Summary and general discussion
The main aim of this thesis was to evaluate the added benefit of applying specific factors in community-based intervention for child witnesses of interparental violence (IPV) and their parents, by means of a randomized controlled trial (RCT). The results of this RCT showed no additional benefits of a program with (trauma)specific factors compared to a structural equivalent control program with only non-specific factors (Chapter 3). Next, we examined characteristics that could distinguish children who would benefit most from participation in either intervention. These moderator analyses showed that also children exposed to multiple family risk factors improved during participation in either intervention, although children with symptoms of disinhibited disordered attachment improved less than children without symptoms of disinhibited disordered attachment (Chapter 4). Finally, we explored mechanisms of change through which treatment factors induced changes in children’s post-traumatic stress symptoms. These mediator analyses showed the importance of including parents in intervention, and improving their psychological functioning through non-specific treatment factors in parent sessions of intervention, in order to allow children’s post-traumatic stress symptoms to improve (Chapter 5). In this final chapter, finding of the previous chapters will be summarized, and implications of the study results for research and clinical practice will be discussed. Objectives, characteristics and main findings of the different studies are summarized in Table 6.1.

Main findings

☞ No additional benefits of a program with trauma-specific treatment factors, aimed at dealing with the effects of exposure to IPV, compared to a structural equivalent control program with only non-specific factors.

Exposure to interparental violence affects children as well as parents. A direct pathway is that children become at risk for developing adjustment problems and post-traumatic stress symptoms due to the traumatic impact of witnessing the violent incidents (Evans et al., 2008; Kitzmann et al., 2003). An indirect pathway is that children are put at risk due to changes in parental mental health, parental availability and child rearing as a result of experiencing IPV (Levendosky & Graham-Bermann, 2001; Renner & Boel-Studt, 2013). To prevent or limit these adverse consequences of exposure to IPV, easily accessible, cost-effective and short-term interventions are important (Weisz et al., 2003). Therefore, the main aim of this thesis was to advance our knowledge about the best way to help these children, and we investigated the effectiveness of specific factors in community-based interventions for children exposed to interparental violence (IPV) and their caregiving parents.
<table>
<thead>
<tr>
<th>Ch.</th>
<th>Title</th>
<th>Study objectives</th>
<th>Participants / procedures</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Effectiveness of IPV-focused interventions for children exposed to interparental violence</td>
<td>To compare recovery in children exposed to interparental violence (IPV) and their caregiving parents.</td>
<td>Parent-child dyads were group randomized over different intervention conditions. Assessments were at baseline, after 3 months (posttest), and after 9 months (follow-up).</td>
<td>Outcomes were composite scores of clinical levels of parent and teacher reported internalizing and externalizing problems, and child self-reported post-traumatic stress (PTS) symptoms. Tested moderators were child maltreatment, parental psychopathology, and poverty and degree of IPV-exposure.</td>
</tr>
<tr>
<td>4</td>
<td>Moderators of treatment recovery during community-based interventions</td>
<td>To explore changes in children's levels of post-traumatic stress (PTS) symptoms reported by parent and child.</td>
<td>Parent-child dyads were group randomized over different intervention conditions. Assessments of mediators and outcome were at baseline, after 3 months (posttest), and after 9 months (follow-up). Data were fitted in a multilevel model.</td>
<td>Outcomes were composite scores of PTS symptoms in children exposed to IPV. Tested mediators were children's ability to differentiate emotions, coping skills, and parent-child interaction.</td>
</tr>
<tr>
<td>5</td>
<td>Mediators of treatment recovery during community-based intervention for children exposed to interparental violence</td>
<td>To explore changes in children's levels of post-traumatic stress (PTS) symptoms reported by parent and child.</td>
<td>Parent-child dyads were group randomized over different intervention conditions. Assessments of mediators and outcomes were at baseline, after 3 months (posttest), and after 9 months (follow-up). Data were fitted in a multilevel model.</td>
<td>Outcomes were composite scores of PTS symptoms in children exposed to IPV. Tested mediators were children's ability to differentiate emotions, coping skills, and parent-child interaction.</td>
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Note: PV = Interpersonal Violence; CBCL = Child Behavior Checklist; TRF = Teacher Report Form; CDI = Child Depression Inventory; CDI = Child Depression Inventory; CTS1 = Child Trauma Symptoms Checklist; CTS2 = Child Trauma Symptoms Checklist; IES-R = Impact of Events Scale; HADS = Hospital Anxiety and Depression Scale; DAI = Distress Adjective Checklist; EAQ = Emotion Awareness Questionnaire; HICUPS = How I Cope Under Pressure; TSCYC = Trauma Symptom Checklist for Children; TSCC = Trauma Symptom Checklist for Children; CTS2 = Child Trauma Symptoms Checklist; CTSPC = Child Trauma Symptoms Checklist for Parent Questionnaire; FIT = Family Interaction Task; PSI = Parenting Stress Index.
Previous studies have suggested that elements such as trauma components (Cohen et al., 2011; Lieberman et al., 2005), parenting components (Jouriles et al., 2009) and coping components (McWhirter, 2011) may carry specific benefit over more general clinical techniques. However, those previous studies compared uniform experimental conditions with diverse control conditions (Cohen et al., 2011; Jouriles et al., 2009; Lieberman et al., 2005), or compared two conditions with different specific factors (McWhirter, 2011). Therefore, so far it remains unknown to what extent non-specific factors in intervention may offer an alternative explanation for the found effects.

