



# The European Journal of Psychology Applied to Legal Context

<https://journals.copmadrid.org/ejpalc>



## Multivariate Models of Child-to-Mother Violence and Child-to-Father Violence among Adolescents

Joana Del Hoyo-Bilbao<sup>a</sup>, Izaskun Orue<sup>a</sup>, Manuel Gámez-Guadix<sup>b</sup>, and Esther Calvete<sup>a</sup>

<sup>a</sup>University of Deusto, Spain; <sup>b</sup>Autonomous University of Madrid, Spain

### ARTICLE INFO

#### Article history:

Received 4 April 2018  
Accepted 8 November 2019

#### Keywords:

Child-to-parent violence  
Multivariate model  
Adolescents  
Offenders  
Violence

### ABSTRACT

This study aimed to address how multiple risk factors that were previously related and derived from ecological levels, when taken together, could explain child-to-mother and child-to-father violence. A total of 298 Spanish adolescents (140 girls) who had committed CPV, with a mean age of 15.91 ( $SD_{age} = 1.89$ ), offender residents of specialized closed institutions for adolescents who had aggressed their parents (49.5%) and educational centres (50.6%) completed all measures. Both models obtained adequate fit indexes and explained about 50% of the variance in the two types of violence. At contextual (exosystem) level, peer deviance was indirectly related to both types of CPV. At family level (microsystem), the strongest direct predictor in both models was parental ineffectiveness in applying discipline. An additional direct path to child-to-mother violence was the use of corporal punishment. At individual level (ontogenic), the two strongest direct predictors in both models were adolescents' impulsivity and substance abuse. The models highlight the complexity of the variables involved in the development of CPV. Regarding intervention implications, the models show the importance of paying attention to family variables, such as parents' mode of implementation of disciplinary measures, and individual factors, such as adolescents' impulsivity and substance abuse.

## Modelos multivariable de violencia filio-parental hacia la madre y hacia el padre entre adolescentes

### RESUMEN

Este estudio tuvo como fin abordar de qué modo podría explicar la violencia filio-parental (VFP) hacia la madre y hacia el padre los múltiples factores de riesgo relacionados previamente y derivados de niveles ecológicos en su conjunto. Un total de 298 adolescentes españoles (140 chicas) que presentaban índices elevados de VFP, con una edad media de 15.91 ( $DT = 1.89$ ) y pertenecientes a centros psicoterapéuticos cerrados especializados en el trabajo de la VFP (49.5%) y a centros educativos (50.6%) cumplieron todas las medidas. Ambos modelos obtuvieron índices de ajuste adecuados y explicaron aproximadamente el 50% de la varianza de los dos tipos de VFP. En el nivel contextual (exosistema), la influencia de compañeros conflictivos se relacionó indirectamente con ambos tipos de VFP. A nivel familiar (microsistema), el mayor predictor directo en ambos modelos fue la ineficacia parental en la aplicación de la disciplina. Una relación directa adicional en el caso de la VFP hacia la madre fue el uso del castigo físico. Al nivel individual (ontogénico), los dos mejores predictores directos en ambos modelos fueron la impulsividad y el abuso de sustancias por parte de los adolescentes. Los modelos subrayan la complejidad de las variables involucradas en el desarrollo de la VFP. Respecto a las implicaciones para la intervención, los modelos enfatizan la importancia de prestar atención a las variables familiares, como el modo en el que los progenitores implementan las estrategias disciplinarias, y a factores individuales, como la impulsividad y el abuso de sustancias de los adolescentes.

Child-to-parent violence (CPV) is recognized as a major social problem worldwide (Holt, 2016). Numerous studies have been conducted in several countries, such as the United States (e.g., Rountt & Anderson, 2011), Canada (e.g., Lyons, Bell Fréchette, & Romano, 2015), Spain (e.g., Calvete, Orue, Gámez-Guadix, & Bushman, 2015),

and Australia (e.g., Edenborough, Jackson, Mannix, & Wilkes, 2008). The increase in studies on CPV has been influenced by the rise in its reported frequency (Contreras & Cano, 2016; Coogan, 2011) and the severity of its consequences, such as emotional distress, physical, and mental health problems of parents (Holt, 2013), as

Cite this article as: Del Hoyo-Bilbao, J., Orue, I., Gámez-Guadix, M., & Calvete, E. (2020). Multivariate models of child-to-mother violence and child-to-father violence among adolescents. *The European Journal of Psychology Applied to Legal Context*, 12, 11-21. <https://doi.org/10.5093/ejpalc2020a2>

Correspondence: [joana.delhoyo@deusto.es](mailto:joana.delhoyo@deusto.es) (J. Del Hoyo-Bilbao).

ISSN: 1889-1861/© 2020 Colegio Oficial de la Psicología de Madrid. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

well as its effects on employment and financial aspects (Cottrell, 2004).

Following a review of the available definitions, Pereira et al. (2017) define CPV as “repeated conduct of physical, (verbal or non-verbal) psychological, or economic violence directed at parents or persons occupying their place [...]” (p. 13). There is controversy regarding the magnitude of the problem (e.g., Contreras & Cano, 2014; Lyons et al., 2015). This controversy partly stems from the difference in the instruments and the criteria used by different authors to assess the prevalence of CPV (O'Hara, Duchscher, Beck, & Lawrence, 2017). Therefore, the discrepancies among CPV studies make it difficult to represent its magnitude. The prevalence of psychological CPV in community populations is quite high, ranging from 33% to 65% (Calvete, Orue, & Sampedro, 2011; Ibabe, 2014), while the rates obtained for physical violence range from 4% to 20% (Calvete et al., 2013; Lyons et al., 2015). In clinical and offender populations, the rates of physical CPV range from 12.2% to 57.4% (Boxer, Gullan, & Mahoney, 2009; Gelvan de Veinsten, 2004; Ibabe, Arnoso, & Elgorriaga, 2014), while in psychological CPV, the percentage is ~81.3% (Del Hoyo-Bilbao, Gámez-Guadix, Orue, & Calvete, 2018). All data were derived from studies that have used a similar evaluation criterion (CPV evaluated by means of self-report instruments with frequency response scales).

Addressing CPV requires an explanatory effort. One of the most cited models is the Nested Ecological Model developed by Dutton (1985) and studied by Cottrell and Monk (2004). These cited authors postulate that there are determinants at each level of the model: macrosystem (e.g., gender roles involving men's power over women), exosystem (e.g., negative social influence), microsystem (e.g., limited conflict-resolution skills), and ontogenic (e.g., substance abuse) levels. These levels are interrelated and may lead to the development of CPV. However, this model is limited in terms of the difficulty in evaluating the influence of the variables related to the macrosystem (Ibabe, 2007). To date, it also lacks empirical support.

## Research on Child-to-Parent Violence

At present, rigorous empirical studies have evaluated the effects of contextual and/or family and individual factors on adolescents with CPV. However, only a few studies have integrated the analyses of different types of factors.

### Contextual Factors that are Associated with Child-to-Parent Violence

Among the contextual factors studied, socioeconomic level and peer influence are emphasized. Although results are inconclusive (Kennair & Mellor, 2007; Lyons et al., 2015), the literature reviews conclude that CPV occurs in families at all socioeconomic levels (Hong, Kral, Espelage, & Allen-Meares, 2012). The negative influence of deviant peers on CPV has been noted in numerous investigations (e.g., Calvete et al., 2011; Kennedy, Edmonds, Dann, & Burnett, 2010).

### Family Factors that are Associated with Child-to-Parent Violence

Among the family factors, exposure to domestic violence (e.g., Contreras & Cano, 2016; Gámez-Guadix & Calvete, 2012; Ibabe, Jaureguizar, & Díaz, 2009) and direct victimization (e.g., Boxer et al., 2009; Gallego, Novo, Fariña, & Arce, 2019; Kennair & Mellor, 2007) are risk factors. In this sense, the relationship between interparental conflict and CPV has also been identified (e.g., Gelvan de Veinsten, 2004). Additionally, the disciplinary strategies used by parents have been identified as risk factors of CPV. The CPV has been related to severe disciplinary styles, such as physical and psychological punishment (e.g., Gámez-Guadix,

Jaureguizar, Almendros, & Carrobbles, 2012; Pagani et al., 2009), as well as permissive and inconsistent parental styles (e.g., Robinson, Davidson, & Drebot, 2004), low levels of parental support, and the absence of a positive parental context (e.g., Calvete, Gámez-Guadix, & Orue, 2014; Del Hoyo-Bilbao, Gámez-Guadix, & Calvete, 2018). The ineffective application of disciplinary strategies or ineffective parental discipline, derived (among others) from parents' inability to maintain previously announced consequences (Calvete, Orue, Gámez-Guadix, Del Hoyo-Bilbao, & López Arroyabe, 2015; Paterson, Luntz, Perlesz, & Cotton, 2002) or their use of contradictory or changing rules (Gelvan de Veinsten, 2004; Kennair & Mellor, 2007), as well as the lack of agreement between both parents on the application of the rules (Calvete, Orue, Gámez-Guadix, Del Hoyo-Bilbao et al., 2015; Ibabe et al., 2009), are related to CPV as well. Finally, CPV has also been associated with family characteristics, such as parental irritability or impulsiveness and parental stress (Aroca-Montolío, Lorenzo-Moledo, & Miró-Pérez, 2014; Cottrell & Monk, 2004).

### Individual and Psychological Factors that are Associated with Child-to-Parent Violence

Regarding adolescents' individual and psychological characteristics, sex is one of the most studied variables. However, there is no agreement on the relationship between adolescents' sex differences and CPV (Boxer et al., 2009; Calvete, Orue, Gámez-Guadix, & Bushman, 2015; Gámez-Guadix & Calvete, 2012; Ibabe et al., 2014). Substance abuse by adolescents is also one of the most studied individual variables. In this case, there is a clear consensus on the relationship between substance abuse and CPV (e.g., Armstrong, Cain, Wylie, Muftić, & Bouffard, 2018; Calvete, Orue, & Gámez-Guadix, 2012; Contreras & Cano, 2015; Pagani et al., 2009; Ibabe et al., 2014).

Several studies suggest some temperamental characteristics, such as impulsivity, as common features of adolescents engaged in CPV (Calvete et al., 2011; Ibabe, Jaureguizar, & Díaz, 2007). The trait of anger expression has also been linked to CPV (Kethineni, 2004). For example, in analysing why adolescents assault their parents, Calvete and Orue (2016) find that teenagers' tendency to get angry is cited as one of the most frequent reasons by adolescents themselves.

