenced by the role modelling of masculine stereotypes that promote the use of power and control in relationships (Cottrell & Monk, 2004), so they are reinforced more often for being aggressive. By contrast, girls are reinforced for being more passive. In addition, males may learn the role of perpetrators if their fathers abuse them or in the

case of fathers beating their mothers, whereas girls may learn the victim role from watching their mothers in that role (Stith et al., 2000).

It seems clear that prior exposure to violence within the family is linked to the development of violent behavior and, furthermore, some authors have specified even more their results by showing differential effects of violence exposure. For example, Margolin, Vickerman, Oliver, and Gordis (2010), in their prospective longitudinal study, examined differential contributions of violence domains (parent-to-youth aggression, inter-parental physical aggression, and community violence) to specific outcomes, reporting that delinquent behaviors were significantly linked to parent-to-youth aggression and physical inter-parental aggression, and furthermore, that parent-to-youth aggression distinctly appeared as related to aggressive behaviors. Regarding CPV, some authors have found that children who had been victimized by their parents exhibited more physical, emotional, and psychological abuse towards their parents when comparing to those adolescents who did not suffered such a violence at home (e.g., Ibabe & Jaureguizar, 2011). Similarly, a recent study with a community sample of adolescents indicated that victimization at home was related to severe physical and psychological violence towards mothers (Calvete, Gámez-Guadix, & Orue, 2014).

In this point, a crucial question emerges: what are the processes through which previous experiences of exposure to violence has its effects? In this line, it has been suggested that the relationship between violence exposure and the development of aggressive behaviors could be mediated by variables concerning the social-cognitive processing. Actually, the influence of social-cognitive variables in the development of aggressive behaviors has been previously analyzed, highlighting the role of hostile perception in social relationships, as well as some deficits in social problem-solving skills (Card & Little, 2006; Dodge & Pettit, 2003). In line with this approach, the social-cognitive theory (Bandura, 2001; Bandura, Caprara, Barbaranelli, Pastorelli, & Regalia, 2001) proposed that there are some self-regulation processes in which some variables such as hostile ideation, among others, are crucial to the development of transgressive behavior. Various studies in the field of CPV have provided promising results related to this perspective. Concretely, Calvete, Gámez-Guadix, and García-Salvador (2014), in their study with adolescent students, highlight the role of hostile attributions in the development of CPV, among other cognitive variables. Other studies also with community samples revealed that the perception of less affection and support from parents increased the probability of CPV (Calvete, Gámez-Guadix, & Orue, 2014; Gámez-Guadix, Jaureguizar, Almendros, & Carrobbles, 2012). In this line, in a recent research with a forensic sample it was also found that CPV offenders reported a more hostile perception of their parents and their home when comparing to other types of young offenders and non-offender adolescents (Contreras & Cano, 2014b, 2015). In addition, CPV offenders were prone to be impulsive, showing unpredictable reactions, and presented, in comparison with other young offenders and non-offender adolescents, a lower ability in some cognitive strategies to solve interpersonal problems, such as the ability to anticipate and understand the consequences of social behaviors and to select appropriate means to achieve the goal of a social behavior (Contreras & Cano, 2015). Similarly, Calvete, Gámez-Guadix, and García-Salvador (2014) found that the anticipation of positive consequences of the use of aggression was highly related to selection of aggressive responses toward parents during conflict situations.

Therefore, in spite of the abundant literature on the role of social-cognitive processing in the development of aggressive behaviors, only a few studies have examined some of these variables in the research of CPV and, furthermore, its relationship with previous violence exposure is yet to be clarified. Thus, the first

objective of the present study is to examine whether there are differences regarding the levels of violence exposure in different settings (school, street, home, and TV) in a group of juveniles who have been reported by their parents for being violent toward them, with respect to a group of other young offenders and a group of non-offender adolescents. It will be also explored which type of violence exposure is the best predictor of CVP. Second, this study is intended to analyze the link between violence exposure at home and other variables related to social-cognitive processing that have been found to be particularly relevant in CPV cases, as for example impulsivity, the ability to anticipate and understand the consequences of social behaviors and to select the appropriate means to achieve the goals of social behaviors (e.g., Contreras & Cano, 2015). The hypotheses proposed were as follows: 1) on the basis of previous literature, it is hypothesized that there will be higher scores in violence exposure at home in the group of CPV offenders when compared to the other groups (Boxer et al., 2009; Calvete et al., 2011; Gámez-Guadix & Calvete, 2012; Ibabe et al., 2013; Ibabe et al., 2009; Routt & Anderson, 2011) and, consequently, exposure to violence at home will be the best predictor of CPV (Hypothesis 1); 2) experiences of abuse and neglect have been found to be related to the development of a particular cognitive style, concretely a hostile attribution style (Crick & Dodge, 1994; Zelli, Dodge, Lochman, Laird, & Conduct Problems Prevention Research Group, 1999), and also to deficits in some components of social problem-solving skills (Fantuzzo, Weiss, Atkins, Meyers, & Noone, 1998; Tyler, Allison, & Winsler, 2006). Accordingly, it is expected that exposure to violence at home will be correlated both to variables of a hostile social perception and to variables of social problem-solving skills (Hypothesis 2).