To study the effectiveness of specific factors in community-based intervention for IPV-exposed children, a research protocol was developed (Chapter 2). One hundred and sixty-four parent-child dyads were recruited for participation in a randomized controlled trial which compared recovery in children participating in an IPV-focused community-based group intervention program with recovery in children participating in a common factors community-based group intervention. This common factors intervention had the same structure as the IPV-focused intervention program, but was based solely on non-specific factors (Grencavage & Norcross, 1990). The common factors intervention was developed for this study, to explore whether a combination of previously found efficacious specific factors (trauma components, parenting components and coping components) would also be more effective than non-specific factors in community-based intervention. Because of ethical objections from the participating community services, no wait-list / no-treatment condition was included in the study design. To address the alternative explanation that improvement in adjustment problems could be explained by passage of time, the association between time since exposure to the violence and level and course of symptoms was tested. Primary outcome measures were parent-reported internalizing and externalizing problems and post-traumatic stress symptoms, teacher-reported internalizing and externalizing problems and child self-reported depressive and post-traumatic stress symptoms.

Results showed that the community-based IPV-intervention with specific factors for children exposed to IPV did not show benefits over the community-based common factors intervention based solely on non-specific factors (Chapter 3). Children in both conditions decreased in their symptomatology from baseline to posttest, and their symptoms remained at this decreased level to follow-up six months later. When the outcomes of all children participating in the trial were taken into account (intention-to-treat analyses), children participating in the common factors intervention condition decreased at an even steeper slope in their level of parent-reported post-traumatic stress symptoms than children in the specific factors IPV-intervention condition, although this might be due to the fact that, despite randomization, children in the common factors intervention condition had higher
levels of post-traumatic stress symptoms at baseline than children in the specific factors IPV-intervention condition. Passage of time since IPV-exposure and self-adaptation could have been one explanation for the recovery in both conditions. However, time since IPV-exposure was neither associated with symptom level at baseline, nor with a decrease of problems over time, suggesting that passage of time by itself is not sufficient in explaining recovery. Treatment differentiation and adherence were observed and percentages of applied specific treatment factors in the IPV-intervention condition and the lack thereof in the common factors intervention condition make it unlikely that diffusion of treatment factors between conditions is responsible for the found effects. Regarding treatment adherence, no large deviations from the manual were found, but as expected in implemented community-based interventions, there was some variation. However, treatment adherence did not explain differential degree of recovery.

In conclusion, these results show that potentially effective components tested in efficacy trials may not stand the translation to community-based interventions. Community settings usually have more heterogeneous populations and less resources for carrying out interventions than programs carried out in the context of efficacy trials (Marchand et al., 2011). The current findings particularly indicate the importance of non-specific factors in community-based intervention for IPV-exposed children and their parents.

☞ Community-based group interventions do not postpone recovery in case of high contextual risk

Characteristics that could distinguish parents and children who would benefit most from participation in intervention were examined in Chapter 4. Not all children may benefit equally from participation in either intervention (Kraemer, Wilson, Fairburn, & Agras, 2002), and therefore we examined baseline child, family and contextual characteristics as moderators of intervention effectiveness. Interparental violence (IPV) usually happens within a constellation of risk factors associated with the parent-child relationship, the parent or the broader context. For children exposed to multiple stressors in life, including IPV, the risk of developing adjustment problems is strongly increased (Cicchetti, 2003). Higher levels of marital conflict have been shown to be associated with increased risk for child maltreatment and less secure attachments, which contributed independently to internalizing and externalizing problems (El-Sheikh & Elmore-Staton, 2004). Parents in a violent relationship reported higher levels of psychopathology and parenting stress than parents in a non-violent relationship (Levendosky & Graham-Bermann, 2001, 1998), and parental psychopathology and parenting stress contributed negatively to children's maladjustment beyond factors associated with interparental violence. Besides factors associated directly
with parent-child interaction and parent functioning, the social environment in which a child grows up, also affects adjustment. Interparental violence occurs more often in families characterized by social and economic disadvantages, such as families living below the poverty threshold (Fergusson & Horwood, 1998), and family economic hardship is related to children’s adjustment problems (Conger, Conger, & Martin, 2010). These concurrent problems in children’s lives influence children’s adjustment, but may also affect the extent to which parents and children can benefit from intervention.