As Bobic (2004) points out, researchers rarely combine various levels of CPV risk factors in an integrated framework, which can potentially blur CPV understanding. There are currently exceptions, with some CPV studies combining individual and family factors (Beckmann, Bergmann, Fischer, & Mößle, 2017; Calvete, Orue, Gámez-Guadix, & Bushman, 2015) and others combining individual and social factors (Contreras & Cano, 2016; Kennedy et al., 2010; Lyons et al., 2015). However, current reviews of CPV indicate that additional research is required, given the complexity of the variables involved in the development of this type of family violence (O'Hara et al., 2017; Simmons, McEwan, Purcell, & Ogloff, 2018). Similar to other types of domestic violence (e.g., DeWall, Anderson, & Bushman, 2011; Loinaz, Marzabal, & Andrés-Pueyo, 2018), the understanding of CPV could be improved by simultaneously evaluating a wide range of potential predictors that are represented at the levels described by Dutton (1985). In this way, researchers could expand the knowledge about how multiple factors derived from different ecological levels are interrelated to explain the CPV variance.

### The Present Study

The objective of the present study was to empirically analyse the influence of a wide range of potential risk factors that have previous empirical support derived from different ecological levels. The first level studied is the exosystem or contextual level, which refers to environmental influences, such as the context in which a

family is embedded or socioeconomic status. The second level is the microsystem or family level, which refers to how family mechanisms, such as discipline strategies, parental support, or family members' relationships, including marital conflict, influence the development of behaviour. The third level is the ontogenic or individual level. It refers to an adolescent's individual characteristics, such as impulsiveness or substance abuse, in relation to other levels. Thus, according to the Nested Ecological Theory developed by Dutton (1985), the three levels analyse how they can explain child-to-mother violence and child-to-father violence. These models can provide valuable empirical information to guide specific explanatory theories. Furthermore, they help in developing prevention strategies and more effective interventions in dealing with CPV.

Given previous studies' findings that some of the factors involved may differ in the violence directed at the mother or the father (Calvete, Orue, Gámez-Guadix, & Bushman, 2015; Izaguirre & Calvete, 2015), it was considered opportune to test the models separately on mothers and fathers in order to check if the models would be sensitive to parent gender and thus provide more specific information regarding the interventions.

The decision regarding which potential predictors to include in the models was guided by existing studies and by attempts to represent three of the four ecological levels that were defined by Dutton (1985). Dutton's theory supports the consensus among family violence researchers who emphasize the need to develop more sophisticated and multifactorial theories that take into account both the psychological characteristics of the violent operator and the context in which the violence occurs (Dutton, 1995). Due to the difficulty in empirically evaluating the variables that are related to the macrosystemic level (e.g., influence of gender roles), the representation of the levels mentioned below was chosen. At the contextual level (exosystem), peer deviance and socioeconomic status were included. Consistent with previous studies, it is expected that peer deviance is positively associated with CPV in both models (e.g., Calvete et al., 2011; Cottrell & Monk, 2004; Kennedy et al., 2010). The influence of the socioeconomic status of families in the development of CPV is unclear (Kennair & Mellor, 2007; Lyons et al., 2015). Some studies have indicated a higher prevalence of CPV among families with a high (e.g., Margolin & Baucom, 2014; Nock & Kazdin, 2002) or medium (e.g., Cornell & Gelles, 1982; Ibabe & Jaureguizar, 2010) socioeconomic level. Other studies have found that CPV is associated with a low socioeconomic status (e.g., Cottrell & Monk, 2004; Rount & Anderson, 2011). In addition, some studies have found no relationship between socioeconomic status and CPV (e.g., Boxer et al., 2009; Calvete et al., 2011). Given the inconsistencies in the results of previous studies, this relationship was analysed in an exploratory manner. The family level (microsystem) included exposure to family violence, direct victimization at home, marital conflict, climate or context of the implementation of disciplinary measures (ineffectiveness of parental discipline, parental stress, and conflict between parents in applying discipline), mode of the implementation of disciplinary measures (parental impulsiveness and self-conflict in applying discipline), parental support, positive parental control, psychological punishment, and corporal punishment. In congruence with previous studies, it was expected that exposure to family violence (Calvete et al., 2014; Contreras & Cano, 2014, 2016; Gámez-Guadix & Calvete, 2012), direct victimization at home (Boxer et al., 2009; Kennair & Mellor, 2007; Kennedy et al., 2010), and marital conflict (Gelvan de Veinsten, 2004; Marcus, Lindahl, & Malik, 2001) would be positively associated with CPV in both models. Regarding the context of the implementation of parents' discipline, several studies have found that the ineffectiveness of parental discipline (Calvete, Orue, Gámez-Guadix, Del Hoyo-Bilbao et al., 2015; Paterson et al., 2002; Paulson, Coombs, & Landsverk, 1990), parental stress (Brezina, 1999; Kennair & Mellor, 2007; Nock & Kazdin, 2002), and conflict between parents in applying discipline (Calvete, Orue, Gámez-Guadix, Del Hoyo-Bilbao

et al., 2015; Cottrell & Monk, 2004) are related to CPV. Therefore, in this case these variables will be expected to be positively related to CPV. Similarly, some authors have found that parental impulsiveness in applying discipline (Gelvan de Veinsten, 2004; Kennair & Mellor, 2007) and self-conflict when parents correct misbehaviour (Aroca-Montolio et al., 2014) are related to CPV; therefore, it is assumed that these variables will be related positively to an increase in CPV. In addition, there is empirical evidence on the relationship between physical and psychological punishments and an increase in CPV (e.g., Del Hoyo-Bilbao, Gámez-Guadix, & Calvete, 2018; Gámez-Guadix et al., 2012; Pagani et al., 2009); hence, it is expected that both will be related positively to CPV. Because low parental support (Calvete et al., 2014; Contreras & Cano, 2014) and the absence of a positive parental context (Del Hoyo-Bilbao, Gámez-Guadix, & Calvete, 2018; Ibabe & Bentler, 2016) were also related to an increase on CPV, it is expected that both variables will be negatively related to CPV. Finally, the individual level (ontogenic) included sex, impulsivity, trait of anger expression, and substance abuse. Additionally, extraversion and emotional instability were introduced into the models since these two factors have traditionally been most closely related to aggressive behaviour in child and adolescent populations (e.g., Caprara & Pastorelli, 1993; Carrasco & Del Barrio, 2007). Findings on the relationship between sex and CPV were inconclusive. It seems that the relationship between sex and CPV differs by the type of violence exerted. Whereas girls tend to exercise more psychological CPV (e.g., Calvete et al., 2013; Calvete & Orue, 2016; Elliott, Cunningham, Colangelo, & Gelles, 2011; Ibabe & Jaureguizar, 2011), boys tend to exercise more physical CPV (e.g., Boxer et al., 2009; Nock & Kazdin, 2002; Rount & Anderson, 2011). Thus, gender is expected to be related to CPV in different ways: in girls CPV will be associated with emotional variables and in boys it will be associated with behavioural variables. Adolescents' impulsivity (e.g., Calvete et al., 2011; Ibabe et al., 2007; Rico, Rosado, & Cantón-Cortés, 2017), traits of anger expression (Armstrong et al., 2018; Kethineni, 2004; Rosado, Rico, & Cantón-Cortés, 2017), and substance abuse (Calvete, Orue, & Gámez-Guadix, 2015; Contreras & Cano, 2015; Kethineni, 2004; Nowakowski & Mattern, 2014) have been related to increases in CPV; therefore, a positive relationship with CPV in the models studied is expected. Finally, consistently with studies that found an association of extroversion and emotional instability with aggressive behaviour in adolescents (Caprara & Pastorelli, 1993; Carrasco & Del Barrio, 2007), those variables are expected to be positively related with CPV.

## Method

### Participants

In total, 298 adolescents participated in the study. Previously, the minimum sample size was calculated for an estimated  $r$  of .15, with a significance level of 95% and a statistical power of 80%. According to these criteria, the minimum sample size was 274. The objective was to explore how a wide range of potential risk factors are related to one another to explain CPV in clinical and offender samples. However, there was great difficulty in accessing adolescents who were in psychotherapeutic centres for CPV treatment; in addition, there was little variability in aggression toward parents between them. Therefore, to increase the variability of the sample and to be more representative, two different sources were used.

Firstly, 147 offenders were recruited from eight Spanish specialized closed or semi-closed institutions for adolescents who had shown aggression toward their parents. The criminal record of all adolescents contained only family violence. In addition, of those 147 adolescents 63 had been reported by either their families or the police. After the complaints were made, the juvenile prosecutor imposed probation and a stay in a protected centre that specialized in the treatment of



CPV for 11 months to 54 adolescents. The remaining nine received probation and were ordered to attend psychotherapy for the cessation of CPV. The rest were placed in internment programs, with an approximate duration of 12 months; an agreement was established with the centres to comply with psychotherapeutic treatment.

Secondly, a subsample of 151 adolescents who had committed CPV was selected from a larger sample of 336 adolescents. These adolescents were recruited from two private secondary schools, one public secondary school, and the University of [blinded for peer review]. They all completed the Child-to-Parent Aggression Questionnaire (Calvete et al., 2013), and only those who reported CPV were included in the study. Specifically, only those adolescents who had committed physical violence (e.g., kicking, punching, beating with something that could hurt) toward their parents in one or more occasions over the last 12 months, or those who had committed psychological violence (e.g., threatened to hit a parent, took money without permission) more than three times over the last 12 months were selected.

The 298 adolescents (160 boys and 138 girls) were between 12 and 18 years old ( $M_{age} = 15.78$ ,  $SD_{age} = 1.63$ ). More than half had married parents (64.9%), while 31.3% had divorced parents. Only 3.5% of the participants lived with one parent, who was either widowed (2.1%) or single (1.4%). In 0.3% of cases, both parents had died. Most of the adolescents were Spanish (79%), while 8.2% were from Eastern Europe, 11.4% were from Latin America, and 1.4% came from Morocco and Ethiopia. The participants' socioeconomic levels were determined by using the criteria recommended by the Working Group of the Spanish Society of Epidemiology and the Spanish Society of Family Medicine and Community (2000) and had the following distribution: 12.2% low, 30.8% medium-low, 32.5% medium, 17.2% medium-high, and 7.3% high socioeconomic classes.

