Chapter 4

Mother–child emotion dialogues in families exposed to interparental violence

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ABSTRACT

This cross-sectional study examined the hypothesis that parent–child emotion dialogues among Interparental Violence (IPV) exposed dyads ($n = 30$; children's age 4–12 years) show less quality than dialogues among non-exposed dyads ($n = 30$; 4–12 years). Second, we examined whether parental posttraumatic stress symptoms and parental adverse childhood experiences (ACE) were associated with the quality of the dialogues. As expected, in the IPV-exposed group, mother–child emotion dialogues were of lesser quality, they more often showed a lack of elaboration compared to dialogues in the non-exposed group. Additionally, exposed mothers showed less sensitive guidance, and children showed less cooperation and exploration than mothers and children in the non-exposed group. Although maternal posttraumatic stress symptoms and maternal history of ACEs were significantly higher in the IPV-exposed families than in the non-exposed families, these variables were not associated with the quality of emotion dialogues. Clinical implications and study limitations are discussed.
INTRODUCTION

Exposure to Interparental Violence (IPV) has considerable direct effects on children. Children exposed to IPV are at risk to develop posttraumatic stress symptoms and internalizing and externalizing behavior problems (Evans, Davies, & DiLillo, 2008; Kitzmann, Gaylord, Holt, & Kenny, 2003). An important protective factor for children in the aftermath of IPV exposure is the parent–child relationship (Afifi & MacMillan, 2011). For children to process difficult and even traumatic life events, it is important to form a coherent narrative of the events (Cohen, Mannarino, & Murray, 2011). Parent–child relations in which children feel safe to give meaning to the traumatic events may enhance their recovery (Fivush, 2007). In IPV-exposed families, talking about the traumatic events may be a problem because IPV affects the family system as a whole. Therefore, parents as well are at risk for posttraumatic stress symptoms and other forms of psychopathology (Campbell, Kub, Belknap, & Templin, 1997; Cascardi, O'Leary, & Schlee, 1999). This vulnerability, in turn, may negatively affect parenting and the parent–child relationship (Levendosky, Huth-Bocks, Shapiro, & Semel, 2003), and thus, the impaired parent–child relation may impede children's narrative formation.

Although there has been a concerted research effort to determine the direct and indirect effects of IPV on children's functioning (Buehler & Gerard, 2002; Davies, Winter, & Cicchetti, 2006; Hungerford, Wait, Fritz, & Clements, 2012), little is known about the capacity of IPV-exposed parent–child dyads to talk about emotions and to compose coherent narratives about emotional events in children's lives. In the present study, we compare emotion dialogues in parent–child dyads between IPV-exposed and non-exposed families. Additionally, we examine the role of parental posttraumatic stress and parents' own history of adverse childhood experiences in parent–child emotion dialogues.

Parent–Child Emotion Dialogues

In recent years, several studies have underlined the importance of parents' capacity to engage with their child in a sensitive and emotionally expressive way in the reminiscence of emotional events for children's cognitive and socio-emotional development (e.g., Fivush, Haden, & Reese, 2006). For example, high quality of parent–child emotion dialogues is related to children's secure attachment (Fivush & Vasudeva, 2002; Laible, 2011), effective emotion regulation skills (Laible, 2011), positive self-image (Goodvin & Romdall, 2013), a realistic view of how to relate to others and to the world (Fivush, 2007; Laible, 2011), and effective coping mechanisms (Goodvin & Romdall, 2013; Laible, 2011).
Quality of parent–child emotion dialogues is not only related to a healthy socio-emotional development, but also to children’s mental health (Fivush, Marin, McWilliams, & Bohanek, 2009; Fivush & Sales, 2006). For example, Fivush et al. (2009) found that a more engaged contribution of mothers to mother–child emotion dialogues about conflict-events resulted in lower child internalizing and externalizing behavior problems. More generally, parent–child relationship quality has been related to internalizing (Brumariu & Kerns, 2010; Groh, Roisman, van IJzendoorn, Bakermans-Kranenburg, & Fearon, 2012), and externalizing behavior problems (Buist, Deković, Meeus, & van Aken, 2004; Fearon, Bakermans-Kranenburg, Van IJzendoorn, Lapsley, & Roisman, 2010; Groh et al., 2012).

The impact of experiences on children’s feelings of security, development, and mental health depends on the meaning children ascribe to these experiences (Oppenheimer, 2006). Children need their parents to co-construct and give emotional meaning to experiences (Tronick & Beeghly, 2011). By reminiscing past events, parents help their children to understand themselves emotionally and the world surrounding them (Fivush, 2007).

Reminiscing about past events between parents and children in emotion dialogues may serve different goals, depending on the positive or negative emotional meaning of the event. In reminiscing about positive events, parents may stimulate social and emotional bonding by sharing history (Fivush, 2007). In reminiscing about stressful events, parents may help their child understand what happened, why it happened, and what the child can do to avoid such negative experiences and events in the future (Fivush, 2007). Especially reminiscing about negative and stressful events seems to be important for children’s coping skills, their emotion regulation skills, and to diminish the development of internalizing and externalizing behavior problems (Fivush & Sales, 2006).