In addition, for an intervention specifically targeting the traumatic experiences of being exposed to IPV, characteristics and degree of exposure to this trauma could be expected to moderate the effect of this intervention. Previous studies have shown that the frequency and severity of IPV, in particular towards the caregiving parent, affected child outcomes (Grych et al., 2000; Kitzmann et al., 2003). Also, witnessing psychological as well as physical aggression between caregivers contributed independently to children’s behavior problems (Litrownik et al., 2003). These studies provide clues for possible moderating effects of IPV characteristics children have been exposed to, on the effectiveness of an intervention specifically targeting these traumatic experiences.

In Chapter 4 we explored whether child maltreatment, disturbances of attachment, parental psychopathology, parenting stress and poverty moderated the effect of interventions for IPV-exposed children. In addition, we explored whether IPV characteristics (severe partner perpetrated psychological violence, severe partner perpetrated physical violence and duration of the violent relationship) moderated the effect of the intervention specifically targeting IPV, but not the effect of the common factors intervention. Results showed that children of parents experiencing high levels of psychopathology and parenting stress showed more recovery after participation in both interventions than children of parents with lower levels of psychopathology and parenting stress. These results are in line with previous intervention studies (Graham-Bermann et al., 2011; Ippen et al., 2011), which also showed that children exposed to multiple risk factors can benefit more from intervention than children exposed to less risk factors. Children exposed to many incidences of child maltreatment improved more during participation in either intervention than children exposed to few incidences of child maltreatment, but did not improve from posttest to follow-up, while children who experienced few incidences of maltreatment stayed on a downward trend. No differences in recovery were found depending on poverty and IPV characteristics. A novel finding was that children with symptoms of disinhibited disturbances of attachment improved less in their clinical level of internalizing problems after intervention than children without these symptoms. A typical feature of disinhibited social engagement is the general shallowness of social contact, which might have limited children’s engagement in
the therapeutic activities.

In conclusion, community-based group interventions should not be contraindicated in case of high contextual risk unless other, proven effective interventions are available. However, children exposed to many incidences of child maltreatment may need additional care after participation in community-based intervention. This particular community-based group intervention may be less suitable for children with symptoms of disturbances of attachment. We found no indication that trauma-focused intervention is better suitable for children with higher exposure to interparental violence.

☞ Importance of including parents in intervention and improving their psychological functioning through non-specific treatment factors for decreasing children’s post-traumatic stress symptoms

Because on average children in both interventions improved in their symptomatology, mediators and treatment factors that could explain differences in recovery for child witnesses of interparental violence (IPV) were explored in Chapter 5. So far, little is known about intervention mechanisms that are working for IPV-exposed children and their parents. Trauma theory (Perry, 1993) suggests that improvement of children’s emotion differentiation and coping skills in intervention may be mechanisms in children through which adjustment problems can be remedied (American Academy of Child and Adolescent Psychiatry, 2010). Parenting and attachment theories (Bowlby, 1973; Grych, 2002) suggest that decreases in parental psychopathology and parenting stress and increases in supportive parent-child interaction may be mechanisms in parents through which change in children’s adjustment problems is expected.