## Procedure

For the first sample, the main Spanish specialized closed institution for adolescents who had aggressed their parents and the Council of Bizkaia (Spain) were contacted. The study design and its objectives were explained. Permission was obtained from the heads of the institutions and from the head of department responsible for the CPV program of the Council of Bizkaia (Spain), and the parents were informed of the study's purpose. After active parental consent was obtained, the adolescents received the same information as their parents. Only six parents refused to allow their children to participate in the study. All but two teenagers agreed to participate in the study. The assessments were conducted individually, ensuring the participants' correct understanding of the content of each item. The interviews were conducted in the institution where the adolescent was allocated to comply with the legal disposition or internment program. Each session lasted an hour. To ensure confidentiality, a procedure was used to dissociate data. Thus, two different databases were created, both with access codes.

For the second sample, five high schools and one university centre in Bizkaia and Navarra, Spain were contacted. The schools were chosen by random cluster sampling and invited to participate in the study. When they agreed, the researchers invited all students between 12 and 18 years old to participate. Adolescents' parents were contacted to obtain their passive informed consent regarding the research. The adolescents received the same information as their parents. None of the parents refused to allow their children to participate in the study; all of the adolescents agreed to participate in the study. The evaluations were conducted in their classrooms for an hour each. Finally, the University of [blinded for peer review] was contacted. After obtaining permission from the university heads, two classes of first-year college students who were earning a psychology degree were contacted and given an explanation of the study's purpose and objectives. Some flyers that explained the study

were shared, which included a web link that allowed access to the study and asked for the completion of an online questionnaire. Those who were over 18 years old were excluded. To obtain their passive informed consent, they were required to read the information and click the accept button online. They were informed that their participation was voluntary and anonymous and that their responses were confidential. Participants were recruited during 2015 and 2016. The research was reviewed and approved by the Research Ethics Committee of the University of [blinded for peer review].

## Instruments

All participants completed socio-demographic information, including their sex, age, origin, parental and marital status, and socioeconomic level. Regarding their socioeconomic level, the adolescents completed the items concerning professional occupations of their mothers and fathers separately.

**Child-to-parent violence** was measured by using the Child-to-Parent Aggression Questionnaire (CPAQ; Calvete et al., 2013). The questionnaire consists of 20 items, 10 referring to the father and 10 referring to the mother. Of the 10 items, 3 assess physical violence (i.e., kicking or punching, pushing or hitting in a fight, and beating with something that could hurt), and 7 assess psychological violence (i.e., insulting, threatening to hit, shouting, blackmailing to get what the respondent wants, taking money without permission, and doing something to annoy). The 4 response categories range from 0 (*never*) to 3 (*6 or more times*). The CPVQ has shown excellent psychometric properties (Calvete et al., 2013).

The *impulsivity* trait was measured with the impulsive-irresponsible subscale of The Youth Psychopathic Traits Inventory-Short Form (YPI-S; van Baardewijk et al., 2010), with 6 items rated on a 4-point Likert-type scale. The YPI-S has shown good psychometric properties in the Spanish population (Orue & Andershed, 2015).

**Trait of anger expression** was measured by using the anger-trait scale from the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999; Spanish version by Miguel-Tobal, Casado, Cano-Vindel, & Spielberger, 2001). This scale contains 10 items with 4 response categories ranging from 1 (*almost never*) to 4 (*almost always*), which measure two subscales (anger temperament and anger reactions).

**Emotional instability and extraversion** were measured by using the BFQ-CA-Big Five Questionnaire for Children and Adolescents (Barbaranelli, Caprara, & Rabasca, 1998; Spanish version by Del Barrio, Carrasco, & Holgado, 2006). The emotional instability and the extraversion dimensions contain 11 and 10 items, respectively. The 5 response categories range from 1 (*almost never*) to 5 (*almost always*). The Spanish version has demonstrated good psychometric properties in adolescents (Soto et al., 2011).

**Peer deviance** was measured with the questionnaire developed by Barnow, Lucht, and Freyberger (2005). The adolescents responded to three questions, using a 1 = true or 2 = false response system. This questionnaire has shown adequate internal consistency in the Spanish population (Calvete et al., 2011).

**Substance abuse** was assessed with the Inventory of Substance Use in Adolescents (Calvete & Estévez, 2009). The adolescents indicated how often they consumed alcohol, marijuana, hashish, cocaine, speed, ecstasy, and ketamine, with a 6-point scale ranging from 1 (*never*) to 6 (*daily*).

**Parental support received in childhood** was measured with the support subscale of the Family Socialization Questionnaire (SOC30). The SOC30 is a shorter version (reduced to 30 items) of the EMBU instrument developed by Perris, Jacobsson, Lindstrom, Von Knorring, and Perris (1980). The subscale contains 22 parallel items measured on a 5-point Likert scale. In Spanish samples, this questionnaire has good internal consistency (Osorio & Gonzalez-Cámara, 2016).

**Positive parental control** was assessed with the parental control scale created by Gámez-Guadix et al. (2012). This scale includes 6 parallel items (e.g., "My mother/father was aware of who my friends were"), with 5-point Likert scale. This scale has shown good internal consistency in a Spanish sample (Gámez-Guadix et al., 2012).

**Psychological aggression and corporal punishment** were measured by using the psychological aggression and corporal punishment subscales of the Dimensions of Discipline Inventory for Children and Adolescents (DDI-C; Straus & Fauchier, 2007; Spanish version by Calvete, Gámez-Guadix, & Orue, 2010). Both subscales have 8 parallel items each, with 5 response categories ranging from 0 (*never*) to 4 (*almost always or always*). The DDI-C has demonstrated good construct validity and reliability in Spanish children and adolescents (Calvete et al., 2010).

**Parental impulsiveness and self-conflict in applying discipline** refer to parents' mode of implementing disciplinary measures, with 4 parallel items and 6 parallel items, respectively. Both were factors from section D of the DDI-C (Straus & Fauchier, 2007), with a 5-point Likert scale.

**Ineffectiveness of parental discipline, parental stress, and conflict between parents in applying discipline** refer to the context of the implementation of parents' disciplinary measures, with 6 parallel items, 4 parallel items, and 4 parallel items respectively from section D of the DDI-C (Straus & Fauchier, 2007). The 5 response categories range from 0 (*never*) to 4 (*almost always or always*).

**Marital conflict** was assessed by using the Children's Perception of Interparental Conflict Scale (CPIC; Grych, Seid, & Fincham, 1992; Spanish version by Iraurgi et al., 2008). Three dimensions were administered: frequency (6 items) and intensity (7 items) of marital conflicts and perceived stability of the causes of conflicts (4 items). The response categories are 0 (false), 1 (sort of true), or 2 (true).

**Exposure to family violence and direct victimization at home** were assessed by using the Exposure to Violence Scale (EVS; Orue & Calvete, 2010). Each scale contains three items, and both scales refer to three types of violence (physical, verbal, and threat). The response scale range from 1 (*never*) to 5 (*every day*). The EVS shows excellent psychometric properties in the sample comprising Spanish children and adolescents (Orue & Calvete, 2010).

## Data Analyses

At item level, the mean substitution to replace the missing values (as long as more than half the items for a variable were available) was used (O'Leary, Smith Slep, & O'Leary, 2007). The percentage of missing values in the whole sample was estimated, and only 0.2% of the data were missing. The objective of this study was to assess the overall dimension of family variables, including a child's experience with his/her mother and father. The participants reported their childhood disciplinary experiences with their mothers and their fathers separately. Thus, to create a global measure of both parents the means of mother factors and father factors were averaged, creating a single dimension, with the following factors: parental support, positive parental control, psychological aggression, corporal aggression, parental impulsiveness, self-conflict in applying discipline, ineffectiveness of parental discipline, parental stress, and conflict between parents in applying discipline. In addition, to reflect the socioeconomic reality of the adolescents, the mean of mothers' and fathers' professional occupations was calculated.

## Modelling Strategy

Two models were estimated, one for CPV toward the mother and the other toward the father. Both models were constructed by following the procedure used by O'Leary et al., (2007) in their models for partner violence.

First, a backward step-wise regression was performed with SPSS 23 to begin constructing the structural equation models, starting from the simplest, where each variable predicted CPV uniquely and significantly. In the first step, all potential predictors were included, in which the dependent variable was CPV toward the mother and toward the father. The significant predictors were used as direct predictors in the initial steps of developing both models. The backward step-wise regression analysis was used, following the work by Cohen, Cohen, West, and Aiken (2003), which indicates that backward elimination is less sensitive than forward elimination to suppressive effects among predictor variables. For CPV toward mothers, the significant regressions were impulsivity, anger, psychological aggression, corporal punishment, ineffectiveness in applying discipline, exposure to family violence, and substance abuse. For CPV toward fathers, the significant regressions included impulsivity, psychological aggression, corporal punishment, ineffectiveness in applying discipline, and substance abuse.

Second, each additional predictor was added to the model, beginning from the basic model for direct predictors. To know the relationship between predictors and their initial position in the model (i.e., emotional instability with impulsivity), the backward step-wise regression analysis was repeated, with each direct predictor in the model. This helped determine how to construct a more complicated model in which first-order predictors in turn were related to other predictors. Consistent with the results of the step-wise regression analyses, initially all second-order predictors were introduced, relating to at least one of the direct predictor variables already included in the model. For constructing each model, the modification indices of the statistical software EQS 6.1 were used (Bentler, 2005) Wald test and several indicators of the Langrangian multiplier test allowed us to introduce the most distal predictors. It should be noted that the plausibility and the parsimony of the relations between predictors were primordial to the construction of the models. Thus, those predictors that were significantly related to the dependent variable were maintained by at least another predictor. In other words, if the only way that the variable was retained in the model was the prediction of another predictor of the model without a path in the direction of the CPV, that variable was discarded from the model. Furthermore, if predictive relations were not conceptually plausible, they were discarded.

Third, once all the hypothesized relationships were analysed, the inclusion of all those variables that had not been retained in the previous step was reevaluated. They were introduced those as performing the predictive role of some of the variables already included in the model or of the dependent variable (CPV toward the mother and CPV toward the father).

