Teenage mothers’ anger over twelve years: partner conflict, partner transitions and children’s anger

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Background: This study examined the effects of maternal anger, partner transitions and partner conflict on later oppositional and angry behavior of the children of teenage mothers. Methods: One hundred and twenty-one teenage women were interviewed prior to the birth of the baby and at 3 points subsequently, when children were newborn, 7 years old and 12 years old. Child and teacher reports of children’s oppositional behavior were obtained. Results: Women who showed higher levels of anger at Time 1 experienced more conflict with partners and more partner transitions over the next 12 years than women with lower levels of anger. Partner conflict was a stronger predictor of children’s oppositional and angry behavior than partner transitions. Maternal anger at Time 1 was associated with maternal anger at Time 4 but neither predicted children’s oppositional behavior at Time 4. Conclusion: There was support for the theoretical model that suggested that the personality characteristics of teenaged mothers confer some of their risk to children through children’s exposure to the mothers’ problematic partner relationships. Keywords: Maternal anger, trait anger, children’s emotional and behavioral problems, marital conflict, marital transitions, longitudinal analysis, indirect effects.

Bearing children in the teenage years carries a significant risk for the development of the offspring, particularly as children reach adolescence (Kinard, 1990). Children of teen mothers when compared to adult mothers show more behavioral problems, engage in early sexual intercourse, drop out of high school and are more likely to become pregnant themselves as teenagers (Furstenberg, Brooks-Gunn, & Morgan, 1987; Hubbs-Tait, Ososky, Hann, & Culp, 1994). Although adolescent parenthood itself confers some of this risk, co-occurring factors are likely to be important (Hetherington, 1997). One co-occurring factor is the partner trajectories of teen mothers. Teenage mothers are more likely than adult mothers to form conflictual partner relationships, and these relationships are more likely to break down (Bachrach, Clogg, & Carver, 1993; Baldwin, 1993; Furstenberg et al., 1987). Both partner conflict (Cummings & Davies, 1994; Jenkins, 2000) and relationship dissolution (Amato, 1993) have been shown to be associated with increased psychopathology in children and may be responsible for some of the links between teenage parenting and child psychopathology.

Personality characteristics of teen mothers may be implicated in their partner trajectories. Teen mothers show higher than expected rates of antisocial behavior (Jaffee, Caspi, Moffitt, Belsky, & Silva, 2001). Antisocial women are more likely to become involved with antisocial men (Krueger, Moffitt, Caspi, Bleske, & Silva, 1998). For instance, Quinton, Pickles, Maughan, and Rutter (1993) found that women who showed conduct disorder as children were more likely to become involved with deviant men than women who did not show early conduct problems.

Anger affect is a central component of antisocial behavior (Lemerise & Dodge, 1993). Some have argued that affective biases, such as a readiness to anger, are at the core of psychopathologies such as antisocial behavior (Jenkins & Oatley, 2000; Malatesta & Wilson, 1988). Consequently angry affect rather than antisocial behavior was assessed in this study. The tendency to anger has been found to be associated with partner trajectories. Thus angry temperament in childhood predicts increased partner conflict and higher levels of relationship dissolution in adulthood (Caspi, Elder, & Bem, 1987). The first goal of this study was to explore whether anger in teenage mothers prior to the children’s birth was related to partner conflict and relationship dissolution in subsequent years. The second goal of the study was to determine whether the partner trajectories of teenage mothers explained some of the increased psychopathology in their children. Partner conflict has been found in many studies to be associated with increased psychopathology in children. Exposure to anger interactions has been shown to increase anger expressions in children (see Lemerise & Dodge, 2000 for review) using both experimental (Cummings, 1987) and correlational designs (Jenkins, Simpson, Dunn, Raskash, & O’Conner, 2005). The overt expression of anger and hostility is more strongly associated with psychopathology in children than conflict strategies