Given the inherently dyadic nature of emotion dialogue, not only is parental contribution important, but also the children’s contribution to the dialogue is important when studying parent–child emotion dialogues. Both parents (Fivush, 2007; Fivush & Sales, 2006), children (Gentzler, Contreras-Grau, Kerns, & Weimer, 2005), and even families (Bohanek, Marin, Fivush, & Duke, 2006), may differ in reminiscing styles. For example, elaboration, that is, the parents’ ability to engage in rich, detailed and coherent emotion dialogues, is studied extensively and is one of the critical dimensions in reminiscing styles along which parents vary (Fivush, 2007; Fivush et al., 2006). Other critical dimensions of parents’ contributions are the level of engagement (Fivush & Sales, 2006), emotional expressiveness (Fivush & Sales, 2006), emotional coaching (Ellis, Alisic, Reiss, Dishion, & Fisher, 2014), and explaining (Fivush & Sales, 2006). Children may differ in emotional openness and involvement (Gentzler et al., 2005), as well as coping abilities (Amato & Afifi, 2006). Also, parents
and children mutually influence and accommodate to each other during emotional dialogues (Fivush et al., 2006; Fivush & Sales, 2006), and dialogues are shaped by the quality of the parent–child relationship. Parents who support and guide their children sensitively when talking about emotions help them to organize and understand experiences, which promotes a secure psychological base for children (Koren-Karie, Oppenheim, Haimovich, & Etzion-Carasso, 2003). To illustrate, secure attachment in infancy is related to high-quality emotion dialogues among children aged 4.5 and 7.5 years (Oppenheim, Koren-Karie, & Sagi-Schwartz, 2007). The more secure children feel, the higher levels of child cooperation and exploration they show (Hsiao, Koren-Karie, Bailey, & Moran, 2015). So, to examine the impact of IPV on parent–child emotion dialogues, it is crucial to observe the parent, the child, and the parent–child interaction.

Parent–Child Emotion Dialogues and Exposure to Interparental Violence

For children to process traumatic events, like exposure to IPV, they need their parents to make meaning of their experiences (McDonald, Jouriles, Rosenfield, & Leahy, 2012). Empirical evidence consistently shows that children’s understanding of the meaning of IPV experiences is important for their psychosocial adjustment (e.g., Grych, Harold, & Miles, 2003; Sturgeon-Apple, Davies, Winter, Cummings, & Schermershorn, 2008). Also, diverse indicators of effective parenting behavior and better quality of the parent–child relationship have been linked to more positive child adjustment in the aftermath of exposure to IPV (Afifi & MacMillan, 2011; Holt, Buckley, & Whelan, 2008; Hungerford et al., 2012; Levendosky et al., 2003). Furthermore, parental support is a strong predictor of positive trauma-focused treatment outcomes in traumatized children (Cohen & Mannarino, 2000), and sensitive parental guiding in parent–child emotion dialogues stimulates children’s ability to process stressful experiences (Fivush, 2007). This may especially be important in families exposed to IPV.

Although the benefits of parent–child emotion dialogues for children to process stressful experiences have been well-established, these dialogues may be challenging in IPV families because of the differential effects IPV has on all family members. For example, both parents and children have an advanced risk for posttraumatic stress symptoms (Cascardi et al., 1999; Evans et al., 2008). Due to posttraumatic stress symptoms, like hyperarousal, intrusions, avoidance, and numbing (Taylor, Kuch, Koch, Crockett, & Passey, 1998), it may be very difficult for parents to sensitively guide the child, and for the child to cooperate in parent–child emotion dialogues and to explore the emotional meaning of stressful events freely.

In particular, the impact of maternal posttraumatic stress symptoms may have significant implications for parent–child emotion dialogues. Koren-Karie, Oppen-
heim, and Getzler-Yosef (2004) showed that lower levels of maternal resolution of trauma is associated with over- or under-structuring, rigid and inflexible interaction, lack of attunement and empathy, and emotional dysregulation in the joint narrative between mother and child. Also, traumatized mothers may be less engaged in the dialogues because they need to focus their attention on themselves rather than on their children. Children's emotions may be a reminder of their own trauma which may trigger avoidance (Lieberman, 2004). A study of mother–child dyads in which mothers were traumatized by war, but children were not exposed to war, showed that maternal posttraumatic stress symptoms were negatively associated with parent–child relation quality, and children showed lower levels of responsiveness and involvement in mother–child interactions (Van Ee, Kleber, & Mooren, 2012).

In addition to the high risk of maternal posttraumatic stress in IPV-exposed families, research also shows that parents in these families often have been exposed to adverse childhood experiences (ACE themselves (Bensley, Van Eenwyk, & Simmons, 2003). Parents exposed to ACEs are at increased risk to develop psychopathology (Anda et al., 2006), and parental psychopathology has been shown to be a risk factor for negative parenting and lower parent–child relation quality (Levendosky & Graham-Bermann, 2000). Lieberman, Van Horn, and Ozer (2005) showed a negative association between maternal life stress and quality of the parent–child relationship. Unresolved maternal child abuse experiences are related to difficulties in talking about emotions with their children (Koren-Karie et al., 2004). So, both parental posttraumatic stress and parental exposure to ACEs may contribute to the quality of the parent–child emotion dialogue in IPV families.

Despite the recognized importance of parental support in children's processing of traumatic experiences in IPV-exposed families through emotional narratives and dialogues, empirical research on parent–child emotion dialogues in these families is scarce. Knowledge about the specific dynamics between parents and children in their emotion dialogues may point to important clinical insights for trauma-focused treatment.