All models were analysed by using EQS 6.1 (Bentler, 2005). The robust maximum likelihood (ML) estimation method with the Satorra-Bentler scale chi-square ( $S-B \chi^2$ ) was used because data did not meet the assumption of normality (the normalized Mardia's coefficient for child-to-mother violence = 20.78, and the normalized Mardia's coefficient for child-to-father violence = 20.04). To study the adequacy of the estimated models, comparative fit index (CFI), standardized root mean square residual (SRMR), non-normed fit index (NNFI), and root mean square error of approximation (RMSEA) were used. For NNFI and CFI, a value of .95 or higher indicates a good model fit (Hu & Bentler, 1999). For SRMR and RMSEA, a value of .08 or lower indicates an acceptable fit (Byrne, 2006; Hu & Bentler, 1999).

## Results

### Descriptive Analyses

To increase the power of the effect size and reduce the number of model variables to be parsimonious, the anger-trait subscales and marital conflict were combined into a single variable. The anger

temperament and the anger reactions were highly correlated ( $r = .58$ ), which created an anger expression variable. In addition, the three subscales of marital conflict were highly correlated (above  $r = .59$ ), so the means of all subscales were combined into a single variable.

Table 1 shows the internal consistency, means, and standard deviations of all measures.

**Table 1.** Cronbach's Alphas, Means, and Standard Deviations of all Variables

| Variable  | $\alpha$ | $M$  | $SD$ |
|---|----------|------|------|
| Child-to-mother violence                                  | .87      | 1.12 | 0.68 |
| Child-to-parent violence                                  | .87      | 1.00 | 0.69 |
| Impulsivity   | .70      | 1.88 | 0.81 |
| Trait anger expression                                    | .88      | 1.63 | 0.65 |
| Anger reactions   | .76      | 1.98 | 0.68 |
| Anger temperament   | .87      | 1.29 | 0.78 |
| Emotional instability                                     | .84      | 1.72 | 0.72 |
| Extraversion  | .73      | 2.96 | 0.55 |
| Peer deviance   | .73      | 1.48 | 0.39 |
| Substance abuse   | .85      | 1.25 | 1.31 |
| Parental support  | .94      | 2.71 | 0.83 |
| Positive parental control                                 | .68      | 2.81 | 0.78 |
| Psychological aggression                                  | .79      | 1.52 | 0.81 |
| Corporal punishment                                       | .86      | 0.98 | 0.87 |
| Ineffectiveness of parental discipline                    | .88      | 1.60 | 1.13 |
| Parental impulsiveness                                    | .76      | 1.52 | 1.08 |
| Conflict with oneself in application of discipline        | .75      | 2.60 | 0.82 |
| Parental stress   | .67      | 2.30 | 0.94 |
| Conflict between parents in application of discipline     | .81      | 1.48 | 1.12 |
| Marital conflict  | .93      | 0.70 | 0.49 |
| Perception of frequency of marital conflict               | .84      | 0.89 | 0.57 |
| Perception of intensity of marital conflict               | .86      | 0.71 | 0.54 |
| Perception of stability of the causes of marital conflict | .80      | 0.41 | 0.52 |
| Exposure to family violence                               | .78      | 0.98 | 0.92 |
| Direct victimization at home                              | .84      | 1.31 | 1.05 |

Table 2 shows the zero-order correlations for all the variables of the study. Almost all the variables were statistically related to child-to-mother violence, except gender, extraversion, and positive parental control. In the case of child-to-father violence, nearly all the variables had a statistically significant relationship except extraversion, marital conflict, positive parental control, and self-conflict in applying discipline. As shown, the highest correlation was established between child-to-mother violence and child-to-father violence ( $.82, p < .01$ ), indicating their coexistence.

### Child-to-Mother Violence Model

Figure 1 shows the final model for child-to-mother violence. Fit indexes were adequate for the model:  $\chi^2(67, N = 298) = 117, p < .001$ , NNFI = .953, CFI = .970, RMSEA = .053, 90% confidence interval, CI [.036, .068]. All paths were statistically significant, ranging from .11 to .68. Notably, the following variables were tested for inclusion in the model but were not retained: socioeconomic level, extraversion, positive parental support, self-conflict in the application of discipline, conflict between parents in applying discipline, and direct victimization at home. The final model explains 51% of the variance in child-to-mother violence over the past 12 months.

### Child-to-Father Violence Model

Figure 2 shows the final model for child-to-father violence. The fit indexes were adequate for the model:  $\chi^2(67, N = 298) = 113,$

$p < .001$ , NNFI = .954, CFI = .971, RMSEA = .051, 90% confidence interval CI [.034, .067]. All paths were statistically significant, ranging from .11 to .66. Notably, the following variables were tested for inclusion in the model but were not retained: socioeconomic level, extraversion, positive parental support, self-conflict in the application of discipline, conflict between parents in applying discipline, and direct victimization at home. The final model explained 48% of the variance in child-to-father violence over the past 12 months.

## Discussion

The present study is the first to test multivariate models for child-to-mother violence and child-to-father violence in a sample of adolescents who have shown aggressive behaviour toward their parents. To conduct the tests, the influence of a wide range of potential risk factors, with previous empirical support and organized with three ecological levels (contextual or exosystem, family or microsystem, and individual or ontogenic), has been analysed empirically. The results show the two final models with adequate fit indices. Overall, the hypotheses have been supported, specifically those referring to the direct relations of individual variables (e.g., substance abuse) and family (e.g., ineffectiveness of parental discipline) and indirect relations of contextual factors, such as peer deviance, represented in both models. Additionally, of the 20 tested variables, 14 have been retained in both models. It is also interesting to note the potential risk factors that were not retained in either model. Although socioeconomic level, extraversion, positive parental support, self-conflict in the application of discipline, and conflict between parents in applying discipline variables have been related to CPV and to adolescents' aggressive behaviour in other studies (e.g., Aroca-Montolió et al., 2014; Carrasco & Del Barrio, 2007; Cottrell y Monk, 2004; Gallego et al., 2019; Ibabe & Bentler, 2016; Margolin & Baucom, 2014), in the present study, we did not find a significant relationship. It is possible that these variables became non-significant after controlling for the effect of other relevant variables for CPV. The most surprising of the variables that were not retained in the model was direct victimization at home, which has been repeatedly related to CPV (e.g., Gallego et al., 2019; Kennair & Mellor, 2007; Kennedy et al., 2010). However, it is necessary to consider the multivariate context in which it was tested and the possible overlap with other variables, such as physical punishment (a variable that kept a close and direct relationship with CPV in both models). The variables that were retained in both models were able to explain (as a whole) ~50% of the variance of CPV. In addition, they had more similarities than differences, indicating similar roles of individual, family, and contextual variables, regardless of at whom the aggressive acts were directed. The most important results are discussed in terms of the variables involved in CPV at three ecological levels (Dutton, 1985).

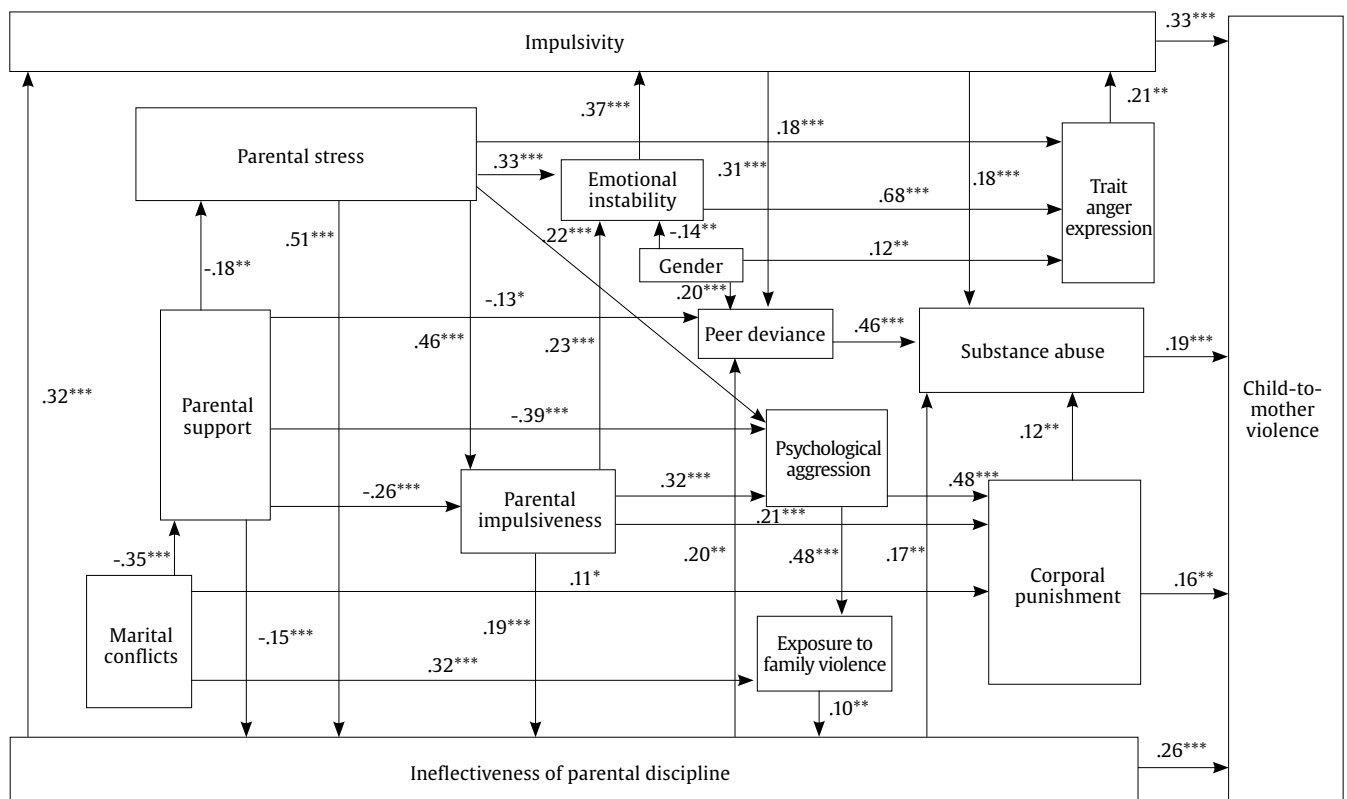
At contextual level (exosystem), the indirect effect of peer deviance on child-to-mother violence and child-to-father violence must be noted. This is through substance abuse; at the same time, peer deviance is influenced by family variables, such as parental support or parental ineffectiveness. One possible explanation may be that the lack of support and supervision and/or ineffective skills in parental discipline, previously related to CPV (Calvete et al., 2014; Holt & Retford, 2013), affect the care and knowledge of the relationships and/or friendships of their children, and these relationships with their peers exert pressure on them (Bobic, 2004) that is not countered by adequate parental supervision and support.