Method

Participants

The sample was made up of 90 adolescents. Sixty participants were young offenders who were recruited from the Juvenile Justice Service of Jaén, a province in the south of Spain, under the Organic Law 5/2000 of Juveniles' Criminal Responsibility. Concretely, 30 were adolescents who had been reported by their parents for being violent towards them (CPV group; 20 males, 10 females, $M_{age} = 16.3$, $SD = 1.34$) and 30 were juveniles who had committed other types of offences such as burglary, theft, vandalism, injuries, and joyriding (Non-CPV group; 29 males, 1 females, $M_{age} = 17.07$, $SD = 1.57$). The inclusion criterion for the Non-CPV group was that the offence committed was not extremely serious, such as for example sexual abuse, murder or homicide, as juveniles who commit these types of offences present a very particular profile that requires a special analysis. The third group was made up of 30 adolescents without any criminal charge (NO group; 20 males, 10 females, $M_{age} = 16.27$, $SD = 1.36$), who were selected from a secondary city school from the same geographic region. Regarding the variable age, there were no differences among the three groups, $F(2, 87) = 3.00$. The socio-economic levels were the following: 28.9% low, 54.4 middle, and 16.7% high.

Concerning the legal status of the young offenders groups, in the CPV group, 26.7% ($n = 8$) of them had criminal records only related to CPV, and in the Non-CPV group, 73.3% ($n = 22$) had other criminal records. Besides, there were different legal measures for the juveniles in both groups of offenders, although most of them were taken in an institution. To be precise, in the CPV group, 26 juveniles were confined, 1 juvenile was on probation, and 3 juveniles had been processed and were waiting for the sentence. In the Non-CPV group, all the juveniles were taken in an institution.

Instruments

Exposure to violence was measured through the Exposure to Violence Scale (EVS; Orue & Calvete, 2010), which is a Spanish 21-item questionnaire that assesses both direct and indirect exposure to violence (EV) in different settings. Direct exposure (victimization) and indirect exposure (witnessing) is assessed in the contexts of school, street, home, and in the TV. An example of victimization item is “How often has somebody hit you at school, on the street/at home?” and another one considering a witnessing item is “How often have you seen somebody hitting another person at school/on the street/at home?”. Each item is rated on a scale ranging from 1 (*never*) to 5 (*every day*). Confirmatory factor analysis has shown a hierarchical structure for these types of EV for children and adolescents with excellent fit indexes, whose first-order factors refer to the witnessing and victimization (Orue & Calvete, 2010). In this study, alpha coefficient was .86 for total exposure to violence. Regarding EV at school, alpha coefficients were .77, .80, and .62 (total, observation, and victimization respectively). For EV in the community, alpha coefficients were .78, .74, and .73 (total, observation, and victimization respectively), and for EV at home were .88, .86, and .86 (total, observation, and victimization respectively). Finally, alpha coefficient for EV at TV was .67.

Adolescents’ perceptions of criticism/rejection (hostile perception) from parents were measured with the Warmth Scale (WS) (Fuentes, Motrico, & Bersabé, 1999). The WS is comprised of 20 items, divided into two factors: (a) affection and (b) criticism/rejection by parents towards their children. Each factor consists of 10 items rated on a scale ranging from 1 (*never*) to 5 (*always*). For the current study it was only selected the subscale of criticism/rejection, as the objective was to explore the hostile perception from parents. Example items of this subscale are: “I think my father/mother wishes I were different” or “I think my father/mother is uncomfortable when I am at home.” Psychometric properties for the WS are presented in Bersabé, Fuentes, and Motrico (2001). In the present study, Cronbach’s alphas for perception criticism/rejection from fathers and mothers were .85 and .90, respectively.

The Attitudes and Social Cognitive Strategies Questionnaire [Cuestionario de Actitudes y Estrategias Cognitivas Sociales, AECS] (Moraleda, González-Galán, & García-Gallo, 1998) was used. Concretely, only some of the subscales referring to a hostile perception and to social problem-solving skills, that have been previously found to be significant in CPV cases (e.g., Contreras & Cano, 2015), were selected. Concretely, adolescents were asked to respond to each item on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*) in the following subscales (Cronbach’ alpha in parenthesis for this sample): adolescents perception of their parents’ authority at home ($\alpha = .81$; the higher the score, the more positive the perception), perception and expectations of social relationships ($\alpha = .67$; the higher the score, the more negative the perception), impulsivity-reflexivity ($\alpha = .71$; the higher score, the more impulsivity), ability to anticipate and understand the consequences of social behaviors ($\alpha = .67$; the higher the score, the lower the ability), ability to select the appropriate means to achieve the goals of a social behavior ($\alpha = .73$; the higher the score, the lower the ability).

