Coparenting Problems and Parenting Behavior as Mediating Links Between Interparental Conflict and Toddlers' Adjustment Difficulties in Germany

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Abstract: *Objective:* Interparental conflict has long been acknowledged as a major risk factor for the well-being of children. Empirical studies reveal clear associations between children's maladjustment and frequent destructive conflicts between their parents (van Eldik et al., 2020). Existing research suggests that interparental conflict spills over from the couple to the coparental relationship, undermining parents' skills to cooperate and their parenting competencies. This study addresses the effects of interparental conflict on the behavioral and emotional problems of toddlers. *Methods:* The analyses were based on longitudinal data from the German Family Panel pairfam. The sample comprised information on $N = 828$ anchor participants (59.9% female) and their 3- to 5-year-old children. *Results:* As expected, the effects of interparental conflict on children's behavioral and emotional problems were mediated by coparenting problems and in part also by negative parenting. Further analyses comparing mothers and fathers revealed a stronger direct path of interparental conflict on coparenting for mothers. *Conclusions:* The findings provide support for the significance of the interparental relationship and coparenting quality for child development, even in this young age group, and point to the importance of early prevention.

Keywords: interparental conflict, coparenting, parenting, adjustment difficulties, toddlers

Coparenting und Erziehungsverhalten als vermittelnde Mechanismen zwischen interparentalen Konflikten und Anpassungsschwierigkeiten bei Kleinkindern in Deutschland

Zusammenfassung: *Fragestellung:* Konflikte zwischen Eltern sind seit langem als wichtiger Risikofaktor für das Wohlergehen von Kindern anerkannt. Empirische Studien zeigen klare Zusammenhänge zwischen Verhaltensauffälligkeiten von Kindern und häufigen destruktiven Konflikten zwischen Eltern (van Eldik et al., 2020). Bisherige Forschungsergebnisse deuten darauf hin, dass interparentale Konflikte von der Paar- auf die Elternebene "hinüberschwappen" und so elterliche Fähigkeiten zur Kooperation und Erziehung untergraben. Diese Studie befasst sich daher mit den Folgen interparentaler Konflikte für Verhaltens- und emotionale Probleme von Kleinkindern. *Methodik:* Die Analysen basieren auf Längsschnittdaten des Deutschen Familien- und Beziehungspanels pairfam. Die Stichprobe umfasste $N = 828$ Ankerpersonen (59.9% Frauen), die Informationen zum Verhalten ihrer 3- bis 5-jährigen Kindern bereitstellten. *Ergebnisse:* Erwartungsgemäß wurden die Auswirkungen interparentaler Konflikte auf kindliche Verhaltens- und emotionale Probleme durch Coparenting-Probleme und zum Teil auch durch negatives Erziehungsverhalten vermittelt. Weitere Analysen zu Unterschieden zwischen Müttern und Vätern ergaben für Mütter einen stärkeren direkteren Pfad der interparentalen Konflikte auf Coparenting-Probleme. *Schlussfolgerungen:* Die Ergebnisse unterstützen die Bedeutung der elterlichen Partnerschaft und Coparenting-Qualität für die Entwicklung des Kindes, selbst in dieser jungen Altersgruppe, und verweisen auf die Bedeutung früher Präventionsangebote.

Schlüsselwörter: Interparentale Konflikte, Coparenting, Erziehungsverhalten, Verhaltensauffälligkeiten, Kleinkinder

Introduction

The interparental relationship is an essential context for children's development, be it as a resource or risk factor. While more visible in separated families, interparental conflict also affects children's well-being in nuclear families (Harold & Sellers, 2018; Walper, 2016). Accordingly, empirical studies reveal clear associations between children's maladjustment and frequent destructive conflicts between parents (Brock & Kochanska, 2016; van Eldik et al., 2020; Zemp et al., 2019).

So-called spillover effects play a crucial role in explaining this association. It is assumed that interparental conflict spills over from the couple to the coparenting and the parent-child-relationship, undermining parents' skills to cooperate and their parenting competencies (Brown et al., 2010; Martin et al., 2017). Several meta-analyses proved this assumption by showing reciprocal associations between interparental conflict, parenting, and child adjustment (Harold & Sellers, 2018; Krishnakumar & Buehler, 2000).

