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Interparental Conflict Management Strategies and Parent–Adolescent Relationships: Disentangling Between-Person From Within-Person Effects Across Adolescence

Objective: *This study investigates the longitudinal, cross-lagged associations among interparental conflict management strategies and the parent–adolescent relationship.*

Background: *The following three main hypotheses explain how interparental conflict affects parent–adolescent relationship: the spillover, the compensatory, and the compartmentalization hypotheses. A common key aspect of these hypotheses is the focus on changes within a*

family; they hypothesize what happens within a family when interparental conflict shakes the family's equilibrium. Although extant research supported the spillover hypothesis, this key aspect was often ignored, and conclusions were based on comparing families with each other. This study investigated how interparental conflict is longitudinally associated with the quality of the parent–child relationship, controlling for stable between-family differences.

Method: *Data consisted of six waves of an ongoing study with 497 Dutch adolescents ($M = 13.03$, 43.1% girls), their mothers, and their fathers. Parents reported on conflict strategies; parents and adolescents reported on parental support, parent–adolescent negative interaction, and parental behavioral control. Random-intercept cross-lagged panel models were applied.*

Results: *Most associations were found at the between-person level: Destructive conflict was related to poor parent–adolescent relationships. Few within-person associations were found: Changes in destructive conflict only were associated positively with changes in father–adolescent negative interaction.*

Conclusions: *Associations between interparental conflict and the parent–adolescent relationship are mostly due to stable between-family*

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Key Words: adolescence, conflict, family process, parent–child relations, parenting, within-family design.

differences. Intrafamilial fluctuations occur in conflict and the parent–adolescent relationship, but these changes do not predict each other.

Parents who have more conflicts with each other tend to have poorer relationships with their children (e.g., Krishnakumar & Buehler, 2000). However, behaviors during interparental conflict can make conflict either destructive or constructive (e.g., McCoy, Cummings, & Davies, 2009). Destructive conflict consists of hostile and angry ways to resolve conflict, such as verbal or physical aggression, whereas constructive conflict consists of positive ways to resolve conflict, such as trying to understand the other's position and finding compromises (McCoy et al., 2009). Whereas destructive interparental conflict tends to associate with worse quality of parent–adolescent relationships, constructive conflict is associated with better quality of parent–adolescent relationships (McCoy et al., 2009). Three theoretical hypotheses support different propositions regarding the extent to which changes in interparental conflict in a family are associated with changes in parent–adolescent relationships in the same family. The spillover hypothesis posits a negative association, the compensatory hypothesis posits a positive association, and the compartmentalization hypothesis posits no association between interparental conflict and parent–adolescent relationships (Cox, Paley, & Harter, 2001). Most existing studies, however, have not focused on such within-person (or within-family) effects. In this study, we focused on within-person effects between interparental conflict management strategies and the parent–adolescent relationship (Curran & Bauer, 2011), controlling for relatively stable between-person differences. By doing so we were able to investigate how changes in interparental conflict management in a family are associated with changes in the parent–adolescent relationship in the same family, which allows for a better test of the relevant theoretical ideas (Knopp et al., 2017).

INTERPARENTAL CONFLICT MANAGEMENT STRATEGIES AND PARENT–ADOLESCENT RELATIONSHIPS

Interparental conflict has been proposed as an aspect of marital relationship quality that

significantly affects parent–adolescent relationships (e.g., Belsky, 1984). More important than conflict per se is the way parents manage their conflicts (Krishnakumar & Buehler, 2000). Three main hypotheses have been formulated regarding the association between interparental conflict management and parent–adolescent relationships (Cox et al., 2001; Erel & Burman, 1995). First, the spillover hypothesis (Engfer, 1988) states that behavior, affect, and mood related to conflict in the marital relationship will transfer to parenting behaviors and the parent–child relationship. Therefore, conflictual interactions between parents would lead to diminished quality of interactions between parents and children, and “positive spillover” may also happen, as constructive conflict interactions between parents may promote positive interactions among parents and children (McCoy, George, Cummings, & Davies, 2013). Second, the compensatory hypothesis states that the parent–adolescent relationship may be a field of “compensation” for the bad relationship between parents. That is, parents may try to ease negative experiences with their partners by investing more in their relationships with children, and more negative interparental conflict management may lead to a better parent–child relationship. Third, the compartmentalization hypothesis states that parents are able to keep the marital subsystem separate from the parent–child subsystem in a way that the latter is not affected by what parents experience in the former. According to this hypothesis, no significant association should be found between marital conflict management and the parent–adolescent relationship (Krishnakumar & Buehler, 2000).

At the between-person level, both cross-sectional and longitudinal research has shown negative associations between interparental conflict and parent–adolescent relationships (e.g., Buehler & Gerard, 2002; Cui & Conger, 2008; Gerard, Krishnakumar, & Buehler, 2006; Krishnakumar & Buehler, 2000; Schoppe-Sullivan, Schermerhorn, & Cummings, 2007; Van Doorn, Branje, & Meeus, 2007). More frequent conflicts were associated with more negative aspects of parenting. However, these studies do not provide direct evidence for the spillover, compensatory, or compartmentalization hypotheses because the design of those studies mostly investigated between-person effects, whereas the hypotheses assume changes

to take place within the family (Chung, Flook, & Fuligni, 2009; Curran & Bauer, 2011; Knopp et al., 2017). Between-person effects provide information about interfamilial differences, that is, the standing of a family relative to the group mean of all families (rank order). Within-person effects provide information about intrafamilial changes, that is, the fluctuations of a family from its own mean. Importantly, between-person associations are not necessarily related to within-person associations (Hamaker, Kuiper, & Grasman, 2015). Negative associations among interparental conflict and parent-adolescent relationships on the between-person level (interfamilial differences) are often taken as support for the spillover hypothesis. However, the spillover hypothesis predicts spillover within the family, in which every time interparental conflict increases, relative to a family's own mean, the parent-adolescent relationship becomes worse than before. Alternatively, according to the compensatory hypothesis, every time interparental conflict increases, relative to a family's own mean, the parent-adolescent relationship could become better than before. Therefore, in the current study we examined effects at the within-person level, which offers the possibility for a more direct test of the basic premises regarding interparental conflict and parent-adolescent relationships.

Not only is the disaggregation of between-versus within-person effects relatively absent from extant research, the direction of effects between interparental conflict management and the parent-adolescent relationship also remains largely understudied. Even in studies that investigated interparental conflict taking into account the disaggregation of between-person and within-person variance, as well as in longitudinal studies, the analytic methods applied preclude the investigation of order of effects (e.g., Chung et al., 2009; Nelson, Boyer, Villarreal, & Smith, 2017; Whiteman, McHale, & Crouter, 2007). A negative association between interparental conflict and parent-adolescent relationships may be due to child effects because difficulties in the parent-child relationship may spill over to elicit negative interparental conflict management (e.g., Cox et al., 2001; Whiteman et al., 2007). One of the few studies that investigated order of effects showed that interparental conflict management strategies predicted relative increases in parent-adolescent conflict management, and not vice versa (van Doorn et al.,

2007), but adolescents or parent-adolescent relationships may also affect interparental relationships (e.g., van Eldik, Prinzie, Deković, & de Haan, 2017; Whiteman et al., 2007), therefore the opposite direction can also be expected. For instance, child agentic behavior longitudinally contributes to more constructive interparental conflict management (Schermerhorn, Mark, DeCarlo, & Davies, 2007). These possibilities have been empirically neglected, especially during adolescence. Therefore, this study investigated the order of effects between interparental conflict and parent-adolescent relationships across adolescence.