Procedure

Due to the peculiarities of the sample of young offenders, authorization from the Juvenile Justice Service of Jaén (Spain) was previously requested. Once official authorization was obtained, parents’ consent for us to assess their children was requested. Parents were informed about the aim of this study and the confidentiality of the data. In addition, adolescents were also informed about these aspects and given the opportunity to refuse the assessment.

To ensure confidentiality, each participant received an identification code. No incentive was offered in exchange for participation. The authors conducted individually the evaluations in the institution where the adolescent was allocated to comply with the legal disposition imposed by the Juvenile Court. Regarding the NO group, only those who did not have criminal records or antisocial behaviors were included in the research. The school-counselling department provided this information. First, authorization by the high school direction was obtained. Then, the process to obtain parents and adolescents consent was similar to the offender groups. Finally, participants completed the questionnaires in their classrooms.

Data Analysis

To examine significant group differences in the Exposure to Violence, a MANOVA with group factor as independent variable was used, including the eta squared statistic to explore the effect size and the Bonferroni correction for multiple comparisons. Then, a logistic regression to predict differences according to the presence or absence of CPV, with the types of EV as predictors, was performed. Logistic regression is appropriate here because it employs as dichotomous dependent variable the presence or absence of CPV. The presence of CPV was given a value of 1 in the parameter-coding scheme and the absence of CPV was given a value of 0. The significance of model parameters was calculated using the Wald test, accepting a significance level of $\alpha < .05$. Finally, a Pearson product-moment correlation analysis was used to explore the relations among exposure to violence and the rest of social-cognitive variables, performing this analysis for each group.

Results

Exposure to Violence

A MANOVA with group as the independent variable was performed to explore differences in EV among the groups. Table 1 shows the descriptive statistics for these variables. On the one hand, it was hypothesized that there would be higher scores in violence exposure at home in the group of CPV offenders when comparing to the other groups (Hypothesis 1). Results confirmed this Hypothesis. Wilks’ Lambda suggested overall significant main effects of group, $\lambda = .57$, $F(14, 162) = 5.78$, $p < .000$, $\eta^2 = .33$, with an observed power of .999. Univariate *F* values showed significant effects of group for total EV, $F(2, 87) = 15.91$, $p < .001$, $\eta^2 = .27$; EV at school, $F(2, 87) = 8.76$, $p < .001$, $\eta^2 = .17$; witnessing at school, $F(2,$

Table 1
Exposure to Violence: Between-subjects Effects.

	CPV M (SD)	Non-CPV M (SD)	NO M (SD)	F	η^2
Total	39.8 (9.7)	40.3 (10.5)	28.2 (7.7)	13.50 ^{b,c}	.24
EV School	11.4 (3.2)	11.7 (4.1)	8.2 (3.4)	6.29 ^{b,c}	.13
Witnessing	7.9 (1.6)	8.4 (2.4)	6.2 (2.5)	6.58 ^{b,c}	.13
Victimization	3.5 (2.1)	3.3 (2.3)	2.0 (1.7)	2.65 ^{b,c}	.06
EV Community	10.9 (3.2)	13.6 (3.6)	8.3 (3.4)	8.05 ^{a,b,c}	.16
Witnessing	7.9 (1.8)	9.1 (1.6)	6.3 (2.1)	8.95 ^{b,c}	.17
Victimization	3.0 (2.3)	4.5 (2.6)	2.0 (1.8)	3.01 ^{a,c}	.07
EV Home	8.7 (5.7)	6.1 (4.8)	2.7 (3.7)	12.06 ^{a,b,c}	.22
Witnessing	3.8 (3.6)	3.5 (2.9)	1.4 (1.9)	4.79 ^{b,c}	.10
Victimization	4.8 (2.9)	2.6 (2.7)	1.3 (1.8)	17.05 ^{a,b}	.29
EV TV	8.9 (2.0)	8.8 (1.8)	8.9 (1.8)	0.69	.01

Note. EV = exposure to violence; CPV = child-to-parent violence group; Non-CPV = non-child-to-parent violence group; NO = no offences group.

^a Significant differences ($p < .05$) between CPV and Non-CPV.

^b Significant differences ($p < .05$) between CPV and NO.

^c Significant differences ($p < .05$) between Non-CPV and NO.

Table 2
Logistic Regression Predicting CPV.

	B	SE	Wald	df	p	OR	95% CI
EV School	.16	.08	3.40	1	.06	1.17	[0.99, 1.39]
EV Community	.20	.08	5.30	1	.02	0.81	[0.68, 0.97]
EV Home	.19	.06	11.54	1	.00	1.21	[1.08, 1.35]
EV TV	-.04	.14	0.10	1	.74	0.95	[0.73, 1.24]

Note. EV = exposure to violence; OR = odds ratio; CI = confidence interval.