At family level (microsystem), ineffectiveness in applying parental discipline plays a key role, since it keeps a close, direct, and positive relationship with CPV in both models. These results are consistent with those of recent research where in in-depth interviews with adolescent perpetrators and their parents both point out this parental difficulty, indicating the inability to maintain previously announced

**Table 2.** Pearson Correlations for all the Variables of the Study

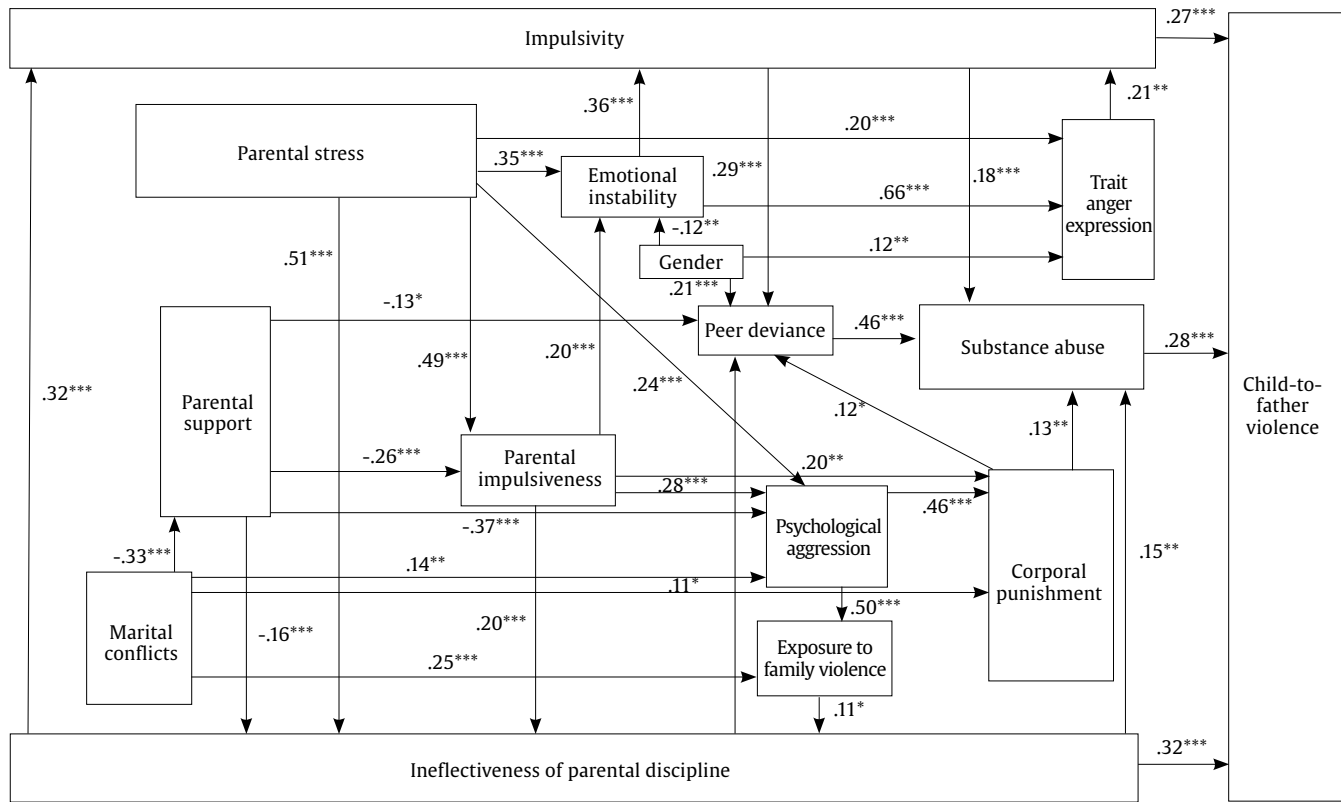
|          | 1     | 2      | 3     | 4      | 5      | 6     | 7      | 8      | 9      | 10     | 11     | 12    | 13    | 14    | 15     | 16    | 17    | 18    | 19    | 20    | 21    |
|----------|-------|--------|-------|--------|--------|-------|--------|--------|--------|--------|--------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|
| 1.GENDER | 1     |        |       |        |        |       |        |        |        |        |        |       |       |       |        |       |       |       |       |       |       |
| 2. SLEV  | -.07  | 1      |       |        |        |       |        |        |        |        |        |       |       |       |        |       |       |       |       |       |       |
| 3. EXTR  | .02   | .07    | 1     |        |        |       |        |        |        |        |        |       |       |       |        |       |       |       |       |       |       |
| 4. EI    | -.07  | .05    | -.03  | 1      |        |       |        |        |        |        |        |       |       |       |        |       |       |       |       |       |       |
| 5. IMP   | .15*  | -.11   | .03   | .63**  | 1      |       |        |        |        |        |        |       |       |       |        |       |       |       |       |       |       |
| 6. ANGE  | .10   | .06    | .13*  | .74**  | .60**  | 1     |        |        |        |        |        |       |       |       |        |       |       |       |       |       |       |
| 7. COFL  | .06   | .08    | -.07  | .09    | .09    | .08   | 1      |        |        |        |        |       |       |       |        |       |       |       |       |       |       |
| 8. PS    | -.12  | .02    | .21** | -.16** | -.18** | -.06  | -.37** | 1      |        |        |        |       |       |       |        |       |       |       |       |       |       |
| 9. PPC   | -.05  | -.06   | .20** | -.00   | .00    | .04   | -.20** | .49**  | 1      |        |        |       |       |       |        |       |       |       |       |       |       |
| 10. CP   | .15** | -.04   | .06   | .21**  | .27**  | .21** | .32**  | -.45** | -.22** | 1      |        |       |       |       |        |       |       |       |       |       |       |
| 11. PA   | .17** | -.05   | -.02  | .33**  | .37**  | .31** | .36**  | -.54** | -.21** | .64**  | 1      |       |       |       |        |       |       |       |       |       |       |
| 12. CFBP | .03   | .03    | .01   | .24**  | .32**  | .21** | .48**  | -.34** | -.22** | .40**  | .40**  | 1     |       |       |        |       |       |       |       |       |       |
| 13. INED | .26** | -.13*  | -.04  | .37**  | .53**  | .36** | .13*   | -.34** | -.10   | .41**  | .50**  | .35** | 1     |       |        |       |       |       |       |       |       |
| 14. PEST | .19** | -.10   | .07   | .42**  | .46**  | .46** | .09    | -.18** | .04    | .34**  | .47**  | .27** | .65** | 1     |        |       |       |       |       |       |       |
| 15.CFON  | -.08  | .03    | .26** | .01    | -.04   | .08   | -.27** | .58**  | .43**  | -.24** | -.26** | -.12  | -.11  | .08   | 1      |       |       |       |       |       |       |
| 16. PIMP | .07   | -.11   | .12*  | .39**  | .43**  | .37** | .27**  | -.35** | -.12*  | .52**  | .55**  | .37** | .52** | .50** | -.11   | 1     |       |       |       |       |       |
| 17. EXIN | -.02  | -.09   | -.08  | .18**  | .20**  | .16** | .46**  | -.40** | -.28** | .40**  | .39**  | .35** | .33** | .20** | -.24** | .37** | 1     |       |       |       |       |
| 18. EXVI | .06   | -.10   | .04   | .24**  | .27**  | .19** | .42**  | -.48** | -.25** | .66**  | .59**  | .48** | .41** | .32** | -.25** | .56** | .70** | 1     |       |       |       |
| 19. PEDE | .31** | -.18** | .05   | .22**  | .44**  | .30** | .11    | -.28** | -.09   | .31**  | .36**  | .29** | .43** | .29** | -.19** | .33** | .24** | .35** | 1     |       |       |
| 20. SUBS | .26** | -.21** | .00   | .20**  | .48**  | .24** | .11    | -.31** | -.05   | .38**  | .43**  | .28** | .51** | .32** | -.16** | .34** | .31** | .37** | .66** | 1     |       |
| 21. CMV  | .11   | -.20** | -.07  | .41**  | .58**  | .41** | .18**  | -.27** | -.00   | .40**  | .44**  | .31** | .58** | .46** | -.12*  | .47** | .31** | .40** | .46** | .52** | 1     |
| 22. CFV  | .22** | -.24** | -.00  | .39**  | .57**  | .40** | .06    | -.18** | .08    | .38**  | .44**  | .28** | .59** | .44** | -.00   | .43** | .28** | .36** | .47** | .57** | .82** |

Note. Gender was coded as -1 = girl and 1 = boy; SLEV = socioeconomic level; EXTR = extraversion; EI = emotional instability; IMP = impulsivity; ANGE = trait anger expression; COFL = perceptible marital conflict; PS = parental support; PPC = positive parental control; CP = corporal punishment; PA = psychological aggression; CFBP = conflict between parents in application of discipline; INED = ineffectiveness of parental discipline; PEST = parental stress; CFON = conflict with oneself in application of discipline; PIMP = parental impulsiveness; EXIN = exposure to family violence; EXVI = direct victimization at home; PEDE = peer deviance; DRUG = drug abuse; CMV = child-to-mother violence; CFV = child-to-father violence. \* $p < .05$ , \*\* $p < .01$ .

**Figure 1.** Final Model for Child-to-Mother Violence.  $\chi^2$  (67,  $N = 298$ ) = 117,  $p < .001$ ; NNFI = .953; CFI = .970, RMSEA = .053, 90% confidence interval (CI) [.036, .068].

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .





**Figure 2.** Final Model for Child-to-Father Violence.  $\chi^2 (67, N = 298) = 113, p < .001$ ; NNFI = .954, CFI = .971, RMSEA = .051, 90% confidence interval CI [.034, .067].

