



Mediating Effects of Insecure Parental Attachment on the Relationship Between Direct and Vicarious Family Victimization and Child-to-Parent Violence

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Accepted: 21 September 2023

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Abstract

Purpose Family victimization has been consistently identified as one of the most relevant predictors of child-to-parent violence (CPV). However, studies focused on examining the mechanisms through which family victimization could exercise influence on CPV are still scarce.

The main objective was to analyze whether insecure parental attachment (preoccupied, avoidant, and traumatized) mediates the relationship between family victimization (direct and vicarious) and CPV (toward fathers and mothers).

Methods A total of 1,514 Spanish university students (51% boys) between 18 and 25 years old ($M_{age} = 20.7$, $SD = 1.9$) who retrospectively described their experiences between the ages of 12 and 17 years old participated.

Results The results showed significant and positive relationships between CPV, direct and vicarious family victimization, and insecure parental attachment styles. More relevant, insecure attachment partially mediated the relationship between direct victimization and CPV, whereas the mediation effect was total in the relationship between vicarious victimization and CPV. Specifically, traumatized attachment stands out as the attachment style that is implicated in the relationship between family victimization and violence toward both fathers and mothers.

Conclusions The findings suggest that family victimization experiences could have an impact on the establishment of negative emotional bonds which in turn could contribute to the development of CPV. Research and professional practical implications are discussed, highlighting attachment's role as a valuable intervention and prevention tool given its dynamic nature.

Keywords Child-to-parent violence · Family victimization · Direct victimization · Vicarious victimization · Insecure parental attachment · Mediating effects

Despite the damage it causes to the family system, child-to-parent violence (hereafter CPV) has been less studied compared to other types of family violence (Simmons et al., 2018). It is defined as any act by a child on a parent perpetrated consciously, intentionally, and repeatedly over time that causes physical, psychological, and/or financial damage, excluding violent behaviors that may occur punctually or as a consequence of a psychological or developmental disorder (Pereira et al., 2017).

Numerous studies have analyzed the risk factors for CPV (Simmons et al., 2018), identifying family victimization as one of the most relevant factors in the development of this type of violence (Gallego et al., 2019). The next point of interest could be to explain how or by what means this relationship occurs. Part of the general literature argues that the effects of childhood victimization are especially harmful when it is experienced at the hands of an attachment figure, potentially interfering with the development of biological, emotional, and behavioral capacities (Bryce & Collier, 2022). The present study examines for the first time whether the relationship between family victimization and CPV is mediated by parental attachment, a little-studied variable in the field of CPV.

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Child-to-Parent Violence and Family Victimization

Under circumstances of family victimization, both direct (violence experienced by parents) and vicarious (observation of violence between parents), the perspective of childhood trauma (Freyd et al., 2005; Van der Kolk et al., 1996) could provide an alternative explanation for CPV (Nowakowski-Sims & Rowe, 2017). From this theoretical framework, it is suggested that traumatic experiences in childhood, especially if they come from a figure on whom the child is dependent, can have a profound impact on development, triggering a series of both internalizing (e.g., depression, anxiety) and externalizing (e.g., violent behavior) problems. In this line, violent behavior could be a response to the damage caused by family victimization experiences (Bryce & Collier, 2022) as a way to survive and protect oneself emotionally or to palliate the threat and fear associated with the traumatic event (Freyd & Birrell, 2013; Van der Kolk, 2014).

Concerning CPV, the literature has found significantly higher proportions of family victimization in adolescents who perpetrate CPV than in those who do not perpetrate this type of violence (e.g., Calvete et al., 2014; Navas-Martínez & Cano-Lozano, 2023a). Furthermore, adolescents exposed to family victimization would be over 70% more likely to perpetrate CPV than adolescents who are not exposed, according to a recent meta-analysis (Gallego et al., 2019). More specifically, a positive and significant relationship is consistently found between CPV and direct victimization as well as a significant predictive power of this type of victimization in CPV (Beckmann, 2021; Cano-Lozano et al., 2023; Contreras et al., 2020; Ibabe et al., 2020; Izaguirre & Calvete, 2017; Junco-Guerrero et al., 2022; Margolin & Baucom, 2014; Navas-Martínez & Cano-Lozano, 2022a; Pagani et al., 2004, 2009), and also between CPV and vicarious victimization (Beckmann, 2021; Contreras et al., 2020; Ibabe et al., 2020; Izaguirre & Calvete, 2017; Margolin & Baucom, 2014; Navas-Martínez & Cano-Lozano, 2022a). Despite this, not all adolescents who suffer family victimization develop CPV, so it would be important to identify the processes by which family victimization could exercise influence on CPV. The few studies that have addressed this question show that variables such as social information processing (Cano-Lozano et al., 2023; Contreras & Cano-Lozano, 2016), the ineffectiveness of parental discipline (Del Hoyo-Bilbao et al., 2020) or emotional insecurity (Junco-Guerrero et al., 2022) are involved in the relationship between family victimization and CPV, although the role of other variables such as parental attachment has not yet been explored in this relationship.

Family Victimization and Parental Attachment

Precisely, parental attachment is one of the variables that have been most closely related to family victimization (e.g., Barnett & Howe, 2021; Lee et al., 2013; Steketee et al., 2021). The attachment bond is developed through the interactions between parents and children and has a direct impact on the child's emotional and cognitive system (Bowlby, 1975). According to Ainsworth et al. (1978), a secure attachment is characterized by parental availability, proximity, protection, care, and help. Instead, an inadequate establishment of the bond with the caregiver leads to insecure attachment styles. Preoccupied attachment is characterized by the constant search for parental proximity, anxiety, dependency, fear of abandonment, and mental representations of parental control and overprotection. In contrast, avoidant attachment is characterized by avoidance of parental proximity, resentment and rejection of affection and dependence, and mental representations of parental incomprehension. Traumatized attachment, unlike the other two styles, is characterized by an inability to maintain a coherent attachment strategy, with confusing behaviors of parental proximity and avoidance, as parents are at the same time a source of dependence and fear. Specifically, children with this attachment style have memories of a lack of protection, violence, and threats from attachment figures. They believe that they could be damaged at any moment so they are on constant alert and have feelings of fear and anguish that they are unable to resolve (Hesse & Main, 2000; Main & Solomon, 1990; Reijman et al., 2018).

