Interparental Conflict, Negative Parenting, and Children’s Adjustment: Bridging Links Between Parents’ Depression and Children’s Psychological Distress

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Pathways linking parental depressive symptoms, adult relationship insecurity, interparental conflict, negative parenting, and children’s psychological adjustment (internalizing symptoms and externalizing problems) were assessed using a 3-wave longitudinal research design. Two-parent families (N = 352) with 11- to 13-year-old children (179 boys, 173 girls) participated in the study. Maternal and paternal depressive symptoms were associated with insecurity in adult close relationships assessed 12 months later, which was concurrently related to heightened levels of interparental conflict. Controlling for children’s initial symptom levels, interparental conflict was related to child appraisals of father and mother rejection assessed an additional 12 months later, which were related to children’s internalizing symptoms and externalizing problems, respectively. Results are discussed with regard to the implications for understanding the complex interplay between adult depressive symptoms, attributions in close adult relationships, interparental conflict, negative parenting, and children’s psychological adjustment.

Keywords: parent depressive symptoms, insecurity, marital conflict, parent rejection, children’s adjustment

Adult depressive symptoms, insecurity in close relationships, and disrupted family relationships each have important implications for the quality of family life and for children’s psychological well-being (Downey & Coyne, 1990; Miller, Cowan, Cowan, Hetherington, & Clingempeel, 1993; Cowan, Cohn, Cowan, & Pearson, 1996). The mediating role of the interparental and parent–child relationships in the link between (a) parent depressive symptoms and (b) adult relationship insecurity and children’s psychological well-being has received support in several previous studies (e.g., Miller et al., 1993; Cowan et al., 1996). Few studies, however, have considered the role of parent’s psychological health and relationship functioning at the adult, interparental, and parent–child levels in explaining variation in children’s emotional and behavioral well-being. In the present study, we considered the effects of parent depressive symptoms and adult relationship insecurity in accounting for long-term variations in children’s internalizing symptoms and externalizing problems via disruption in the quality of the interparental and parent–child relationships.

Adult Depressive Symptoms, Insecurity in Close Relationships, and Interparental Conflict

Individuals with high levels of depressive symptoms are more likely to attribute hostility to other family members as well as to withdraw from social interaction (Conger & Elder, 1994), and depressive symptoms in one or both spouses are related to marital exchanges characterized by heightened hostility, tension, and discord (Cummings & Davies, 1994; Downey & Coyne, 1990). Previous research has also identified links between symptoms of psychological distress, including depression and attachment insecurity (e.g., Roberts, Gotlib, & Kassel, 1996), and insecurity in close relationships is associated with increased levels of couple conflict (e.g., Crowell et al., 2002; Cowan et al., 1996). Depression, therefore, may indirectly affect the marital relationship by influencing individuals’ expectations about a spouse or partners’ support and emotional availability (Cummings & Cicchetti, 1990). A recent cross-sectional study found associations between parent dysphoria, marital attachments, marital conflict, and young children’s adjustment (Cummings, Keller, & Davies, 2005). Although associations have been documented, few studies have tested hypotheses regarding the relations between depression, security in close relationships, and interparental conflict in the context of a prospective, longitudinal research design.

Adult Psychological Functioning, Family Functioning, and Childrens’ Adjustment

Parental depression is considered a significant risk factor for the development of a range of psychological adjustment...
problems in children, including a negative attribution style, social and academic difficulties, internalizing symptoms, and externalizing problems (Cummings & Davies, 1994; Downey & Coyle, 1990). Marital and parent–child relationships are regarded as possible mechanisms through which the effects of parent distress are communicated to other family members, including partners and children (Cummings & Davies, 1994). The effects of parent depression on children’s adjustment have been found to be mediated by both marital distress (e.g., Davies, Dumenci, & Windle, 1999; Du Rocher Schudlich & Cummings, 2003) and hostile and rejecting parenting (e.g., Kane & Garber, 2004; Oyserman, Bybee, & Mowbray, 2002).

Parent depression may also indirectly affect the parent–child relationship by increasing marital conflict (Conger et al., 1992; Low & Stocker, 2005). According to Belsky (1984), parenting behavior can be determined as a function of individual parent factors, child characteristics, and the social context in which the parent–child relationship exists, with emphasis on the marital relationship as a primary emotional context in which parent–child functioning occurs. Tests of the family stress model found support for a process perspective whereby parental depression predicted increased marital conflict, which in turn influenced adolescent adjustment problems via the impact on parent–child relations (Conger et al., 1992, 1993). Against a backdrop of interparental conflict, children appear to experience the parent–child relationship as more hostile and insecure (e.g., Harold, Fincham, Osborne, & Conger, 1997; Harold, Shelton, Goekemore, & Cummings, 2004). The level of parent acceptance in the context of marital conflict has also been identified as a particularly salient dimension of the parent–child relationship for young adolescents (Fauber, Forehand, Thomas, & Wierson, 1990). In one of the few studies to consider the effects of parent depression on multiple dyadic relationships in the family, parent depression was related to children’s externalizing problems indirectly through effects on the quality of the marital relationship and parenting style (Miller et al., 1993; see also Leinonen, Solantaus, & Punamäki, 2003; Cummings et al., 2005).