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

consequences, for example (Calvete, Orue, Gámez-Guadix, Del Hoyo-Bilbao et al., 2015). Nevertheless, the administration of corporal punishment is only directly related to CPV in the model for mothers, whereas in the model for fathers, corporal punishment operates through individual variables, such as substance abuse or peer deviance. These findings are consistent with previous results showing that the use of corporal punishment predicts aggression toward mothers but not toward fathers (e.g., Bobic, 2004; Lyons et al., 2015). In any case, these findings do not mean that imposing corporal punishment has less repercussions than the variables that maintain a direct relationship with CPV in both models (impulsivity, substance abuse, and ineffectiveness in applying parental discipline) on the development of CPV. However, some factors may be more involved in violence toward mothers and others toward fathers, or both may operate in different ways (Calvete, Orue, Gámez-Guadix, & Bushman, 2015). Thus, the results are congruent with Cottrell and Monk's (2004) suggestion that CPV is a multicausal problem, because multiple variables at different ecological levels influence its development. Hence, the direct paths are few in both models; therefore, the influence of the variables with strong previous empirical support is through other variables. For example, exposure to family violence is a clear risk factor supported by multiple studies (e.g., Gámez-Guadix & Calvete, 2012; Kennair & Mellor, 2007), which in the present study is related to CPV through parental ineffectiveness. In this connection, the results of recent studies suggest that greater exposure to family violence is related to inadequate disciplinary strategies, such as greater inconsistency and unpredictability in imposing rules, discipline, and control over their children (Gámez-Guadix & Almendros, 2011).

At the individual (ontogenic) level, the following variables that show a direct relationship to CPV in both models are the most important. Adolescents' substance abuse is positively related to the occurrence of CPV toward mothers and fathers, an issue supported by

numerous studies (e.g., Calvete et al., 2012; Pagani et al., 2004, 2009). A close and positive relationship between adolescents' impulsiveness and CPV toward both parents is also maintained, as indicated by the little evidence found so far (e.g., Calvete et al., 2011; Ibabe et al., 2007). Another noteworthy point is the influence of adolescents' gender, which could be manifested in different ways, as shown in this study's results. Peer influence on boys is greater than on girls, and this variable is indirectly related to CPV. In this way, some studies have found that peer influence in relation to aggressiveness is greater on adolescent boys than on adolescent girls (e.g., Levendosky, Huth-Bocks, & Semel, 2002). Thus, boys may be more influenced by peer approval or disapproval of their aggressive behaviour compared with girls, especially in adolescence. On the other hand, emotional instability is greater in girls, and this variable in turn is indirectly related to CPV. This idea is supported by studies that have found a relationship between emotional instability and aggression among girls, whereas in the case of boys emotional instability is only related to depressive symptomatology (e.g., Sugimura & Rudolph, 2012).

After discussing the results in reference to each ecological level, it is necessary to discuss and interpret the set of variables in greater depth from an integration perspective. Thus, both models indicate that contextual variables, such as peer deviance, are influenced by family and individual variables. It seems that a lack of support and/or inefficiency in correcting adolescent misbehaviour, together with the use of severe discipline strategies, such as physical punishment, influence a child's ability to maintain friendships that are not beneficial to him/her. At the same time, adolescent individual variables, such as impulsivity, emotional instability, or anger, in addition to relating to one another, are influenced by parental stress or impulsiveness when educating; as a whole, they can influence substance abuse. Family contexts in which there is a high level of violence or high marital conflict also affect the disciplinary strategies that are used



by parents. Those family contexts are related to psychological and physical punishments that, as indicated previously, affect the care or supervision of the context of adolescents, specifically in their friendships. Thus, to prevent CPV, it is important to act from an integrative perspective while considering certain factors, such as the influence of peers deviance and family contexts, which have proven influential in the development of CPV, while also considering individual factors, such as impulsivity or substance abuse. Those factors could be the key to the development of this type of domestic violence when an adolescent lives these family situations.

### Limitations and Future Research

In addition to the considerations explained in the Discussion section, this study's results should be interpreted by taking into account some limitations. Firstly, the data are based on self-reports of adolescents. Given that CPV is a problem that involves two agents—adolescents and parents—it would be important for future studies to obtain the reports of parents or to test multivariate models for the data based on such reports. Secondly, the assessment protocol was quite extensive and could have been influenced by fatigue. Future studies should include instruments with adequate psychometric properties but with fewer items and could counterbalance the order of the questionnaires. Thirdly, the sample is not representative, which complicates the generalization of the results. Future studies should replicate these results with additional samples. Fourthly, there are significant differences between the samples of the adolescents from the court and those from the subsample of the community population regarding socioeconomic level. Although the relationship of socioeconomic level in the development of CPV is unclear, future studies should control the possible differences in socioeconomic level within the samples. Fifthly, apart from being transversal in nature, the models are limited to analysing direct relationships, without being able to analyse the moderation or possible mediation between the risk factors. Future studies should use longitudinal designs that provide information regarding the mechanisms through which this type of intrafamily violence could develop (for exceptions, see Calvete, Orue, Gámez-Guadix, & Bushman, 2015). Finally, although an important part of CPV variance is explained by the interrelation of the set of variables studied, there are many variables, such as other individual factors (e.g., grandiosity) or contextual factors (e.g., exposure to media violence), which could further explain the variance. Therefore, future studies should replicate the results and include a greater number of variables.

### Conclusions and Implications

The final models of this study emphasize the complexity of the variables involved in the development of CPV, in addition to the interrelation and influence of different levels in terms of CPV. In this way, the results highlight the need to address factors belonging to different levels, such as the influence of peer deviance (exosystem), ineffectiveness in parents' application of discipline or use of severe discipline (microsystem), and individual characteristics, such as adolescents' impulsivity or substance abuse (ontogenic). Although the models are exploratory, it is believed that they provide valuable empirical information with clinical implications. There are a large number of variables significantly related to CPV; however, there are few direct relationships. From a clinical perspective, the results highlight the importance of positive educational practices that do not involve the use of corporal punishment, as well as the importance of educating youth in a climate of non-violence. Strategies based on monitoring and control, such as positive reinforcement of appropriate behaviour and use of non-aversive punishment (e.g., penalty task, restorative behaviour, deprivation of privileges), could be essential

(Straus & Fauchier, 2007). In addition to the disciplinary strategies, the ways that they are implemented may become more crucial than specific disciplinary behaviours (Straus & Fauchier, 2007). For example, ineffective support, acceptance, and supervision (e.g., unguided, unexpected, or intermittent) can block the positive effects on children, without their adequate perception of the disciplinary measures. Likewise, more rational and non-punitive correction, if done impulsively, will in turn likely cause children's impulsive behaviour. Therefore, it is vital that interventions should not only focus on promoting adaptive disciplinary strategies but also evaluate their implementation and develop families' skills in their adaptive and effective application of disciplinary measures.

Similarly, the results highlight the importance of addressing the individual characteristics of adolescents, such as impulsivity and substance abuse. It seems indispensable to intervene in preventing adolescents' substance abuse, as this could trigger or accelerate their aggressive reactions (Calvete, Orue, & Gámez-Guadix, 2016). At the same time, perhaps it should be considered equally significant to teach adolescents the proper skills to manage their behaviours and emotions, with a view to reducing their impulsivity in order to stop and think before acting.

In addition, the results may also have a forensic interest. From this perspective, forensic workers need to intervene in and explore social and family contexts of adolescents that may have a negative influence. The findings highlight that it is important to intervene on both individual and ecological levels and to understand the complex relations between them.

Finally, this study's results serve to extend the findings derived from previous studies, which might also be implemented in CPV prevention or awareness strategies, in order to contribute to existing knowledge, and provide data aimed at improving interventions to address this family problem.

### Conflict of Interest

The authors of this article declare no conflict of interest.

### Acknowledgements

This study could not have been carried out without the valuable collaboration of the participants (adolescents residents of specialized institution for CPV and adolescents of the general population sample). In addition, we would like to thank the collaboration of Amanda Holt in the review of the manuscript.

### References

- Armstrong, G. S., Cain, C. M., Wylie, L. E., Muftić, L. R., & Bouffard, L. A. (2018). Risk factor profile of youth incarcerated for child to parent violence: A nationally representative sample. *Journal of Criminal Justice*, 58, 1-9. <https://doi.org/10.1016/j.jcrimjus.2018.06.002>
- Aroca-Montolió, C., Lorenzo-Moledo, M., & Miró-Pérez, C. (2014). La violencia filio-parental: un análisis de sus claves [Violence against parents: Key factors analysis]. *Anales de Psicología*, 30, 157-170. <https://doi.org/10.6018/analesps.30.1.149521>
- Barbaranelli, C., Caprara, G. V., & Rabasca, A. (1998). *Manuale del BFQC. Big Five Questionnaire Children*. Firenze, Italy: O.S. Organizzazioni Speciali.
- Barnow, S., Lucht, M., & Freyberger, H. J. (2005). Correlates of aggressive and delinquent conduct problems in adolescence. *Aggressive Behavior*, 31, 24-39. <https://doi.org/10.1002/ab.20033>
- Beckmann, L., Bergmann, M. C., Fischer, F., & Mölle, T. (2017). Risk and protective factors of child-to-parent violence: A comparison between physical and verbal aggression. *Journal of Interpersonal Violence*, 1(26), 1-26. <https://doi.org/10.1177/0886260517746129>
- Bentler, P. M. (2005). *EQS 6.1 for Windows: Structural equation program manual*. Encino, CA: Multivariate Software, Inc.
- Bobic, N. (2004). Adolescent violence towards parents. *Australian Domestic and Family Violence Clearinghouse Topic Paper*, 1-15. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.564.7976&rep=rep1&type=pdf>