Furthermore, adolescence is a developmental stage during which families and parent-adolescent relationships undergo significant change (e.g., Branje, Laursen, & Collins, 2012; Laursen & Collins, 2009; Mastrotheodoros, van der Graaff, Deković, Meeus, & Branje, 2018; Meeus, 2016). Adolescents strive for autonomy, often much earlier than parents are willing to grant it (e.g., Deković, Noom, & Meeus, 1997), which might be a reason for the increased tension between parents and adolescents (Laursen, Coy, & Collins, 1998). Interparental conflict can be an additional strain impeding the reorganization of the parent-adolescent relationship. In addition, parents and adolescents differ in how they perceive the parent-adolescent relationship (Branje, van Aken, & van Lieshout, 2002; Mastrotheodoros et al., 2018), but most extant studies have used either adolescent reports or mother reports. Thus, extant studies left a gap in our understanding of how interparental conflict may be differently associated with the parent-adolescent relationship, as perceived by parents and adolescents. Therefore, in this study we applied a six-wave longitudinal and multi-informant design that spans across adolescence to examine the longitudinal effects of interparental conflict resolution on parent-adolescent relationship quality, according to mother, father, and adolescent reports.

The frequency of conflicts and the behaviors during conflicts are related but distinct constructs, and conflict management has been shown to be more important than conflict frequency per se (Branje, van Doorn, van der Valk, & Meeus, 2009). Therefore, in the present study we focused on three conflict management strategies, two of which are considered

destructive strategies, and one is considered a constructive strategy. *Conflict engagement* is considered a destructive conflict strategy and consists of behaviors such as attacking the other, losing control during conflict, and expressing aggression. *Withdrawal* is also a destructive conflict strategy (e.g., Siffert & Schwarz, 2011) and consists of behaviors such as retreating from the conflict by not talking or listening to the other as a means to avoid conflict. Constructive conflict aims at achieving a common goal and may consist of strategies such as *problem solving*, which entails behaviors such as trying to understand the other's position and to reach a mutually acceptable solution (Kurdek, 1994; McCoy et al., 2009, 2013). In this study, we examined how conflict engagement, withdrawal, and problem solving during interparental conflict longitudinally associate with parent-adolescent relationships.

Parent-adolescent relationship quality is a multidimensional concept (e.g., Baumrind, 2013). In the current study we focused on a positive aspect of the parent-adolescent relationship, parental support, along with a negative aspect, negative interaction between parents and adolescents, and parental behavior, that is, parental behavioral control. Support is the degree to which parents show respect, care, acceptance, and appreciation toward their children as well as the extent to which they enjoy spending time together. Negative interaction refers to the degree to which parents and children experience their relationship negatively, feel that they get on each other's nerves, or feel annoyed (Furman & Buhrmester, 1992). Behavioral control is the degree to which parents set rules for acceptable and unacceptable behavior to their children. Together, these aspects conceptualize broadly how parents and adolescents interact. Interparental conflict management strategies may associate differently with different dimensions (e.g., Schoppe-Sullivan et al., 2007). Extant research has shown links among aspects of interparental conflict behaviors and parent-adolescent relationships. For example, more destructive interparental conflict predicted lower positive and higher negative parenting during adolescence (Cui & Conger, 2008; Schoppe-Sullivan et al., 2007). Thus, in this study we used multiple aspects of interparental conflict and parent-adolescent relationships to further tap into their longitudinal associations.

THE CURRENT STUDY

In the current study we investigated the longitudinal associations among interparental conflict management styles and parent-adolescent relationships across adolescence. With this study we add to the extant literature both methodologically and theoretically. First, we applied random-intercept cross-lagged panel models (Hamaker et al., 2015; Keijsers, 2016), which allow investigating the order of effects and distinguishing between-person and within-person effects. This distinction offers a better test of the spillover, compensatory, and compartmentalization hypotheses as processes taking place within the family. Second, we investigated the longitudinal associations of constructive and destructive interparental conflict management strategies with three aspects of parent-adolescent relationships. Third, we used multiple informants to investigate interparental conflict and parent-adolescent relationships for six waves across adolescence. Fourth, we examined adolescents' relationships with both their mother and father using four different reports: from the mother, the father, and the adolescent for his or her mother and father separately. We did so following studies that showed that parents' and adolescents' views of the parent-adolescent relationship differ during adolescence (Branje et al., 2002; Mastrotheodoros et al., 2018). In accordance with the spillover hypothesis and earlier research, we expected to find negative associations between interparental conflict and parent-adolescent relationship quality on the between-person level. As research that disaggregates between- from within-person variance is limited, we could not make specific hypotheses regarding within-person associations. We tested the following three competing theories regarding the associations of interparental conflict with parent-adolescent relationship: negative associations (spillover), positive associations (compensatory), or no associations (compartmentalization).

METHOD

Participants

The sample consisted of 497 adolescents (43.1% girls, $M_{age} = 13.03$, $SD = 0.46$, at T1; $M_{age} = 18.03$, $SD = 0.46$, at T6), their mothers ($N = 497$, $M_{age} = 40.41$, $SD = 4.45$, at T1), and their fathers ($N = 456$, $M_{age} = 46.74$, $SD = 5.11$,

at T1) who took part in six annual assessments of an ongoing longitudinal study (Research on Adolescent Development And Relationships, see <https://www.uu.nl/en/research/radar>) in The Netherlands from 2006 to 2011. Adolescents were recruited from randomly selected elementary schools from the province of Utrecht as well as from three other big cities in The Netherlands. From a list of 850 regular schools in the western and central regions of The Netherlands, 429 were randomly selected and approached. Of those, 296 (69%) were willing to participate, and 230 of those were approached. Schools were used for an initial screening (teacher reports for all 12-year-old students) as well as a means to approach families. Of the total of students screened ($N = 4,615$), 1,544 were randomly selected. Because the aim of the study was to include two-parent families with at least one more child older than 10 years old, 1,081 families were approached. Of those, 470 refused to take part and 114 did not sign informed consent, resulting in the final sample of 497 families. Data were collected via annual home visits, and procedures were the same for all six waves. During the first measurement wave, adolescents were in the 7th grade. Most adolescents were native Dutch (94.8%), lived with both parents (85.2%), and came from families classified as medium or high socioeconomic status (SES; 87.7%) based on parents' job levels. Regarding parental occupation for 87.7% of adolescents, at least one of the parents' jobs was classified as medium level (e.g., police officer, physician's assistant) or high level (e.g., doctor, scientist, high school teacher), whereas 12.3% of adolescents came from families in which parents were either unemployed or held an elementary job (e.g., construction worker, janitor, truck driver; Statistics Netherlands, 1993). Furthermore, most parents had completed either secondary (51.4% of mothers; 44.5% of fathers) or higher education (45.1% of mothers; 54.4% of fathers). For this study, data from the first six waves were used.