However, evidence is still largely based on mothers instead of also focusing on fathers. Furthermore, although developmental psychology stresses the importance of the early years for later development, most research on the effects of IPC does not consider adjustment in early childhood. The present study seeks to shed light on the impact of interparental conflict (IPC) on young children's well-being and investigates coparenting and parenting practices as two key mediating processes. We also acknowledge that the impact might be different according to parental gender.

The Links of Various Facets of Conflicts to Children's Adjustment

While conflict is generally a normal means of negotiating different needs between family members, modalities of arguing may vary substantially. Physical violence between parents is a particularly salient risk factor for child development (e.g., Vu et al., 2016), but it is not the only facet of IPC that affects child well-being; children's exposure to destructive verbal conflict has also proven relevant (van Eldik et al., 2020). A recent representative Australian study of children from birth to age 11 distinguishes single from repeated exposure to verbal IPC and shows significantly larger links between parents' repeated reports of IPC compared to single reports and children's problem behavior (Westrupp et al., 2018). Looking at child-reported IPC in Germany, Lux and Walper (2019) found, compared to parenting and parent-child relationships, frequent IPC to be the most consistent predictor of children's social well-being 1 year later.

Despite considerable variations in children's responses, destructive IPC is substantially linked to maladjustment in childhood and adolescence. Cummings and Davies (1994) assume that at least 20 % of the variance in children's developmental and behavioral disorders may be explained by parental conflicts. The consequences can take various forms of internalizing problems like withdrawal, low self-esteem, and anxiety or externalizing problems like temper tantrums and conduct problems (see Harold & Sellers, 2018). A study that followed families with children longitudinally demonstrated that, for girls, parental maladaptive conflict at age 2 is associated with higher levels of internalizing problems 8 years later via decreased attachment security (Brock & Kochanska, 2016). Even more than the conflict itself, continuing negative feelings and the absence of reconciliation predict internalizing problems for both boys and girls longitudinally.

Children's perspective has also been shown to play a significant role in the impact of IPC: While preschool children's externalizing difficulties are predicted by both parent- and child-perceived IPC, child-reported lower self-esteem is exclusively associated with their own perception of IPC (Clements et al., 2014). It may be harder for conflicted parents to perceive or acknowledge their children's emotional distress.

Still, the evidence is far from conclusive. A recent study using data of the German Family Panel *pairfam* found that within-family fluctuations of IPC across time do not affect children's problem behavior (Zemp et al., 2018). Other findings even provide evidence for the opposite direction of effects, indicating that problem behavior might lead to changes of IPC in the future (Schermerhorn et al., 2007; Zemp et al., 2016). Further longitudinal research is needed to clarify these causal links.

The Mediating Role of Coparenting and Parenting Behavior

In their recent review, Harold and Sellers (2018) highlighted the importance of a process-oriented approach to identify how IPC impacts child adjustment. The authors identified (1) children's processing of IPC and (2) the parent-child relationship as the two key mediators. By focusing on the parents' perspective, the present study investigates the second mechanism.

To date, a wealth of studies has accumulated evidence for parenting as a mediator of the association between IPC and child adjustment. Krishnakumar and Buehler (2000) stressed the importance of parenting being undermined by interparental conflict. Their meta-analysis of 39 studies revealed a moderate effect size of $d = .62$. Research on parenting styles has long pointed out that an authoritative

parenting style is particularly advantageous for children's development (Baumrind, 1971, 2013). However, IPC is likely to destabilize mothers' and fathers' parenting by reducing their positive affection and triggering harsh parenting (Buehler & Gerard, 2002; Stroud et al., 2011). Accordingly, problems in parenting and impaired parent-child relationships seem to be important explanatory factors for children's maladjustment in families with high IPC (e.g., Kaczynski et al., 2006).

Recently, researchers have directed their focus on the coparenting relationship, which is linked to, but distinct from, the interparental relationship (Feinberg, 2003): Coparenting is defined as cooperation within a parenting dyad, by building a parental alliance and handling disagreements in child-rearing. As dysfunctional processes, coparenting problems seem to be of more proximal relevance for parenting quality and children's well-being and, thus, show stronger links to both than partnership quality (cf. Feinberg, 2003; Feinberg et al., 2007). Coparenting conflicts are associated with maternal parenting difficulties (Martin et al., 2017), suggesting that effects of coparenting quality on child well-being may be (partially) mediated by compromised parenting. In their meta-analysis, Teubert and Pinquart (2010) revealed overall small, but significant links between low quality of coparenting and children's externalizing and internalizing problems, even after controlling for partnership quality or parenting style. A recent study with two large longitudinal samples similarly found the quality of parenting and parent-child relationship to function as partial mediators between coparenting in early childhood and children's externalizing problems at age 8 to 10 (Parkes et al., 2019). Given highly similar findings in the U.S. and U.K., this study provided robust evidence for the role of coparenting in linking partnership quality to parenting and child adjustment. We seek to build on these findings and further evaluate this double-mediation model.