Similar relations have been found between adult security in close relationships and family functioning. Adult insecurity has been related to higher levels of angry and intrusive parenting and lower levels of positive affect (Adams, Gunnar, & Tanaka, 2004). Paralleling the parent depression literature, Cowan et al. (1996) found that mothers’ and fathers’ attachment histories indirectly affected young children’s adjustment by influencing marital quality and parenting behavior. Documented links between adult attachments and parenting behavior have relied almost exclusively on mothers and preschool children. Less well understood is how male and female insecurity in close relationships and the parenting of adolescents are related.

The Present Study

Findings suggest that parent depressive symptoms and insecurity can have a pervasive influence on family functioning, with deleterious effects in turn on children’s psychological health. The goal of this study was to examine how adult depressive symptoms and insecurity in close relationships related to children’s later adjustment problems through effects exerted on the interparental and parent–child relationship. Building on previous work by Belsky (1984), Cowan et al. (1993), and Miller et al. (1996), the conceptual model presented in Figure 1 proposes that interparental conflict acts as a mediator of links between adult depressive symptoms, insecurity in close relationships, and child appraisals of the parent–child relationship. Maternal and paternal depressive symptoms (Time 1) were hypothesized to affect each adult’s relationship insecurity (Time 2). Depressive symptoms (Time 1) and adult relationship insecurity (Time 2) were in turn hypothesized to adversely affect levels of interparental conflict (Time 2), leading to heightened internalizing symptoms and externalizing problems for children (Time 3) via disruptions in the mother–child and father–child relationships (Time 3).

Child characteristics are also recognized as an important factor in determining the quantity and quality of parenting that they receive (Belsky, 1984). We therefore hypothesized that internalizing symptoms and behavior problems would be additional predictors of child appraisals of parent rejection 2 years later. By including these pathways, we sought to control for a trait negativity bias whereby children experiencing heightened symptoms of anxiety, depression, and hostility are more likely to report negative feelings in relation to parent–child relations (Harold et al., 1997; Watson & Pennebaker, 1989). Estimating paths from earlier adjustment problems to those assessed 2 years later also provides an index of change in adjustment as a function of the proposed antecedent and intermediary parent and family measures included in the model (Kessler & Greenberg, 1981).

We were also interested to test for child gender differences in the pattern of relations underlying links between parent psychological distress and adolescent adjustment problems. Given adolescent girls’ theorized proclivity for interpersonal connectedness and the risk this can pose for their mental health in the context of dysfunctional family functioning (Davies & Lindsay, 2004), associations between adolescent appraisals of negative parent–child relations and adjustment problems may be stronger for girls relative to boys. On the other hand, given that the risk for antisocial behavior is greater for boys than girls in adolescence (Rhee & Waldman, 2002), associations between problematic parent–child relations and externalizing behavior may be more evident for boys.

Supplementary analyses were also conducted to test the theorized direction of effects shown in Figure 1. First, the relationship between adult depression and insecurity in close relationships was examined. Although previous research has documented that adult depressive symptoms are associated with representations of attachment figures and with functioning in close relationships, the direction of effects linking these psychological constructs has varied between studies (e.g., Cummings, Keller, & Davies, 2005; Strodl & Noller, 2003). Based on the extant literature (e.g., Conger & Elder, 1994) indicating that depressive symptoms
lead to hostile attributions about others’ behavior, we hypothesized that symptoms of depression (Time 1) would adversely affect adult attributions about their relationships with close others (Time 2).

Second, we examined the link between depressive symptoms (Time 1) and interparental conflict (Time 2). Overall, previous research has suggested that effects operate from intrapersonal distress (such as depression) to problems in close relationships, including couple conflict and decreased marital satisfaction (e.g., Fincham, Beach, Harold, & Osborne, 1997). Third, we tested effects operating between interparental conflict (Time 2) and children’s psychological adjustment (Time 3). Research that examines the effects of interparental conflict on child adjustment using a longitudinal design, whereby initial symptom levels are controlled, has not typically found a relationship between these constructs. Rather, effects operate indirectly via child appraisals about parents’ conflict and the parent–child relationship (e.g., Harold et al., 1997; Grych, Harold, & Miles, 2003).

The overall goal of this study was to use a three-wave prospective, longitudinal design to assess the role of interparental conflict as a mechanism through which earlier levels of adult psychological distress affected mothers’ and fathers’ ability to be emotionally available to their children, which in turn affected children’s long-term psychological adjustment.

Method

Sample

The sample was derived from a 3-year longitudinal study of 387 schoolchildren, parents, and teachers living in the United Kingdom (83% response from total sample contacted). This study focused on children’s experiences of family life and their socioemotional development (Time 1: age 11–13 years, \( M = 11.67 \) years, \( SD = 0.47 \)). Overall retention of the sample across the three assessments (Time 1: 1999; Time 2: 2000; Time 3: 2001) was good, with 91% and 87% of the initial panel of adolescents providing information at Waves 2 and 3, respectively. The sample is representative of British families living in England and Wales with respect to family constitution, parent education, and ethnic representation (Social Trends, 2002). The study was conducted in accordance with the ethical standards of the British Psychological Society and had institutional approval.