Empirical evidence suggests that the quality of parenting and the ability of parents to satisfy the emotional needs of their children are compromised in homes where family violence is present. For example, low levels of secure attachment and high levels of insecure attachment are found in maltreated children (Haskett et al., 2006; Muller et al., 2000). A recent study of 57,892 adolescents from 25 countries found that family victimization, both direct and vicarious, was negatively related to parental attachment (Steketee et al., 2021). By types of family victimization, positive relationships are found between direct victimization and preoccupied (Barnett & Howe, 2021; Lee et al., 2013; Muller et al., 2012), and avoidant attachment (Barnett & Howe, 2021; Lee et al., 2013). Barnett and Howe (2021) also analyzed traumatized attachment, finding that this style was also related to direct victimization and Muller et al. (2012) found that this type of victimization was related to traumatic symptomatology. In regards to vicarious victimization, Barnett and Howe (2021), found that the three insecure attachment styles were related to a series of adverse experiences in the family context, such as vicarious victimization, and that traumatized and

avoidant attachment showed the strongest relationship with these adverse experiences, while Muller et al. (2012) found no significant relationships between vicarious victimization and preoccupied and avoidant attachment, nor with traumatic symptomatology.

Parental Attachment and Child-to-Parent Violence

Some studies from the field of general violence suggest that parental attachment may be a useful framework for understanding the impact of family victimization on youth violence (e.g., Grych & Kinsfogel, 2010; Lee et al., 2013) insofar as a violent family context could have a negative impact on the quality of attachment, facilitating maladaptive behaviors. However, the relationship between parental attachment and CPV in particular has been scarcely analyzed. Research that has studied attachment-like variables (lack of parental warmth or parental rejection) finds them to be significant predictors of CPV (Cano-Lozano et al., 2020; Contreras & Cano-Lozano, 2014; Gámez-Guadix et al., 2012). Recently, CPV has been negatively related to secure attachment (Navas-Martínez & Cano-Lozano, 2022b) and positively related to preoccupied, avoidant, and traumatized insecure attachment styles (Navas-Martínez & Cano-Lozano, 2023a). Likewise, this study found that preoccupied and traumatized attachment predicted high levels of CPV. However, the role of insecure attachment in predicting CPV toward fathers and mothers separately was not analyzed, an aspect necessary to understand whether the same or different insecure attachment styles predict CPV toward one or both parents, given that the predictors of violence toward fathers and mothers are not always the same (e.g., Cano-Lozano et al., 2022; Simmons et al., 2020).

The Mediating Role of Parental Attachment

Even more scarce are studies focused on exploring the joint influence of family victimization, parental attachment, and CPV, and none of them have examined the mediating role of insecure parental attachment in the relationship between family victimization and CPV. Available data show that family victimization predicts low levels of maternal attachment in adolescents with CPV crime toward the mother (Nowakowski-Sims & Rowe, 2017) and that adverse experiences in general predict high levels of preoccupied, avoidant, and traumatized attachment in adolescents who perpetrate CPV (Navas-Martínez & Cano-Lozano, 2023a), suggesting the need to examine the influence of family victimization in particular on CPV through insecure attachment styles. This

would be in line with studies finding that insecure attachments develop in violent households (e.g., Barnett & Howe, 2021; Lee et al., 2013; Moya et al., 2015; Muller et al., 2012), and that children and adults with insecure attachment show behavioral problems such as aggressiveness and violence (e.g., De La Osa et al., 2022; Lee et al., 2013; Moya et al., 2015; Muller et al., 2012; Oka et al., 2014; Peng et al., 2022).

In line with the above, Navas-Martínez and Cano-Lozano (2023a) found that childhood adversity in general (experiences of family victimization, school victimization, and other types of adolescent individual and household dysfunction such as family members' psychological problems or incarceration) was related to CPV through preoccupied and traumatized attachment. Therefore, it would be useful to clarify the influence exerted by family victimization in particular on CPV through insecure attachment, in addition to differentiating violence directed toward fathers and mothers. In this line, Junco-Guerrero et al. (2022) found that family victimization was only related to CPV through other variables such as emotional insecurity in the family. This total mediation effect was found in the relationship between direct family victimization and violence toward the father and between vicarious family victimization and violence toward the mother. Similar results are found in studies in the field of general juvenile violence, in which insecure attachment acted as a significant mediator of the relationship between direct family victimization and externalizing symptoms (e.g., aggression and dating violence) in young (Lee et al., 2013; Muller et al., 2012) and adolescents (Moya et al., 2015). Furthermore, Moya et al. (2015) found that family victimization was not directly related to externalizing problems, but it was related indirectly through attachment levels. According to these authors, the obtained results together with the absence of moderating effects of attachment on this relationship would highlight the importance of attachment as an explanatory mechanism of the effect of family victimization on children's aggressiveness.

The literature review shows the need to clarify the role of different insecure attachment styles in the relationship between family victimization in particular and CPV and the importance of distinguishing between direct and vicarious family victimization and between violence toward the father and toward the mother. This is the first study on CPV that aims to address these aspects.