**Current Study**

To enhance our understanding of the impact IPV has on parent–child emotion communication, in the present study, we compare the quality of emotion dialogues in parent–child dyads between IPV-exposed and non-exposed families. Given the effects of IPV on parents, children, and the parent–child relationship, we hypothesize, first, that the quality of emotional dialogues among IPV-exposed mother–child dyads will be lower than the quality of emotional dialogues among dyads who have not been exposed to IPV. Second, we will examine the role of parental posttraumatic stress and parents’ own history of adverse childhood experiences on the quality of
parent–child emotion dialogues. Based on the existing literature, we hypothesize that IPV-exposed parents show more post-traumatic stress and have more ACEs than non-exposed parents. Furthermore, we expect that parental posttraumatic stress and parental ACEs will further undermine emotional dialogues among IPV-exposed dyads.

**METHOD**

**Participants**

Participants were 30 children exposed to IPV (13 girls; mean age 8 years, 11 months, SD = 24 months, range 4.2-12.11 years) and their mothers (29 biological and one adoptive mother) and a control group of 30 non-exposed children (13 girls; mean age 9 years, 1 months, SD = 24 months, range 4.5-12.6 years) and their mothers. No siblings participated in the study. Since only mothers participated in our study, from now on the manuscript is about mothers instead of parents.

To be able to compare the IPV-exposed group with a control group, one child between 4 and 13 years old was selected in the IPV-exposed group, which we could best match with a child in our control group on gender and age. All mothers signed fully informed consent and children gave assent, as approved by the VU University Medical Ethical Committee (NL39277.029.12). As a reward for their participation and to cover travel expenses, mothers received €25. Children received a small gift (e.g., ball, pen, game).

**Procedure**

This study is part of a larger longitudinal study examining the efficacy of two parental components of an intervention for IPV-exposed children. Only measures relevant for our current research questions are presented.

Mother–child dyads in the IPV-exposed group were recruited from three outpatient Children’s Trauma Centers in different urban and rural regions of the Netherlands. Between 2012 and 2015, children were referred to the centers by a physician or by the Dutch Youth Care Agency for the treatment of the child after exposure to IPV. Mothers were asked to participate in the study when the child had been exposed to IPV, and the child was between 4 and 12 years of age. Certificated clinicians gathered information and participants were excluded when 1) violence was still going on in the family; 2) child or mother had an intellectual disability (IQ score clinically assessed and approximately below 70); and 3) child or mother were unable to fill out questionnaires or participate in the observational measure due to the inability to read or to speak Dutch.
The non-exposed group was recruited through the social network of students and research assistants. Exclusion criteria were 1) child or mother had an intellectual disability (self-reported); 2) child or mother was unable to fill out questionnaires or participate in the observational measure due to the inability to read or to speak Dutch.

Trained research assistants visited each family of the IPV-exposed group in the Trauma Center or at home, and each family of the non-exposed group in their home. Mother–child dyads completed the Autobiographical Emotional Events Dialogues (AEED, see below). After the dyad had completed the AEED, mothers were asked to complete a set of questionnaires.

**Measures**

**Family violence measures**
The degree and type of IPV was assessed by use of the Dutch translation (translated by Lamers-Winkelman, 2005) of the Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). For each item, mothers were asked to rate whether and how often this specific tactic was used, either by themselves or by their partner, in a conflict situation in the last year of the (violent) relationship, ranging from 1 (*never happened*) to 8 (*more than 20 times in the last year*). Frequency scores (range 0 – 25) were calculated for the amount of psychological aggression (8 items) and physical aggression (12 items). Internal consistency for psychological violence was .76 for self-used and .89 for partner-used psychological violence. Internal consistency for physical violence was .62 for self-used and .96 for partner-used physical violence.

**Autobiographical Emotional Events Dialogues (AEED)**
In this method, mothers and children recall and describe autobiographical events during which the child felt happy, sad, angry, scared, and proud. In our study, dyads received five cards, depicting an emoticon and the accompanying feeling. They were asked to remember an event in which the child experienced each feeling and to construct a story about each event together. The conversations lasted between 5 and 15 minutes and were transcribed verbatim. To ensure that dialogues were coded unaffected by non-verbal cues and behavior, dialogues were coded using the transcripts (Koren-Karie, Oppenheim, Carasso, & Haimovich, 2003, p. 350). Koren-Karie, Oppenheim, Carasso, et al. (2003) developed a coding system for these dialogues. The coding includes seven scales for the mother (*Shift of focus*, *Boundary dissolution*, *Acceptance and tolerance*, *Hostility*, *Involvement and reciprocity*, *Closure of negative feelings*, and *Structuring of the interaction*), seven parallel scales for the child (*Shift*...
of focus, Boundary dissolution, Acceptance and tolerance, Hostility, Cooperation and reciprocity, Resolution of negative feelings, Elaboration of the stories), and two scales assessing the overall quality of the dialogue (Adequacy of the stories and Coherence). Every scale ranges from 1 to 9, with higher scores indicating more enactment of the specific behavior. To increase statistical power, two composite scores (mean of all relevant subscales) were calculated to reflect mothers’ and children’s contribution to the dialogues (Koren-Karie, Oppenheim, & Getzler-Yosef, 2008). Internal consistency of the maternal scales (Maternal Sensitive Guidance) was .74, and of the child scales (Child Cooperation and Exploration) .71.