Given the nature of the questions investigated in the present study, children from all family types other than two-parent families were excluded (87.2% children lived with their biological parents, 11.1% with their mother and stepfather, and 1.7% with their father and stepmother). The present study uses information provided by 352 families and school teachers (179 boys, 173 girls). The sample was

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**Figure 1.** The conceptual model. Solid lines denote hypothesized pathways linking parent psychological distress with family functioning and child adjustment.
predominantly White European (99.1%), with the remaining proportion (0.9%) of other nationality (e.g., India, Pakistan). Approximately 36.6% of mothers completed secondary education, 35.3% of mothers completed technical or vocational training, and 28.1% of mothers completed university. Of the fathers, 33.8% completed secondary education, 29.1% completed technical or vocational training, and 37.1% completed university.

Procedure

Following initial contact with area secondary schools, parents received a letter inviting them and their children to participate in a research project focusing on the link between everyday family life and children’s development. Parents were further informed about the study during presentations at scheduled parent–teacher evenings, where they were given a second letter and a consent form describing the goals and each stage of the project in more detail. A summary booklet outlining key research findings was distributed to all families on completion of the study.

Parents received their questionnaires through the mail, along with instructions for completing the measures and stamped, addressed envelopes for returning questionnaires. Parents were asked to complete their questionnaires independently. A contact number for concerns or queries was provided. Questionnaires contained a variety of measures relating to the quality of family relationships, parent and child psychological health, economic conditions, and family demographics. Children completed questionnaires during the course of the normal school day. Their questionnaires contained measures relating to the quality of family relationships, children’s psychological health, economic conditions, and family demographics. Teachers completed questionnaires assessing child psychological functioning. As part of an overall debriefing, researchers and children discussed the benefits of successfully negotiating and resolving conflicts between individuals. No concerns were raised by any children participating in the study.

Measures

Adult depressive symptoms (Time 1). Adult depressive symptoms at Time 1 were assessed using the Beck Depression Inventory (BDI), a 21-item measure of depressive symptoms (Beck & Beamesderfer, 1974). This measure is a widely cited and reliable index of depressive symptoms in community samples (e.g., Fincham et al., 1997). Maternal and paternal reports on the BDI had good internal consistency (α = .82 and .82, respectively).

Adult insecurity in close relationships (Time 2). This was assessed using the 18-item Adult Attachment Scale (AAS; Collins & Read, 1990), a self-report measure of adult attachment security. The scale comprises three subscales—comfort with closeness to partner, comfort depending on partner, and fear of rejection by partner—which were summed to create one overall measure of insecurity in close relationships. Items include, “I often worry my partner will not want to stay with me,” and “I find it difficult to trust others completely.” Response options range from 1 (not at all characteristic of me) to 5 (very characteristic of me). Items were scored to reflect insecurity in interpersonal relationships. Both maternal and paternal reports on the AAS had acceptable internal consistency (maternal: α = .72; paternal: α = .69).

Interparental conflict (Time 2). Mothers and fathers completed three measures of interparental conflict. Interparental conflict occurring in front of the child was measured with the O’Leary–Porter Scale (Porter & O’Leary, 1980). Both husband and wife estimates of internal consistency for this scale were good (α = .78 and α = .79, respectively). Marital hostility was assessed using four items contained in the Iowa Youth and Families Project Rating Scales (Melby, Conger, Ge, & Warner, 1995), for example, “During the past month, how often has your spouse gotten angry at you?” This scale showed good internal consistency (husband: α = .87; wife: α = .87). The third measure of interparental conflict was the short Marital Adjustment Test, which assesses overall marital adjustment and consensus and has excellent reliability and discriminant validity (Locke & Wallace, 1959). This global index was included to tap more subtle ways of expressing conflict that may not be picked up by the measures of overt hostility. Internal consistency estimates were good (husband: α = .82; wife: α = .83). Husband and wife responses were summed for all three respective measures so as to represent composite estimates of parent’s overt conflict (α = .87), hostility (α = .89), and marital dissatisfaction (α = .88).

Children’s appraisals of parent–child relations (Time 3). The quality of parent–child relations was assessed using the Acceptance–Rejection subscale of the Children’s Report of Parent Behavior Inventory (CRPBI; Margolis & Weintrab, 1977). The 15 items assess parental acceptance and closeness to the child, and were coded for study purposes to capture low levels of acceptance and high levels of rejection. Response options ranged from 1 (true) to 3 (not true). The Acceptance subscale comprises 8 items relating to warmth and provision of reassurance, for example, “Often speaks of the good things that I do.” The Rejection subscale has 7 items and includes, “Almost always complains about what I do.” Children’s reports of mothers’ and fathers’ behavior for each subscale had good internal consistency (α = .81 to .89) and were combined to form an overall estimate of mother (α = .89) and father (α = .91) rejection.

Children’s psychological adjustment: Internalizing symptoms (Times 1 and 3). Children’s internalizing symptoms were assessed using three self-report measures. Two measures of internalizing symptoms were the Withdrawn and Anxious–Depressed subscales of the Youth Self-Report Form of the Child Behavior Checklist (Achenbach, 1991). The Anxious–Depressed subscale had adequate internal consistency at Time 1 and Time 3 (α = .83 and α = .89, respectively). Although the internal consistency estimate for the Withdrawn subscale at Time 1 (α = .53) was lower than that normally considered acceptable (α > .60; Nunnally, 1978), we retained this measure in the analyses to provide an overall index of internalizing symptoms. The internal consistency estimate for the With-
Table 1
Intercorrelations Among Parent Depressive Symptoms, Insecurity, Family Functioning, and Indices of Child Adjustment
(N = 352)

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*p < .05.  **p < .01.