- Boxer, P., Gullan, R. L., & Mahoney, A. (2009). Adolescents' physical aggression toward parents in a clinic-referred sample. *Journal of Clinical Child & Adolescent Psychology*, 38, 106-116. <https://doi.org/10.1080/15374410802575396>
- Brezina, T. (1999). Teenage violence toward parents as an adaptation to family strain: Evidence from a national survey of male adolescents. *Youth Society*, 30, 416-444. <https://doi.org/10.1177/0044118x99030004002>
- Byrne, B. M. (2006). *Structural equation modeling with EQS: Basic concepts, applications, and programming*. New York, NY: LEA.
- Calvete, E., & Estévez, A. (2009). Consumo de drogas en adolescentes: el papel del estrés, la impulsividad y los esquemas relacionados con la falta de límites [Substance use in adolescents: The role of stress, impulsivity, and schemas related to lack of limits]. *Adicciones*, 21, 49-56. <https://doi.org/10.20882/adicciones.251>
- Calvete, E., Gámez-Guadix, M., & Orue, I. (2010). El Inventario de Dimensiones de Disciplina (DDI), versión niños y adolescentes: estudio de las prácticas de disciplina parental desde una perspectiva de género [The Dimensions of Discipline Inventory (DDI)-Child and adolescent version: Analysis of the parental discipline from a gender perspective]. *Anales de Psicología*, 26, 410-418. Retrieved from <https://dialnet.unirioja.es/servlet/articulo?codigo=3234898&orden=258014&info=link>
- Calvete, E., Gámez-Guadix, M., & Orue, I. (2014). Características familiares asociadas a violencia filio-parental en adolescentes [Family characteristics associated with child-to-parent aggressions in adolescents]. *Anales de Psicología*, 30, 1776-1182. <https://doi.org/10.6018/analesps.30.3.166291>
- Calvete, E., Gámez-Guadix, M., Orue, I., González-Diez, Z., López de Arroyabe, E., Sampedro, ..., Borrajo, E. (2013). Brief report: The Adolescent Child-to-Parent Aggression Questionnaire: An examination of aggression against parents in Spanish adolescents. *Journal of Adolescence*, 36, 1077-1081. <https://doi.org/10.1016/j.adolescence.2013.08.017>
- Calvete, E., & Orue, I. (2016). Violencia filio-parental: prevalencias y razones para las agresiones contra padres y madres [Child-to-parent violence: Prevalence and reasons for attacks against fathers and mothers]. *Psicología Conductual*, 24, 481-495.
- Calvete, E., Orue, I., & Gámez-Guadix, M. (2012). Child-to-parent violence: Emotional and behavioral predictors. *Journal of Interpersonal Violence*, 28, 754-771. <https://doi.org/10.1177/0886260512455869>
- Calvete, E., Orue, I., & Gámez-Guadix, M. (2015). Reciprocal longitudinal associations between substance use and child-to-parent violence in adolescents. *Journal of Adolescence*, 44, 124-133. <https://doi.org/10.1016/j.adolescence.2015.07.015>
- Calvete, E., Orue, I., & Gámez-Guadix, M. (2016). Do extraversion and neuroticism moderate the association between bullying victimization and internalizing symptoms? A three-wave longitudinal study. *Journal of School Psychology*, 56, 1-11. <https://doi.org/10.1016/j.jsp.2016.02.003>
- Calvete, E., Orue, I., Gámez-Guadix, M., & Bushman, B. J. (2015). Predictors of child-to-parent aggression: A 3-year longitudinal study. *Developmental Psychology*, 51, 663-676. <https://doi.org/10.1037/a0039092>
- Calvete, E., Orue, I., Gámez-Guadix, M., Del Hoyo-Bilbao, J., & López de Arroyabe, E. (2015). Child-to-parent violence: An exploratory study of the roles of family violence and parental discipline through the stories told by Spanish children and their parents. *Violence and Victims*, 30, 935-947. <https://doi.org/10.1891/0886-6708.VV-D-14-00105>
- 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 personal characteristics]. *Infancia y Aprendizaje*, 34, 349-363. <https://doi.org/10.1174/02103701179238577>
- Caprara, G. V., & Pastorelli, C. (1993). Early emotional instability, prosocial behavior, and aggression: Some methodological aspects. *European Journal of Personality*, 7, 19-36. <https://doi.org/10.1002/per.2410070103>
- Carrasco, M. A., & Del Barrio, M. V. (2007). El modelo de los cinco grandes como predictor de la conducta agresiva en población infanto-juvenil [The big five model as a predictor of aggressive behavior in children and young people]. *Revista de Psicopatología y Psicología Clínica*, 12, 23-32. Retrieved from [http://www.aepp.net/arc/03\\_2007\(1\)\\_Carrasco\\_y\\_del\\_Barrio.pdf](http://www.aepp.net/arc/03_2007(1)_Carrasco_y_del_Barrio.pdf)
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/ correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- Contreras, L., & Cano, C. (2014). Family profile of young offenders who abuse their parents: A comparison with general offenders and non-offenders. *Journal of Family Violence*, 29, 901-910. <https://doi.org/10.1007/s10896-014-9637-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 & Psychology*, 26, 224-241. <https://doi.org/10.1080/14789949.2015.1004634>
- Contreras, L., & Cano, M. C. (2016). Child-to-parent violence: The role of exposure to violence and its relationship to social-cognitive processing. *European Journal of Psychology Applied to Legal Context*, 8, 43-50. <https://doi.org/10.1016/j.ejpal.2016.03.003>
- Coogan, D. (2011). Child-to-parent violence: Challenging perspectives on family violence. *Child Care in Practice*, 17, 347-358. <https://doi.org/10.1080/13575279.2011.596815>
- Cornell, C. P., & Gelles, R. J. (1982). Adolescent to parent violence. *Urban and Social Change Review*, 15(1), 8-14.
- Cottrell, B. (2004). *When teens abuse their parents*. Halifax, Nova Scotia: Fernwood Publishing.
- Cottrell, B., & Monk, P. (2004). Adolescent-to-parent abuse. A qualitative overview of common themes. *Journal of Family Issues*, 25, 1072-1095. <https://doi.org/10.1177/0192513X03261330>
- Del Barrio, M. V., Carrasco, M. A., & Holgado, F. P. (2006). *BFQ-NA cuestionario de los cinco grandes para niños y adolescentes*. Madrid, Spain: TEA.
- Del Hoyo-Bilbao, J., Gámez-Guadix, M., & Calvete, E. (2018). Corporal punishment by parents and child-to-parent aggression in Spanish adolescents. *Anales de Psicología*, 34, 108-116. <https://doi.org/10.6018/analesps.34.1.259601>
- Del Hoyo-Bilbao, J., Gámez-Guadix, M., Orue, I., & Calvete, E. (2018). Psychometric properties of the Child-to-Parent Aggression Questionnaire in a clinical sample of adolescents who abuse their parents: Prevalence and gender differences. *Violence and Victims*, 33, 203-217. <https://doi.org/10.1891/0886-6708.VV-D-16-00166>
- DeWall, C. N., Anderson, C. A., & Bushman, B. J. (2011). The general aggression model: Theoretical extensions to violence. *Psychology of Violence*, 1, 245-258. <https://doi.org/10.1037/a0023842>
- Dutton, D. (1985). An ecologically nested theory of male violence towards intimates. *International Journal of Women's Studies*, 8, 404-413.
- Dutton, D. (1995). *The domestic assault of women*. Vancouver, Canada: University of British Columbia Press.
- Edenborough, M., Jackson, D., Mannix, J., & Wilkes, L. M. (2008). Living in the red zone: The experience of child-to-mother violence. *Child & Family Social Work*, 13, 464-473. <https://doi.org/10.1111/j.1365-2206.2008.00576.x>
- Elliott, G. C., Cunningham, S. M., Colangelo, M., & Gelles, R. J. (2011). Perceived mattering to the family and physical violence within the family by adolescents. *Journal of Family Issues*, 32, 1007-1029. <https://doi.org/10.1177/0192513x11398932>
- Gallego, R., Novo, M., Fariña, F., & Arce, R. (2019). Child-to-parent violence and parent-to-child violence: A meta-analytic review. *European Journal of Psychology Applied to Legal Context*, 11, 51-59. <https://doi.org/10.5093/ejpalc2019a4>
- Gámez-Guadix, M., & Almendros, C. (2011). Witnessing interparental violence, parenting practices, and children's long-term psychological distress. *Psychosocial Intervention*, 20, 121-130. <https://doi.org/10.5093/in2011v20n2a1>
- 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. Retrieved from <http://www.psicothema.com/pdf/4011.pdf>
- Gámez-Guadix, M., Jaureguizar, J., Almendros, C., & Carrobes, J. A. (2012). Family socialization styles and child-to-parent violence in Spanish population. *Psicología Conductual*, 20, 585-602.
- Gelvan de Veinsten, S. B. G. (2004). Young violence towards parents. *Interdisciplinaria*, 205-220. Retrieved from <http://www.redalyc.org/articulo.oa?id=18009916>
- Grupo de trabajo de la Sociedad Española de Epidemiología y de la Sociedad Española de Medicina de Familia y Comunitaria. (2000). Una propuesta de medida de clase social. *Atención Primaria*, 25, 350-363. [https://doi.org/10.1016/S0212-6567\(00\)78518-0](https://doi.org/10.1016/S0212-6567(00)78518-0)
- Grych, J. H., Seid, M., & Fincham, F. D. (1992). Assessing marital conflict from the child's perspective: The Children's Perception of Interparental Conflict Scale. *Child Development*, 63, 558-572. <https://doi.org/10.1111/j.1467-8624.1992.tb01646.x>
- Holt, A. (2013). *Adolescent-to-parent abuse: Current understandings in research, policy and practice*. Bristol, UK: Policy Press.
- Holt, A. (2016). Adolescent-to-parent abuse as a form of "domestic violence": A conceptual review. *Trauma, Violence, & Abuse*, 17, 490-499. <https://doi.org/10.1177/1524838015584372>
- Holt, A., & Retford, S. (2013). Practitioner accounts of responding to parent abuse—a case study in ad hoc delivery, perverse outcomes and a policy silence. *Child & Family Social Work*, 18, 365-374. <https://doi.org/10.1111/j.1365-2206.2012.00860.x>
- 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. <https://doi.org/10.1007/s10578-011-0273-y>
- Hu, L., & Bentler, P. M. (1999). Cut off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55. <https://doi.org/10.1080/10705519909540118>
- Ibabe, I. (2007). *Perfil de los hijos adolescentes que agreden a sus padres* (Investigación realizada en la C.A.V.). Retrieved from <http://www.avpap.org/documentos/alava2007/violenciafilioparental.pdf>
- Ibabe, I. (2014). Direct and indirect effects of family violence on child-to-parent violence/Efectos directos e indirectos de la violencia familiar