Based on all rating scales, the dyads were classified into one of four groups of dialogues, 1) emotionally matched and; emotionally unmatched, namely: 2) exaggerating; 3) flat and; 4) inconsistent. Emotionally matched dyads are capable of creating coherent stories with a clear and believable link between the emotion and the story. Stories can either be rich and full of details or brief, but the most important features are that both mother and child are involved, and mothers leave space for the child while guiding the dialogue toward a positive closure of negative emotions. Exaggerating dialogues are charged with negative, extreme, or dysregulated emotional themes. The story does not match the emotion on the card. Mothers often talk about their children’s emotions as if they were identical to their own. Themes are often raised but immediately blocked. There is a lack of coherence in the stories, expressed by repetitiveness. Additional features are the tendency toward extremes and over dramatization, boundary dissolution, and the strong need of the child to please the mother. Flat dialogues are characterized by their lack of involvement, low elaboration, and poor development of the stories. Both partners display a lack of interest in the task. Inconsistent dialogues are characterized by contradictory features such as discussing two emotions in an emotionally matched way and the others in an emotionally unmatched manner. Or cases in which one of the two partners is cooperative and providing emotionally matched stories, whereas the other blocks the opportunity for dialogues, derails the conversation to irrelevant directions, or expresses high levels of hostility and anger.

The second author, who was blind to whether the dyads were exposed to IPV, coded all transcripts and had only information about children’s age and gender. She was trained by N. Koren-Karie in the AEED coding system and established adequate reliability. To improve coding in a sample of traumatized children, a subgroup of researchers coded transcripts of dialogues between parents and their children in a different IPV-exposed sample, consulted by the developer. Inter-rater reliabilities for the four classifications (Cohen’s Kappa = .80) and the two-way classification (Emotionally Matched vs. Emotionally Unmatched; Cohen’s Kappa = 1.0) were good. Inter-rater reliability of the composite scores was .95 for Maternal Sensitive Guidance and .95 for Child Cooperation and Exploration.
Maternal Posttraumatic Stress Symptoms

To assess maternal post-traumatic stress symptoms, we used the *Impact of Events Scale – Revised* (Weiss, 2004), translated into Dutch by Brom & Kleber (Schokverwerkingslijst (SVL-22), 1985). This questionnaire consists of 22 items measuring symptoms of post-traumatic stress disorder during the last week, and it measures the three dimensions of post-traumatic stress disorder: intrusion, avoidance and hyperarousal. Mothers rate the items on a 5-point Likert-scale ranging from ‘*not at all*’ to ‘*extremely*’. The IES-R has shown good discriminant validity and diagnostic utility in other research (Olde, Kleber, van der Hart, & Pop, 2006). In the current study, the Cronbach’s alpha coefficient for the total score of post-traumatic stress symptoms was .94.

Maternal Childhood Experiences

*The Adverse Childhood Experiences questionnaire* (Felitti et al., 1998) was used to assess mothers’ traumatic childhood experiences. The Adverse Childhood Experience study showed a strong relation between exposure to abuse during childhood and emotional well-being in adulthood (Felitti et al., 1998). Mothers were asked to report whether they had experienced emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, parental divorce, witnessing domestic violence, parental addiction, parental mental illnesses or parental incarceration in the first 18 years of their life.

Statistical analyses

First, all continuous variables were checked for outliers (−3.29 < z < 3.29), and outliers were winsorized to the nearest non-outliers (7 values of 4 dyads) (Tabachnick & Fidell, 2007). Second, descriptives and Pearson correlations were calculated for background variables (marital status, parental education, and family income), characteristics of IPV, AEED child and maternal scales, maternal PTSD, and maternal ACEs. With a Chi-square test and t-tests, we tested group differences between the IPV-exposed group and non-exposed group in maternal post-traumatic stress symptoms, maternal adverse childhood experiences, and AEED maternal and child contributions. Third, Fisher’s Exact Test was used to examine further associations between group (IPV-exposed vs. non-exposed) and AEED classifications. Fourth, two multivariate analyses of variance (MANCOVA) were conducted to compare the combined quality of child and maternal contributions to emotion dialogues between IPV-exposed dyads and non-exposed dyads. In the first MANCOVA, the effect of IPV-exposure on emotion dialogues was examined by use of a dummy variable (0 = *non-exposed*, 1 = *IPV-exposed*). In the second MANCOVA, maternal posttraumatic stress symptoms (continuous) and maternal adverse childhood experiences (continuous) were added to the model.
RESULTS

Descriptive analyses

IPV characteristics
In the IPV-exposed group, mothers reported at intake 19.26 psychological aggression incidents in the last year of the violent relationship committed by themselves ($SD = 28.73$, range $0-105$), and 62.15 psychological aggression incidents committed by their partner ($SD = 57.62$, range $0-177$). The frequency of events involving physical aggression by the mother in the last year of the relationship was 5.22 ($SD = 10.58$, range $0-39$), and by their partner 42.85 ($SD = 72.79$, range $0-275$). In the non-exposed group, some incidents of psychological and physical aggression were reported (psychological aggression mother: 7.75 incidents, $SD = 14.95$, range $0-75$; psychological aggression partner: 5.86 incidents, $SD = 14.59$, range $0-75$; physical aggression mother: 0.57 incidents, $SD = 2.27$, range $0-12$; physical aggression partner: 0.25 incidents, $SD = 0.84$, range $0-4$, respectively). Significantly more incidents occurred in the IPV-exposed group than in the non-exposed group ($t(32.86) = −4.21$, $p < .001$ for psychological aggression (mother and partner combined); $t(26.08) = −3.25$, $p = .003$ for physical aggression (mother and partner combined)).

Background characteristics
Mothers in the IPV-exposed group were significantly more likely to be single-parent ($\chi^2(1) = 29.76$, $p < .001$), and less likely to be Dutch ($\chi^2(1) = 7.22$, $p = .01$; 6 mothers, 22.2% non-specified other ethnical background). Also, they were significantly more likely to receive an annual income below the poverty threshold (<15,000€) ($\chi^2(1) = 18.72$, $p < .001$), and were significantly more likely to have a lower education ($\chi^2(2) = 22.07$, $p < .001$) (see Table 1).