Drawn subscale at Time 3 was acceptable (α = .70). The Children’s Depression Inventory (Kovacs, 1981) is a 26-item measure of childhood depressive symptoms. This measure had good internal consistency at both time points (α = .83 and α = .89, respectively).

Externalizing symptoms (Times 1 and 3). Children’s externalizing problems were assessed using the Aggression subscale of the Youth Self-Report Form of the Child Behavior Checklist (Achenbach, 1991; Time 1: α = .84; Time 3: α = .86) and the trait measure of antisocial behavior by Buss and Durkee (1957; Time 1: α = .82; Time 3: α = .84). The Buss and Durkee measure includes questions such as, “If I have to use physical violence to defend myself I will.” The third measure of externalizing behavior was the Aggression subscale of the Teacher Report Form of the Child Behavior Checklist (Achenbach, 1991), which demonstrated good internal consistency (Time 1: α = .95; Time 3: α = .94).

Statistical Analyses

Structural equation modeling (SEM; LISREL 8.50; Joreskog & Sorbom, 1996) with maximum likelihood estimation was used to test the model shown in Figure 1. Based on guidance provided by Widaman (2006), we conducted multiple imputation using the expectation maximization (EM) algorithm to treat missing data (the amount of missing data across the study sample was 14.34%, which can be regarded as moderate). Analysis proceeded in four steps: (1) The direct effects of parent depressive symptoms and insecurity in close relationships on children’s appraisals of parent rejection 2 years later were assessed while controlling for the effect of initial symptom levels on appraisals and subsequent adjustment. (2) The role of interparental conflict as a mediator of relations between depressive symptoms, insecurity in close relationships, parent–child rejection, and children’s adjustment problems was tested. (3) The hypothesized pathways were assessed separately for boys and girls. Differences in the magnitude of individual pathways in the boys’ and girls’ models were tested for significance using multigroup stacked modeling procedures. This procedure involves comparing the chi-square statistic derived from a model where a specific pathway is treated as equivalent across groups to that derived from a model where the path in each subgroup model (i.e., boys vs. girls) is allowed to vary freely. The difference in these chi-square statistics provides an estimate of the statistical significance of any parameter differences in the specific pathways considered. (4) Supplementary analyses assessed evidence for the theorized causal priority of pathways in the conceptual model. Cross-lagged and reciprocal effects models assessed links between (a) depressive symptoms and adult insecure representations of close
relationships, (b) depressive symptoms and interparental conflict, and (c) interparental conflict and child adjustment. Models were tested using two waves of data separated by 12 months.

**Results**

The correlations, means, and standard deviations for the study variables relating to tests of the theoretical model are presented in Table 1. Husbands’ and wives’ scores for depressive symptoms (Time 1) and insecurity (Time 2) were compared using paired samples t tests. Wives reported higher levels of depressive symptoms, $t(351) = 3.75, p < .01$; Cohen’s $d = 0.24$. Husbands had higher levels of relationship insecurity compared with wives, $t(351) = 3.58, p < .01$; Cohen’s $d = 0.23$. These effect sizes may be regarded as small (Cohen, 1988).

The correlations presented are generally consistent with the theorized pattern of relationships. Overall, parent depressive symptoms (Time 1) or insecurity in close relationships (Time 2) were not associated with children’s internalizing symptoms and externalizing problems assessed at Time 3. Maternal depressive symptoms were associated with children’s depressive symptoms ($r = .15, p < .05$) and teacher-rated aggression ($r = .15, p < .05$). Paternal insecurity was associated with children’s withdrawal ($r = .12, p < .05$). Parent depressive symptoms were not associated with child appraisals of parent rejection 2 years later. Paternal insecurity was not related to parent–child rejection 1 year later, whereas maternal insecurity was associated with later mother– and father–child rejection ($r = .18, p < .01$, and $r = .13, p < .05$, respectively). Depressive symptoms and insecurity were positively associated with interparental conflict. Interparental conflict was associated with parent–child rejection assessed 1 year later (range $r = .20$ to .29, $p < .01$). Positive associations were observed for 5 of the 18 correlations between interparental conflict and the indices of child adjustment problems (range $r = .00$, $p > .10$, to $r = .22$, $p < .05$). Mother– and father–child rejection were associated with children’s adjustment problems (range $r = .17, p < .05$, to $r = .48, p < .01$). There were moderate associations between each index of child adjustment problems at age 11 and age 13 (range $r = .45$ to $r = .59, p < .01$), suggesting some stability in levels of psychological distress in early adolescence.

In summary, the pattern of intercorrelations indicated that adult depressive symptoms were associated with problems in close relationships assessed 12 months later, including increased insecurity in close relationships and interparental conflict. Both maternal insecurity and interparental conflict were associated with parent–child rejection, whereas both mother–child and father–child rejection were associated with child adjustment problems.
Parent Depressive Symptoms, Adult Insecurity, and Child Adjustment: The Role of the Parent–Child Relationship

Tests were conducted to assess relations between depressive symptoms, adult insecurity, parent–child rejection, and adjustment problems assessed across 2 years. To summarize, the results suggested that maternal depressive symptoms exerted indirect effects on the mother–child relationship via maternal insecurity, which in turn predicted increased externalizing problems. For fathers, depressive symptoms and insecurity were not associated with later problems in the parent–child relationship. Father–child rejection was associated with internalizing symptoms but not externalizing problems.