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that involve withdrawal or ignoring (Fincham, 1994). Furthermore, anger expression between parents is more strongly associated with anger expression in children than other types of negative affect such as fear or sadness (Jenkins, 2000). Such relationships have also been demonstrated longitudinally using careful controls for children’s previous behavior, adding support to the idea that parental conflict may be causal in negative child behavior (Davies, Gordon, Goeke-Morey, & Cummings, 2002; Grych, Harold, & Miles, 2003; Jenkins et al., 2005). Relationship dissolution has also been shown to be associated with increased problems in children (Cherlin, Furstenberg, Chase-Lansdale, Kiernan, & Robins, 1991), with evidence to suggest that the more frequent the partner transitions the higher the level of disturbance in the children (Capaldi & Patterson, 1991). Thus we compared the roles of partner conflict and partner dissolution in explaining the relationship between anger in teenage mothers and children’s angry behavior.

Given the stability of angry temperament over the life course that has been documented in other studies (Costa & McCrae, 1988; Caspi et al., 1987), we expected continuity in maternal anger over time. We further considered the possibility of a link between maternal anger and child opposition. Investigators have shown that parental behavior characterized by aggression and anger is associated with increased oppositional behavior in children (Dodge, Bates, & Pettit, 1990). Maternal temperament, in which the measurement does not specifically entail the expression of anger during interaction with the child, has sometimes been linked to childhood disturbance and sometimes not (Renk, Phares, & Epps, 1999), leaving us to explore this relationship but not make specific hypotheses about the extent of the link.

The findings outlined above led us to propose the model outlined in Figure 1. This figure includes both the theoretical model and the results, because of space constraints. The theoretical model is connoted by the lines drawn from one variable to another. In summary, we hypothesized that higher levels of maternal anger at Time 1 would be associated with greater partner conflict and transitions as well as higher levels of maternal anger at Time 4. Further, we expected both types of problem in the partner relationship to be associated with children’s oppositional behavior at Time 4. We did not expect a direct link between maternal anger at Time 1 and children’s oppositional behavior at Time 4, but for all effects of maternal anger Time 1 to operate through either partner relationship characteristics or maternal anger at Time 4.

The novelty of this study involved the examination of the indirect effect of maternal characteristics on children, through characteristics of the partner relationship, and the application of this model to a sample of teenaged mothers. Although links have been shown between personality characteristics of women and their partner trajectories, as well as between characteristics of partner relationships and children’s disturbance, the relationship between these constructs has not been examined previously. Further, although the children of teenage mothers are at high risk for disturbance, and teen mothers show both more problematic personality characteristics as well as disturbed partner trajectories, the role of partner relationships in this association has not been examined.

**Methods**

Our analysis draws on data from a longitudinal study of teenage childbearing that has followed a single cohort of very young mothers and their families for more than 12 years (Sorenson, Avison, Brownfield, & Grindstaff, 1999). These teens were predominantly European-Canadian. The initial interviews targeted pregnant adolescents who were planning on parenting rather than adoption (Time 1, n = 242). The second interviews took place about two months after the birth (Time 2, n = 233). The third interview, not anticipated at Times 1 & 2, was seven years later (Time 3, n = 190); and the final follow-up at twelve years (Time 4, n = 150). By this last interview 29 of the target children were no longer alive.

![Figure 1](https://example.com/figure1.png)

**Figure 1** Path diagram showing the prediction of children’s oppositional and angry behavior from maternal anger, partner conflict and partner transitions (N = 121). Note *p < .05; **p < .01; ***p < .001. ‘T’ refers to the timing of the measurements.
living with their mothers. Most lived with fathers, although some were in foster care or had been relinquished for adoption. This left 121 mother-child dyads eligible for inclusion in the present sample.

We compared the study mothers retained in the present study to those lost on Time 1 measures of age, education, maternal anger, living arrangements, parents’ education, and the age and education of the target child’s father. The only characteristic found to be significantly associated with the likelihood of attrition was study mothers’ age. Women lost to attrition were somewhat younger than those retained in the present sample (Wald = 4.82, \( p < .03 \)).