Mothers in the IPV-exposed group reported at intake on average 2.19 incidents of psychological maltreatment of their child in the last year by themselves ($SD = 3.46$, range $0-12$), and 11.96 incidents by their partner ($SD = 26.31$, range $0-98$). The frequency of events involving physical maltreatment of the child in the past year by the mothers was 0.19 ($SD = 0.62$, range $0-3$), and by their partner 1.00 ($SD = 3.17$, range $0-16$). Mothers reported 1.81 incidents of neglect in the past year ($SD = 4.91$, range $0-23$) and 0.07 incidents of sexual abuse of the child ever ($SD = 0.38$, range $0-2$). No data on neglect by the partner were available. In the non-exposed group some incidents of psychological and physical maltreatment of the child in the last year were reported (psychological maltreatment child by mother: 3.76 incidents, $SD = 5.57$, range $0-25$; psychological maltreatment child by partner: 3.67 incidents, $SD = 5.87$, range $0-25$; physical maltreatment child by mother: 0.07 incidents, $SD = 0.26$, range $0-1$; physi-
cal maltreatment child by partner: 0.00 incidents, $SD=0.00$, range 0, respectively). Mothers reported 0.72 incidents of neglect in the past year in the non-exposed group ($SD=1.77$, range 0-8) and 0 incidents of sexual abuse of the child ever. There was no significant difference in the number of incidents of psychological and physical maltreatment (mother and partner combined), neglect or sexual abuse of children between the IPV-exposed group and non-exposed group ($t(34.37)=-1.20, p=.238$ for psychological maltreatment; $t(26.32)=-1.81, p=.082$ for physical maltreatment; $t(32.23)=-1.09, p=.284$ for neglect; $t(26.00)=-1.00, p=.327$ for sexual abuse).

We explored the distribution of these demographic variables (i.e., marital status, parental education, and family income) across groups. As can be seen in Table 1, the demographic characteristics were highly skewed and unevenly distributed across groups. To illustrate, the non-IPV-exposed group included only one single-parent (see Table 1). Given these distributions in combination with the small sample size, we refrained from controlling for these variables in our statistical analyses to prevent undue influence. We will come back to this issue in the discussion.

### Table 1. Background Variables by Group

<table>
<thead>
<tr>
<th></th>
<th>IPV-exposure</th>
<th>Non-exposure</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>$n$</td>
<td>%</td>
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<tr>
<td>Dutch (Yes)</td>
<td>21</td>
<td>77.8</td>
</tr>
<tr>
<td>Single parent household (Yes)</td>
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<td>77.8</td>
</tr>
<tr>
<td>Poverty level (Yes)</td>
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<td>52</td>
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<tr>
<td>Parental educational level</td>
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<td></td>
</tr>
<tr>
<td>Low</td>
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</tr>
<tr>
<td>Middle</td>
<td>17</td>
<td>55.6</td>
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<tr>
<td>High</td>
<td>5</td>
<td>25.9</td>
</tr>
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</table>

### Correlations between study variables

Table 2 shows the descriptives, and Table 3 shows the Pearson correlations for the study variables. Violence characteristics were highly correlated with each other ($r=.31-.76$) and weakly or moderately correlated with mother–child communication ($r\leq-.32$), maternal post-traumatic stress symptoms ($r\leq.32$), and maternal adverse childhood experiences ($r\leq.50$). Characteristics of mother–child communication were highly correlated ($r=.69$), and child contribution of emotion dialogues was negatively associated with maternal post-traumatic stress symptoms ($r=-.32$). Maternal post-traumatic stress symptoms and adverse childhood experiences were moderately associated ($r=.46$). These results indicate that IPV was, as expected, negatively associated with positive indicators of mother–child communication and maternal functioning, and was positively associated with maternal ACEs.
### Table 2. Descriptives

<table>
<thead>
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<th>Variable</th>
<th>N</th>
<th>Range</th>
<th>M</th>
<th>SD</th>
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<td>1. Marital status</td>
<td>56</td>
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<td>.49</td>
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<td>2. Parental education</td>
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<td>1-3</td>
<td>2.44</td>
<td>.63</td>
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<td>3. Low family income</td>
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<td>4. Psychological aggression self</td>
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<td>0-105</td>
<td>13.4</td>
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<td>5. Psychological aggression partner</td>
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<td>50.1</td>
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<td>6. Physical assault self</td>
<td>55</td>
<td>0-39</td>
<td>2.85</td>
<td>7.87</td>
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<td>7. Physical assault partner</td>
<td>55</td>
<td>0-275</td>
<td>21.16</td>
<td>54.89</td>
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<td>8. AEED child scales</td>
<td>60</td>
<td>33-56.5</td>
<td>44.9</td>
<td>5.83</td>
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<td>9. AEED mother scales</td>
<td>60</td>
<td>28-56.5</td>
<td>45.1</td>
<td>5.95</td>
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<td>10. Maternal PTSD</td>
<td>55</td>
<td>1-4.28</td>
<td>1.56</td>
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<td>11. Maternal ACEs</td>
<td>56</td>
<td>0-9</td>
<td>1.96</td>
<td>2.40</td>
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</table>

**Note.** Reported variables are winsorized variables. AEED = Autobiographical Emotional Events Dialogue. PTSD = Post-Traumatic Stress Disorder. ACEs = Adverse Childhood Experiences. Marital status is operationalized as single parent (1) vs. with a partner (0). Parental education was operationalized in three levels (low (1), middle (2), high (3)). Family income was coded as below (0) or above (1) €35.000 annually.