Measures

Interparental Conflict Management. We used three subscales from the Conflict Resolution Style Inventory (CRSI; Kurdek, 1994). The CRSI consists of 20 items and measures strategies and behaviors during conflicts. It has been translated and used in Dutch and has shown

good psychometric properties (Van Doorn et al., 2007). The items are addressed using a Likert-type scale from 1 (*never*) to 5 (*always*), and all items were preceded by the following quote: "During an argument or conflict with my husband/wife I do the following things." In this study, mothers reported about conflict resolution in arguments with their husbands, and fathers reported about conflict resolution in arguments with their wives. Mother and father reports of conflict management styles were combined to obtain one score for each interparental conflict management style. The combined mother-father scores for interparental conflict were computed as the mean of the two scores in SPSS (IBM Corp., 2016). If only one score was available, that score was used.

Conflict engagement. Five items from the CRSI regarding conflict engagement were used. Example items are the following: "personally attack him/her"; "exploding and getting out of control." Internal consistency was good, ranging for the six waves from $\alpha = .69$ to $\alpha = .83$ (mother reports) and from $\alpha = .79$ to $\alpha = .82$ (father reports).

Problem solving. Five items from the CRSI assessed positive problem solving. Example items are the following: "focusing on the problem at hand"; "sitting down and discussing differences constructively." Internal consistency was high across waves for mother ($\alpha = .85-.89$) and father reports ($\alpha = .83-.87$).

Withdrawal. Five items from the CRSI scale were used to assess withdrawal. Example items are the following: "remaining silent for long periods of time"; "withdrawing, acting distant and not interested." Internal consistency was high across waves for mother ($\alpha = .83-.89$) and father reports ($\alpha = .85-.90$).

Parent-Adolescent Relationships.

Support. To measure support, we used eight items from the Network of Relationships Inventory-short form (De Goede, Branje, & Meeus, 2009; Furman & Buhrmester, 1985). This scale measures the positive aspects of a relationship, such as how much people respect, appreciate, and care for each other. The participants responded on a five-point Likert-type scale, ranging from 1 (*little or not at all*) to 5 (*more is not possible*) of how much care, faith, and support parents or adolescents feel

in their relationship. The scale was completed by (a) adolescents regarding the relationship with their mother (adolescent–mother report), (b) adolescents regarding the relationship with their fathers (adolescent–father report), (c) mothers regarding the relationship with the adolescents (mother–adolescent report), and (d) fathers regarding the relationship with the adolescents (father–adolescent report). Example items are the following: “How much does your mother/father treat you like you’re admired and respected?” “How sure are you that this relationship will last no matter what?” The internal consistency of the scale was good, ranging across waves between $\alpha = .78$ to $.85$ for adolescent–mother reports, $\alpha = .82$ to $.88$ for adolescent–father reports, $\alpha = .71$ to $.78$ for mother–adolescent reports, and $\alpha = .76$ to $.80$ for father–adolescent report.

Negative interaction. Six items of the Network of Relationships Inventory short form were used to measure negative interaction. The items were addressed using a Likert-type scale from 1 (*little or not at all*) to 5 (*more is not possible*). This subscale measures the degree to which parents and adolescents experience negative feelings and behaviors from each other. As in the case of support, separate reports from mothers and fathers in relation to their adolescent, and separate adolescent reports for mothers and fathers were assessed. Example items are the following: “How much do you and your mother/father/adolescent get upset with or mad at each other?” “How much you and your mother/father/adolescent get on each other’s nerves?” Cronbach’s α across waves were $.90$ to $.95$ (adolescent–mother report), $.89$ to $.94$ (adolescent–father report), $.90$ to $.92$ (mother–adolescent report), $.90$ to $.92$ (father–adolescent report).

Behavioral control. To measure behavioral control, we used five items from the parenting practices scale (Kerr & Stattin, 2000). The scale measures the degree to which parents establish rules regarding the adolescent’s whereabouts. The items were addressed using a Likert-type scale from 1 (*never*) to 5 (*always*). The adolescents reported the control they perceived from their mother and their father, and both mothers and fathers reported on the control they exerted on their adolescent. An example item of the adolescent-reported version is the following:

“Do you need to ask your mother/father before you can decide with your friends what you will do on a Saturday evening?” The following is an example item of the mother- and father-reported version: “Must your child have your permission to stay out late on a weekday evening?” Internal consistency of the scales was high and Cronbach’s α across waves were $.82$ to $.91$ (adolescent–mother report), $.82$ to $.87$ (adolescent–father report), $.82$ to $.89$ (mother–adolescent report), $.84$ to $.88$ (father–adolescent report).

Attrition and Missing Values

The majority of adolescents (85.7%), mothers (84.5%), and fathers (75.5%) were still involved in the study at Wave 6, and the average participation rate across the six waves was 90.4%, 90.2%, and 81.7%, for adolescents, mothers, and fathers, respectively. The Missing Completely At Random (MCAR) test of Little (1988) was significant, $\chi^2(14,614) = 16,117$, $p = .000$, but the normed χ^2 of 1.10 indicated that the assumption of missingness being completely at random was not seriously violated. Therefore, data from all 497 families could be included in the analyses using a full information maximum likelihood procedure in MPlus 7.31 (Muthén & Muthén, 1998).

Procedure

The study was approved by the ethics committee of Utrecht University. Before the start of the study, parents were required to provide informed consent. Adolescents and parents filled out questionnaires during annual home visits. Trained research assistants provided verbal instructions in addition to written instructions that accompanied the questionnaires. The respondents were assured that their data would be handled confidentially and processed anonymously. At each wave, the families received 100 euros (roughly \$116.00 in U.S. dollars) for their participation.