Characteristics of the 121 mothers included in the present study are presented in Table 1. The average age for study mothers at Time 1 was 18.7 years and for study fathers the average age at Time 1 was 20.9 years. Most study mothers were living with a husband/partner or with a parent, but nearly one in four were on their own. A significant number had experienced environmental adversity while growing up. For instance, 23% reported having been abused by a parent and 22% of their families had been on welfare. In about half the cases neither parent had a grade 12 education.

Measures

Maternal characteristics. Maternal anger (T1 & T4). This was measured in the prenatal and the Time 4 interview with self-report items from the How I Feel Scale (Petersen & Kellam, 1977): 1) When I get angry I stay angry; 2) I yell at people; 3) I feel like I’m boiling inside; 4) I lose my temper; 5) I get into fights; 6) I feel angry. Each item was scored on a five-point scale with the mean taken to form a composite measure. The internal consistency at Time 1 was \( \tilde{\alpha} = .81 \) and at Time 4 the internal consistency was \( \tilde{\alpha} = .88 \).

Partner characteristics. Partner conflict (Time 1 – Time 4). A composite measure of partner conflict was formed. This included both verbal and physical aggression as these two components form the basis of many conflict measures (Straus, 1979), have been found to be well correlated (Kerig, 1996) and have similar effects on children’s outcomes (Kerig, 1996) and also included frequency arguments.

Frequent arguments, Times 1 & 2. In the prenatal interview and again in the two-month follow-up, respondents were asked whether in the last 12 months they were experiencing more arguments with their husband/partner (0 = no, 1 = yes). The mean of the two time points was taken to indicate frequency of arguing in these early partner relationships.

Physical aggression, Time 1–Time 4. A measure of partners’ physical aggression was developed from study mothers’ reports of having been beaten or badly bruised by a husband, partner, or boyfriend and the date that this occurred. A score of 0 is assigned if a respondent gives no indication of such an incident in the years between the target child’s birth and the Time 4 interview. A value of .5 is assigned if partner physical abuse is reported in only one of two time periods, either in the years before the Time 3 interview or in the years between Time 3 and Time 4. Finally, a value of 1.0 is assigned if this occurred in both time periods.

Verbal aggression (Time 4). In the twelve-year follow-up, study mothers were presented with items from the Conflict Tactics Scale (Straus, 1992), describing the frequency of verbal aggression in their cohabiting relationships. The following items were scored on a seven-point-scale (‘not in the past year’ to ‘once or more per week’): 1) He speaks in a sarcastic tone; 2) He argues heatedly but short of yelling; 3) He yells or shouts; 4) He sulks or refuses to talk about it; 5) He insults me; 6) He stomps out of the room; and 7) He does or says something to spite me. The sum of these items was divided by the maximum scale score (42) to form a composite scale of partner conflict (\( \alpha = .92 \)) that was on the same scale as the two other items in the composite. Possible values range from .0 to 1.0. Missing data for this variable reflected women who were not in relationships at Time 4.

These three measures of partner conflict occurring over a 12-year period were correlated as follows: frequent arguments (T1 & T2) with physical aggression (T1–T4), \( r (121) = .26, p = .004 \); frequent arguments (T1 & T2) with verbal aggression (T4), \( r (86) = .19, p = .08 \); and verbal aggression with physical aggression, \( r (86) = .21, p = .05 \). The mean of these three measures forms a single index of partner conflict.

Partner transitions (Time 1–Time 4). At Time 3 and again at Time 4, respondents completed a life history calendar that records household composition and partner histories on a month-by-month basis from the