Gender Differences in Mediating Mechanisms Affecting Child Development

Apparently, mediational links might vary according to parental gender. Numerous studies on parenting and child development indicate that the contribution of fathers to their children's well-being is distinct from that of mothers (Boldt et al., 2014; Lux & Walper, 2019). Regarding the significance of the interparental relationship, findings also point to rather different pathways of IPC affecting child adjustment for mothers and fathers. An elaborate study of predictors and consequences of coparenting in German families was provided by Langmeyer (2015). In line with other findings (e.g., Coiro & Emery, 1998; Stroud et al.,

2011), her results suggested that, more than for mothers, fathers' coparenting and parenting behavior depend on partnership quality. Similarly, Harold et al. (2013) showed that, whereas both parents' reports of IPC are associated with externalizing behavior via hostile parenting for children approximately 6 years old, the link between IPC and hostile father-to-child parenting is much stronger than the corresponding link for mothers. Contrasting these results, Ponnet et al. (2013) failed to find support for the hypothesis that the marital relationship affects fathering more than mothering within couples.

The Present Study

This study addresses the following research questions: first, whether IPC is linked to adjustment difficulties of toddlers and, second, whether coparenting problems and parenting competencies mediate this link of IPC in the problem behavior of toddlers. While the effects are likely bidirectional (Schermerhorn et al., 2007; Cui et al., 2007), our focus lies on the link between IPC and toddlers' adjustment from the parents' perspective. To shed light on the longitudinal role of interparental conflict, we used the initial level of IPC as a predictor of changes in coparenting problems, negative parenting, and problem behavior across 1 year.

The last research question addresses gender-related differences and asks whether the mediating pathways differ in strength for mothers and fathers. Building on previous findings, we seek to determine whether our results support the hypothesis of a stronger link between the interparental relationship and the parenting behavior of fathers compared to that of mothers.

Method

Sample and Procedure

The present sample was drawn from *pairfam* (Huinink et al., 2011), a large-scale multi-actor longitudinal study on partnership and family development in Germany. The data of release 8.0 were used for the present analyses (Brüderl et al., 2017). The annual assessments started in 2008/2009 (wave 1) with more than 12,000 anchor persons from three birth cohorts. Participants were recruited through registry data and personal visits by the interviewers in the participants' homes. From wave 2 on, the East German subsample was extended (DemoDiff) to allow for better regional comparisons. Sample attrition across time was highest between waves 1 and 2 (27%) and later decli-

ned to about 10 % for each wave with elevated dropouts among adolescents, immigrants, and couples living apart together (Müller & Castiglioni, 2015).

Since the purpose of the present study was to look at early developmental stages, the sample was restricted to anchor participants with at least one child of preschool age, i.e., 3 to 5 years at wave 6. If families had more than one child in this age group, the oldest child was selected to ensure that the maximum share of information on child outcomes was already available in wave 5. Regarding parenting and child outcomes as well as control variables, our analyses were based on data from waves 5 and 6 (2012/2013 and 2013/2014). Since coparenting problems with the current partner were assessed only at every other wave, we used this information from waves 4 and 6. Accordingly, IPC items were used from waves 4 and 6. The final longitudinal sample comprised 1,631 observations from 828 anchor persons (59.9 % mothers).

Table 1 provides descriptive information for the sample at wave 6. The sample consisted of 78 % married anchors with a mean age of 35.4 years and an average relationship duration of 11.3 years. More than 80 % had at least an intermediate level of education, and 12.7 % of the families had an immigrant background. As a typical pattern of labor division in Germany, almost all of the fathers worked full-time, whereas the mothers were mostly part-time employ-

ed. Of all focus children, 54.2 % were male. The mean age of the focus child was 4.2 years; 25.6 % were only children.