In order to change aforementioned mediators (emotion differentiation, coping skills, parental psychopathology, parenting stress and parent-child interaction), treatment factors generally used in intervention and aimed at improving children’s mental health, focus on emotion differentiation and regulation and coping skills for children, as well as parenting skills and psycho-education for parents (Mcleod & Weisz, 2010). In previous research regarding intervention for maltreated children and their families, a specific trauma-focus has been shown to be particularly beneficial over more general specific factors (Kolko et al., 2011), and evidence-based treatments for children exposed to interparental violence often consist of cognitive-behavioral procedures with a specific trauma-focus (e.g. Cohen et al., 2011; Graham-Bermann et al., 2007). Besides the effectiveness of trauma-specific and general specific factors in intervention, non-specific factors in intervention such as positive attention and sharing of experiences have been found to be effective as well (Baskin et al., 2003; Shirk & Karver, 2003).
To assess treatment factors in both interventions, randomly selected tapes of 2 to 7 child- and parent-sessions ($M = 5.75$) per group (total of 36 groups: 26 IPV-focused intervention groups, 10 common factors groups) were coded. In the children’s sessions non-specific factors coded were positive attention and inviting to share general experiences. General specific treatment factors coded were practicing emotion differentiation and regulation (emotion focus) and coping skills. Trauma-specific treatment factors coded were emotion focus and coping skills focused on IPV, and inviting to share experiences regarding IPV. In the parents’ sessions non-specific factors coded were positive attention and inviting to share parenting experiences. General specific treatment factors coded were psycho-education and practicing parenting skills. Trauma-specific treatment factors coded were psycho-education and practicing parenting skills regarding IPV and inviting to share experiences regarding the impact of IPV on the children and themselves. Next, we studied the associations between exposure to treatment factors, changes in mediators and in children’s post-traumatic stress symptoms.

Results showed that improved parental psychopathology mediated the link between more exposure to non-specific factors in parent sessions and a decrease in children’s clinical level of post-traumatic stress-symptoms. No mediation by emotion differentiation, coping skills, parenting stress or parent-child interaction was found. However, a decrease in parenting stress and an increase in emotion-differentiation was associated with a decrease in children’s post-traumatic stress-symptoms. More exposure to trauma-specific factors in child sessions was associated with a small decrease in emotion differentiation, an increase in coping skills, and a decrease in children’s clinical post-traumatic stress symptoms over time; more exposure to non-specific factors in child and parent sessions was associated with more positive parent-child interaction.

In conclusion, improvement in parental mental health in intervention seems to be a mechanism through which a decrease in children’s post-traumatic stress symptoms can be achieved. Exposure to non-specific factors in intervention may be beneficial for improving parental mental health and positive parent-child interaction. For children, beneficial effects of exposure to trauma-focused factors in intervention were less clear. More exposure to trauma-focused factors was associated with a decrease in children’s post-traumatic stress symptoms. However, children in both conditions, with and without trauma-focused treatment factors improved in their clinical level of post-traumatic stress symptoms. Several (indirect) mechanisms appeared to work against the potential benefit of more exposure to trauma-focused treatment factors for a decrease in post-traumatic stress symptoms, one of which was the negative effect of trauma-focused treatment factors on changes in emotion differentiation. As long as these other mechanisms are unknown, exposure to the current constellation of trauma-specific factors in intervention does not appear to be beneficial for
decreasing children’s adjustment problems.

**General conclusion**

Children in both community-based interventions improved in their level of adjustment problems, assessed by different reporters. Passage of time since violence exposure allowing self-adaptation did not explain this decrease in problems, because problem levels at the start of the intervention were not associated with length of time since violence exposure had stopped. This suggests that most children do not improve over time without intervention. Our results suggest that the use of non-specific factors in community-based interventions for IPV-exposed children is of particular importance for decreasing children’s adjustment problems (Chapter 3). Moderator analyses further supported this finding by showing that also children exposed to multiple family risk factors benefit from participation in either intervention (Chapter 4). Mediator analyses showed clear benefits of including parents in intervention for decreasing children’s post-traumatic stress symptoms, by improving parental mental health through non-specific factors in parent sessions (Chapter 5).

**Clinical significant improvement**

Condition-wise comparisons did not show more beneficial effects of participating in a trauma-focused intervention than in an intervention based solely on non-specific factors. In therapy research, a debate has arisen about the difference between statistically significant and clinically significant results (Jacobson & Truax, 1991). Jacobson and Truax (1991) propose two components to establish clinical significant change: 1) to assess reliable how much change has occurred during intervention (Reliable Change Index), and 2) to assess whether after intervention, children’s individual adjustment problems are closer to that of a normative sample than to their own scores prior to entering intervention. We were interested to see whether children in the IPV-focused intervention showed similar clinical improvement as children participating in the common factors intervention (Table 6.2), and found evidence for this hypothesis on both the Reliable Change Index as well as the clinical significant improvement index. Children in both interventions showed similar clinical significant improvement. The results presented in Table 6.2 are in line with the analyses in Chapter 3, including our finding that children participating in the common factors intervention decreased more in their level of parent-reported post-traumatic stress symptoms than children in the IPV-focused intervention.
### Table 6.2