Purpose of the Present Study

The purpose of this study was to examine whether family victimization is related to CPV through insecure parental attachment. To this end, the first objective was to analyze the relationship between CPV (toward the father and the mother) and family victimization (direct and vicarious). The second

objective was to examine the relationship between family victimization and insecure parental attachment styles (preoccupied, avoidant, and traumatized), and the third objective was to analyze the relationship between insecure attachment styles and CPV. Lastly, the fourth and more relevant objective was to analyze the mediating role of three insecure attachment styles in the relationship between both types of family victimization and violence toward fathers and mothers separately.

Based on the literature: H1. Relationship between CPV and family victimization: Positive relationship is expected between CPV and direct and vicarious family victimization (Beckmann, 2021; Contreras et al., 2020; Izaguirre & Calvete, 2017; Margolin & Baucom, 2014; Navas-Martínez & Cano-Lozano, 2022a). H2. Relationship between family victimization and insecure parental attachment: Family victimization will be positively related to insecure attachment (Barnett & Howe, 2021; Lee et al., 2013; Muller et al., 2012), especially traumatized (Barnett & Howe, 2021). H3. Relationship between insecure parental attachment and CPV: The insecure parental attachment is expected to be positively related to CPV (Navas-Martínez & Cano-Lozano, 2023a) toward both parents. H4. The mediating role of insecure parental attachment: Based on similar studies (Lee et al., 2013; Moya et al., 2015; Muller et al., 2012; Navas-Martínez & Cano-Lozano, 2023a), insecure attachment is expected to be a significant mediator of the relationship between family victimization and CPV.

Method

Participants

The sample consisted of 1,514 university students (51% boys, 49% girls) of Spanish nationality (96.7%) aged between 18 and 25 years ($M_{\text{age}}=20.7$, $SD=1.9$) from three provinces in southern Spain. During adolescence (aged between 12 and 17 years), 86.8% of the participants lived with both parents and 12.4% with one of them. Of the sample, 99.5% were biological children and most of the participants' parents were married (85.6%).

Instruments

The Child-to-Parent Violence Questionnaire, young version (CPV-Q, Cano-Lozano et al., 2021) assesses violent behaviors (psychological, physical, financial, and control/domain) towards the parents during the adolescent period (from 12 to 17 years old) through 19 parallel items (toward the father and the mother separately; e.g., “I rejected my parents’ affection with the intention of punishing them”) scored on a Likert scale (0 = *never* to 4 = *very often, six times or more*).

To assess family victimization, we used an adapted version of the Violence Exposure Scale (VES, Orue & Calvete, 2010) to assess only the violence at home (direct and vicarious family victimization experiences) and the figures involved. Thus, experiences of direct violence by parents (direct victimization; e.g., “How many times did your parents insult or humiliate you?”) and observed violence between parents (vicarious victimization; e.g., “How many times have you seen your mother’s partner physically assault her?”), both psychological, physical, and verbal, were assessed before the age of 18 years through 6 and 3 items, respectively, scored on a Likert scale (0 = *never* to 4 = *every day*).

The Attachment Representation Questionnaire, short version (CaMir-R, Pierrehumbert et al., 1996, Spanish validation: Balluerka et al., 2011) assesses ideas and feelings related to secure and insecure attachment styles (preoccupied, avoidant, and traumatized) and family functioning through 32 items (e.g., “When I was a child, they were so concerned about my health and safety that I felt imprisoned”; “I hate the feeling of being dependent on others”; “Threats of separation, of moving to another place, or of breaking family ties are part of my childhood memories”) scored on a Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Dimensions assessing insecure attachment representations were used for this study. Specifically, preoccupied (overprotection and parental interference, low autonomy, and excessive concern about abandonment), avoidant (rejection or indifference towards attachment figures, self-sufficiency, independence, and emotional control), and traumatized attachment (lack of availability and protection of attachment figures, violence and threats from them, dependence and fear).

Procedure

This cross-sectional study presents a descriptive design of populations (Montero & León, 2007). First, a favorable report was obtained from the Ethics Committee of the University of Jaén (MAR.18/5.PRY). Subsequently, it was sought to ensure that as many degrees as possible were represented in the sample and that the sample was balanced according to sex. Different professors were randomly asked to collaborate in the research by requesting access to their classes. The participants then received information about the study and their signed informed consent was obtained. Participation was voluntary, in that participants could withdraw at any time, anonymous, in that a non-identifying code number was assigned to each participant, and confidential, in that access to the questionnaires was restricted to the researchers responsible for the project. The questionnaires were completed in written form in a group in university classrooms and were administered by two researchers specifically trained in this protocol. Finally, 19.2% of the sample was

recruited through the snowball technique and completed the evaluation protocol through the Google Form platform privately licensed by the University of Jaén after receiving the study information and obtaining informed consent. No financial compensation was received for participation.

Data Analysis

Analyses were carried out using R software version 4.1.3 (R Core Team, 2023) and Jamovi software version 2.2.5 (The Jamovi Project, 2022). In a preliminary phase, the psychometric properties of the scales used in the study are analyzed on the selected sample, as it is a good methodological practice to ensure that the scales used meet the criteria expected in the target population. To do so, we carried out a CFA with each of the scales using the *r lavaan* package (Rosseel, 2012). Next, we performed a data screening of the data obtained with the scales to analyze the assumptions and distribution of the data to focus on the factorial treatment. Specifically, we analyzed multivariate normality through Mardia's test, which allowed us to know that our data did not follow a multivariate normal distribution ($K_{urtosis} = 644.05, p < 0.001$). The correlation between the observed variables allowed us to know that there were no problems of multicollinearity ($r > 0.90$) and singularity ($r > 0.95$). Additionally, we performed a regression with our data and randomly generated dice and analyzed the residuals of the resulting regression (Cano-Lozano et al., 2023). Any anomalies in these residuals would be due to our data. The residuals were distributed between values of +2 and -2 showing no homogeneity or homoscedasticity problems. Because our data did not fit a multivariate normal distribution, we used a robust variant of weighted least squares (WLSM) as an estimator for the CFA (Finney & DiStefano, 2013). Finally, the mediational model proposed in Fig. 1 was tested. In this model, we analyze the mediating role of insecure parental attachment styles in the relationship between family victimization and violence toward fathers and mothers separately. In the mediational analysis, the 95% confidence intervals were estimated for the indirect effects analyzed using a parametric bootstrap with a re-sample of 1,000 iterations (Gallucci, 2020; García-Martínez et al., 2022).