Measures

Interparental Conflict

The conflict between parents was measured as a latent variable using four items from the KOMQUAL questionnaire assessing the frequency of one's own and partner's verbal aggression (see Thönnissen et al., 2019, p. 69, for further information). The items had a good reliability (pooled data from waves 4 and 6: $\alpha = .86$). The response format ranged from *Almost never or never* to *Very frequently* (e.g., "Yell at you/r partner").

Coparenting Problems

Parents' disagreement and issues about child-rearing were measured with a latent variable using items from an adapted German version of the Parent Problem Checklist (Dadds & Powell, 1991), which consists of three items assessing cooperation problems regarding parenting issues (e.g., "Discussions regarding caring and parenting issues end in fights"). The response format of the 5-point rating scale ranged from *Never* to *Very often*. We used this information from waves 4 and 6 (pooled data: $\alpha = .79$).

Table 1. Sample description (wave 6)

Mean age of anchor in years (<i>SD</i>)	35.4 (5.4)
Anchor gender: Male (in %)	40.1 %
Immigrant background (in %)	12.7 %
Region: East Germany (in %)	35.9 %
Parental education ^{a)} (in %)	17.3 % Low education 51.2 % Intermediate education 30.3 % High education
Per capita net income ^{b)} (in €) <i>M</i> (<i>SD</i>)	1567.35 (1038.93)
Full-time employment (in %)	76.2 % Fathers 15.6 % Mothers
Marital status	78.0 % Married 18.5 % Never married 3.3 % Divorced
Relationship duration in years (<i>SD</i>)	11.1 (5.5)
Child mean age in years (<i>SD</i>)	4.2 (0.9)
Child gender: Male (in %)	54.2 %
Status of child	84.6 % Child from current partner 13.4 % Child from ex-partner 1.9 % Adopted, step-, or foster child

Note. ^{a)} CASMIN classification, ^{b)} Household net income, equivalence weighted (new OECD scale).

Parenting Behavior

Parenting behavior toward the target child was reflected by a latent variable called “Negative parenting,” which comprised 7 items from two subscales (pooled data from wave 5 and 6: $\alpha = .67$): The 3-item scale “Negative communication” indicated the degree of negative, derogative communication of the parent to the child (Olson et al., 1983). “Inconsistent parenting” comprised four items reflecting the degree of inconsistent behavior in parenting (Reichle & Franiek, 2005; e.g., “You lessen a punishment or end it early”). The response format ranged from *Never* to *Very often*.

Child Adjustment

Two latent variables were used to capture the child’s adjustment. In the age group of 3–5-year-olds: “Conduct problems” and “Emotional symptoms” were measured by only two items of the respective subscales from the German Strengths and Difficulties Questionnaire (Goodman, 1997; 3-point scale response format from *Not true* to *Certainly true*: $\alpha = .51$ for conduct problems and $\alpha = .59$ for emotional symptoms). With just 2 items each, internal consistency was on the lower end (pooled data: $\alpha = .51$ for conduct problems, $\alpha = .59$ for emotional symptoms). However, both latent variables have statistically significant variation, with standard deviations equal to 0.49 and 0.64 as well as higher test-retest reliability – 0.61 and 0.73 – for emotional symptoms and conduct problems, respectively (Biemer et al., 2009).

Control and Moderation Variables

The gender of the anchor parent, child age, child gender, and time were included as controls in equations where they were related to the outcomes at $p < .20$. In addition, to deal with missing items in the negative parenting and child problem outcomes that resulted from children not yet aged into the measure (see below), child age was included as a covariate for those outcomes. In the last step, the anchors’ gender was also used as a moderator when testing for parent gender differences in associations.

Analysis

Path models were estimated using latent variables in a structural equation modeling (SEM) framework by Mplus (V 8.3). Initially, we estimated within-time associations using repeated observations from waves 4/5 and 6 including a time variable predictor when there were changes in the level of an outcome, including mediators. All hypothesized relationships in Figure 1 (see below) were estimated simultaneously using the weighted least squares estimation method to correct for the nonnormal tendency of the

ordered latent variable items. Next, we estimated longitudinal models to assess predictor variable associations with changes across waves in mediators and child outcomes. To examine the direct effects of IPC on change, we employed the interaction between the conflict latent variable and time in a model using random effects (Klein & Moosbrugger, 2000). A pairwise deletion method was used to retain observations with missing items. Item missing ranged from 1% to 9%, except for negative parenting and child adjustment: Since a substantial share of children aged under 3 years was not assessed until wave 6, these items had 31% observations missing at wave 5. Standard errors were adjusted for the nesting of time within individuals using a between-cluster variance estimator (Binder, 1983). Indirect effects were estimated using the product of coefficient method standard in the SEM framework (MacKinnon et al., 2002).