<table>
<thead>
<tr>
<th></th>
<th>Internalizing Problems (CBCL)</th>
<th>Internalizing Problems (TRF)</th>
<th>Externalizing Problems (CDI)</th>
<th>Externalizing Problems (CBCL)</th>
<th>Externalizing Problems (TRF)</th>
<th>PTSS</th>
<th>PTSS- (TSCYC)</th>
<th>PTSS- (TSCC)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number (%)</strong></td>
<td>1.54 (52)</td>
<td>0.24 (41)</td>
<td>0.04 (12)</td>
<td>0.97 (44)</td>
<td>0.24 (41)</td>
<td>2.3</td>
<td>1.14 (35)</td>
<td>2.4  (35)</td>
</tr>
<tr>
<td><strong>Reliable Change Index</strong></td>
<td><strong>1.96</strong></td>
<td><strong>0.81</strong></td>
<td><strong>0.14</strong></td>
<td><strong>1.08</strong></td>
<td><strong>0.16</strong></td>
<td><strong>1.03</strong></td>
<td><strong>0.13</strong></td>
<td><strong>1.03</strong></td>
</tr>
</tbody>
</table>

Note. CBCL = Child Behavior Checklist (parent-report); TRF = Teacher Report Form; CDI = Child Depression Inventory (child self-report); TSCYC = Trauma Symptom Checklist for Young Children (parent-report); TSCC = Trauma Symptom Checklist for Children (child self-report). *p < .05; **p < .01; ***p < .001.

Based on Jacobson & Truax, 1991.
Conditions for effective intervention for IPV-exposed children

Contrary to expectation we did not find the trauma-focused intervention ‘En nu ik...!’ to be more effective for decreasing adjustment problems in IPV-exposed children than the common factors intervention ‘Jij hoort erbij’. Involvement of parents in intervention seemed important for reducing adjustment problems; the application of non-specific factors in both interventions was associated with a decrease in parental psychopathology, which in turn was associated with a decrease in children’s clinical level of post-traumatic stress symptoms. In child sessions, the beneficial effect of more exposure to trauma-focused treatment factors was less clear. More exposure to trauma-focused treatment factors was associated with an increase in coping skills and a decrease in post-traumatic stress symptoms. However, trauma-focused treatment factors applied within the current constellation of treatment factors as implemented in the studied IPV-focused intervention ‘En nu ik...!’ did not appear to show additional benefit in improving children’s adjustment over the use of non-specific treatment factors.

It is important to interpret the current findings within the context of the study. Within this study all therapists were well trained and skilled in attending sensitively to the needs of children and parents. Also, therapists in both conditions participated in peer supervision. The apparent beneficial effects of application of non-specific treatment factors suggest that basic competence skills may be of particular importance for professionals supporting victims of interparental violence, as has been suggested before (Hubble, Duncan, & Miller, 2002). All children and parents had an intake before participation in either intervention, in which the occurrence of interparental violence was discussed. Children and parents hence knew that other participants have had similar IPV-experiences, even though this was not discussed in the common factors intervention. This knowledge and acknowledgement may have contributed to a sense of connectedness and reduced feelings of (self-)stigmatization, which may have had a positive impact on children’s and parents’ functioning. The results of the current study can therefore not simply be generalized to other community-based interventions with therapists with different training and background, without an intake in which the interparental violence is discussed or without participants with similar backgrounds. Our findings provide important clues for effective factors in community-based intervention for IPV-exposed children and parents. However, the best combination of intervention-factors cannot yet be identified on the basis of these results.
Strengths and limitations

Several well-designed studies have looked at effectiveness of interventions for children exposed to interparental violence (Cohen et al., 2011; Graham-Bermann et al., 2007; Jouriles et al., 2009; Lieberman et al., 2005; McFarlane et al., 2005; McWhirter, 2011; Sullivan et al., 2002; Wagar & Rodway, 1995). To our knowledge, Graham-Bermann and her colleagues (2007) were the first who took a further step and did not examine effectiveness of a particular intervention, but also looked at the added benefits of including parents in interventions for children exposed to IPV. We took yet another step further, and examined effectiveness of specific factors in intervention for children exposed to interparental violence in an experimentally controlled study. In addition, we looked at moderators and mediators of effectiveness. Further strengths of the current study were 1) the use of a randomized controlled trial design, which strengthened the validity of the current findings; 2) recruitment of a representative sample of families participating in IPV-intervention. We made every effort to recruit an ethnically diverse sample by also using interpreters at assessments (for 6% of the participants); 3) recruitment of a large sample: a total number of 164 parent-child dyads were recruited from a population which is generally quite difficult to recruit for and retain in intervention and research (Dutton et al., 2003). With this sample size, an alpha of .05, and a power of .80 in a two-tailed test, we were able to detect even small effect sizes ($f^2 = .1$); 4) the use of multiple informants: parents, children and teachers; 5) the use of multiple methods: questionnaires as well as observation measures and an interview; 6) observational assessment of treatment differentiation and adherence in both child and parent sessions.