Table 1 Demographic and descriptive information

<table>
<thead>
<tr>
<th>Demographic variables</th>
<th>Time 1</th>
<th>Time 4</th>
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<tbody>
<tr>
<td>Respondent: age (mean, sd)</td>
<td>18.66 (.17)</td>
<td>31.25 (.50)</td>
</tr>
<tr>
<td>Education</td>
<td>10.53 (1.42)</td>
<td>12.12 (2.06)</td>
</tr>
<tr>
<td>Living with: spouse/partner</td>
<td>44 (36.4%)</td>
<td>31 (25.6%)</td>
</tr>
<tr>
<td>(child’s biological father)</td>
<td></td>
<td></td>
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<tr>
<td>Parents</td>
<td>46 (38.0%)</td>
<td>2 (1.7%)</td>
</tr>
<tr>
<td>Parents’ education</td>
<td>11.43 (2.94)</td>
<td></td>
</tr>
<tr>
<td>Maternal characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>1.59 (.94)</td>
<td>2.21 (.94)</td>
</tr>
<tr>
<td>Partner characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baby’s father: age</td>
<td>20.89 (3.29)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>11.04 (2.02)</td>
<td></td>
</tr>
<tr>
<td>In school or employed</td>
<td>87 (71.9%)</td>
<td></td>
</tr>
<tr>
<td>Partner conflict (T1–T4)</td>
<td>.33 (.26)</td>
<td>.166 (.88)</td>
</tr>
<tr>
<td>Number of partner transitions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(T1–T4)</td>
<td>.33 (.26)</td>
<td>.166 (.88)</td>
</tr>
<tr>
<td>Child characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>12.61 (.82)</td>
<td></td>
</tr>
<tr>
<td>Anger and oppositional behavior</td>
<td></td>
<td></td>
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<tr>
<td>Reported by mother (n = 121)</td>
<td>5.61 (4.04)</td>
<td></td>
</tr>
<tr>
<td>by child (n = 109)</td>
<td>6.32 (3.83)</td>
<td></td>
</tr>
<tr>
<td>by teacher (n = 96)</td>
<td>4.03 (4.43)</td>
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birth of the target child to the twelve-year follow-up interview (Freedman, Thornton, Camburn, Alwin, & Young-DeMarco, 1988). These calendar data provide a simple count of the number of partners with whom the mother had shared a household over the entire study period. The total number of partners ranges from 0 \((n = 4)\) to 5 \((n = 1)\), with 47% of the mothers reporting more than one relationship. Marital and cohabiting relationships were not differentiated in this count.

**Children’s characteristics. Angry and oppositional behavior \((T4)\).** At Time 4, mothers, teachers, and children completed a checklist designed to assess child internalizing and externalizing disorders based on the measures used in the Ontario Child Health Study (Boyle et al., 1993). The following items (rated on a three-point scale, from ‘never or not true’ to ‘often or very true’) are used to indicate angry and oppositional behavior: 1) argues with adults; 2) blames others for mistakes; 3) does things that annoy others; 4) gets back at other people; 5) swears or uses dirty language; 6) defiant and talks back to other people; 7) is easily annoyed by others; 8) is angry and resentful; and 9) has a hot temper. This scale has been used widely in epidemiological studies, and has been shown to have good reliability and validity (Boyle et al., 1993).

All study mothers completed this checklist \((N = 121)\). The somewhat lower response rates for children \((n = 109)\) and teachers \((n = 96)\) reflect the number of mothers who were unwilling to consent to interviews with the child and/or the child’s teacher and the small number of teachers who did not participate. Internal consistency was good for all three measures: maternal report \(z = .88\), child report, \(z = .83\), and teacher report, \(z = .92\). Correlations between pairs of informants’ reports are as follows: mother and child, \(r (109) = .44\), \(p < .001\); mother and teacher, \(r (95) = .39\), \(p < .001\); teacher and child, \(r (91) = .44\), \(p < .001\). Two composite variables were created by calculating the mean of the standardized scores. One was based on mother, teacher and child report (referred to as ‘all reports’) and the other was teacher and child report only (teacher/child). This latter measure which excluded parental report data ensured that any relationship seen between predictor and dependent variables could not be attributed to shared informant bias.

**Missing values**

Missing values for predictor variables were replaced with the mean when fewer than 5% of cases were missing. Analyses were run with and without this substitution with no change in our substantive findings.