Multiple group (MG) analysis was used to determine whether path estimates differed across parents’ gender, where each path was tested for equivalence using a Wald Test and $\alpha = 0.05$. A final MG model was estimated that allowed pathway estimates to differ if they met the statistical significance cutoff and constrained all other pathways to be the same across parents’ gender. Model fit was assessed using the χ^2 goodness of fit test, the comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA).

Results

In general, the measurement model including the five latent variables estimated together had adequate model fit ($\chi^2 = 1053(125)$, p -value $< .001$; CFI = 0.94; TLI = 0.92; RMSEA = 0.07 [95% CI: 0.06, 0.07]). Means, standard deviations, and correlations among the latent variables obtained from the measurement model are provided in Table 2 for the full sample, means, and standard deviations also for fathers and mothers separately. Only statistically significant effects are reported in the text. Besides the average attrition rate, a dropout analysis in wave 4 revealed no significant differences among IPC and coparenting between participants and non-participants in wave 6.

Model Linking the Level of IPC to Mediators and Outcomes

The path model had an adequate fit to the data ($\chi^2 = 1110(190)$, p -value $< .001$; CFI = 0.94; TLI = 0.93; RMSEA = 0.05 [95% CI: 0.05, 0.06]). From this model, Table 3 presents the direct effect estimates for each model

Table 2. Means and correlation matrix among latent variables (obs = 1631, n = 828)

	Total Sample		Mothers (n = 496)		Fathers (n = 332)		Pearson-Correlations of the total sample							
	Mean	SD	Mean	SD	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Conduct problems	1.67	0.79	1.67	0.78	1.66	0.80	-							
Emotional symptoms	1.46	0.70	1.44	0.77	1.48	0.62	0.32 ***	-						
Coparenting problems	2.14	0.83	2.18	0.85	2.10	0.79	0.30 ***	0.20 ***	-					
Negative parenting	2.77	0.36	2.73	0.34	2.83	0.44	0.42 ***	0.23 ***	0.40 ***	-				
Interparental conflict	1.76	0.88	1.82	0.86	1.66	0.90	0.15 **	0.13 **	0.53 ***	0.24 ***	-			

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

Table 3. Direct, indirect, and total effects estimates from within-time path model pooling across parent gender (obs = 1631, n = 828)

	Coparenting problems ($R^2 = 0.28$)				Negative parenting ($R^2 = 0.18$)				Emotional symptoms ($R^2 = 0.07$)				Conduct problems ($R^2 = 0.21$)			
	<i>b</i>		<i>b_{std}</i>		<i>b</i>		<i>b_{std}</i>		<i>b</i>		<i>b_{std}</i>		<i>b</i>		<i>b_{std}</i>	
<i>Direct effects</i>																
IPC	0.50	***	0.52	0.02	0.05	0.01	0.02	-0.02	-0.01							
Coparenting problems				0.16	***	0.38	0.11	*	0.13	0.16	**	0.16				
Negative parenting							0.33	**	0.17	0.79	***	0.36				
<i>Indirect effects</i>																
IPC → Coparenting problems							0.06	*	0.07	0.08	**	0.10				
IPC → Negative parenting							0.01		0.01	0.02		0.01				
IPC → Coparenting problems → Negative parenting							0.03	**	0.03	0.06	***	0.08				
Coparenting problems → Negative parenting							0.05	**	0.06	0.13	***	0.14				
<i>Total effects (direct plus all indirect)</i>																
IPC							0.10	**	0.13	0.14	***	0.18				
Coparenting problems							0.16	**	0.20	0.29	***	0.30				
Negative parenting							0.33	**	0.17	0.79	***	0.36				

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

Effects on coparenting problems control for anchor gender and time, effects on negative parenting control for child age and child gender, and effects on behavior problems control for child gender.

IPC = Interparental conflict

pathway as well as indirect and total effects (direct plus indirect effects). As hypothesized, IPC was related to both outcomes. This significant link was fully mediated with no remaining direct effect on children's emotional symptoms or conduct problems.