Despite these strengths, aforementioned findings should be interpreted in light of several limitations. First, because of ethical objections from the participating community services no waitlist / no-treatment group was included. It is possible that passage of time since violence exposure and self-adaptation explain children’s recovery in both conditions. However, time since IPV-exposure was neither associated with symptom level at baseline, nor with a decrease of problems over time, suggesting that passage of time by itself is not sufficient in explaining recovery.

Second, the level of analyses (individual level) was not the same as the level of randomization (group level), which may have increased the risk for false positives (Stice, Shaw, Bohon, Marti, & Rohde, 2009). However, to make implementation of the study more feasible, group assignment was chosen over individual assignment. Because of the limited financial resources of many families and planning issues, parent-child dyads were offered an intervention nearest to their house which fitted their schedule. Each group was then randomly assigned to either the intervention or control arm, only two weeks before the intervention...
started. Before starting statistical analyses we checked whether modeling ‘organization’ or ‘treatment group within condition’ would explain additional variance in multilevel modeling. This was not the case, and we therefore proceeded with a two-level model.

Third, despite randomization, the level of post-traumatic stress symptoms of children in the common factors intervention was higher at baseline than the level of post-traumatic stress symptoms of children in the IPV-intervention condition. Although we statistically controlled for differences in post-traumatic stress symptoms between conditions by using multilevel modeling, a possible floor effect may explain a smaller decrease in children’s post-traumatic stress symptoms in the IPV-intervention condition.

Fourth, as for most intervention studies, this trial was designed to maximize statistical power for the main effect of interest: the comparison on main outcomes between conditions. Particularly moderation effects were quite small and although we had a large sample size and used multilevel modeling, several models lacked sufficient power. More moderation and mediation studies report these problems (MacKinnon, 2008). However, given the early stage of research regarding effectiveness of specific factors in intervention for IPV-exposed children, it was our priority to generate hypotheses which can be further investigated in future studies with even bigger samples. This would also allow investigation of multiple moderators, as well as mediators, simultaneously.

Finally, IPV-exposed children and their caretaking parent were recruited for participation in the intervention and study; mainly mothers participated and only a small number of fathers (7). Seventeen percent of participating parents were still together with the abusive partner and 61% still had contact with the abusive partner, generally within the context of parental visiting rights. In these cases, in which both parents have parenting responsibilities, it would have been useful to also include the other parent in the study design to explain possible moderating and mediating pathways to child outcomes.

Implications for future research

The results of this thesis provide several recommendations for future research. The Emotional Security Hypothesis states that exposure to destructive interparental conflicts increases children’s vulnerability to adjustment problems by undermining their confidence in the interparental subsystem and the security they find in the family (Cummings & Davies, 2010). Because the innovative value of this relatively new theory we tried to incorporate the Emotional Security Hypothesis in our theoretical framework, but encountered several problems with the validity of our operationalization of children’s feelings of emotional security. Our preliminary analyses showed that children’s self-reported feelings of emotional
CHAPTER 6 — SUMMARY AND GENERAL DISCUSSION

security assessed at baseline, were not associated with interparental violence, parental mental health, parenting stress or adjustment problems, except children’s self-reported depressive symptoms. When parents have broken up, confidence in the interparental relationship may be hard to measure, because this relationship no longer exist. Feelings of security children find in their family are also harder to operationalize, because the concept ‘family’ may constitute something different for different children. For our operationalization of children’s feelings of emotional security we used the Security in the Family System Scales (SIFS), which assesses children’s emotional security in their current family situation. We chose this measure because there were large differences between children regarding when the violence had stopped, and a very diverse, incomparable, picture would have emerged if children would have reported about their feelings of emotional security in their family situation in which the violence (had) occurred. However, children’s responses to the SIFS apparently did not constitute what we intended to measure. In future studies with comparable populations, we would recommend researchers to not use self-report in which answers are reflections of various moments in (past) time. Assessments of emotional, behavioral, cognitive and/or physiological responses in experiments may be better to understand children’s current responses to marital conflict (Cummings & Davies, 2010).

Assessment of longer term effects are needed to assess possible differential change in behavior after exposure to non-specific and specific factors in intervention later in life. For example, exposure to trauma-specific factors in child sessions was associated with an increase in coping skills, but coping skills were not associated with a change in adjustment problems (Chapter 5). Perhaps changes in adjustment through changes in coping skills require a longer time to emerge.