87) = 8.25, $p < .001$, $\eta^2 = .16$; victimization at school, $F(2, 87) = 4.45$, $p < .05$, $\eta^2 = .10$; EV in the community, $F(2, 87) = 17.87$, $p < .001$, $\eta^2 = .29$; witnessing in the community, $F(2, 87) = 16.09$, $p < .001$, $\eta^2 = .27$; victimization in the community, $F(2, 87) = 9.11$, $p < .001$, $\eta^2 = .17$; EV at home, $F(2, 87) = 11.70$, $p < .001$, $\eta^2 = .21$; witnessing at home, $F(2, 87) = 5.82$, $p < .05$, $\eta^2 = .12$; and victimization at home, $F(2, 87) = 15.46$, $p < .001$, $\eta^2 = .26$.

Bonferroni's post hoc comparisons indicated that juveniles in both CPV and Non-CPV groups showed significantly higher levels of total EV, EV at school, witnessing at school, EV at home, and witnessing at home than juveniles in the NO group. Besides, as expected in Hypothesis 1, juveniles in the CPV group reported higher levels of EV at home than the other groups. Regarding differences between the two groups of offenders, on the one hand, juveniles in the CPV group reported higher levels of EV at home, both total and victimization, than other offenders. On the other hand, juveniles in the Non-CPV group presented higher levels of EV in the community, both total and victimization, than CPV offenders (see Table 1).

A direct logistic regression was performed to assess the impact of all types of EV on the likelihood that the adolescents would be abusive against their parents. The model contained four independent variables (EV at school, EV in the community, EV at home, and EV in the TV). The full model containing all predictors was statistically significant, $\chi^2(4, N = 90) = 19.43$, $p < .001$, $R^2_{\text{Nagelkerke}} = .27$, and correctly classified 74.4% of the cases. As shown in the Table 2, only two of the independent variables made a unique statistically significant contribution to the model (EV at home and EV in the community). The strongest predictor of CPV was EV at home, recording an odds ratio of 1.21 (see Table 2).

Correlations between Exposure to Violence at Home, Hostile Social Perception, and Social Problem-solving Skills

Hypothesis 2 established that EV at home would be significantly correlated to both variables of hostile social perception and social problem-solving skills. This hypothesis was partially confirmed. First, in the CPV group, both witnessing and victimization at home were positively correlated to the perception of criticism/rejection

from the mother, but not to the perception of criticism/rejection from the father. Furthermore, victimization at home was correlated to a more negative perception and expectation of social relationships. Second, in the Non-CPV group, only victimization at home was positively correlated to impulsivity (see Table 3). Finally, in the NO group, both observation and victimization at home were positively correlated to the perception of criticism/rejection from the father, but only victimization was correlated to the perception of criticism/rejection from the mother. In addition, in this group, both observation and victimization was correlated to a more negative perception and expectation of social relationships, and only victimization showed a positive correlation to the ability to select the appropriate means to achieve goals of social behaviors (see Table 3).

Discussion

The current study aimed to explore the exposure to violence and its relation with some variables of the social-cognitive processing in a group of juveniles who abuse their parents, analyzing how they differed from other young offenders and non-offender adolescents. Results revealed that exposure to violence at home is more frequent in CPV cases and furthermore, that it is related to social hostile perception. Concretely, as predicted in Hypothesis 1, CPV offenders reported higher levels of exposure to violence at home than other young offenders and non-offender adolescents, which is in line with previous studies with community samples (Calvete et al., 2011, Gámez-Guadix & Calvete, 2012; Ibabe et al., 2013; Margolin & Baucom, 2014; Pagani et al., 2004, 2009; Routt & Anderson, 2011), as well as with clinical and forensic samples (Boxer et al., 2009; Ibabe et al., 2009). In general, both groups of offenders indicated higher exposure to violence than non-offenders. Nevertheless, an interesting result is that whereas juveniles in the CPV group reported higher exposure to violence at home than other offenders, especially concerning victimization, juveniles in the Non-CPV group presented higher levels of exposure to violence in the community than CPV offenders. Thus, what differentiates both groups of offenders is the context where the exposure to violence takes place. Consequently, and as expected, exposure to violence at home was the best predictor of CPV, so it is confirmed that exposure to family violence, particularly victimization, could play a crucial role in the appearance of violent behaviors from children towards parents.

On the other hand, regarding the mechanisms by which violence exposure would influence the development of aggressive behaviors, social-cognitive processing variables could be crucial, as previous literature highlights the role of hostile attributions and the lack of social problem-solving skills in aggressive children who have been maltreated (e.g., Calvete & Orue, 2011; Contreras,

Table 3
Inter-correlations between Exposure to Violence at Home, Hostile Social Perception, and Social Problem-solving Skills.