**Analytic plan**

We have suggested that women with higher levels of anger at Time 1 will experience higher levels of partner conflict and more partner transitions into young adulthood. As well, we expect to observe continuity between mother’s anger at Time 1 and Time 4. Zero-order correlation coefficients are used to establish these relationships. Next, we consider how maternal anger directly affects children’s angry and oppositional behavior and how maternal anger affects children indirectly through partner conflict and number of partner transitions. Child angry and oppositional behavior \((T4)\) is regressed on partner conflict, partner transitions, and mothers’ anger, and the relative contribution of these variables to prediction of child behavior can be seen by comparing standardized regression coefficients. A path diagram is used to illustrate the pattern of effects identified by the bivariate correlations and the regression analysis. Structural equation modeling was not utilized because of our relatively small sample size. Exact probabilities are quoted except when alpha levels are smaller than \(p < .001\).

**Results**

Our first question is whether maternal anger during adolescence predicts partner conflict and number of partner transitions into young adulthood. Results are shown in Table 2. Maternal anger \((T1)\) was found to be significantly associated with subsequent partner transitions and with partner conflict. Furthermore, there was a significant association between maternal anger \((T1)\) and each of the different aspects of anger expression that contribute to the composite partner conflict score: frequency of arguments, \(T1 & T2\), \(r (121) = .18\), \(p = .05\), physical aggression, \(T1–T4\), \(r (121) = .40\), \(p < .001\) and verbal aggression \(T4\), \(r (86) = .26\), \(p = .02\). This suggests that the association between this early measure of maternal anger and partner conflict is relatively consistent over the early adult life course and over different expressions of partner conflict.

The second question is whether the early measure of maternal anger works through partner conflict and partner transitions to affect the development of children’s angry and oppositional behavior. The

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**Table 2** Correlations of maternal anger, partner conflict and children’s angry and oppositional behavior \((N = 121)\)

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<th>4</th>
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<tbody>
<tr>
<td>1. Maternal anger, (T1)</td>
<td></td>
<td>.32***</td>
<td></td>
<td></td>
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<tr>
<td>2. Maternal anger, (T4)</td>
<td></td>
<td></td>
<td>.40***</td>
<td>.20*</td>
</tr>
<tr>
<td>3. Partner conflict, (T1–T4)</td>
<td></td>
<td>.29***</td>
<td>.06</td>
<td>.30***</td>
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<tr>
<td>4. Partner transitions, (T1–T4)</td>
<td></td>
<td></td>
<td>.21*</td>
<td>.19*</td>
</tr>
<tr>
<td>5. Children’s angry and oppositional behavior, (T4) (all reports)</td>
<td></td>
<td>.41***</td>
<td>.22**</td>
<td></td>
</tr>
<tr>
<td>6. Children’s angry and oppositional behavior, (T4) (teacher/child) ((n = 114))</td>
<td>.08</td>
<td>.02</td>
<td>.32***</td>
<td>.16 +</td>
</tr>
</tbody>
</table>

*Note.* \(\* = p < .10\); \(* = p < .05\); \(** = p < .01\); \(*** = p < .001\).
correlations reported in Table 2 between partner conflict and children’s problem behavior at Time 4, and between the number of partner transitions and children’s problem behavior at Time 4, indicate a relationship between each of the partner measures and children’s problem behavior (although one of these is at trend level). Although relationships appear to be stronger for partner conflict, the difference between correlations was tested and these were not found to be significantly different (z = 1.6, p = .10). It is also notable that relationships are stronger when the dependent measure includes maternal report (i.e., all reports), a finding that is explained by shared informant bias. It is the case, however, that even when maternal report is excluded a significant relationship exists between partner variables and children’s opposition. Significant stability in maternal anger over 12 years was also evident in the correlation between Time 1 and Time 4 maternal anger. Time 1 and Time 4 maternal anger were significantly associated with children’s anger and opposition when the ‘all reports’ measure was used but not when the measure based on teacher and child report only was used, suggesting that shared informant bias was responsible for this relationship.