Analytic Plan

We applied random intercept cross-lagged panel models (Hamaker et al., 2015) to answer our research questions. These models decompose the variance of longitudinal observations into variance that can be attributed to stable between-person differences and variance that

can be attributed to within-person fluctuations across time points. We conducted a series of analyses to model the longitudinal associations between one of the three conflict management strategies and one of the three parent-adolescent relationship variables, separate for each of the informants; that is, we conducted a series of 36 models: three conflict management strategies by three parent-adolescent relationship dimensions by four reports. In testing each model, we conducted several steps. First, we computed a “fully constrained” model with the following constraints: (a) the within-person autoregressive stabilities were fixed to be the same across the six waves for variable *A*, (b) autoregressive stability was fixed to be the same in six waves for variable *B*, (c) the cross-paths from variable *A* to variable *B* were constrained to be stable in the six waves, (d) the cross-paths from variable *B* to variable *A* were constrained to be stable in the six waves, (e) within-time error covariances among the two variables were constrained to be equal for all six waves. Second, we released each group of constraints one at a time and checked the change in fit statistics (Satorra-Bentler scaled χ^2 difference test, Bayesian Information Criterion - BIC, Root Mean Square Error of Approximation - RMSEA, and Comparative Fit Index - CFI). If the release of a group of constraints resulted in a significant improvement of fit, then the unconstrained model was retained. Otherwise, the constraints were kept in the model. Third, the model with the best fit and complexity-to-fit ratio was kept as the final model. In all models, maximum likelihood with robust standard errors due to nonnormality of the data was used. Due to the large amount of models and effects that were part of this analytic plan, we applied the false discovery rate correction of the *p* values (Benjamini & Hochberg, 1995). Family SES, adolescent gender, and a binary variable showing whether adolescents were living with both parents across the six waves were used as covariates.

RESULTS

Longitudinal Relations Between Conflict and Parent-Adolescent Relationships

Means and standard deviations of all variables for all waves and all informants are shown in Table 1. Furthermore, the results of the iterative process to locate the best model specification for

each of the models, that is, which model parameters were constrained or free in each model (see Analytic Plan) are shown in Appendix Table 1. Table 2 presents the fit statistics for the final version of each model.

Before we proceeded with further analyses, we calculated the intraclass correlation coefficients for all variables to check whether there was enough within-person variability across time. Table 1 shows intraclass correlation coefficients ranged from .28 (for mother-reported parental behavioral control) to .71 (for parental withdrawal). In other words, between 28% and 71% of the total variance for each variable could be accounted for by stable (trait-like) differences between families. This means that the rest of the variance of each variable (between 29% and 72%) could be attributed to within-person (state-like) differences across time points. Therefore, using a technique that took into account these two sources of variance was warranted.

Specifically, the random-intercept cross-lagged panel model (Hamaker et al., 2015) is an analytic strategy for longitudinal models that explicitly disaggregates the two sources of variance: between-person and within-person. Simply put, it resembles a multilevel model. That is, a general mean level across waves is computed for each participant (the random intercept, the between-person part), and the different measurement points become a person-centered fluctuation from the person's own mean (the within-person part). Figure 1 graphically illustrates this model.

Between-Person Level. In general, most statistically significant associations were found at the between-person level (see Table 3). Conflict engagement was associated negatively with mother reports of support, and positively with negative interactions, with both mothers and fathers, in both parental and adolescent reports. Withdrawal was associated negatively with support from and positively with negative interactions with mothers and fathers, for both parental and adolescent reports. Problem solving was associated positively with support from mothers and fathers, for both parental and adolescent reports. Problem solving was associated negatively with father-adolescent negative interaction, but only in adolescent reports. In addition, problem solving was related positively to father behavioral control, but only according

Table 1. Means, Standard Deviations, and Intraclass Correlation Coefficients for Study Variables

Scales	Age 13 (W1)		Age 14 (W2)		Age 15 (W3)		Age 16 (W4)		Age 17 (W5)		Age 18 (W6)		ICC
	<i>M</i>	<i>SD</i>											
CE	1.82	0.47	1.76	0.44	1.70	0.45	1.64	0.44	1.59	0.43	1.62	0.43	0.70
PS	3.76	0.46	3.77	0.47	3.77	0.48	3.80	0.49	3.79	0.51	3.76	0.54	0.67
Withdrawal	2.07	0.55	2.03	0.55	2.02	0.55	1.98	0.54	1.98	0.57	1.99	0.60	0.71
AM support	3.90	0.53	3.81	0.58	3.70	0.60	3.63	0.63	3.65	0.63	3.60	0.64	0.53
AF support	3.63	0.57	3.52	0.62	3.44	0.62	3.38	0.64	3.36	0.70	3.33	0.70	0.56
MA support	3.50	0.43	3.44	0.44	3.44	0.44	3.44	0.45	3.41	0.47	3.44	0.50	0.64
FA support	3.25	0.46	3.21	0.47	3.24	0.47	3.20	0.48	3.19	0.48	3.19	0.52	0.67
AM neg. int	1.66	0.58	1.71	0.67	1.75	0.67	1.79	0.70	1.80	0.72	1.74	0.65	0.53
AF neg. int	1.51	0.56	1.60	0.64	1.67	0.66	1.69	0.67	1.70	0.69	1.70	0.68	0.56
MA neg. int	1.52	0.53	1.55	0.54	1.53	0.50	1.55	0.56	1.50	0.54	1.48	0.54	0.62
FA neg. int	1.51	0.50	1.52	0.53	1.51	0.52	1.53	0.51	1.51	0.53	1.47	0.50	0.62
AM control	3.73	1.00	3.59	1.01	3.39	1.03	3.27	1.09	2.90	1.14	2.58	1.15	0.34
AF control	3.37	1.06	3.17	1.07	3.02	1.04	2.89	1.05	2.64	1.05	2.28	1.00	0.38
MA control	4.58	0.76	4.41	0.81	4.16	0.94	3.83	1.06	3.31	1.12	2.84	1.11	0.28
FA control	4.31	0.86	4.20	0.89	3.96	0.94	3.68	1.02	3.22	1.06	2.77	1.03	0.32

Note. CE = conflict engagement; PS = problem solving; AM = adolescent report for mother; AF = adolescent report for father; MA = mother report for adolescent; FA = father report for adolescent; neg. int: Negative Interaction; W1 - W6: Wave 1 - Wave 6; ICC = intraclass correlation coefficient.

to fathers themselves. That is, the three interparental conflict management strategies were consistently associated with parental support and parent-adolescent negative interactions and were largely unrelated to behavioral control. Thus, in families with more destructive and less constructive conflict, mothers and fathers offered less support to and experienced more often negative interactions with their adolescents.

Within-Person Dynamics. Fewer models included statistically significant results at the within-person level, which indicated that the associations between interparental conflict management strategies and parent-adolescent relationships were more a matter of between-person differences than a matter of within-person dynamics. However, in three of 36 models, significant results emerged. Within-person dynamics can designate either correlated change (shown in Table 4), or ordered, time-lagged effects (shown in Tables 5 and 6). When significant, correlated change effects indicate within-person change that is concurrent between the measures, as for example in years with elevated conflict engagement between parents, there was more negative interaction between fathers and adolescents than in years with less conflict engagement between parents. The time-lagged ordered effects indicated

longitudinal predictive effects, as for example when an increase in conflict engagement in one year, compared to the average conflict engagement between parents, predicted an increase in maternal behavioral control the next year.