	CPV		Non-CPV		NO	
	Witn.	Vict.	Witn.	Vict.	Witn.	Vict.
<i>Hostile social perception</i>						
Father - criticism and rejection	.34	.35	.10	.10	.57*	.45*
Mother - criticism and rejection	.40*	.52*	.21	.17	.30	.54*
Perception of parents' authority at home	-.02	-.32	-.09	.01	-.25	-.35
Perception and expectation about social relationships	.12	.43*	.03	.19	.45*	.51*
<i>Social problem-solving skills</i>						
Impulsivity - reflexivity	.19	.31	.21	.45*	.27	.31
Ability to anticipate/understand consequences of social behaviors	-.08	.10	.02	.08	.19	.31
Ability to select appropriate means to achieve goals of social behaviors	-.02	.14	.03	.03	.29	.37*

Note. CPV = child-to-parent violence group; non-CPV = non child-to-parent violence group; NO = no offences group; witn. = witnessing violence at home; vict. = victimization at home.

* $p < .05$ (2-tailed).

Molina, & Cano, 2011; Dodge & Pettit, 2003). The lack of cognitive competence (i.e., social problem-solving skills, biases in attribution process), discriminating delinquent and antisocial adolescents from non-deviant ones (Arce, Fariña, & Vázquez, 2011) is also related with offence severity and chronicity in juvenile delinquency (Fariña, Arce, & Vázquez, 2014). Moreover, previous studies with legal and community samples in the field of CPV note the relevance of these variables in adolescents who assault their parents (Calvete et al., 2011; Calvete, Gámez-Guadix, & García-Salvador, 2014; Contreras & Cano, 2014a, 2015). However, regarding the relationship between exposure to violence at home and social-cognitive variables, results partially confirmed Hypothesis 2 since different patterns were observed among the three groups. Concretely, with respect to hostile perception, in the CPV group both witnessing and victimization at home were related to the perception of criticism/rejection from the mother, but not from the father. Furthermore, victimization at home was related to a more negative perception and expectation of social relationships. In the NO group, both observation and victimization at home were correlated to the perception of criticism/rejection from the father, but only victimization was correlated to the perception of criticism/rejection from the mother. Furthermore, both observation and victimization at home were significantly associated with a more negative perception and expectation of social relationships. Accordingly, it seems that being exposed to violence in the family is particularly relevant for the development of a social hostile perception, which is in line with previous studies (Crick & Dodge, 1994; Zelli et al., 1999). Focusing in the group of adolescents who abuse their parents, results indicate that what is a unique feature for this group is that exposure to violence at home is related to the hostile perception, but only in the case of the mother. That is an interesting result, since previous studies with forensic samples show that the mother is the more frequent victim of CPV (e.g., Contreras & Cano, 2014b; Ibabe et al., 2009). However, violence exposure was measured in the present moment, within a context of conflictive interactions between parents (usually mothers) and children, so that children probably will perceive more hostility from mothers. Thus, this result should be interpreted with caution. In addition, the assessment of adolescents was conducted after parents (usually mothers) had reported their children behavior in the Juvenile Court, so the influence on the children' perception of their mothers is an aspect to take into account in the interpretation of data. With regard to social problem-solving skills, contrary to predictions, in the CPV group no relation between exposure to violence at home and social problem-solving skills was found. In the Non-CPV group only victimization at home was positively correlated to impulsivity, and in the NO group only victimization showed a relationship to the ability to select the appropriate means to achieve goals of social behaviors. Therefore, regarding the social-cognitive variables studied, although CPV offenders present more difficulties when compared to other offenders and non-offender adolescents (Contreras & Cano, 2015), the hostile perception appears to be the variable more related to violence exposure.

To summarize, exposure to violence at home appears as a crucial variable in CPV cases, as it establishes the difference between adolescents who abuse their parents with respect to other young offenders and non-offender adolescents. In addition, exposure to violence at home is significantly related to a hostile social perception, a variable that is relevant for the development of aggressive behaviors, as well as to increase the proneness to a trajectory of social inadaptability (Arce, Seijo, Fariña, & Mohamed-Mohand, 2010).

Some limitations in this study should also be noted. First, it is based on cross-sectional data, so conclusions about causal effects cannot be drawn. It would be interesting to conduct future longitudinal studies to deepen into the effects of the previous

exposure to violence on the later development of CPV, and which are the pathways involved, focusing on hostile perception variables. In this regard, some authors highlight the interactive nature of parent-children relationships, so that parenting behaviors can produce changes in child behaviors, but child behaviors can also influence parents' behavior (Ibabe & Bentler, 2016). Thus, an aggressive adolescent at home causes strain and hurts the parents. In this situation, parents could become more hostile towards their children, which leads to a negative cycle of family interactions (Gault-Sherman, 2012). Second, the sample was relatively small. This was due to the peculiarities of the young offenders population, as access to the sample was limited. Moreover, data refer to a particular sample of juveniles from a particular region and cultural context, so results may not be generalizable to other populations of adolescents. The third limitation is that all the measures are based on adolescents' self-reports, so in future studies it would be necessary to add reports from parents. Finally, as data were obtained from the reported incidents that reached the Juvenile Court, it is assumed that many cases still remain private. Related to this, it would be advisable in future studies to evaluate whether juveniles in the Non-CPV group and the NO group have genuinely no history of CPV.