Results

In general, the analysis of the psychometric properties of the scales used in this study shows that the parameters are adequate. The results related to the first three objectives of the study show positive and significant relationships between

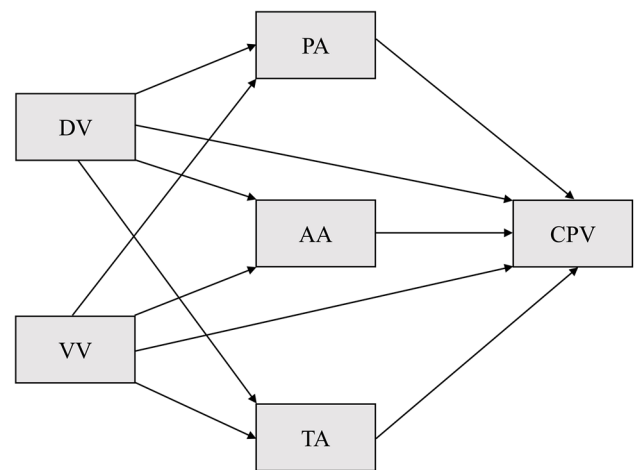


Fig. 1 Proposed mediation theoretical model. *Note.* DV = direct victimization; VV = vicarious victimization; PA = preoccupied attachment; AA = avoidant attachment; TA = traumatized attachment; CPV = child-to-parent violence

all the variables analyzed. Finally, the main result of this study shows that insecure attachment, specifically the traumatized style, is a significant mediator of the relationship between family victimization and CPV.

Concretely, the CFA (see Table 1) shows an excellent degree of fit and a good level of reliability for all scales (Hair et al., 2010) and Table 2 shows the descriptive statistics of the factors used in the mediational models.

The results of correlation analysis show positive and significant relationships between all the variables analyzed (see Table 3). Specifically, child-to-father and child-to-mother violence are related respectively to direct ($r = 0.355, r = 0.385$) and vicarious ($r = 0.169, r = 0.162$) family victimization. Both types of family victimization are related respectively to preoccupied ($r = 0.198, r = 0.116$), avoidant ($r = 0.263, r = 0.211$), and traumatized ($r = 0.373, r = 0.539$) attachment styles, which are also related respectively to child-to-father violence ($r = 0.168, r = 0.206, r = 0.287$) and child-to-mother violence ($r = 0.179, r = 0.226, r = 0.307$).

Finally, the proposed mediation theoretical model was tested (see Fig. 2) for child-to-father violence (Panel A) and child-to-mother violence (Panel B).

Child-to-father violence model (see Table 4) shows that the total effect of the relationship between direct family victimization and CPV is significant ($\beta = 0.34, p < 0.001$). This total effect is due to the direct relationship effect between these variables ($\beta = 0.29, p < 0.001$) as well as the indirect relationship effect through traumatized attachment ($\beta = 0.03, p = 0.006$). In the case of vicarious family victimization, although the total effect of the relationship between this type of victimization and CPV is also significant ($\beta = 0.06, p = 0.012$), unlike direct victimization, it is not due to a direct relationship effect between these

Table 1 Model fit statistics for the measurement scales used

Scale	N	χ^2	df	p	RMSEA (90% CI)	CFI	TLI	SRMR	α	ω
VES	1458	251.93	26	<0.001	0.077 (0.069, 0.086)	0.936	0.911	0.097	0.82	0.88
CaMir-R	1487	379.83	164	<0.001	0.030 (0.026, 0.034)	0.988	0.986	0.042	0.86	0.90
CPV-Q-F	1477	265.69	146	<0.001	0.024 (0.019, 0.028)	0.974	0.969	0.073	0.83	0.87
CPV-Q-M	1483	238.07	146	<0.001	0.021 (0.016, 0.025)	0.984	0.981	0.066	0.85	0.88

VES Violence exposure scale; CaMir-R Attachment representation questionnaire; CPV-Q Child-to-parent violence questionnaire; F Father; M Mother

Table 2 Descriptive statistics of the factors

Factor	N	Missing	Mean	Median	SD	Min	Max	Skewness	Kurtosis	α	ω
DV	1468	46	0.63	0.33	0.73	0.00	4.00	1.15	0.82	0.84	0.85
VV	1504	10	0.22	0.00	0.52	0.00	4.00	3.31	12.83	0.73	0.83
PA	1502	12	2.47	2.50	0.86	1.00	5.00	0.43	-0.33	0.68	0.70
AA	1501	13	2.94	3.00	0.77	1.00	5.00	0.08	-0.30	0.53	0.54
TA	1501	13	1.89	1.60	0.87	1.00	5.00	1.14	0.67	0.80	0.81
CFV	1477	37	0.34	0.26	0.34	0.00	3.26	2.12	7.55	0.83	0.87
CMV	1483	31	0.40	0.32	0.38	0.00	3.37	2.11	7.22	0.85	0.88