Change in interparental conflict engagement was concurrently and positively associated with negative interaction with fathers. This effect held only for father reports, though. This means that in years with elevated conflict engagement between parents, the fathers reported more negative interaction with their adolescents. In addition, change in interparental problem solving was associated positively with father support, according to the fathers themselves. Thus, in years when there was elevated destructive conflict, there was also elevated father-adolescent negative interaction. The fathers reported being more supportive than usual toward their adolescents in years when there was more interparental problem solving.

Furthermore, increases in father-adolescent negative interactions reported by fathers predicted increases in interparental conflict engagement 1 year later.

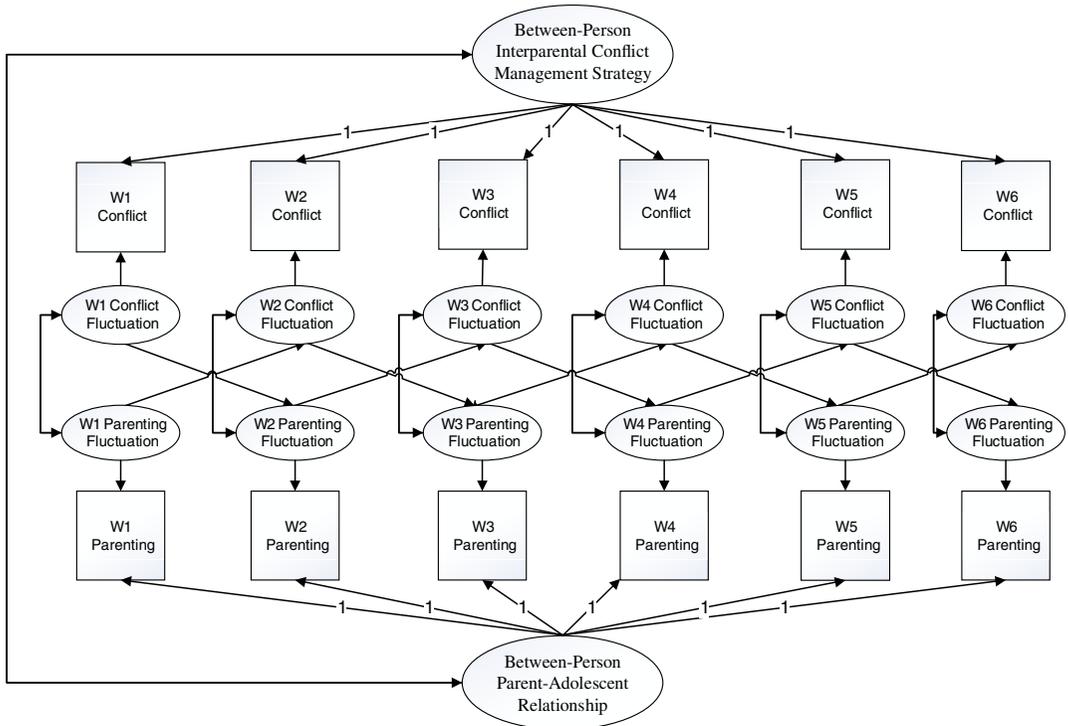
DISCUSSION

The aim of the present study was to test the spillover, compensatory, and

Table 2. Fit Indices and Power for All Final Models, Controlling for Socioeconomic Status, Adolescent Gender, and Living With Both Parents

Scales	χ^2	df	CFI	RMSEA [90%CI]	SRMR	Power
Conflict engagement						
Mother reports						
Behavioral control	113.90	83	.99	0.03 [0.01–0.04]	.04	.99
Negative interactions	103.20	87	1.00	0.02 [0.00–0.03]	.03	.99
Support	167.00	79	.97	0.05 [0.04–0.06]	.07	.99
Father reports						
Behavioral control	241.60	83	.94	0.07 [0.06–0.08]	.13	.99
Negative interactions	99.80	87	1.00	0.02 [0.00–0.03]	.03	.99
Support	150.80	83	.98	0.04 [0.03–0.05]	.06	.99
Problem solving						
Mother reports						
Behavioral control	95.10	79	.99	0.02 [0.00–0.04]	.07	.99
Negative interactions	89.40	83	1.00	0.01 [0.00–0.03]	.07	.99
Support	171.80	79	.97	0.05 [0.04–0.06]	.10	.99
Father reports						
Behavioral control	210.90	79	.94	0.06 [0.05–0.07]	.12	.99
Negative interactions	105.40	83	.99	0.02 [0.00–0.04]	.07	.99
Support	152.20	79	.98	0.05 [0.04–0.06]	.09	.99
Withdrawal						
Mother reports						
Behavioral control	96.60	79	.99	0.02 [0.00–0.04]	.03	.99
Negative interactions	90.80	83	1.00	0.01 [0.00–0.03]	.04	.99
Support	131.20	79	.98	0.04 [0.03–0.05]	.06	.99
Father reports						
Behavioral control	146.10	79	.97	0.04 [0.03–0.06]	.05	.99
Negative interactions	98.10	83	.99	0.02 [0.00–0.04]	.03	.99
Support	114.20	79	.99	0.03 [0.02–0.04]	.05	.99
Conflict engagement						
Adolescent-mother reports						
Behavioral control	133.60	83	.98	0.04 [0.02–0.05]	.05	.99
Negative interactions	124.00	83	.99	0.03 [0.02–0.04]	.05	.99
Support	151.80	83	.98	0.04 [0.03–0.05]	.06	.99
Adolescent-father reports						
Behavioral control	134.00	83	.98	0.04 [0.03–0.05]	.06	.99
Negative interactions	149.39	87	.98	0.04 [0.03–0.05]	.05	.99
Support	137.29	79	.98	0.04 [0.03–0.05]	.06	.99
Problem solving						
Adolescent-mother reports						
Behavioral control	94.29	79	.99	0.02 [0.00–0.03]	.08	.99
Negative interactions	113.19	79	.99	0.03 [0.02–0.04]	.08	.99
Support	132.99	79	.98	0.04 [0.03–0.05]	.09	.99
Adolescent-father reports						
Behavioral control	115.59	83	.99	0.03 [0.02–0.04]	.08	.99
Negative interactions	136.99	83	.98	0.04 [0.03–0.05]	.08	.99
Support	126.09	79	.98	0.04 [0.02–0.05]	.09	.99
Withdrawal						
Adolescent-mother reports						
Behavioral control	95.99	79	.99	0.02 [0.00–0.04]	.04	.99
Negative interactions	109.89	79	.99	0.03 [0.01–0.04]	.04	.99
Support	111.49	75	.99	0.03 [0.02–0.04]	.05	.99
Adolescent-father reports						
Behavioral control	109.99	83	.99	0.03 [0.01–0.04]	.04	.99
Negative interactions	119.99	83	.98	0.03 [0.02–0.04]	.04	.99
Support	120.19	79	.98	0.03 [0.02–0.04]	.06	.99

FIGURE 1. A RANDOM INTERCEPT CROSS-LAGGED PANEL MODEL AS APPLIED IN THIS STUDY.