Both mediated pathways – through coparenting and negative parenting – proved relevant. Coparenting problems mediated the association of IPC and child emotional symptoms ($b_{std} = 0.07$). IPC was also indirectly associated with emotional symptoms through both coparenting and negative parenting ($b_{std} = 0.03$). The mediated associations of IPC with child conduct problems were through coparenting problems ($b_{std} = 0.09$) and through coparenting problems plus negative parenting ($b_{std} = 0.07$). The total impact of IPC both directly and through all mediated pathways was $b_{std} = 0.13$ for emotional symptoms and $b_{std} = 0.16$ for conduct problems.

Coparenting problems were similarly linked to child emotional symptoms ($b_{std} = 0.13$) and child conduct problems ($b_{std} = 0.17$). Interestingly, negative parenting had a much stronger association with child conduct problems ($b_{std} = 0.36$) compared to child emotional symptoms ($b_{std} = 0.17$, see Table 3). A Wald Test showed this difference to be statistically significant ($p < .001$).

While there was no direct association between IPC and initial levels of child adjustment in the within-time models, the subsequent model focusing on change revealed a marginally significant direct link of IPC to increases in emotional symptoms – but not conduct problems – between waves 5 and 6. A one-unit higher conflict level was associated

with an increase in emotional symptoms of 0.08 ($p = .066$). A similar pattern emerged with coparenting problems ($b = 0.09, p = .049$), but – different from IPC – also proved significantly associated with increases in conduct problems ($b = 0.13, p = .024$). Neither IPC nor coparenting was significantly associated with changes in the mediators.

Comparing Mothers and Fathers

Multiple group testing revealed that the pathway from IPC to coparenting problems differed for mothers and fathers ($p < .01$). A model that allowed only this pathway to differ across parent gender fitted the data slightly better than the full sample-path model ($\chi^2 = 1152(407)$, p -value $< .001$; CFI = 0.94; TLI = 0.94; RMSEA = 0.05 [95% CI: 0.04, 0.05]). The association was significant for both mothers and fathers ($p < .001$), but was significantly stronger for mothers (Wald test: $p < .001$), $b_{std} = 0.54$ versus $b_{std} = 0.44$ (see Figure 1). This pathway difference subsequently impacted all indirect effects of IPC through coparenting problems.

Discussion

The current study aimed to investigate the impact of IPC on toddler's well-being. Using a sample of the mothers or fathers of 3–5-year-old children, we assumed IPC to affect child adjustment via coparenting problems and negative pa-

Figure 1. Path model of hypothesized relationships with standardized estimates (within-time model) for mothers (m) and fathers (f).

renting. To our knowledge, this was the first study in Germany to focus on the effect of IPC in this young age group.

Regarding our global research question, our findings showed that IPC was related to toddlers' adjustment, i.e., to their conduct problems and emotional symptoms. This is in line with numerous other studies, pointing to a very robust association between conflict between parents and children's adjustment difficulties (e.g., Buehler et al., 1997; Harold & Sellers, 2018). Our findings suggest that the detrimental effects of IPC – although varying in intensity and nature – may be seen in all age groups including toddlers and preschool children.

Yet, with our longitudinal model, we found only partial support for an association of IPC with changes in child adjustment over time, limited to emotional symptoms. This lack of robust support for statistical effects of IPC on later changes in child well-being, particularly conduct problems, might be related to a difficulty finding such effects in the assessed time interval. Interestingly, however, within the same timeframe, we did find associations of coparenting problems with later changes in child adjustment. In total, it must be noted that the magnitude of the reported associations is somewhat small.

Coparenting and Parenting Behavior as Key Mediating Mechanisms

Employing a process-oriented approach on the impact of IPC (see Harold & Sellers, 2018), our second research question related to the role of coparenting problems and negative parenting as mediating paths. Indeed, our model of within-time links showed adequate model fit and revealed that the link between IPC and child adjustment was fully mediated by coparenting problems and negative parenting.