DV Direct victimization; VV Vicarious victimization; PA Preoccupied attachment; AA Avoidant attachment; TA Traumatized attachment; CFV Child-to-father violence; CMV Child-to-mother violence

Table 3 Correlations between study variables

	1	2	3	4	5	6	7
DV	-						
VV	0.283	-					
PA	0.198	0.116	-				
AA	0.263	0.211	0.485	-			
TA	0.373	0.539	0.375	0.468	-		
CFV	0.355	0.169	0.168	0.206	0.287	-	
CMV	0.385	0.162	0.179	0.226	0.307	0.815	-

DV Direct victimization; VV Vicarious victimization; PA Preoccupied attachment; AA Avoidant attachment; TA Traumatized attachment; CFV Child-to-father violence; CMV Child-to-mother violence

All correlations are significant at $p < 0.001$

variables ($\beta = 0.00$, $p = 0.975$), but totally due to the indirect relationship effect through traumatized attachment ($\beta = 0.06$, $p = 0.004$).

Child-to-mother violence model (see Table 5) shows that the total effect of the relationship between direct family victimization and CPV is significant ($\beta = 0.38$, $p < 0.001$). The total effect of this relationship is due to the direct relationship effect between these variables ($\beta = 0.32$, $p < 0.001$) as well as the indirect relationship effect through traumatized attachment ($\beta = 0.04$, $p < 0.001$). In the case of vicarious family victimization, the results show that there is no significant direct relationship with CPV ($\beta = -0.04$, $p = 0.127$), but there is a significant effect when mediated by traumatized attachment ($\beta = 0.07$, $p < 0.001$). Despite this fact, the total effect is not significant ($\beta = 0.04$, $p = 0.155$).

Discussion

The purpose of this study was to analyze whether family victimization is related to CPV through insecure parental attachment. The results support the hypothesis that CPV could be a traumatic response to the damage caused by violence by attachment figures (Freyd & Birrell, 2013; Nowakowski-Sims & Rowe, 2017; Van der Kolk, 2014), with the experience of insecure fear-based attachment being one of the processes that could be implicated in the relationship between family victimization and CPV.

The first objective was to analyze the relationship between CPV and family victimization. The results confirm the hypothesis by providing additional evidence to the already well-studied relationship between CPV and direct and vicarious family victimization. (e.g., Beckmann, 2021;

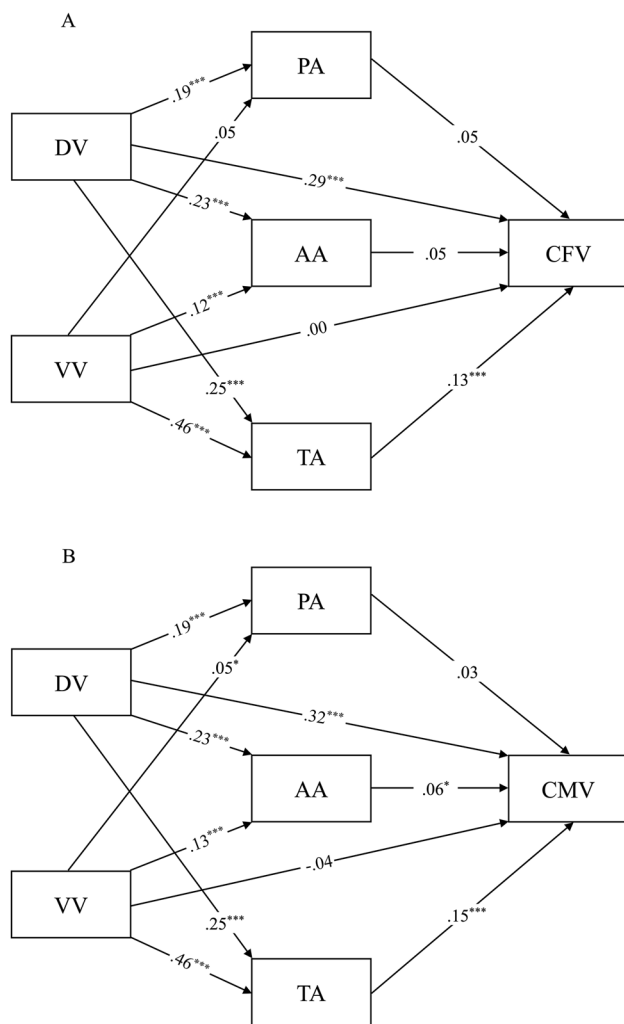


Fig. 2 Results of the proposed mediational model. *Note.* Fathers' model (panel A), and mothers' model (panel B); DV=direct victimization; VV=vicarious victimization; PA=preoccupied attachment; AA=avoidant attachment; TA=traumatized attachment; CFV=child-to-father violence; CMV=child-to-mother violence. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Contreras et al., 2020; Izaguirre & Calvete, 2017; Margolin & Baucom, 2014; Navas-Martínez & Cano-Lozano, 2022a). By type of family victimization, the results of this study show a stronger relationship between CPV and direct victimization than between CPV and vicarious victimization, suggesting that experiences of direct violence would exercise a greater influence on CPV than experiences of observed violence and supporting the need to analyze both types of family victimization separately (Cano-Lozano et al., 2023; Contreras et al., 2020; Del Hoyo-Bilbao et al., 2020). Likewise, the findings of this study are consistent with what Gallego et al. (2019) found in their meta-analysis, according to which direct family victimization is a more relevant predictor of CPV than vicarious family victimization, results that continue to be replicated in more recent

research (e.g., Beckmann, 2021; Navas-Martínez & Cano-Lozano, 2022a).