The complex associations between exposure to trauma-focused intervention factors and changes in children’s emotion differentiation and post-traumatic stress symptoms raised further questions about its role in intervention (Chapter 5). Application of trauma-focused factors in intervention seemed beneficial for decreasing children’s level of post-traumatic stress symptoms. However, children in both conditions, with and without (trauma-)specific treatment factors, decreased in their clinical level of post-traumatic stress symptoms. This suggests that the beneficial effects of more exposure to trauma-specific treatment factors are counterbalanced through indirect mechanisms or other mechanisms, one of which emotion differentiation. More exposure to trauma-specific treatment factors was associated with a decrease in emotion differentiation, which in turn was associated with an increase in children’s post-traumatic stress symptoms. Further study is needed to identify these other (indirect) mechanisms which counterbalance the positive effects of more exposure to trauma-specific factors in intervention, to establish which treatment factors optimize current interventions
for IPV-exposed children.

In the current study, observers coded the behavior of the therapists, but not the quality of this behavior or competence of the therapist. The quality and competence of a therapist can be expected to be of influence on the effectiveness of intervention (Mcleod et al., 2013). It could very well be that especially more specific trauma-focused treatment factors require special competence to apply effectively and achieve beneficial effects. It would therefore be interesting to also assess the quality of application of specific treatment factors in future research. This quality rating could provide insight whether specific trauma-focused treatment factors in community-based intervention for IPV-exposed children may perhaps be only beneficial when applied by a very skilled therapist. In that case, training could be specified to increase these special skills.

For local and national councils and service organizations, it is important to know which intervention gives the best value for money (Romeo, Byford, & Knapp, 2005). Most studies so far, do not include cost-effectiveness analyses, but this knowledge could be useful to determine the economic impact of interventions. In our case, cost-effectiveness analyses could test whether implementation of a program with only non-specific treatment factors, provided by well-trained therapists who participate in peer supervision and provide an intake prior to participation in which exposure to violence is assessed, would be cheaper than to continue with the current IPV-focused intervention. As mentioned before, effectiveness of either intervention may very well depend on competence skills of professionals and their competence level should be taken into account in a cost-effectiveness analysis.

In our study-design we observed treatment factors in community-based intervention for child witnesses of interparental violence to investigate the intricate relationship between exposure to (non-)specific treatment factors and changes in children’s adjustment problems. This design could also be applied in other intervention studies with other populations, and in therapy research, to provide more knowledge regarding effective elements in intervention. Knowledge about effective elements in interventions and mechanisms of change are important for refining existing interventions, by increasing the use of effective factors and mechanisms, and discontinuing the use of non-effective factors and mechanisms (Kazdin, 2007).
Implications for clinical practice

Involvement of parents and use of non-specific factors in intervention

The majority of children exposed to IPV improved after participation in community-based intervention. Unfortunately, we have no experimental proof that this improvement could not have been caused by passage of time, although we found strong indications that self-adaptation did not explain this decrease in problems. It is therefore plausible, although yet unproven, that participation in either community-based intervention for IPV-exposed children resulted in a decrease in adjustment problems. Contrary to expectation, we did not find evidence that the trauma-focused intervention was more effective than the common factors intervention.

The effectiveness of including parents in intervention of IPV-exposed children has been shown before (Graham-Bermann et al., 2007). Our results complement these findings by showing the effectiveness of non-specific treatment factors, in particular positive involvement with parents, on improving parental mental health, which in turn was associated with a decrease in children’s adjustment problems (Chapter 5). Also, a decrease in parenting stress was associated with a decrease in children’s post-traumatic stress symptoms, but changes in parenting stress were not associated with exposure to (non-)specific treatment factors. Although it remains unclear whether and how parenting stress can be altered in intervention, it seems to be an important mechanism through which children’s adjustment can be changed. It may not always be easy to include parents who struggle with their own problems after exposure to IPV in intervention for their children. However, these results may indicate the importance of forming a positive alliance with parents, and improving parental mental health and parenting stress to gain better outcomes for children.