### Table 3. Pearson correlations between variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
<th>11.</th>
</tr>
</thead>
<tbody>
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<td>1. Marital status</td>
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<td>.40**</td>
<td>.33*</td>
<td>-.24</td>
<td>-.12</td>
<td>.60***</td>
<td>.35**</td>
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<td>2. Parental education</td>
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<td>-.08</td>
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<td>-.24</td>
<td>-.16</td>
<td>.25</td>
<td>.25</td>
<td>-.35**</td>
<td>-.24</td>
</tr>
<tr>
<td>3. Low family income</td>
<td></td>
<td></td>
<td>.17</td>
<td>.37**</td>
<td>-.10</td>
<td>.35*</td>
<td>-.25</td>
<td>-.03</td>
<td>.68***</td>
<td>.19</td>
</tr>
<tr>
<td>4. Psychological aggression self</td>
<td></td>
<td></td>
<td></td>
<td>.66***</td>
<td>.76***</td>
<td>.31*</td>
<td>-.25</td>
<td>-.16</td>
<td>.12</td>
<td>.43**</td>
</tr>
<tr>
<td>5. Psychological aggression partner</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.64***</td>
<td>.74***</td>
<td>-.31*</td>
<td>-.21</td>
<td>.32*</td>
<td>.47***</td>
</tr>
<tr>
<td>6. Physical assault self</td>
<td></td>
<td></td>
<td></td>
<td>-.37**</td>
<td>-.32*</td>
<td>-.24</td>
<td>.30*</td>
<td>.50***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Physical assault partner</td>
<td></td>
<td></td>
<td></td>
<td>-.25</td>
<td>-.18</td>
<td>.31*</td>
<td>.34*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. AEED child scales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.25</td>
<td>-.18</td>
<td>.31*</td>
<td>.46***</td>
<td></td>
</tr>
<tr>
<td>9. AEED mother scales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Maternal PTSD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Maternal ACEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Reported variables are winsorized variables. AEED = Autobiographical Emotional Events Dialogue. PTSD = Post-Traumatic Stress Disorder. ACEs = Adverse Childhood Experiences. Marital status is operationalized as single parent (1) vs. with a partner (0). Parental education was operationalized in three levels (low (0), middle (1), high (2)). Family income was coded as below (0) or above (1) €35.000 annually.

*** p < .001, ** p < .01, * p < .05
Group differences in maternal posttraumatic stress and adverse childhood experiences

Maternal posttraumatic stress
Mothers in the IPV-exposed group reported significantly more symptoms of posttraumatic stress ($M = 1.98$, $SD = 0.88$) than mothers in the non-exposed group ($M = 1.17$, $SD = 0.26$; $t(29.05) = −4.52$, $p < .001$).

Maternal Adverse Childhood Experiences
Mothers in the IPV-exposed group reported overall more adverse childhood experiences in their own childhood than mothers in the non-exposed group (see Table 4).

Table 4. Comparison of number of mothers in non-IPV exposed group and IPV-exposed group who experienced Adverse Childhood Experiences (ACE)

<table>
<thead>
<tr>
<th>Adverse Childhood Experiences</th>
<th>Non-IPV ($M$ ($SD$))</th>
<th>IPV ($M$ ($SD$))</th>
<th>$\chi^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Childhood Abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional abuse</td>
<td>2</td>
<td>6</td>
<td>2.31</td>
<td>.129</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>2</td>
<td>10</td>
<td>6.67</td>
<td>.010</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>4</td>
<td>10</td>
<td>3.35</td>
<td>.067</td>
</tr>
<tr>
<td>Emotional neglect</td>
<td>5</td>
<td>13</td>
<td>5.08</td>
<td>.024</td>
</tr>
<tr>
<td>Physical neglect</td>
<td>0</td>
<td>5</td>
<td>5.46</td>
<td>.020</td>
</tr>
<tr>
<td>Household Dysfunction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorce/separation</td>
<td>6</td>
<td>7</td>
<td>0.10</td>
<td>.754</td>
</tr>
<tr>
<td>Domestic violence</td>
<td>2</td>
<td>9</td>
<td>5.46</td>
<td>.020</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>2</td>
<td>9</td>
<td>5.46</td>
<td>.020</td>
</tr>
<tr>
<td>Mental illness</td>
<td>6</td>
<td>9</td>
<td>0.80</td>
<td>.371</td>
</tr>
<tr>
<td>Incarceration</td>
<td>0</td>
<td>3</td>
<td>3.16</td>
<td>.076</td>
</tr>
<tr>
<td>Total ACEs ($M$ ($SD$))</td>
<td>1.00 (1.46)</td>
<td>3.00 (2.77)</td>
<td>$t(38.81) = −3.34$</td>
<td>.002</td>
</tr>
</tbody>
</table>

Group differences in AEED classifications and composite scores

AEED classifications
The association between group and two-way classifications showed that mother–child dyads in the IPV-exposed group were significantly more likely to be classified as Emotionally Unmatched (24 dyads) than mother–child dyads in the non-exposed group (14 dyads; $\chi^2(1) = 7.18$, $p = .007$). Fisher’s Exact Test was used to examine associations between group and four-way classifications, because more than 20% of cells had an expected cell frequency lower than five. IPV-exposed children were less likely to engage in Emotionally Matched dialogues and more likely to engage in Flat
dialogues (Fisher’s Exact = 9.37, $p = .020$). The distribution of classifications across both groups can be seen in Table 5.