Despite these limitations, the current study has yielded further information about the significance of exposure to violence at home in CPV cases, as well as its relationship to the perception of hostility (specifically from mothers), that has been previously found to be particularly relevant in adolescents who abuse their parents. In fact, the relationship between violence exposure at home and hostile perception from mothers appears as a unique feature in the CPV group. However, it is important to note that establishing a simple association between family violence and CPV would not be appropriate. Not all the children who experience some type of violence in the family context will inevitably become potential abusers in the future. Nevertheless, the current study has shown that exposure to family violence is a characteristic of many abusive adolescents. Hence, more work is needed with children exposed to violence at home, in order to reduce the risk of inter-generational transmission of violence. On the other hand, what is clear is that it is necessary to design and implement specific treatment programs for adolescents who abuse their parents, as they present specific features when comparing to other young offenders (Contreras & Cano, 2014b, 2015; Ibabe et al., 2014). General programs aimed at the general population of young offenders probably will not be effective in CPV cases. In this regard, intervention on social-cognitive variables, especially on the hostile perception of abuser adolescents, seems to be a key variable in these programs so as to reduce this type of family violence and, in general, to improve the quality of family relationships.

Conflict of Interest

The authors of this article declare no conflict of interest.

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References

- Arce, R., Fariña, F., & Vázquez, M. J. (2011). Grado de competencia social y comportamientos antisociales delictivos y no delictivos en menores [Social competence and delinquent, antisocial, and non-deviant behavior in adolescents]. *Revista Latinoamericana de Psicología*, 43, 473–486.
- Arce, R., Seijo, D., Fariña, F., & Mohamed-Mohand, L. (2010). Comportamiento antisocial en menores: Riesgo social y trayectoria natural de desarrollo [Antisocial behavior in adolescents: Social risk and natural developmental trajectory]. *Revista Mexicana de Psicología*, 27, 127–142.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. *Annual Review of Psychology*, 52, 1–26.
- Bandura, A., Caprara, G. V., Barbaranelli, C., Pastorelli, C., & Regalia, C. (2001). Sociocognitive self-regulatory mechanisms governing transgressive behavior. *Journal of Personality and Social Psychology*, 80, 125–135.
- Bersabé, R. M., Fuentes, M. J., & Motrico, E. (2001). Análisis psicométrico de dos escalas para evaluar los estilos educativos parentales [Psychometric analysis of two scales to evaluate parents' educational styles]. *Psicothema*, 13, 678–684.
- Boxer, P., Lakin, R., & Mahoney, A. (2009). Adolescents' physical aggression toward parents in a clinic-referred sample. *Journal of Clinical Child & Adolescent Psychology*, 38, 106–116. <http://dx.doi.org/10.1177/0044118X99030004002>
- Brezina, T. (1999). Teenage violence toward parents as an adaptation to family strain: Evidence from a national survey of male adolescents. *Youth and Society*, 30, 416–444. <http://dx.doi.org/10.1177/0044118X99030004002>
- Calvete, E., Gámez-Guadix, M., & García-Salvador, S. (2014). Social information processing in child-to-parent aggression: Bidirectional associations in a 1-year prospective study. *Journal of Child and Family Studies*. Advance online publication. <http://dx.doi.org/10.1007/s10826-014-0023-4>
- Calvete, E., Gámez-Guadix, M., & Orue, I. (2014). Características familiares asociadas a la violencia filio-parental en adolescentes [Family characteristics associated with child-to-parent aggressions in adolescents]. *Anales de Psicología*, 30, 1176–1182. <http://dx.doi.org/10.6018/analesps.30.3.166291>
- Calvete, E., Gámez-Guadix, M., Orue, I., González-Diez, Z., Lopez de Arroyabe, E., Sampedro, R., & Borrajo, E. (2013). Brief report: The Adolescent Child-to-Parent Aggression Questionnaire: An examination of aggressions against parents in Spanish adolescents. *Journal of Adolescence*, 36, 1077–1081. <http://dx.doi.org/10.1016/j.adolescence.2013.08.017>
- Calvete, E., & Orue, I. (2011). The impact of violence exposure on aggressive behavior through social information processing in adolescents. *American Journal of Orthopsychiatry*, 81, 38–50. <http://dx.doi.org/10.1111/j.1939-0025.2010.01070.x>