Legend: W1: Wave 1; W2: Wave 2; W3: Wave 3; W4: Wave 4; W5: Wave 5; W6: Wave 6.

compartmentalization hypotheses regarding the associations between interparental conflict management strategies and parent-adolescent relationships during the course of adolescence. We investigated the order of effects at the within-person level, controlling for stable between-person associations. Overall, the associations at the between-person level were in accordance with previous studies: More destructive conflict management was associated with worse parent-adolescent relationship quality and more constructive conflict management was associated with better parent-adolescent relationship quality (e.g., Cui & Conger, 2008; Schoppe-Sullivan et al., 2007). Only few effects were found at the within-person level, something that lends support to the compartmentalization hypothesis, which posits that what happens in the interparental subsystem leaves relatively unaffected what happens in the parent-adolescent subsystem (Cox et al., 2001). However, the few significant effects on the within-person level were in support of the spillover hypothesis, which posits that conflict

in one family subsystem might lead to conflict in another family subsystem. These within-person effects were found only for fathers, echoing recent studies that fathers are more spillover prone than mothers (e.g., Chung et al., 2009; Elam, Chassin, Eisenberg, & Spinrad, 2017; Kouros, Papp, Goeke-Morey, & Mark, 2014).

Differences Between Families

Results from the between-person level of analysis confirmed previous findings. In families that report more destructive and less constructive interparental conflict than other families, parent-adolescent relationships contain lower parental support and higher parent-adolescent negative interaction (e.g., Buehler & Gerard, 2002; Cui & Conger, 2008; Pleck & Hofferth, 2008; Schoppe-Sullivan et al., 2007). These associations held for all three conflict management strategies and were fairly robust across informants. These correlations can be partly accounted for by factors such as lack of social skills or personality. For example, parents who

Table 3. *Between-Person Correlations Among Interparental Conflict Management Strategies and Parent-Adolescent Relationship, Controlling for Gender, SES, and Living with Both Parents*

Scales	Between-person Correlations		
	Conflict Engagement	Withdrawal	Problem Solving
<i>r</i>			
<i>Mother Reports</i>			
Behavioral Control	.02	.05	-.01
Negative Interactions	.24***	.33***	-.29***
Support	-.25***	-.22***	.35***
<i>Father Reports</i>			
Behavioral Control	.08	.01	.04
Negative Interactions	.16*	.26***	-.13
Support	-.20*	-.15	.27***
<i>Adolescent about Relationship with Mother</i>			
Behavioral Control	.03	.04	.09
Negative Interactions	.34***	.34***	-.30***
Support	-.14	-.15	.26***
<i>Adolescent about Relationship with Father</i>			
Behavioral Control	.09	.06	.00
Negative Interactions	.25***	.29***	-.20*
Support	-.23***	-.22***	.30***

Note: *** $p < .001$; ** $p < .010$; * $p < .050$.

lack conflict resolution skills may experience both more destructive interparental conflict and worse relationships with their children (Repetti, Taylor, & Seeman, 2002). Parental control was not associated with any of the conflict management strategies at the between-person level. This is in accordance with previous longitudinal studies that failed to find significant bivariate between-person associations of behavioral control with interparental conflict (e.g., Schoppe-Sullivan et al., 2007). Interparental conflict might not so much have an effect on the amount of behavioral control, but more on the way this control is enacted, that is, in a positive supportive way or in a more negative dominating way (e.g., Keijsers, Frijns, Branje, & Meeus, 2009). Furthermore, behavioral control has to do with abiding to societal rules and fulfilling expectations that are beyond solely the family system (Barber, Stolz, Olsen, Collins, & Burchinal, 2005), therefore how parents resolve

conflict when compared with other families may have little to do with the degree to which they impose limits on the adolescent.

Within-Person Effects of Interparental Conflict Management and the Parent-Adolescent Relationship

Results at the within-person level lent support mostly to the compartmentalization hypothesis and only limited support to the spillover hypothesis. We found no support for the compensatory hypothesis. These hypotheses assume effects at the within-person level: Are changes in interparental conflict management in a family followed by changes in parent-adolescent relationship in this same family?

Generally, we found only few significant associations on the within-person level, which can be taken as support for the compartmentalization hypothesis (Krishnakumar & Buehler, 2000). That is, whether conflict between parents increases or decreases in a family is not expected to associate with what happens between the parent and the adolescent. Although null hypotheses cannot be actually tested, they are important in theory falsification (see Ferguson & Heene, 2012). The current results open the possibility that previous research has mistakenly interpreted patterns of between-person associations as support for the spillover hypothesis, which posits a specific temporal order that functions within (and not across) families (Erel & Burman, 1995). However, the current study used a relatively well-functioning, medium-high SES community sample, and it can be that more serious forms of negative interparental conflict do interrupt the parent-adolescent relationship. Future research may examine whether stronger within-person effects appear in a more diverse sample.

Significant within-person effects were found in only three models, which included father reports. These effects referred to both within-person correlated change and within-person cross-lagged effects. The former indicates that the years that interparental destructive conflict management is increased are also those years that the father-adolescent relationship is strained, whereas the latter indicates that the years that the father-adolescent relationship negativity increases are followed by years where interparental conflict management increases. These significant effects provide some

Table 4. Within-Person Correlated Change Among Interparental Conflict Management Strategies and Parent-Adolescent Relationship, Controlling for Gender, SES, and Living with Both Parents

Scales	Within-person Correlated Change, β					
	T1	T2	T3	T4	T5	T6
Conflict Engagement						
<i>Mother Reports</i>						
Behavioral Control	.05	.06	.07	.07	.08	.08
Negative Interactions	.18	.00	.00	.00	.00	.00
Support	-.11	-.02	-.02	-.02	-.02	-.01
<i>Father Reports</i>						
Behavioral Control	.13	-.05	-.06	-.05	-.05	-.02
Negative Interactions	.07	.11***	.12*	.14*	.15*	.15*
Support	-.04	-.07	-.08	-.07	-.09	-.06
<i>Adolescent for Mother</i>						
Behavioral Control	.06	-.03	-.03	-.03	-.04	-.03
Negative Interactions	-.12	.01	.01	.01	.02	.01
Support	-.01	-.01	-.01	-.01	-.02	-.01
<i>Adolescent for Father</i>						
Behavioral Control	.09	-.01	-.01	-.02	-.02	-.01
Negative Interactions	-.05	.04	.04	.05	.04	.04
Support	-.13	-.02	-.02	-.02	-.02	-.02
Withdrawal						
<i>Mother Reports</i>						
Behavioral Control	.13	.10	.10	.09	.08	.07
Negative Interactions	.07	.05	.06	.05	.05	.04
Support	-.07	-.03	-.03	-.03	-.02	-.01
<i>Father Reports</i>						
Behavioral Control	.06	.05	.05	.04	.03	.01
Negative Interactions	-.10	.05	.06	.06	.06	.05
Support	-.18	-.10	-.11	-.10	-.10	-.06
<i>Adolescent for Mother</i>						
Behavioral Control	.01	.01	.01	.01	.01	.01
Negative Interactions	-.03	.08	.08	.08	.06	.05
Support	-.06	.00	.14	-.18	-.02	-.24
<i>Adolescent for Father</i>						
Behavioral Control	.05	.01	.01	.01	.01	.01
Negative Interactions	-.04	.10	.11	.11	.08	.07
Support	-.10	-.09	-.10	-.10	-.08	-.06
Problem Solving						
<i>Mother Reports</i>						
Behavioral Control	-.01	.00	.00	.00	.00	.00
Negative Interactions	.02	-.00	-.00	-.00	-.00	-.00
Support	.06	.05	.06	.06	.04	.03
<i>Father Reports</i>						
Behavioral Control	.06	.08	.10	.08	.06	.02
Negative Interactions	.01	-.01	-.01	-.01	-.01	-.01
Support	.10	.13*	.14	.13*	.13*	.08*
<i>Adolescent for Mother</i>						
Behavioral Control	.08	-.02	-.03	-.03	-.02	-.02
Negative Interactions	.06	.00	.00	.00	.00	.00
Support	.04	.01	.02	.01	.01	.01
<i>Adolescent for Father</i>						
Behavioral Control	.06	.03	.04	.04	.04	.03
Negative Interactions	.01	-.02	-.03	-.03	-.02	-.02
Support	.11	.00	.00	.00	.00	.00