The second objective was to examine the relationship between family victimization and insecure parental attachment. The results show positive and significant relationships between family victimization and preoccupied, avoidant, and traumatized attachment. These findings are consistent with the results of a 25-country study of over 57,000 adolescents showing how as levels of direct and vicarious family victimization increase, levels of parental attachment decrease (Steketee et al., 2021) and levels of insecure attachment styles increase (Barnett & Howe, 2021; Lee et al., 2013; Muller et al., 2012). Furthermore, given that the traumatized attachment would be the result of parental abuse or maltreatment (Hesse & Main, 2000; Main & Solomon, 1990) it was expected that the relationship between family victimization and this attachment style would be stronger than with the other insecure attachments (Barnett & Howe, 2021). Consistent with expectations, our results show that traumatized attachment is the style most strongly linked to direct and vicarious family victimization, followed by avoidant and lastly, preoccupied attachment.

Previous studies (e.g., Barnett & Howe, 2021; Haskett et al., 2006; Lee et al., 2013; Muller et al., 2012) suggest that being immersed in a family context marked by violence would have a negative impact on the quality of attachment which in turn would facilitate violent behavior (e.g., Grych & Kinsfogel, 2010; Lee et al., 2013). Therefore, the third objective of this study was to examine the relationship between insecure attachment and CPV, finding positive and significant relationships between preoccupied, avoidant, and traumatized attachment styles and CPV. To date, only one study has analyzed this relationship (Navas-Martínez & Cano-Lozano, 2023a) and the present study confirms this relationship towards both the father and the mother, further highlighting the role of traumatized attachment as the insecure attachment style most related to CPV. More importantly, mediational models show that the parental attachment styles that explain CPV are not the same when violence is directed toward fathers as toward mothers, given that, while traumatized attachment is associated with CPV toward both fathers and mothers, avoidant attachment is only associated with violence toward mothers. This could mean that the avoidant affective bond, characterized by the deprivation of parental affection and the consequent resentment and rejection of the child would be a specific risk factor for violence toward the mother, results that advance the knowledge generated by previous studies that have related the lack of parental warmth and parental rejection with CPV (Cano-Lozano et al., 2020; Contreras & Cano-Lozano, 2014; Gámez-Guadix et al., 2012).

The fourth and most relevant objective was to analyze the mediating role of insecure parental attachment in the

Table 4 Results of the mediational model for child-to-father violence

Type	Effect	Estimate	SE	95% CI		β	z	p
				Lower	Upper			
Indirect	DV \Rightarrow PA \Rightarrow CFV	0.00	0.00	0.00	0.01	0.01	1.33	0.184
	DV \Rightarrow AA \Rightarrow CFV	0.01	0.00	0.00	0.01	0.01	1.36	0.174
	DV \Rightarrow TA \Rightarrow CFV	0.02	0.01	0.00	0.03	0.03	2.73	0.006
	VV \Rightarrow PA \Rightarrow CFV	0.00	0.00	0.00	0.00	0.00	0.99	0.320
	VV \Rightarrow AA \Rightarrow CFV	0.00	0.00	0.00	0.01	0.01	1.33	0.184
	VV \Rightarrow TA \Rightarrow CFV	0.04	0.01	0.01	0.07	0.06	2.86	0.004
Component	DV \Rightarrow PA	0.23	0.03	0.17	0.29	0.19	7.16	<0.001
	PA \Rightarrow CFV	0.02	0.01	-0.00	0.04	0.05	1.83	0.067
	DV \Rightarrow AA	0.24	0.03	0.18	0.29	0.23	8.54	<0.001
	AA \Rightarrow CFV	0.02	0.01	-0.00	0.04	0.05	1.76	0.078
	DV \Rightarrow TA	0.30	0.03	0.24	0.35	0.25	10.95	<0.001
	TA \Rightarrow CFV	0.05	0.01	0.03	0.07	0.13	4.17	<0.001
Direct	VV \Rightarrow PA	0.08	0.05	-0.01	0.17	0.05	1.73	0.084
	VV \Rightarrow AA	0.19	0.04	0.11	0.26	0.12	4.67	<0.001
	VV \Rightarrow TA	0.79	0.04	0.71	0.86	0.46	20.43	<0.001
	DV \Rightarrow CFV	0.14	0.01	0.11	0.16	0.29	10.35	<0.001
	VV \Rightarrow CFV	0.00	0.02	-0.04	0.04	0.00	-0.03	0.975
	Total	DV \Rightarrow CFV	0.16	0.01	0.14	0.18	0.34	13.01
	VV \Rightarrow CFV	0.04	0.02	0.01	0.08	0.06	2.51	0.012

DV Direct victimization; VV Vicarious victimization; PA Preoccupied attachment; AA Avoidant attachment; TA Traumatized attachment; CFV Child-to-father violence