<table>
<thead>
<tr>
<th></th>
<th>Emotionally Matched</th>
<th>Emotionally Unmatched</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Matched</td>
<td>Excessive</td>
</tr>
<tr>
<td>Non-IPV exposed group</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>IPV-exposed group</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

**AEED composite scores**

An independent t-test revealed significant group differences in Maternal Sensitive Guidance ($t(58) = 2.08$, $p = .042$, effect size $r = .26$) and Child Cooperation and Exploration ($t(58) = 3.25$, $p = .002$, effect size $r = .39$). Mothers in the IPV-exposed group ($M = 43.53$, $SD = 4.94$) showed less sensitive guidance than mothers in the non-exposed group ($M = 46.63$, $SD = 6.52$). Similarly, children in the IPV-exposed group ($M = 42.63$, $SD = 5.57$) showed lower levels of cooperation and exploration than children in the non-exposed group ($M = 47.17$, $SD = 5.24$).

**Group differences in predictors of mother–child interaction**

We conducted two MANCOVAs to examine the effect of IPV-exposure, maternal posttraumatic stress, and maternal adverse childhood experiences on children’s and mother’s contributions to emotion dialogues (combined as AEED composite scores). IPV-exposure was significantly associated with dyadic interaction ($F(2,57) = 5.20$, $p = .008$, partial $\eta^2 = .15$, Wilks’ Lambda = .85). Second, we examined associations between IPV-exposure, maternal posttraumatic stress symptoms, maternal adverse childhood experiences, and AEED composite scores. Neither maternal posttraumatic stress ($F(2,50) = .71$, $p = .50$, partial $\eta^2 = .03$, Wilks’ Lambda = .97), nor maternal adverse childhood experiences ($F(2,50) = .08$, $p = .93$, partial $\eta^2 < .01$, Wilks’ Lambda = .99) contributed to explaining the total composite score of dyadic interaction. In addition, IPV-exposure was no longer a predictor of AEED composite scores ($F(2,50) = 1.08$, $p = .35$, partial $\eta^2 = .04$, Wilks’ Lambda = .96).

**DISCUSSION**

Our goals for this study were to examine whether mother–child emotion dialogues among IPV-exposed dyads showed less quality than dialogues among non-exposed dyads, and to test associations with maternal posttraumatic stress symptoms and maternal history of adverse childhood experiences. We found support for our hy-
hypothesis that mother–child emotion dialogues are of lesser quality in IPV-exposed families than in non-exposed families. Specifically, we found that in IPV-exposed families, as compared to non-exposed families, significantly more dyads had emotionally unmatched emotion dialogues, most of which were classified as ‘flat’. Flat dialogues are characterized by a lack of involvement of both parent and child, low elaboration, and poor development of the stories. Both partners display a lack of interest in the task. Furthermore, mothers of the IPV-exposed dyads showed less sensitive guidance and children of the IPV-exposed dyads showed less cooperation and exploration than mothers and children in non-exposed dyads.

Consistent with previous studies (Bensley et al., 2003; Lieberman, 2004), maternal posttraumatic stress symptoms and maternal history of ACEs were significantly higher in the IPV-exposed families than in the non-exposed group. However, contrary to our expectations, maternal posttraumatic stress symptoms and maternal ACEs were not associated with the quality of mother–child dialogues. Furthermore, when associations between IPV-exposure, maternal posttraumatic stress symptoms, and maternal ACEs, were examined at the same time, none of the three contributed to explaining maternal and child contribution on parent–child emotion dialogues.

Based on the existing literature, we predicted that the lower quality of mother–child interaction in IPV-exposed families may be explained by several mechanisms. One mechanism we examined was maternal posttraumatic stress, which was not significant. The AEED focuses on dialogues about daily child experiences, rather than IPV experiences. Although maternal posttraumatic stress may impair maternal contribution to emotion dialogues with their child about IPV experiences, maternal contribution to dialogues about daily events may be impaired by other factors. For example, other risk factors associated with IPV, such as poor economic circumstances or single parenthood, may impede mothers’ availability in emotion dialogues about everyday life emotional experiences with their children (Visser, Schoemaker, de Schipper, Lamers-Winkelman, & Finkenauer, 2015). Also, it is possible that mothers avoid talking about negative emotions such as anger and anxiety because these emotions may function as a reminder of their own traumatic IPV experiences (Lieberman, 2004). Consequently, for flat dyads, we would expect a negative association between maternal posttraumatic stress avoidant symptoms and maternal sensitive guiding behavior. Larger samples would be needed to examine this hypothesis. Our sample of IPV-exposed mothers showed relatively low posttraumatic stress levels, which may be due to the fact that our sample is based on a sample of children referred to the outpatient clinic, and included only participants in which both custodial parents gave permission to participate in the research. Future studies may involve IPV victims in shelters, for example, to increase the variance of posttraumatic stress among mothers and examine its association with parent–child emotion dialogues. Furthermore,
given the observed differences between the IPV-exposed and non-exposed group on demographic variables (e.g., single motherhood, socio-economic status), it is possible that confounding variables affected our results. Larger studies allowing a better match between the two groups on these variables or providing the statistical power to examine their effects on the observed differences in quality of mother–child emotion dialogues between the two groups would be particularly relevant.

Another mechanism, which we examined, centered on maternal ACEs. Again, we found no support for our prediction that lower quality mother–child interaction would be partly explained by maternal ACEs. Possibly, qualitative differences in maternal trauma may be more important to the quality of emotion dialogues than the mere frequency of ACEs we measured in our study. Future research should, for example, examine whether maternal childhood trauma resolution in IPV mothers is related to AEED unmatched classifications (Koren-Karie et al., 2004).