Note: *** $p < .001$; ** $p < .010$; * $p < .050$. False Discovery Rate adjustment has been applied. T1: Time-point 1; T2: Time-point 2; T3: Time-point 3; T4: Time-point 4; T5: Time-point 5; T6: Time-point 6.

Table 5. Within-Person Cross-Lagged Effects Among Interparental Conflict Management Strategies and Parent-Adolescent Relationship, Controlling for Gender, SES, and Living with Both Parents

Scales	Within-person Cross-Paths, β (Direction: Interparental Conflict \rightarrow Parent-Adolescent relationship)				
	T2	T3	T4	T5	T6
Conflict Engagement					
<i>Mother Reports</i>					
Behavioral Control	.08	.07	.05	.04	.04
Negative Interactions	.03	.03	.03	.03	.02
Support	-.00	-.18	.02	.03	.10
<i>Father Reports</i>					
Behavioral Control	.08	.08	.06	.05	.01
Negative Interactions	-.04	-.04	-.04	-.04	-.04
Support	.05	.05	.04	.04	.02
<i>Adolescent for Mother</i>					
Behavioral Control	.00	.00	.00	.00	.00
Negative Interactions	-.01	-.01	-.01	-.01	-.01
Support	.02	.02	.01	.01	.01
<i>Adolescent for Father</i>					
Behavioral Control	-.02	.06	.13	-.03	-.11
Negative Interactions	-.02	-.02	-.02	-.02	-.01
Support	.06	.06	.05	.04	.04
Withdrawal					
<i>Mother Reports</i>					
Behavioral Control	.08	.06	.05	.05	.05
Negative Interactions	.01	.01	.01	.01	.01
Support	-.07	-.07	-.05	-.05	-.04
<i>Father Reports</i>					
Behavioral Control	.04	.04	.03	.03	.01
Negative Interactions	-.01	-.01	-.01	-.01	-.01
Support	-.00	-.00	-.00	-.00	-.00
<i>Adolescent for Mother</i>					
Behavioral Control	.03	.03	.02	.02	.02
Negative Interactions	-.01	-.01	-.01	-.01	-.01
Support	.08	.07	.06	.06	.06
<i>Adolescent for Father</i>					
Behavioral Control	.02	.02	.02	.02	.03
Negative Interactions	-.01	-.00	-.00	-.00	-.00
Support	.02	.01	.01	.01	.01
Problem Solving					
<i>Mother Reports</i>					
Behavioral Control	-.03	-.02	-.02	-.02	-.02
Negative Interactions	-.01	-.01	-.01	-.01	-.01
Support	.07	.08	.05	.05	.04
<i>Father Reports</i>					
Behavioral Control	.05	.04	.03	.03	.01
Negative Interactions	.04	.04	.04	.04	.04
Support	.01	.01	.01	.01	.01
<i>Adolescent for Mother</i>					
Behavioral Control	-.06	-.06	-.04	-.04	-.05
Negative Interactions	.02	.02	.01	.01	.01
Support	.02	.02	.02	.02	.02
<i>Adolescent for Father</i>					
Behavioral Control	-.03	-.03	-.02	-.02	-.03
Negative Interactions	-.02	-.01	-.01	-.01	-.01
Support	-.01	-.01	-.00	-.00	-.00

Note: *** $p < .001$; ** $p < .010$; * $p < .050$. False Discovery Rate adjustment has been applied. T2: Time-point 2; T3: Time-point 3; T4: Time-point 4; T5: Time-point 5; T6: Time-point 6.

Table 6. Within-Person Cross-Lagged Effects Among Interparental Conflict Management Strategies and Parent-Adolescent Relationship, Controlling for Gender, SES, and Living with Both Parents

Scales	Within-person Cross-Paths, β (Direction: Parent-Adolescent relationship \rightarrow Interparental Conflict)				
	T2	T3	T4	T5	T6
Conflict Engagement					
<i>Mother Reports</i>					
Behavioral Control	.03	.04	.05	.06	.06
Negative Interactions	.05	.05	.05	.06	.05
Support	-.05	-.05	-.05	-.07	-.07
<i>Father Reports</i>					
Behavioral Control	.02	.02	.03	.04	.04
Negative Interactions	.11*	.13*	.13*	.14*	.13*
Support	-.00	-.00	-.01	-.01	-.01
<i>Adolescent for Mother</i>					
Behavioral Control	-.02	-.02	-.02	-.03	-.02
Negative Interactions	.03	.04	.04	.05	.05
Support	-.02	-.02	-.02	-.02	-.02
<i>Adolescent for Father</i>					
Behavioral Control	.01	.01	.01	.01	.01
Negative Interactions	-.01	-.01	-.02	-.02	-.02
Support	-.19	.11	.10	.26***	-.07
Withdrawal					
<i>Mother Reports</i>					
Behavioral Control	.04	.05	.05	.06	.05
Negative Interactions	-.01	-.01	-.00	-.00	-.00
Support	-.06	-.06	-.05	-.05	-.05
<i>Father Reports</i>					
Behavioral Control	.04	.05	.05	.05	.05
Negative Interactions	.00	.00	.00	.00	.00
Support	-.01	-.01	-.01	-.01	-.01
<i>Adolescent for Mother</i>					
Behavioral Control	.02	.02	.02	.02	.02
Negative Interactions	.01	.01	.01	.01	.01
Support	-.00	-.00	-.00	-.00	-.00
<i>Adolescent for Father</i>					
Behavioral Control	.00	.00	.00	.00	.00
Negative Interactions	.01	.01	.01	.01	.01
Support	-.01	-.02	-.02	-.02	-.02
Problem Solving					
<i>Mother Reports</i>					
Behavioral Control	-.01	-.02	-.02	-.02	-.02
Negative Interactions	.03	.04	.03	.03	.03
Support	.04	.05	.04	.04	.04
<i>Father Reports</i>					
Behavioral Control	-.03	-.04	-.04	-.04	-.04
Negative Interactions	.01	.02	.02	.02	.02
Support	.04	.05	.05	.05	.04
<i>Adolescent for Mother</i>					
Behavioral Control	.01	.01	.01	.01	.01
Negative Interactions	-.01	-.01	-.01	-.01	-.01
Support	.01	.01	.01	.01	.01
<i>Adolescent for Father</i>					
Behavioral Control	.05	.06	.06	.05	.05
Negative Interactions	-.03	-.04	-.05	-.04	-.04
Support	-.01	-.02	-.02	-.02	-.02