Table 5 Results of the mediational model for child-to-mother violence

Type	Effect	Estimate	SE	95% CI		β	z	p
				Lower	Upper			
Indirect	DV \Rightarrow PA \Rightarrow CMV	0.00	0.00	0.00	0.01	0.01	1.05	0.294
	DV \Rightarrow AA \Rightarrow CMV	0.01	0.00	0.00	0.01	0.01	1.88	0.060
	DV \Rightarrow TA \Rightarrow CMV	0.02	0.01	0.01	0.03	0.04	3.35	<0.001
	VV \Rightarrow PA \Rightarrow CMV	0.00	0.00	0.00	0.01	0.00	0.84	0.403
	VV \Rightarrow AA \Rightarrow CMV	0.01	0.00	0.00	0.01	0.01	1.76	0.078
	VV \Rightarrow TA \Rightarrow CMV	0.05	0.01	0.03	0.08	0.07	3.65	<0.001
Component	DV \Rightarrow PA	0.23	0.03	0.17	0.29	0.19	7.19	<0.001
	PA \Rightarrow CMV	0.02	0.01	-0.01	0.04	0.03	1.38	0.166
	DV \Rightarrow AA	0.24	0.03	0.18	0.29	0.23	8.54	<0.001
	AA \Rightarrow CMV	0.03	0.01	0.01	0.05	0.06	2.37	0.018
	DV \Rightarrow TA	0.29	0.03	0.24	0.35	0.25	10.91	<0.001
	TA \Rightarrow CMV	0.07	0.01	0.04	0.09	0.15	5.14	<0.001
Direct	VV \Rightarrow PA	0.09	0.05	0.00	0.18	0.05	1.97	0.049
	VV \Rightarrow AA	0.19	0.04	0.12	0.27	0.13	4.86	<0.001
	VV \Rightarrow TA	0.79	0.04	0.72	0.87	0.46	20.62	<0.001
	DV \Rightarrow CMV	0.17	0.01	0.14	0.19	0.32	11.79	<0.001
	VV \Rightarrow CMV	-0.03	0.02	-0.07	0.01	-0.04	-1.53	0.127
	Total	DV \Rightarrow CMV	0.20	0.01	0.17	0.22	0.38	14.80
	VV \Rightarrow CMV	0.03	0.02	-0.01	0.06	0.04	1.42	0.155

DV Direct victimization; VV Vicarious victimization; PA Preoccupied attachment; AA Avoidant attachment; TA Traumatized attachment; CMV Child-to-mother violence

relationship between family victimization and violence toward fathers and mothers separately. The results show, on the one hand, that direct victimization is directly related to CPV and also indirectly and more strongly through traumatized attachment and, on the other hand, that vicarious victimization is not directly related to CPV, but indirectly through traumatized attachment and in the case of violence directed specifically toward the father. These findings suggest that insecure attachment could operate as a mechanism explaining how family victimization in particular influences the development of CPV, and highlight the relevance of traumatized attachment in this relationship, being the main contribution of the study. These results confirm our hypothesis based on similar studies in which parental attachment mediated the relationship between family victimization and aggression (Moya et al., 2015; Muller et al., 2012) or general juvenile violence (Lee et al., 2013) and also in the study by Navas-Martínez and Cano-Lozano (2023a) in which insecure parental attachment mediated the relationship between childhood adversity in general and CPV.

More specifically, the partial mediation effect of traumatized attachment found in the relationship between direct family victimization and CPV shows that direct victimization itself is a variable that is associated with CPV, and toward both parents, which, in line with previous research, underlines the strong influence that seems to play in the development of CPV (review by Gallego et al., 2019). However, our results also show that the relationship between direct victimization and CPV is better explained through the effect of traumatized attachment, but not by the effect of preoccupied or avoidant attachment. These results could be explained by attending to the differential characteristics presented by different insecure attachment styles (Ainsworth et al., 1978; Hesse & Main, 2000; Main & Solomon, 1990; Reijman et al., 2018). Thus, violence by attachment figures, and subsequent violence toward such figures, seems to be related to traumatized bonds (especially damaged and fearful children), which are precisely the bonds established as a result of violence, lack of protection, and lack of parental security. Along these lines, it has been found that children who suffer childhood adversity remain in a state of constant alarm even in the absence of external threats, being able to recur to aggression as a preventive action aimed at controlling fear (Smeets et al., 2017; Worthington, 2012).

Traumatized attachment and also preoccupied attachment have recently been found to partially mediate the relationship between adverse experiences in general and CPV (Navas-Martínez & Cano-Lozano, 2023a). The results of our study focusing on the role of family victimization in particular improve the understanding of these aspects and suggest that different victimization experiences might underlie different insecure attachment styles. Specifically, the results of both studies could indicate that experiences of parental

abandonment or having family members who go to prison or suffer from serious illnesses are related to the development of a preoccupied attachment whose central characteristic is the fear of abandonment and emotional dependence, whereas experiences of violence by attachment figures in particular are related to the development of a traumatized attachment, whose central characteristic is the fear and psychological anguish caused by the confusion of being damaged by the one who should be the source of protection and love.

Similar results are found in the fields of violence in general. Specifically, in the study by Lee et al. (2013) preoccupied attachment, but not avoidant attachment, explained the relationship between direct family victimization and dating violence, suggesting that the parental dependency bond in particular would be implicated in dating violence, whereas in our study the parental traumatization bond in particular would be implicated in CPV. These results would highlight the influence that home victimization experiences would exercise on the development of different insecure attachment styles, but also the differential role that insecure attachment styles in turn could be exercising in the development of different types of juvenile violence. In this sense, it would be interesting to continue this line of research by replicating these analyses on different profiles of CPV aggressors, especially on the profile that distinguishes the aggressor involved only in CPV from the one who perpetrates different types of juvenile violence in addition to CPV (Cano-Lozano et al., 2023; Navas-Martínez & Cano-Lozano, 2022c, 2023b; Loínaz et al., 2023).

For its part, the total mediation effect found of traumatized attachment on the relationship between vicarious family victimization and CPV shows that the observation of violence between parents would be related to CPV in the presence of traumatized attachment, and only in the case of violence-directed specifically toward the father, results in line with other studies in which vicarious victimization is related to CPV only through the effect of third variables (Junco-Guerrero et al., 2022; McCloskey & Lichter, 2003). One explanation for the differential effect that the present study finds of traumatized attachment in the relationship between direct and vicarious victimization and CPV could be that experiences of direct violence by parents in themselves are sufficiently relevant in the development of CPV, although traumatized attachment would strengthen such relationship, whereas experiences of observed violence between parents are related to CPV through other associated variables that can establish such connection, in our study, traumatized attachment. On the other hand, the absence of previous studies limits understanding why such an effect is found in violence exercised toward the father, but not toward the mother. One possible explanation could be that children exposed to violence between parents who have developed a traumatized attachment may perceive a greater threat from fathers than

from mothers, and that, precisely as a consequence of the hypervigilance characteristic of traumatized attachment, they end up perpetrating violence towards fathers as a way of alleviating the anguish and fear caused by such threat.