It is also possible that mechanisms not assessed in our study are at play. For example, IPV-exposed children may be less cooperative and exploring than non-exposed children, because role reversal and parentification may be more prevalent in IPV families (Carroll, Olson, & Buckmiller, 2007). IPV-exposed children may want to prevent their mother from becoming upset (Holt et al., 2008). Consequently, rather than reacting to mother’s actual emotions during the dialogue, children may anticipate their mother’s vulnerabilities or stress and try to protect her.

Finally, it is possible that IPV-exposed and non-exposed families differ in other dyadic processes in the interaction between mothers and children. For example, IPV-exposed children are likely to exhibit more challenging behavior than non-exposed children (e.g., aggressive, deviant, Kitzmann et al., 2003). Although parents are generally capable of adapting their parental behavior and sensitive caregiving in accordance with the particular needs of different children (Van Ijzendoorn, Goldberg, Kroonenberg, & Frenkel, 1992), IPV may impair parents’ sensitivity especially when children’s behavior is challenging. Future research including larger samples of IPV-exposed dyads, would be particularly promising in the examination of these different mechanisms, and would ideally allow researchers to pit different mechanisms against each other.

Clinical implications
The results of this study have significant implications for clinical practice. The results show that in clinical practice when working with IPV-exposed families there is a higher risk that parent–child emotion dialogues will be flat. Specifically, our findings suggest that interventions that increase maternal sensitivity and children’s cooperation and exploration may help to improve the quality of parent–child emotion dialogues, and, thus ameliorate the parent–child relationship. Higher quality

A promising direction for future research is to examine whether the quality of parent–child emotion dialogues generalizes to parent–child emotion dialogues about IPV experiences. Additionally, it may be clinically relevant to know if the capacity to create a trauma narrative for children requires the same skills and abilities as those needed in parent–child emotion dialogues about stressful events.

Our findings also underline that parents and children both contribute to these dialogues together. Several trauma treatments already recognize the importance of children's meaning-making (Chaffin et al., 2004; Deblinger, Mannarino, Cohen, Runyon, & Steer, 2011; Lieberman, Van Horn, & Ippen, 2005; Valentino, Comas, Nuttall, & Thomas, 2013; Visser, Leeuwenburgh, & Lamers-Winkelman, 2007). For example, Child Parent Psychotherapy highlights the importance of a relationship focus in the treatment of mother–child dyads after IPV-exposure and helps the child and the mother in creating a joint trauma narrative (Lieberman, Van Horn, & Ippen, 2005). Child Parent Psychotherapy is specifically developed for IPV-exposed children aged 0-5, and the mother–child dyad is the unit of treatment. Furthermore, Valentino et al. (2013) studied the efficacy of a short training for maltreating parents in elaborative and emotion-rich reminiscing with their children to benefit child cognitive and emotional development. Future research examining the efficacy of this training to benefit cognitive and emotional processing of IPV experiences in children may be promising.

**Strengths and Limitations**

Before closing, it is important to note several strengths and constraints of the present study. One strength of the present study is the use of an observational measure to capture both mothers' and children's contribution to emotion dialogues. By comparing an IPV-exposed group with a non-exposed group, our study has laid the foundations for more in-depth research into the links between mother–child emotion dialogues and child adjustment in IPV-exposed families. Both research investigating the mechanisms underlying the observed group differences, as well as research examining the clinical applications of our findings would be especially promising.

Several limitations of this study should be acknowledged. First, only mothers participated in the study. The lack of information about father–child emotion dialogues hampers the generalizability of the findings to parent–child relationships. Fathers seem to contribute in unique ways to children's emotional development (Katz, Malleren, & Stetler, 2012) and mothers appear to talk more about emotional aspects of experiences and use more emotion words than fathers in parent–child emotion dialogues about daily events (Fivush, Brotman, Buckner, & Goodman, 2000). These
gender differences suggest that paternal and maternal dialogues may differentially affect children and their development. Second, the sample sizes of both the exposed and the non-exposed groups in our study were relatively small. This not only detracted from the statistical power of our analyses, but also prevented us from examining the confounding influence of third variables associated with IPV and present in our IPV-exposed group (e.g., single parenthood, lower education and income).

We are not claiming that IPV always impairs emotional dialogues. Our goal here was to demonstrate, for the first time, that they can. Given the limitations, it is unclear at this point whether there are boundary conditions to this effect. Several interesting questions remain to be addressed. Is the effect limited to certain types of emotional dialogues? Is the effect dependent on individual differences or situational characteristics? Does the effect change with age and child development? Is this effect limited to IPV, or do other types of child abuse have similar consequences? And how exactly can we help parents, children, and their relationship to enable them to reclaim some degree of wellbeing and emotional security after IPV?

In sum, awaiting future research, we conclude that, to our knowledge, this is the first study in which an in-depth comparison is made between mother–child emotion dialogues in IPV-exposed dyads and non-exposed dyads. In IPV-exposed dyads, as compared to non-exposed dyads, mother–child dialogues were more poorly developed, and dyads were less interested and involved in the interaction. Also, in the IPV-exposed dyads, mothers showed less sensitive guidance and children showed less cooperative and exploring behavior during dialogues. These differences were not associated with maternal posttraumatic stress symptoms or maternal ACEs. These results suggest the importance to focus on parent–child emotion dialogues in the treatment of children in the aftermath of IPV exposure. Crucially, they underline that the parent–child relationship needs to be considered to enhance our understanding of the effects of IPV on families.
REFERENCES