Note: *** $p < .001$; ** $p < .010$; * $p < .050$. False Discovery Rate adjustment has been applied. T2: Time-point 2; T3: Time-point 3; T4: Time-point 4; T5: Time-point 5; T6: Time-point 6.

support for the spillover hypothesis, but in the reverse direction: Increases in father–adolescent negativity go hand in hand with but also precede increases in destructive interparental conflict. The concurrent positive within-person associations of paternal support and interparental problem solving can be an indication of positive spillover (McCoy et al., 2013).

Both the concurrent and the cross-lagged significant results are in accordance with recent findings that increases in conflict between two members of a family (either interparental conflict or parent–adolescent conflict) are associated with increased conflict in other subsystems in the same family (Nelson et al., 2017; Sears, Repetti, Reynolds, Robles, & Krull, 2016). Furthermore, given that father–adolescent negative interactions normally decline from middle adolescence on (De Goede et al., 2009), the reverse spillover effect we found may indicate that prolonged father–adolescent negative interactions may violate the fathers' expectation and are thus a strong stressor for them (Laursen & Collins, 2009), which is then transferred to the interparental sphere. Another possibility is that father–adolescent negative interactions are causing mothers to react to their husbands, leading to more interparental conflict engagement. Finally, one more possible explanation is that this effect is the result of reporter bias, as it was only found on father reports. Future studies focusing on fathering may elucidate this possibility.

Regarding the differences between mothers and fathers, our results echoed recent conceptualizations that have underlined the complementarity between the maternal and the paternal roles on parenting (Cabrera, Fitzgerald, Bradley, & Roggman, 2014; Elam et al., 2017). On the between-person level, the correlations were similar for mothers and fathers, but the finding that on the within-person level marital conflict was exclusively related to the father–adolescent relationship indicates that it may be more difficult for fathers than mothers to navigate between the parental and the spousal roles (Coiro & Emery, 1998; Elam et al., 2017). This can explain the “reverse spillover” effect we found only for the father–adolescent negative interactions.

Limitations

Several limitations must be noted. First, although the model used multiple informants

to assess interparental conflict management and parent–adolescent relationships, the data are still self-reported. Observations could add strength to the inferences drawn from this study. Second, although SES was controlled for, the sample was mainly from medium and high SES, in The Netherlands, an affluent western country. Family dynamics may vary between countries and socioeconomic strata; therefore, future research should try to replicate whether a similar pattern of findings would emerge in other cultural settings. Third, although the analytic model applied is a state-of-the-art technique and offers strong advantages over previous analytic methods (e.g., standard cross-lagged models; multi-level modeling), it is imperfect. For example, it assumes that between-person differences remain stable over time, which is a rather strong assumption (e.g., Berry & Willoughby, 2016). Future research can address these limitations.

Conclusion

Interparental conflict and parent–adolescent relationships are two strongly interrelated phenomena, as decades of research have shown. The current study furthers our understanding by showing that the associations of these phenomena are due to stable differences between families, and although significant intrafamilial processes occur in both interparental conflict and parent–adolescent relationship quality during adolescence, these intrafamilial changes do not associate with each other. Although the pattern of associations supports the idea that families with more destructive interparental conflict management strategies tend to be those families with lower parent–adolescent relationships, extant research has mistakenly interpreted similar patterns as support for the spillover hypothesis. In this study we found that for the most part, whether parents increase or decrease their conflict management strategies they apply in conflicts with their spouses does not induce changes in the quality of parent–adolescent relationship.

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APPENDIX

Table A1. *Model Specification for the Final Version of Each of the 36 Bivariate Models*

	Model specification					
	Fully constrained	Autoregressive 1 free	Autoregressive 2 free	Error covariance free	Cross-lagged X → Y free	Cross-lagged Y → X free
Conflict engagement						
Mother reports						
Behavioral control			✓			
Negative interactions	✓					
Support			✓		✓	
Father reports						
Behavioral control			✓			
Negative interactions	✓					
Support			✓			
Adolescent for mother						
Behavioral control			✓			
Negative interactions			✓			
Support			✓			
Adolescent for father						
Behavioral control					✓	
Negative interactions	✓					
Support			✓	✓		
Problem solving						
Mother reports						
Behavioral control		✓	✓			
Negative interactions		✓				
Support		✓	✓			
Father reports						
Behavioral control		✓	✓			
Negative interactions		✓				
Support		✓	✓			
Adolescent for mother						
Behavioral control		✓	✓			
Negative interactions		✓	✓			
Support		✓	✓			
Adolescent for father						
Behavioral control		✓				
Negative interactions		✓				
Support		✓	✓			

Table A1. Continued.

	Model specification					
	Fully constrained	Autoregressive 1 free	Autoregressive 2 free	Error covariance free	Cross-lagged X → Y free	Cross-lagged Y → X free
Withdrawal						
Mother reports						
Behavioral control		✓	✓			
Negative interactions		✓				
Support		✓	✓			
Father reports						
Behavioral control		✓	✓			
Negative interactions		✓				
Support		✓	✓			
Adolescent for mother						
Behavioral control		✓	✓			
Negative interactions		✓	✓			
Support		✓	✓			✓
Adolescent for father						
Behavioral control		✓				
Negative interactions		✓				
Support		✓	✓			

Note. The ✓ indicates which parameters were left free to vary across the six waves in each model. Fully constrained: Autoregressive stabilities, error covariances, and cross-lagged effects were constrained to be equal. Autoregressive 1 free: The autoregressive stabilities of the Interparental Conflict dimension were left free. Autoregressive 2 free: The autoregressive stabilities of the Parenting dimension were left free. Cross-lagged X → Y: The cross-lagged effects of interparental conflict on parenting were left free. Cross-lagged Y → X: The cross-lagged effects of parenting on interparental conflict were left free. CE = conflict engagement; PS = problem solving; WTH = Withdrawal; PC = parental control; Sup = parental support. Neg = parent-adolescent negative interactions.

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