- Calvete, E., Orue, I., & Sampedro, R. (2011). Violencia filio-parental en la adolescencia: Características ambientales y personales [Child to parent violence in adolescence: Environmental and individual characteristics]. *Infancia y Aprendizaje*, 34, 349–363.
- Card, N. A., & Little, T. D. (2006). Proactive and reactive aggression in childhood and adolescence: A meta-analysis of differential relations with psychosocial adjustment. *International Journal of Behavioral Development*, 30, 466–480. <http://dx.doi.org/10.1177/0165025406071904>
- Condry, R., & Miles, C. (2014). Adolescent to parent violence: Framing and mapping a hidden problem. *Criminology and Criminal Justice*, 14, 257–275. <http://dx.doi.org/10.1177/1748895813500155>
- Contreras, L., & Cano, M. C. (2014a). Adolescents who assault their parents: A different family profile of young offenders? *Violence and Victims*, 29, 393–406. <http://dx.doi.org/10.1891/0886-6708.VV-D-12-00132>
- Contreras, L., & Cano, M. C. (2014b). Family profile of young offenders who abuse their parents: A comparison with general offenders and non-offenders adolescents. *Journal of Family Violence*, 29, 901–910. <http://dx.doi.org/10.1007/s10896014-9637-y>
- Contreras, L., & Cano, M. C. (2015). Exploring psychological features in adolescents who assault their parents: A different profile of young offenders? *The Journal of Forensic Psychiatry and Psychology*, 26, 224–241. <http://dx.doi.org/10.1080/14789949.2015.1004634>
- Contreras, L., Molina, V., & Cano, M. C. (2011). In search of psychosocial variables linked to the recidivism in young offenders. *The European Journal of Psychology Applied to the Legal Context*, 3, 77–88.
- Cottrell, B. (2001). *Parent abuse: The abuse of parent by their teenage children*. Health Canada, Family Violence Prevention Unit, Ottawa, Canada.
- Cottrell, B., & Monk, P. (2004). Adolescent-to-parent abuse. A qualitative overview of common themes. *Journal of family issues*, 25, 1072–1095. <http://dx.doi.org/10.1177/0192513X03261330>
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115, 74–101.
- Cui, M., Durtschi, J. A., Donnellan, M. B., Lorenz, F. O., & Conger, R. D. (2010). Intergenerational transmission of relationship aggression: A prospective longitudinal study. *Journal of Family Psychology*, 24, 688–697. <http://dx.doi.org/10.1037/a0021675>
- Dodge, K. A., & Pettit, G. (2003). A biopsychosocial model of the development of chronic conduct problems in adolescence. *Developmental Psychology*, 39, 349–371. <http://dx.doi.org/10.1037/0012-1649.39.2.349>
- Fantuzzo, J., Weiss, A., Atkins, M., Meyers, R., & Noone, M. (1998). A contextually relevant assessment of the impact of child maltreatment on the social competencies of low-income urban children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37, 1201–1208.
- Fariña, F., Arce, R., & Vázquez, M. J. (2014). ¿Está mediada la gravedad delictiva y cronicidad de los delincuentes juveniles por la competencia cognitivo-comportamental? [Is offence severity and the chronicity of juvenile delinquency mediated by cognitive-behavioral competence?]. *Universitas Psychologica*, 13, 15–27. <http://dx.doi.org/10.11144/Javeriana.UPSY13-3.emgd>
- Fuentes, M. J., Motrico, E., & Bersabé, R. M. (1999). *Escala de Afecto (EA) y Escala de Normas y Exigencias (ENE): Versión hijos y versión padres [Warmth Scale and Rules and Demands Scale: Children and Parents versions]*. Universidad de Málaga, Spain.
- Gámez-Guadix, M., & Calvete, E. (2012). Violencia filio-parental y su asociación con la exposición a la violencia marital y la agresión de padres a hijos [Child-to-parent violence and its association with exposure to marital violence and parent-to-child violence]. *Psicothema*, 24, 277–283.
- Gámez-Guadix, M., Jaureguizar, J., Almendros, C., & Carrobes, J. A. (2012). Estilos de socialización familiar y violencia de hijos a padres en población española [Family socialization styles and child-to-parent violence in a Spanish sample]. *Behavioral Psychology*, 20, 585–602.
- Gault-Sherman, M. (2012). It's a two-way street: The bidirectional relationship between parenting and delinquency. *Journal of Youth and Adolescence*, 41, 121–145. <http://dx.doi.org/10.1007/s10964-011-9656-4>
- Holt, S., Buckley, H., & Whelan, S. (2008). The impact of exposure to domestic violence on children and young people: A review of the literature. *Child Abuse & Neglect*, 32, 797–810. <http://dx.doi.org/10.1016/j.chiabu.2008.02.004>
- Hong, J. S., Kral, M. J., Espelage, D. L., & Allen-Meares, P. (2012). The Social Ecology of adolescent-initiated parent abuse: A review of the literature. *Child Psychiatry and Human Development*, 43, 431–454. <http://dx.doi.org/10.1007/s10578-011-0273-y>