It is clear from the correlations reported in Table 2 that there is a substantial relationship between these three predictors of child outcomes. The results of the multivariate OLS regression model reported in Table 3 provide an indication of the independent contributions of these variables to the development of children’s angry and oppositional behavior. Model 1 shows that partner conflict is a significant predictor of children’s angry and oppositional behavior. The number of partner transitions and maternal anger are not significant predictors of children’s anger and opposition, once the effects of the other variable has been taken into account. Model 2 shows the results of adding maternal anger Time 1 to the equation. Neither maternal anger Time 1 nor maternal anger Time 4 were found to be significant predictors of children’s angry and oppositional behavior Time 4. The path diagram in Figure 1 illustrates the indirect effect of maternal anger, Time 1 on child outcomes twelve years later. Coefficients in the left half of the figure show the result of regressing maternal anger Time 4, partner conflict and partner transitions on maternal anger Time 1 in separate analyses (equivalent to the zero order correlations shown in Table 2). The coefficients for the right side of the figure are derived from the regression analysis described in the top half of Table 2. It is possible to see that maternal anger (T1) operates through partner conflict in the intervening 12 years to predict child angry and oppositional behavior.

In order to ensure that the positive association between our measures of partner conflict and children’s angry and oppositional behavior was not the result of shared informant bias, these analyses were repeated with the teacher and child report version of children’s angry and oppositional behavior (lower half of Table 3). Again Model 1 represents the model without maternal anger, Time 1 and Model 2 has this measure included in the equation. It is possible to see that partner conflict is a significant predictor of children’s anger and opposition, having taken the influence of the other variables into consideration. The significant effect of partner conflict on the measure of children’s oppositional behavior that relies on a measure limited to the reports of teachers and children confirms the link between partner conflict and children’s problem behaviors shown in Figure 1.

Of course, it is also possible that the genetic relationship shared by biological fathers and their children is the basis of the observed association between partner conflict and child oppositional behavior. We address this by examining partner conflict and child opposition in the 55 cases where the study mother’s partner at Time 4 was not the target child’s biological father. Our analysis of these unrelated pairs uses only the Time 4 measure of verbal aggression (one of the three measures that contribute to the composite partner conflict score), as this is the only measure that refers unequivocally to the study mother’s current partner. The regression was rerun including mother anger Times 1 and 4, partner transitions and partner verbal aggression as predictor variables and the two versions of children’s anger and opposition (all reports and teacher/child) as dependent variables respectively. The coefficients for partner verbal aggression in each analysis fell short of significance although they remained in the expected direction (all reports, $\beta = .22, t = 1.6, p = .12$; teacher/child, $\beta = .23, t = 1.5, p = .13$). This suggests that the results

<table>
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<tr>
<th></th>
<th>Model 1</th>
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<th>Model 2</th>
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<tr>
<td></td>
<td>$\beta$</td>
<td>$t$</td>
<td>$R^2$</td>
<td>$\beta$</td>
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<td>Composite outcome including all reports</td>
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<tr>
<td>Maternal anger expression, T4</td>
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<td>1.22</td>
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<td>4.05***</td>
<td>.36</td>
<td>3.84***</td>
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<td>Partner transitions, T1–T4</td>
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<td>1.20</td>
<td>.10</td>
<td>1.16</td>
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<td>Maternal anger expression, T1</td>
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<td>.03</td>
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<td>Composite outcome including teacher and child report only</td>
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<tr>
<td>Maternal anger expression, T4</td>
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<td>3.24***</td>
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<td>3.22***</td>
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<tr>
<td>Partner transitions, T1–T4</td>
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<td>.88</td>
<td>.09</td>
<td>.95</td>
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<td>-.05</td>
<td>-.46</td>
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shown in Figure 1 are not simply a function of the common temperament shared by biological fathers and their offspring, although given the small sample size for this follow-up analysis it will be important to replicate in a larger sample.

Discussion

The partner relationships of teenage mothers have been found in previous studies to be more troubled than the relationships of adult mothers (Bachrach et al., 1993; Baldwin, 1993), although there is large variability in the relationship trajectories of teen mothers. Our first goal was to determine whether anger amongst teenage mothers at T1 predicted the occurrence of more problematic partner trajectories over the next 12 years. Angrier women were found to have partner relationships that were more conflictual over the next 12 years. Maternal anger at T1 also predicted more relationship transitions.