Finally, the results show that avoidant attachment seems to be relevant in the relationship between family victimization and violence directed specifically toward the mother, insofar as family victimization is associated with this attachment style, and this in turn is associated with violence only toward the mother. However, mediational analyses show that this attachment style is not strong enough to establish a significant link between family victimization and violence toward the mother, so it is likely that avoidant attachment together with other relevant variables may establish such a link, and further research is needed. Given the scarcity of studies addressing these aspects, it is not possible to contrast our results. However, the findings show the need for studies focused on identifying other variables that may be involved in the relationship between family victimization and CPV.

In summary, this study shows that family victimization is related to CPV through insecure parental attachment. The results suggest that the role of insecure parental attachment differs as a function of the type of family victimization and also as a function of the parent toward whom the violence is directed. Specifically, direct family victimization is more strongly related to violence toward fathers and mothers through affective bonds of fear and anguish while vicarious family victimization is related to violence directed specifically toward fathers through such affective bonds. For their part, avoidant attachment bonds seem to play a relevant role in the relationship between family victimization and violence directed specifically toward mothers, although they are not strong enough to establish a significant link in this relationship.

This study has some limitations to be taken into account in the interpretation of the results. The first limitation is the cross-sectional nature of the data. In this sense, future studies should replicate these analyses with three-time longitudinal designs, in order to be able to test the predictive relationships and indirect effects in them. Second, the data were collected retrospectively, which could lead to errors in recall. However, some studies show that reports from the past also provide valid information. For example, Hardt and Rutter (2004) conducted a review of information provided by adults about their adverse experiences during childhood, concluding that such information was valid. Third, the information is based on participants' self-report, so it would be useful for future studies to examine alternative sources of information, such as from parents. Likewise, the type of sample belonging to the university context and three specific geographic areas limits the generalization of the results to other populations, and it is necessary to replicate these results with other types of samples. Finally, the reliability

of the avoidant attachment scale found in this study indicates the convenience of interpreting with special caution the results referred to this scale.

Despite the previously mentioned limitations, the results of this study provide novel information with some implications for research and professional practice. Regarding research, the findings suggest the need for more studies focused on analyzing the role of insecure parental attachment as one of the explanatory mechanisms of CPV. Likewise, it is possible that certain insecure attachment styles in particular could be implicated in the development of different types of juvenile violence, so it would be interesting to further explore this direction. On the other hand, it would be useful to draw, in addition, on the field of neuroscience linked to toxic trauma that relates reactive aggression (impulsive and unplanned in response to real or perceived threats) to structural changes in the prefrontal cortex and amygdala as a consequence of childhood adversity (Blair, 2013, 2022; Smeets et al., 2017). In particular, contexts of family violence and neglect have been reported to increase amygdala activity to threats and risk for reactive aggression (Bogdan et al., 2012; McCrory et al., 2011), so it would be interesting to analyze whether different attachment styles are involved in the relationship between family victimization and reactive vs. proactive CPV.

Regarding professional practice, attachment theorists argue that this variable has a dynamic character and, therefore, has the potential to be modified, so it could be a valuable tool for intervention and prevention. At the intervention level, it would be important to work with children exposed to violence at home and with their families because of the repercussions that exposure to violence could have on the development of negative bonds. When a negative bond has been established with violent parents, especially traumatized bonds, it would be useful to work with children in the construction of new mental representations of healthy relationship models towards other significant attachment figures, to help them establish new positive bonds. Likewise, interventions aimed at reducing the sensitivity of the amygdala to threats could be effective in the treatment of these children (Blair, 2013, 2022; Smeets et al., 2017). To this end, it would be useful, for example, to promote a therapeutic context in which the child feels safe and protected as well as to work especially on the erroneous cognition that the world wants to damage him/her. At the prevention level, identifying insecure attachment bonds could serve as a warning signal to repairing such bonding before behavioral problems and ultimately CPV occur. In the case of secure bonds, it is convenient to strengthen them to prevent not only CPV but also other types of cognitive, emotional, and behavioral maladjustments, since the attachment developed with the parents tends to be reproduced later and extend to the rest of the social relationships.

In conclusion, this study finds that traumatized attachment mediates the relationship between family victimization

and CPV. This supports the idea that CPV could be a traumatic response of those children who have developed an attachment based on fear and anguish as a result of victimization experienced by attachment figures. The study of CPV based on this perspective could be significant for professional practice, which would be a challenge for most of the research that follows approaches far from this perspective.

Author Contributions Navas-Martínez María J: Conceptualization; Data curation; Funding acquisition; Investigation; Methodology; Resources; Validation; Writing—original draft; Writing—review & editing.

León P. Samuel: Formal analysis; Software; Data curation; Validation; Writing—original draft.

Cano-Lozano M. Carmen: Conceptualization; Data curation; Funding acquisition; Investigation; Methodology; Resources; Validation; Writing—original draft; Writing—review & editing; Project administration; Supervision.

All authors have read and agreed to the published version of the manuscript.

Funding The study was funded by the University of Jaén [grant numbers EI_SEJ8_2021 and R6/04/2018].

Data Availability The data presented in this study are available on request from the corresponding author.

Declarations

Ethic Approval The study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and was approved by the Ethics Committee of the University of Jaén.

Consent to Participate Written informed consent was obtained from the participants.

Competing Interest The authors have no interests to disclose. Neither the manuscript nor any parts of its content are currently under consideration or published in another journal.

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