While coparenting has come into the focus of researchers only more recently, the fact that conflicts between parents affect parenting competencies has long been clear (e.g., Krishnakumar & Buehler, 2000). In our study, we found IPC to have a direct and indirect statistical effect (via coparenting problems) on negative parenting. These, in turn, were linked to both toddlers' behavioral and emotional problems. Kaczynski et al. (2006) similarly reported that the effect of marital conflict on children's problem behavior was fully mediated by rejection, coercion, and lower emotional support. Interestingly, another study showed this mechanism to be independent of genetic relatedness (Harold et al., 2013). Hence, this consistently found mediating link seems particularly important and should be more systematically addressed in parenting programs (Harold & Sellers, 2018; Walper, 2016).

Likewise, the spill-over hypothesis was found to hold for coparenting. Meta-analytic evidence (Teubert & Pinquart,

2010) also stressed the small but consistent negative impact of low agreement, triangulation, and conflicts regarding childrearing for child adjustment. Since IPC is likely to damage the parental alliance and their willingness to cooperate, this spillover may elucidate why children in families with high IPC fare worse than children with collaborative parents (Brown et al., 2010; Kaczynski et al., 2006). Further, more strongly than IPC, coparenting problems were associated with parent-reported conduct and emotional problems of 3–5-year-olds in this study. This is in line with theory and evidence from studies pointing to coparenting as a more proximal factor in child development (Feinberg, 2003; Feinberg et al., 2007).

Compared with other studies that considered parenting and coparenting as single mediators, we found strong support in our data for a double-mediation model. Only very few studies have used a similar approach (e.g., Parkes et al., 2019). Consequently, IPC should not be regarded as a simple phenomenon, but as affecting the family system on many different levels.

The Differential Impact of IPC for Mothers and Fathers

Since we considered mothers' as well as fathers' reports, we were able to look at potential gender differences in this double-mediation model of interparental conflict. Indeed, like prior findings from Germany (e.g., Langmeyer, 2015), this study also revealed gender-related differences. Although IPC spilled over to the coparenting relationship affecting children's problem behavior according to mothers' as well as fathers' reports, this effect proved stronger in the mothers' accounts. Because caretaking is still carried out mostly by women (Esping-Andersen, 2009), mothers may have a more holistic view toward the interparental relationship and thus might differentiate less between IPC and coparenting problems than fathers.

In addition, we had expected more direct effects of IPC on negative parenting behavior among fathers than mothers. Given fathers' longer working hours because of a more traditional role division in Germany (cf. Walper & Lien, 2018), fathers' parenting was assumed to still be more dependent on a good relationship with the mother. However, like other studies (Liel et al., submitted; Ponnet et al., 2013), we did not find support for any gender-specific differences here.

Compared to other studies, the gender-related differences in this study were quite limited. It may just be a matter of time until the broadly shared egalitarian values regarding parental roles translate into family practice causing gender differences to diminish.

Strengths, Limitations and Future Directions

This study drew on a large national dataset including mothers and fathers of young children in a longitudinal design of 2 consecutive assessments. This allowed us to test our hypotheses based on a robust set of data. Nevertheless, this study clearly has limitations, especially regarding the measures of child adjustment. To assess the children's behavior and emotional problems, we could rely only on abridged indicators. Even though these were taken from a widely validated international instrument (Goodman, 1997), in-depth measures of child adjustment would have been preferred and might have yielded different results. Furthermore, our study relied on single reporters of all measures, which may have led to increased shared method variance. Hence, our findings must be interpreted with caution. Future analyses should seek to compare children's self-report and parents' report using more extensive adjustment measures to disentangle the effects of reporter and assessment method.

Finally, most of our results were based on within-time, cross-sectional associations, because longitudinal evaluations had few results due to lack of substantial change in mediator and outcome variables across waves. Intervention studies provide a more conclusive, yet still rarely used experimental approach to test whether training-induced improvements of the interparental relationship yield the expected benefits for coparenting, parenting, and child outcomes (e.g., Zemp et al., 2016).

In summary, despite these limitations, this study highlights the role of parents' partnership and coparenting quality as determinants of children's well-being, even at this young age. Our findings provide strong support for targeting the interparental relationship in efforts to prevent children's stress and negative development (see Lux & Hudeček, 2015). It also points to the value of considering parents' gender when looking at family dynamics. Building on a refined family systems perspective and dyadic accounts of both parents, future analyses should seek to provide further insight into the role of interparental and family dynamics for young children's development (Lux & Walper, 2019; Zemp et al., 2018). Such knowledge is needed to inform early preventive services.

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Conflicts of interests

No conflicts of interest exist.

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