For each model, the measurement loadings for internalizing symptoms and externalizing problems indicated that all indicators were good measures of each latent construct ($\lambda = 0.60$ to $0.88$, $p < .01$). The magnitude for teachers’ reports of child aggression was lower, however ($\lambda = 0.39$ and $0.32$, $p < .01$ for Time 1 and Time 3, respectively). The measure was included in these and all subsequent tests to control for the inflation of effects from a reliance on a single reporter of adjustment outcomes.

For the internalizing symptoms model, maternal depressive symptoms predicted maternal insecurity and paternal depressive symptoms predicted paternal insecurity ($\beta = 0.50$ and $0.31$, $p < .01$, respectively). Maternal depressive symptoms predicted paternal insecurity ($\beta = 0.20$, $p < .01$), but paternal depressive symptoms did not predict maternal insecurity ($\beta = 0.07$, $p > .10$). Depressive symptoms at Time 1 were not related to parent–child rejection at Time 3 ($\beta = 0.01$ and $0.03$, $p > .10$, for mothers and fathers, respectively). Maternal insecurity predicted mother–child rejection, but paternal insecurity did not predict father–child rejection ($\beta = 0.10$, $p < .05$, and $\beta = 0.06$, $p > .10$). Father–child but not mother–child rejection predicted increased internalizing symptoms ($\beta = 0.16$, $p < .05$, and $\beta = 0.10$, $p > .10$).

A somewhat different pattern of relations was observed for the prediction of externalizing problems. Maternal depressive symptoms predicted maternal and paternal insecurity in close relationships ($\beta = 0.50$, $p < .01$, and $\beta = 0.20$, $p < .05$, respectively). Maternal insecurity was related to increased mother–child rejection ($\beta = 0.15$, $p < .05$). In contrast to the pattern of results for internalizing symptoms, mother–child rejection predicted increased externalizing problems ($\beta = 0.21$, $p < .05$). For fathers, depressive symptoms predicted insecurity ($\beta = 0.31$, $p < .01$), but no relations were found between paternal insecurity and father–child rejection or between father–child rejection and externalizing problems ($\beta = 0.07$ and $0.07$, $p > .10$). Neither maternal nor paternal depressive symptoms predicted parent–child rejection ($\beta = 0.03$ and $0.04$, $p > .10$).

For both models, initial symptom levels were significant predictors of children’s reports of parent–child rejection and subsequent adjustment problems ($\beta = 0.25$ to $0.59$, $p < .01$). The fit indices for both model tests indicated an acceptable fit between the model and the data: Internalizing symptoms: $\chi^2(39) = 137.73$, $p < .00$; root-mean-square error of approximation (RMSEA) = 0.08 (95% confidence interval [CI] = 0.07, 0.10); comparative fit index (CFI) = 0.94; incremental fit index (IFI) = 0.94; goodness-of-fit index (GFI) = 0.94; adjusted goodness-of-fit index (AGFI) = 0.88; externalizing problems: $\chi^2(39) = 97.57$, $p < .00$; RMSEA = 0.06 (95% CI = 0.05, 0.08); CFI = 0.95; IFI = 0.95; GFI = 0.96; AGFI = 0.92. Further analysis was conducted to examine whether interparental conflict acted as an indirect link between adult depressive symptoms, insecurity, parent–child relations, and child adjustment.


Table 2 presents results testing the full theoretical model incorporating interparental conflict as a linking mechanism between adult depressive symptoms, insecurity, and family functioning. For both mothers and fathers, depressive symptoms (Time 1) and insecurity in close relationships (Time 2) were associated with increased interparental conflict (Time 2). Intergeneral conflict, in turn, was a significant predictor of both mother–father–child rejection 1 year later. For the internalizing problems model, the relationship between maternal insecurity and mother–child rejection was no longer significant when the relationships between interparental conflict with insecurity and mother–child rejection were controlled. Maternal insecurity remained a significant predictor of mother–child rejection in the externalizing symptoms model. This pattern of results indicates that interparental conflict partially mediated the relationship between maternal insecurity and mother–child rejection, and acted as a linking mechanism between paternal insecurity and father–child rejection. An independent variable can have an indirect effect on a dependent variable in the absence of correlation if the independent variable influences a third intervening variable, which in turn affects the dependent variable (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Indirect effects tests assessed the effect of parent insecurity on adolescent appraisals of parent rejection via interparental conflict. These tests were conducted for each model (internalizing symptoms and externalizing problems) to control for the main effect of adjustment problems on appraisals of parent behavior. Across all models, parent insecurity exerted an indirect effect on appraisals of parent rejection through its impact on interparental conflict (internalizing symptoms model: mothers, $b = 0.03$, $p < .05$; fathers, $b = 0.05$; externalizing problems model: mothers, $b = 0.03$, $p < .05$; fathers, $b = 0.04$, $p < .05$).