The use of non-specific factors in intervention was beneficial for improving parental mental health and was also associated with more positive parent-child interaction. However, the beneficial effects of trauma-focused factors in child sessions of intervention were less clear. We found a direct relationship between more exposure to trauma-specific treatment factors and a decrease in children’s post-traumatic stress symptoms, but children in both conditions, with and without (trauma-)specific treatment factors decreased in their level of post-traumatic stress symptoms. The positive effect of more exposure to trauma-focused factors on a decrease in children’s post-traumatic stress symptoms was most likely counterbalanced by several other mechanisms, one of which was emotion differentiation. More exposure to trauma-focused treatment factors was associated with an increase in chil-
children’s coping skills, but coping skills were in turn not associated with a change in children’s adjustment problems (Chapter 5). So far, we can conclude that in the short-term, more exposure to trauma-specific treatment factors in the form as implemented in the trauma-specific intervention ‘En nu ik...!’ does not outbalance other factors in this intervention and therefore cannot (yet) be identified as an important treatment factor for improving children’s adjustment.

Our current results suggest that the most effective intervention for IPV-exposed children would be an intervention with parallel parent sessions, in which in both child- and parent sessions particularly non-specific treatment factors are applied by well-trained competent therapists.

**Community-based intervention versus therapy**

Most children showed less adjustment problems after participation in either intervention; however, clinical levels of children’s internalizing problems were still reported six months after participation in intervention (follow-up) by 13% of all parents, 27% of all teachers and 6% of all children. Clinical levels of children’s externalizing problems at follow-up were reported by 10% of all parents and 19% of all teachers. Children’s clinical levels of post-traumatic stress symptoms at follow-up were reported by 10% of all parents and 7% of all children. A total of 41% of all children had at least on one of the seven child outcome measures a clinical score at follow-up. Because a significant proportion of children still exhibited clinical levels of adjustment problems after participation in community-based intervention, a community-based group intervention for IPV-exposed children cannot replace an indicated psychological therapeutic treatment. The used combination of treatment factors and composition of the group may not be adequate or sufficient for subgroups of children with more specific needs. Moderator-analyses showed that children with symptoms of disinhibited disturbances of attachment are one specific subgroup of children who may need a more specific therapeutic treatment. It is very well conceivable that also other subgroups of children can be identified for whom a more therapeutic treatment is indicated.

**Screening**

Although some children still showed clinical levels of adjustment problems six months after participation in intervention, community-based intervention does not seem to delay recovery and should therefore not per se be counter-indicated for children with severe and multiple risk factors; particularly children exposed to multiple risk factors besides interparental violence (child maltreatment, parental psychopathology, parenting stress) seemed
to benefit most from participation in community-based intervention. It is also promising to see that a large proportion of children participating in either intervention improved in a clinical significant way. Both interventions seem therefore a good first step to engage families in intervention for recovery of children’s mental health. If necessary, in a second step children could be referred to more intensive therapy if their degree of adjustment problems warrants referral.

There is great variability in children’s adjustment after exposure to IPV (Graham-Bermann et al., 2009). A large proportion of children improved after participation in intervention, although children with symptoms of disinhibited disturbances of attachment did not seem to benefit as much from intervention as children without disinhibited disturbances of attachment. Also, children exposed to many incidences of child maltreatment had a less favorable long-term prognosis for recovery than children exposed to few incidences of child maltreatment. Previous studies showed that having a supportive person and being able to discuss trauma-related experiences with this person is beneficial (Berkowitz, Stover, & Marans, 2011). Possibly, children with disturbances of attachment are less able to use the supportive presence of persons in their surroundings and may require interventions that are more focused on the parent-child relationship (e.g. Lieberman et al., 2009). Children exposed to many incidences of child maltreatment may need additional care after participation in a community-based intervention. It would be useful to screen for disturbances of attachment at intake, and assess adjustment of children exposed to many incidences of child maltreatment after participation in intervention, to provide these children with stepped care, to assure the best possible outcome.

Concluding key messages

• Children exposed to interparental violence improve over the course and after participating in a community-based child- and parent program.

• Passage of time since the violence stopped was not associated with symptom level at baseline, suggesting that passage of time is not sufficient in explaining recovery.

• Community-based group interventions do not appear to postpone recovery in case of high contextual risk, but may be less suitable for children with disorders of attachment.

• A trauma-focused intervention seems not better suitable for children with higher exposure to interparental violence.
• Inclusion of parents in intervention for IPV-exposed children is important: improvement of parental mental health was associated with a decrease in children’s post-traumatic stress symptoms.

• Particularly non-specific factors in child- and parent sessions of intervention seem beneficial for positive parent-child interaction and improved parental mental health.

• The beneficial effects of trauma-focused treatment factors are less clear; although more exposure to trauma-specific treatment factors was associated with a decrease in children’s post-traumatic stress symptoms, other mechanisms — not all yet identified — seem to counterbalance these positive effects of the studied intervention.