- sobre la violencia filio-parental. *Estudios de Psicología*, 35, 137-167. <https://doi.org/10.1080/02109395.2014.893647>
- Ibabe, I., Arnoso, A., & Elgorriaga, E. (2014). Behavioral problems and depressive symptomatology as predictors of child-to-parent violence. *European Journal of Psychology Applied to Legal Context*, 6, 53-61. <https://doi.org/10.1016/j.ejpal.2014.06.004>
- Ibabe, I., & Bentler, P. (2016). The contribution of family relationships to child-to-parent violence. *Journal of Family Violence*, 31, 259-269. <https://doi.org/10.1007/s10896-015-9764-0>
- Ibabe, I., & Jaureguizar, J. (2010). Child-to-parent violence: Profile of abusive adolescents and their families. *Journal of Criminal Justice*, 38, 616-624. <https://doi.org/10.1016/j.jcrimjus.2010.04.034>
- 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. Retrieved from <https://revistas.um.es/analesps/article/view/122841>
- Ibabe, I., Jaureguizar, J., & Díaz, O. (2007). *Violencia filio-parental. Conductas violentas de jóvenes hacia sus padres*. Vitoria-Gasteiz, Spain: Servicio Central de Publicaciones del Gobierno Vasco.
- Ibabe, I., Jaureguizar, J., & Díaz, O. (2009). Adolescent violence against parents. Is it a consequence of gender inequality? *European Journal of Psychology Applied to Legal Context*, 1, 3-24. Retrieved from [http://sepfj.webs.uvigo.es/index.php?option=com\\_docman&task=doc\\_download&gid=9&Itemid=110&lang=en](http://sepfj.webs.uvigo.es/index.php?option=com_docman&task=doc_download&gid=9&Itemid=110&lang=en)
- Iraurgi, I., Martínez-Pampliega, A., Sanz, M., Cosgaya, L., Galíndez, E., & Muñoz, A. (2008). Escala de Conflicto Interparental desde la Perspectiva de los Hijos (CPIC): estudio de validación de una versión abreviada de 36 ítems [Children's Perception of Interparental Conflict Scales (CPIC): Validation study of a short version of 36 items]. *Revista Iberoamericana de Diagnóstico y Evaluación Psicológica*, 25, 9-34. Retrieved from [http://www.aidep.org/03\\_ridep/R25/R251.pdf](http://www.aidep.org/03_ridep/R25/R251.pdf)
- Izaguirre, A., & Calvete, E. (2015). Children who are exposed to intimate partner violence: Interviewing mothers to understand its impact on children. *Child Abuse & Neglect*, 48, 58-67. <https://doi.org/10.1016/j.chiabu.2015.05.002>
- Kennedy, T. D., Edmonds, W., Dann, K. T., & Burnett, K. F. (2010). The clinical and adaptive features of young offenders with histories of child-parent violence. *Journal of Family Violence*, 25, 509-520. <https://doi.org/10.1007/s10896-010-9312-x.3>
- Kennair, N., & Mellor, D. (2007). Parent abuse: A review. *Child Psychiatry & Human Development*, 38, 203-219. <https://doi.org/10.1007/s10578-007-0061-x.5>
- Kethineni, S. (2004). Youth-on-parent violence in a central Illinois county. *Youth Violence and Juvenile Justice*, 2, 374-394. <https://doi.org/10.1177/1541204004267785>
- Levendosky, A. A., Huth-Bocks, A., & Semel, M. A. (2002). Adolescent peer relationships and mental health functioning in families with domestic violence. *Journal of Clinical Child and Adolescent Psychology*, 31, 206-218. [https://doi.org/10.1207/s15374424JCCP3102\\_06](https://doi.org/10.1207/s15374424JCCP3102_06)
- Loinaz, I., Marzabal, I., & Andrés-Pueyo, A. (2018). Risk factors of female intimate partner and non-intimate partner homicides. *European Journal of Psychology Applied to Legal Context*, 10, 49-55. <https://doi.org/10.5093/ejpalc2018a4>
- Lyons, J., Bell, T., Fréchette, S., & Romano, E. (2015). Child-to-parent violence: Frequency and family correlates. *Journal of Family Violence*, 30, 729-742. <https://doi.org/10.1007/s10896-015-9716-85>
- Marcus, N. E., Lindahl, K. M., & Malik, N. M. (2001). Interparental conflict, children's social cognitions, and child aggression: A test of a mediational model. *Journal of Family Psychology*, 15, 315-333. <https://doi.org/10.1037/0893-3200.15.2.315>
- Margolin, G., & Baucom, B. R. (2014). Adolescents' aggression to parents: Longitudinal links with parents' physical aggression. *Journal of Adolescent Health*, 55, 645-651. <https://doi.org/10.1016/j.jadohealth.2014.05.008>
- Miguel-Tobal, J. J., Casado, M., Cano-Vindel, A., & Spielberger, C. D. (2001). Adaptación española del Inventario de Expresión de Ira Estado-Rasgo STAXI-II. Madrid, Spain: TEA.
- Nock, M. K., & Kazdin, A. E. (2002). Parent-directed physical aggression by clinic-referred youths. *Journal of Clinical Child and Adolescent Psychology*, 31, 193-205. [https://doi.org/10.1207/s15374424JCCP3102\\_05](https://doi.org/10.1207/s15374424JCCP3102_05)
- Nowakowski, E., & Mattern, K. (2014). An exploratory study of the characteristics that prevent youth from completing a family violence diversion program. *Journal of Family Violence*, 29, 143-149. <https://doi.org/10.1007/s10896-013-9572-3>
- O'Hara, K. L., Duchscher, J. E., Beck, C. J., & Lawrence, E. (2017). Adolescent-to-parent violence: Translating research into effective practice. *Adolescent Research Review*, 2, 181-198. <https://doi.org/10.1007/s40894-016-0051-y>
- O'Leary, K. D., Smith Slep, A. M., & O'Leary, S. G. (2007). Multivariate models of men's and women's partner aggression. *Journal of Consulting and Clinical Psychology*, 75, 752. <https://doi.org/10.1037/0022-006X.75.5.752>
- Orue, I., & Andershed, H. (2015). The Youth Psychopathic Traits Inventory-Short Version in Spanish adolescents—Factor structure, reliability, and relation with aggression, bullying, and cyber bullying. *Journal of Psychopathology and Behavioral Assessment*, 37, 563-575. <https://doi.org/10.1007/s10862-015-9489-7>
- 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. Retrieved from <https://www.redalyc.org/pdf/560/56017095006.pdf>
- Osorio, A., & González-Cámara, M. (2016). Testing the alleged superiority of the indulgent parenting style among Spanish adolescents. *Psicothema*, 28, 414-420. Retrieved from [www.psicothema.com/pdf/4344.pdf](http://www.psicothema.com/pdf/4344.pdf)
- Pagani, L., Tremblay, R., 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. <https://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. <https://doi.org/10.1007/s10896-008-92161>
- Paterson, R., Luntz, H., Perlesz, A., & Cotton, S. (2002). Adolescent violence towards parents: Maintaining family connections when the going gets tough. *Australian and New Zealand Journal of Family Therapy*, 23, 90-100. <https://doi.org/10.1002/j.1467-8438.2002.tb00493.x>
- Paulson, M. J., Coombs, R. H., & Landsverk, J. (1990). Youth who physically assault their parents. *Journal of Family Violence*, 5, 121-133. <https://doi.org/10.1007/bf00978515>
- Pereira, R., Loinaz, I., del Hoyo-Bilbao, J., Arrospide, J., Bertino, L., Calvo, A., ... Gutiérrez, M. M. (2017). Propuesta de definición de violencia filio-parental: consenso de la sociedad española para el estudio de la violencia filio-parental (SEVIFIP) [Proposal for a definition of filio-parental violence: Consensus of the Spanish society for the study of filio-parental violence (SEVIFIP)]. *Papeles del Psicólogo*, 38, 216-233. <https://doi.org/10.23923/pap.psicol2017.2839>
- Perris, C., Jacobsson, L., Linnström, H., von Knorring, L., & Perris, H. (1980). Development of a new inventory for assessing memories of parental rearing behaviour. *Acta Psychiatrica Scandinavica*, 61, 265-274. <https://doi.org/10.1111/j.1600-0447.1980.tb00581.x>
- Rico, E., Rosado, J., & Cantón-Cortés, D. (2017). Impulsiveness and child-to-parent violence: The role of aggressor's sex. *The Spanish Journal of Psychology*, 20(15), 1-11. <https://doi.org/10.1017/sjp.2017.15>
- Robinson, P. W., Davidson, L. J., & Drebot, M. E. (2004). Parent abuse on the rise: A historical review. *American Association of Behavioral Social Science Online Journal*, 7, 58-67. Retrieved from <https://www.familyfirst.org.nz/2005/01/parent-abuse-on-the-rise-a-historical-review/>
- Rosado, J., Rico, E., & Cantón-Cortés, D. (2017). Influence of psychopathology on the perpetration of child-to-parent violence: Differences as a function of sex. *Anales de Psicología*, 33, 243-251. <https://doi.org/10.6018/analesps.33.2.240061>
- Routt, G., & Anderson, L. (2011). Adolescent violence towards parents. *Journal of Aggression, Maltreatment & Trauma*, 20, 1-19. <https://doi.org/10.1080/10926771.2011.537595>
- Simmons, M., McEwan, T. E., Purcell, R., & Ogloff, J. R. (2018). Sixty years of child-to-parent abuse research: What we know and where to go. *Aggression and Violent Behavior*, 28, 31-52. <https://doi.org/10.1016/j.avb.2017.11.001>
- Soto, G., Ferrándiz, C., Sáinz, M., Ferrando, M., Prieto, M. D., Bermejo, R., & Hernández, D. (2011). Características psicométricas del cuestionario de personalidad BFQ-NA (Big Five Questionnaire-Niños y Adolescentes) [Psychometrical characteristics of personality questionnaire BFQ-NA - Big Five Questionnaire-Children and Adolescents]. *Aula Abierta*, 39(1), 13-24. Retrieved from <https://dialnet.unirioja.es/descarga/articulo/3344205.pdf>
- Spielberger, C. D. (1999). *STAXI-2: State-Trait Anger Expression Inventory-2 professional manual*. Tampa, FL: Psychological Assessment Resources.
- Straus, M. A., & Fauchier, A. (2007). *Manual for the Dimensions of Discipline Inventory (DDI)*. Family Research Laboratory, University of New Hampshire, Durham, NH. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.365.7991&rep=rep1&type=pdf>
- Sugimura, N., & Rudolph, K. D. (2012). Temperamental differences in children's reactions to peer victimization. *Journal of Clinical Child & Adolescent Psychology*, 41, 314-328. <https://doi.org/10.1080/15374416.2012.656555>
- van Baardewijk, Y., Andershed, H., Stegge, H., Nilsson, K. W., Scholte, E., & Vermeiren, R. (2010). Development and tests of short versions of the Youth Psychopathic Traits Inventory and the Youth Psychopathic Traits Inventory-Child Version. *European Journal of Psychological Assessment*, 26, 122-128. <https://doi.org/10.1027/1015-5759/a000017>