Intergeneral conflict was not related to child adjustment problems assessed 1 year later. Mother–child rejection but not father–child rejection was related to increased externalizing problems. Father–child rejection but not mother–child rejection was associated with increased internalizing symptoms. Further tests showed that interparental conflict exerted a statistically significant indirect effect on child externalizing problems via mother–child rejection ($b = 0.06,$...
Table 2

Maximum Likelihood Estimation of Relations Between Parents’ Psychological Symptoms, Family Functioning, and Children’s Psychological Symptoms

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<tr>
<td>Internalizing symptoms</td>
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<tr>
<td>Withdrawing (child report)</td>
<td>0.66</td>
<td>0.75</td>
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<tr>
<td>Anxious-depressed (child report)</td>
<td>0.81</td>
<td>0.90</td>
</tr>
<tr>
<td>Depressive symptoms (child report)</td>
<td>0.60</td>
<td>0.79</td>
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<tr>
<td>Externalizing problems</td>
<td></td>
<td></td>
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<tr>
<td>Aggression (child report)</td>
<td>0.86</td>
<td>0.90</td>
</tr>
<tr>
<td>Hostility (child report)</td>
<td>0.68</td>
<td>0.71</td>
</tr>
<tr>
<td>Aggression (teacher report)</td>
<td>0.39</td>
<td>0.32</td>
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\[ \chi^2(68) = 228.26, p = .00 \]

RMSEA (95% CI)

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<tbody>
<tr>
<td>0.08 (0.07, 0.09)</td>
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IFI

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<tr>
<td>0.93</td>
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CFI

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<td>0.92</td>
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GFI

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AGFI

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<td>0.86</td>
<td>0.89</td>
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Note: RMSEA = root-mean-square error of approximation; CI = confidence interval; IFI = incremental fit index; CFI = comparative fit index; GFI = goodness-of-fit index; AGFI = adjusted incremental goodness-of-fit index.

* Equivalent estimate to internalizing symptoms model.  
  ** Significant gender difference for boys and girls.

\[ \chi^2(68), p = .00 \]

p < .05, whereas effects on internalizing symptoms were exerted via father–child rejection (b = 0.04, p < .05).

Overall, the total explained variance in the latent estimate for internalizing symptoms was 43% and for externalizing problems was 53%. The fit indices suggested a good fit for both the internalizing symptoms and externalizing problems model: Internalizing symptoms: \[ \chi^2(68) = 228.26, p < .00; \] RMSEA = 0.08 (95% CI = 0.07, 0.09); CFI = 0.92; IFI = 0.93; GFI = 0.92; AGFI = 0.86; externalizing problems: \[ \chi^2(68) = 178.89, p < .00; \] RMSEA = 0.08 (95% CI = 0.07, 0.09); CFI = 0.92; IFI = 0.93; GFI = 0.92; AGFI = 0.86.
p < .00; RMSEA = 0.07 (95% CI = 0.06, 0.08); CFI = 0.94; IFI = 0.94; GFI = 0.94; AGFI = 0.89.

Subgroup Analyses

Subgroup comparison tests indicated that the path between mother–child rejection and externalizing problems was significant for girls (β = 0.20, p < .05) but not boys (β = 0.03, p > .10). In contrast, the path between father–child rejection and externalizing problems was significant for boys (β = 0.25, p < .05) but not girls (β = 0.03, p > .10). Δχ²(1, N = 179) = 8.73, Δρ < .10. Taken together, these supplementary analyses provide support for the theorized direction of effects shown in Figure 1.

Establishing Causal Priority of Pathways in the Proposed Theoretical Model

Supplementary analyses were conducted to examine the theorized ordering of relationships between (a) adult depressive symptoms and insecurity in close relationships assessed at Time 1 and Time 2, (b) adult depressive symptoms and interparental conflict assessed at Time 1 and Time 2, and (c) interparental conflict and children’s psychological adjustment assessed at Time 2 and Time 3. A series of model tests examined (a) whether a relationship existed between each pair of constructs assessed across time and (b) whether effects were reciprocal or unidirectional in effect. A significant cross-lagged effect reflects a relationship beyond that accounted for by stability of constructs and the magnitude of their association assessed at an earlier time point. In the second set of model tests, we assessed concurrent reciprocal effects while controlling for stability in these constructs over time. All model tests used manifest measures of theoretical constructs. The internal consistency across all additional measures was good (α = .70 to .94).

Adult depressive symptoms and insecurity in close relationships (Time 1 to Time 2). Depressive symptoms were related within (wives: β = 0.19, p < .01; husbands: β = 0.25, p < .01) and across time (wives: β = 0.17, p < .01; husbands: β = 0.18, p < .01) to insecurity in close relationships. Effects were not observed from insecurity to depressive symptoms either within or across time (wives: β = 0.00 and β = 0.04, respectively; husbands: β = 0.02 and β = 0.01, respectively). The stability in both constructs for husbands and wives was moderate to large (range β = 0.63 to 0.79, p < .01).

Adult depressive symptoms and interparental conflict (Time 1 to Time 2). A small but statistically significant relationship was found between interparental conflict and wives’ depressive symptoms assessed 1 year later (β = 0.08, p < .05). In the context of large stability coefficients for interparental conflict (β = 0.88) across the 12-month period, no other cross-lagged effects were observed. Examining reciprocal relations within time indicated effects of depressive symptoms on interparental conflict (both assessed at Time 2) for husbands and wives (β = 0.07 to 0.09, p < .05, respectively) and an effect from conflict to depressive symptoms for wives only (β = 0.12, p < .05).