- Ibabe, I., Arnos, A., & Elgorriaga, E. (2014). Behavioral problems and depressive symptomatology as predictors of child-to-parent violence. *The European Journal of Psychology Applied to Legal Context*, 6, 53–61. <http://dx.doi.org/10.1016/j.ejpal.2014.06.004>
- Ibabe, I., & Bentler, P. M. (2016). The contribution of family relationships to child-to-parent violence. *Journal of Family Violence*, 31, 259–268. <http://dx.doi.org/10.1007/s10896-015-9764-0>
- Ibabe, I., & Jaureguizar, J. (2011). ¿Hasta qué punto la violencia filio-parental es bidireccional? [To what extent is child-to-parent violence bi-directional?]. *Anales de Psicología*, 27, 265–277.
- Ibabe, I., Jaureguizar, J., & Bentler, P. M. (2013). Risk factor for child-to-parent violence. *Journal of Family Violence*, 28, 523–534. <http://dx.doi.org/10.1007/s10896-013-9512-2>
- Ibabe, I., Jaureguizar, J., & Díaz, O. (2009). Adolescent violence against parents. Is it a consequence of gender inequality? *The European Journal of Psychology Applied to Legal Context*, 1, 3–24.
- Kennair, N., & Mellor, D. (2007). Parent abuse: A review. *Child Psychiatry and Human Development*, 38, 203–219. <http://dx.doi.org/10.1007/s10578-007-0061-x>
- Kethineni, S. (2004). Youth-on-Parent Violence in a Central Illinois County. *Youth Violence and Juvenile Justice*, 2, 374–394. <http://dx.doi.org/10.1177/1541204004267785>
- Kwong, M. J., Bartholomew, K., Henderson, A., & Trinke, S. (2003). The intergenerational transmission of relationship violence. *Journal of Family Psychology*, 17, 288–301. <http://dx.doi.org/10.1037/0893-3200.17.3.288>
- Margolin, G., & Baucom, B. R. (2014). Adolescents' aggression to parents: Longitudinal links with parents' physical aggression. *Journal of Adolescent Health*, 55, 645–651. <http://dx.doi.org/10.1016/j.jadohealth.2014.05.008>
- Margolin, G., Vickerman, K. A., Oliver, P. H., & Gordis, E. B. (2010). Violence exposure in multiple interpersonal domains: Cumulative and differential effects. *Journal of Adolescent Health*, 47, 198–205. <http://dx.doi.org/10.1016/j.jadohealth.2010.01.020>
- McCloskey, L. A., & Lichter, E. (2003). The contribution of marital violence to adolescent aggression across different relationships. *Journal of Interpersonal Violence*, 18, 390–412. <http://dx.doi.org/10.1177/0886260503251179>
- Moraleda, M., González, A., & García-Gallo, J. (1998). *AECS. Actitudes y Estrategias Cognitivas Sociales [AECS. Attitudes and social-cognitive strategies questionnaire]*. Madrid, Spain: TEA Ediciones.
- Orue, I., & Calvete, E. (2010). Elaboración y validación de un cuestionario para medir la exposición a la violencia en infancia y adolescencia [Development and validation of a questionnaire to measure exposure to violence in childhood and adolescence]. *International Journal of Psychology and Psychological Therapy*, 10, 279–292.
- Pagani, L., Tremblay, R. E., Nagin, D., Zoccolillo, M., Vitaro, F., & McDuff, P. (2004). Risk factor models for adolescent verbal and physical aggression toward mothers. *International Journal of Behavioral Development*, 28, 528–537. <http://dx.doi.org/10.1080/01650250444000243>
- Pagani, L., Tremblay, R. E., Nagin, D., Zoccolillo, M., Vitaro, F., & McDuff, P. (2009). Risk factor models for adolescent verbal and physical aggression toward fathers. *Journal of Family Violence*, 24, 173–182. <http://dx.doi.org/10.1007/s10896-008-9216-1>
- Routt, G., & Anderson, L. (2011). Adolescent violence towards parents. *Journal of Aggression, Maltreatment, and Trauma*, 20, 1–19. <http://dx.doi.org/10.1080/10926771.2011.537595>
- Slep, A. M. S., & O'Leary, G. O. (2005). Parent and partner violence in families with young children: Rates, patterns, and connections. *Journal of Consulting*

- and *Clinical Psychology*, 73, 435–444. <http://dx.doi.org/10.1037/0022-006X.73.3.435>
- Stith, S., Rosen, K., Middleton, K., Busch, A., Lundeberg, K., & Carlton, R. (2000). The intergenerational transmission of spouse abuse: A meta-analysis. *Journal of the Marriage and the Family*, 62, 640–654.
- Tew, J., & Nixon, J. (2010). Parent Abuse: Opening up a discussion of a complex instance of family power relations. *Social Policy and Society*, 9, 579–589. <http://dx.doi.org/10.1017/S1474746410000291>
- Tyler, S., Allison, K., & Winsler, A. (2006). Child neglect: Developmental consequences, intervention, and policy implications. *Child & Youth Care Forum*, 35, 1–20. <http://dx.doi.org/10.1007/s10566-005-9000>
- Zelli, A., Dodge, K. A., Lochman, J. E., Laird, R. D., & Conduct Problems Prevention Research Group. (1999). The distinction between beliefs legitimizing aggression and deviant processing of social cues: Testing measurement validity and the hypothesis that biased processing mediates the effects of beliefs on aggression. *Journal of Personality and Social Psychology*, 77, 150–166.