Why might angrier women find themselves in more problematic partner relationships? Caspi and Roberts (2001) describe two different types of process that might account for this. One process is a selection effect. It involves the way in which an individual forms relationships with individuals similar to themselves. For instance, antisocial children choose to be friends with children who are more antisocial (Dishion, Patterson, Stoolmiller, & Skinner, 1991). Thus, angry women may choose men who are themselves more problematic. The second process is an effect of the individual’s emotions on other people. If person A becomes angry with person B, person B is more likely to express anger in retaliation (Biglan, Rothlind, Hops, & Sherman, 1989). Similar reciprocal effects between interactional partners have been found for depression (Coyne, Burchill, & Stiles, 1991). Thus it is possible that angry women increase their partner’s anger, which in turn may increase their own anger.

Our second goal was to test two accounts of the way in which mothers’ partner choices might affect the development of children’s problem behavior. One account focused on partner conflict and the other focused on the frequency of partner transitions. Taking account of contemporaneous maternal anger allowed us to minimize the possibility that such effects between partners and children were really due to the concurrent expression of maternal anger. There was stronger support for the hypothesis that partner conflict affected the development of children’s anger and opposition than the hypothesis that number of partner transitions was responsible for this outcome. It should be noted, however, that although the relationship between partner conflict and children’s anger was stronger than that between partner transitions and children’s anger in the path analysis, the finding of a non-significant but positive coefficient for partner transitions, and a non-significant difference between the strength of the two zero-order correlations of child opposition with partner conflict and partner transitions, suggest that partner transitions are not unimportant in the development of children’s anger problems. Given the trends in the present data, if we had had a larger sample, it might be that both partner conflict and partner transitions would have independently predicted children’s anger and opposition. Thus although we have stronger evidence in support of one account than another, these childhood experiences may have joint influences that differ only in degree.

A number of studies demonstrate the positive association between anger-based partner conflict and externalizing behavior disorders in children (Fincham, 1994; Jenkins, 2000). Given that an association between exposure to adult anger and increased aggression in children has also been demonstrated experimentally, it is likely that exposure to interparental anger in families does result in increased aggressive behavior in children. Further, although such an association in families is likely to have some genetic component to it, our observation of an association between partner conflict and child anger amongst genetically unrelated fathers and children suggests that environmental processes are also important. Several different environmental mechanisms have been postulated to account for this association, including modeling, the appraisal structures that children develop (Grych et al., 2003), the development of social goals (Jenkins, 2000) and experiences of emotional security (Davies et al., 2002).

We found no direct link from maternal anger at Time 1 (nor indeed maternal anger Time 4) to children’s angry and oppositional behavior at Time 4. Thus maternal anger did not impact children directly. Maternal anger did, however, have an impact on children’s angry and oppositional behavior through the partner conflict to which children were exposed. An advantageous element of the present study was the ability to examine these relationships in father–child pairs that were not biologically related in an effort to distinguish biological from environmental influences.

There are several limitations that need to be considered when evaluating the results of this study. First, attrition over the twelve years was significant and this was particularly so as follow-up was not originally anticipated beyond Time 2. Given that younger teen mothers left the sample, the results are more representative of relatively older teen mothers. Second, as in other longitudinal studies, the early measurement is not as psychometrically sound as later measurement. Third, cross-informant measurement was only available on children’s outcomes, leading to the concern that for some associations, shared informant bias may have accounted for the association. Although this is a possible interpretation of some findings, it does not pertain to the main
findings. Further, as assessments for predictors and response variables were separated by years it is unlikely that response bias is the only explanation for relationships seen. Although these limitations in sample and measurement are evident, they should be viewed in the context of the strengths of the study: the high-risk nature of the sample and the twelve-year longitudinal follow-up of mothers, their children and partners.

The results from this study suggest possible avenues for intervention. First, the formation of partner relationships represents an area of vulnerability. Preventive interventions (Rothenberg & Weissman, 2002) can focus on helping women understand the consequences of their partner choices for themselves and their children. Second, it may be helpful for women who anger more readily to understand the context in which their own anger is elicited as well as the consequences of their anger expression for their partners (Gottman, 2002).


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