Interparental conflict and children’s psychological adjustment (Time 2 to Time 3). A trend was found whereby interparental conflict (Time 2) was related to increased internalizing symptoms (Time 3; β = 0.07, p < .10). In the context of a large stability coefficient for interparental conflict (β = 0.92) and adjustment problems across the 12-month period (β = 0.70 and .83 for internalizing and externalizing problems, respectively), no other cross-lagged or reciprocal effects were observed (β = 0.02 to 0.03, p > .10). Interparental conflict was associated with externalizing problems assessed within time (Time 3; r = .17, p < .05) but not with internalizing symptoms (r = .02, p > .10). Taken together, these supplementary analyses provide support for the theorized direction of effects shown in Figure 1.

Discussion

This study sought to provide further insight regarding the role of adult depression and disrupted personal relationships as precursors to disruptions in family relationships and children’s long-term psychological well-being. It examined the relationship between depressive symptoms and insecurity in close relationships and considered how these dimensions of adult well-being transferred effects to children via their impact on the quality of relations experienced between parents and between parents and their children. The findings underscore the role of the interparental and parent–child relationships as mechanisms through which the effects of adult psychological health are linked to children’s internalizing symptoms and externalizing problems. Depressive symptoms and insecurity in close relationships exerted direct effects on interparental conflict 12 months later. The moderate positive associations found between mothers’ and fathers’ insecurity and between insecurity and interparental conflict reflect the view that internal working models of relationships are related to characteristics of the partner and to relationship functioning (e.g., Cook, 2000). Indeed, self and partners’ working models of attachment and couple behavior are likely to be related in complex ways over time (e.g., Davila, Karney, & Bradbury, 1999).

Parents’ depressive symptoms and relationship insecurity were expressed in the family context through disruptions in the couple relationship. Previous research has indicated that marital quality plays an important role in relations between parent distress and child adjustment (e.g., Cowan et al., 1996; Leinonen et al., 2003; Miller et al., 1993). This study advances understanding of the interrelations between individual and family functioning by tracing relationships between individual distress (depressive symptoms, insecurity), interparental conflict, and children’s representations of the parent–child relationship as they unfold over a 2-year period. A particular strength of the present study was the ability to remove shared method bias between the measurement of interparental conflict and the parental rejection. The relationship found between these two family subsystems supports previous research in this area that has previously been limited by a reliance on a single informant.

Parent reports of interparental conflict exerted effects on children’s adjustment problems via child appraisals of the
parent–child relationship, consistent with previous research in this area employing a prospective, longitudinal design (e.g., Harold et al., 1997, 2004). Couple conflict can lead parents to withdraw from their children’s lives, for example, being less available to provide instrumental support to children in their day-to-day routine or not knowing their friends’ names. Children, it is suggested, could experience this withdrawal as parent rejection (Cox, Paley, & Harter, 2001). Child gender differences were found for links between appraisals of parent–child rejection and adjustment problems such that mother–child rejection was associated with girls’ externalizing problems and father–child rejection was associated with boys’ externalizing problems. This same-sex effect may be indicative of children modeling the hostility and negative behaviors they experience in their relationship with their same-sex parent; alternatively, it may reflect efforts by children to reengage the parent they most closely identify with. In documenting these effects, this study adds to a volume of work demonstrating the value of considering children’s appraisals about each parent’s behavior in explaining the negative impact of parent depressive symptoms and family functioning on child adjustment (e.g., Harold et al., 1997, 2004; Kim & Ge, 2000).

The pathways through which interparental conflict was related to later adjustment problems varied such that father–child rejection was associated with increased internalizing symptoms and mother–child rejection was associated with increased externalizing problems. In the context of the other parent’s behavior toward the child, it appears that mother–child rejection is particularly relevant to the prediction of externalizing problems, and father–child rejection is particularly relevant to the prediction of internalizing symptoms, over and above existing adjustment problems. The findings suggest that in the context of couple conflict, experiencing mothers as rejecting may lead early adolescent children to act out in an attempt to draw her attention and thus reengage in the parent–child relationship. Fathers’ rejecting behavior, in contrast, appears to be associated with increased anxiety and dysphoria, perhaps because children feel a greater sense of hopelessness at fathers’ withdrawal from their lives. Collectively, the findings suggest that the development of education and intervention programs that convey to parents how children appraise the parent–child relationship in the context of parents’ own psychological distress and interparental conflict might assist parents in understanding why, when, and how children are at risk for adjustment problems.

The present study included estimates of children’s initial levels of internalizing symptoms and externalizing problems as additional predictors of their appraisals of parent–child relations 2 years later. This also allowed consideration of the effects of parental distress and family functioning on adjustment while controlling for initial child adjustment problems. Adjustment problems were significant predictors of children’s appraisals of parental rejection 2 years later. This suggests that children’s internalizing symptoms and externalizing behaviors not only influence their appraisals of family relationships, but may also elicit negative parenting from both mothers and fathers. Aside from observations relating to the role of trait negative affectivity bias in linking children’s reports of emotional and behavioral symptoms and perceptions of family relationships (see Watson & Pennebaker, 1989; Harold & Conger, 1997), this interpretation is consistent with findings from adoption studies indicating that children at genetic risk for antisocial behavior elicited more negative parenting from adoptive parents compared with children not at genetic risk (Ge et al., 1996; O’Connor, Deater-Deckard, Fulker, Rutter, & Plomin, 1998).

Supplementary analyses using cross-lagged panel analysis and reciprocal effects tests were conducted to provide further tests of the theorized direction of effects operating in the proposed conceptual model. Support was found for the hypothesis that depressive symptoms predicted increased insecurity in close relationships both within and across time. Insecure relationship representations appeared to be influenced by feelings of despair, hopelessness, and sadness across time, as compared with such feelings being influenced by earlier insecure representations of adult romantic relationships. This is an important finding in and of itself and is consistent with the conceptualization of attachment as a lifespan construct that, although originating in early childhood experiences, is open to influence and modification later in life (Bowby, 1980). The absence of effects from insecure relationship representations to depressive symptoms is perhaps not surprising given the high stability found in depressive symptoms across the 12-month period. Previous research has shown the enduring nature of emotional problems over time (e.g., Ge, Conger, Lorenz, Shanahan, & Elder, 1995). These findings, derived as they are from a sample of married couples with adolescent-age children, support the view of relative stability in security in close relationships across time for individuals in comparatively stable social environments (Davila et al., 1999; Hazan & Shaver, 1994). Where change occurs, however, it is sourced from the impact that depressive symptoms have on later feelings of relationship insecurity, rather than the converse. This finding has significant clinical implications beyond that ordinarily considered in relation to couple relations and individual psychological well-being (see Fincham et al., 1997).

The second set of model tests assessed links between depressive symptoms and interparental conflict. In the context of high construct stability, there was limited evidence of reciprocal links operating between these indices of poor functioning. Within time, depressive symptoms predicted increased conflict for both husbands and wives, consistent with the hypothesized relationship between these problems. Interparental conflict also predicted wives’ depressive symptoms within and across time. The results are broadly consistent with research with married couples (Fincham et al., 1997) and attest to the importance of considering effects separately for males and females, as in the full conceptual model tested in the present study.

In a final set of analyses, the link between marital conflict and child adjustment problems was examined. In the context of high construct stability for interparental conflict (.92), there was no evidence that child adjustment problems were associated with increased interparental conflict within
or across time. Second, interparental conflict was associated with internalizing symptoms 1 year later, but no other effects on adjustment problems were found. This result is consistent with past research whereby significant links between interparental conflict and children’s symptoms of psychological distress are not noted when initial symptom levels are controlled, but significant indirect links through dimensions of parenting and children’s attributions for parents’ marital arguments are observed (see Harold et al., 1997; Harold, Shelton, Goeke-Morey, & Cummings, 2002; Grych et al., 2003).

Some caveats to the present study are noted. The findings derive from a community sample of families in which parent depressive symptoms were assessed using a self-report measure. Previous research has found stronger associations between parent depression and child adjustment when depression is assessed using a diagnostic interview (Downey & Coyne, 1990), possibly because interview-derived assessments provide a more detailed representation of depressive symptoms than self-report measures. The use of a self-report measure of depressive symptoms as opposed to clinical diagnoses possibly accounts for the nonsignificant associations found between parent depressive symptoms and concurrent child adjustment problems. Similarly, the pathways of influence identified from parent depressive symptoms and insecurity through family processes to children’s adjustment may not generalize to a clinical sample and require replication.

There are two key issues that pertain to the measure of insecurity in close relationships used in the present study. First, there is debate regarding the validity of using self-report measures to assess attachment insecurity. Self-report measures, in contrast to the Adult Attachment Interview (George, Kaplan, & Main, 1984), assume that individuals can accurately report their attachment-based experiences. If working models of attachment are part in unconscious (Bowlby, 1980), then self-report measures may represent an incomplete assessment. On the other hand, self-report measures of adult attachment are argued to capture expectations and experiences in the context of current relationships, rather than representations formed in early childhood (Bartholomew, 1994). Therefore, the AAS scale may measure representations that orient current functioning in close relationships, which is of relevance to the conceptualization of family processes tested in the present study. Second, contemporary revisions to attachment theory have identified two dimensions to adult attachment: attachment-related anxiety and avoidance (e.g., Fraley & Shaver, 2000). These dimensions were not captured by the measure employed in the present study. Future work would likely benefit from the use of measures that reflect these refinements to our understanding of attachment in adulthood.

Overall, this study provides important insights regarding the family-wide processes through which parent depressive symptoms and insecurity in close relationships affect child adjustment, highlighting the important role that interparental conflict plays in communicating the effects of adult psychological distress to children’s adjustment. The findings also provide further support for the role of children’s perceptions of the parent–child relationship as a mechanism through which interparental conflict influences psychological adaptation. In doing so, the present study underscores the need to inform parents about the effects of couple conflict on children and how problems in the interparental relationship engender child appraisals of parents as more rejecting.

The present study is unique in that it brings together research traditions focusing on links between adult depression and relationship well-being (see Fincham et al., 1997), and how the interplay between these realms of adult well-being convey effects to children via disruptions in the interparental and parent–child relationships (Harold & Conger, 1997; Erel & Burman, 1995). Evidence is provided for the role of conflict between parents as a conduit through which adult depressive symptoms and relationship well-being affect children’s own relationship with their parents and their associated symptoms of psychological distress. Indeed, this is the first study to articulate these processes within the context of a prospective longitudinal research design and has important implications for interventions aimed at improving outcomes for children living in households marked by parental depression and interparental conflict.

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