Daily Family Conflict and Emotional Distress Among Adolescents from Latin American, Asian, and European Backgrounds

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The authors employed a daily diary method to assess daily frequencies of interparental and parent–adolescent conflict over a 2-week period and their implications for emotional distress across the high school years in a longitudinal sample of 415 adolescents from Latin American, Asian, and European backgrounds. Although family conflict remained fairly infrequent among all ethnic backgrounds across the high school years, its impact on emotional distress was significant across ethnicity and gender. In addition, parent–adolescent conflict significantly mediated the association between interparental conflict and emotional distress. These associations were observed at both the individual and the daily levels, providing evidence for both the chronic and episodic implications of family conflict for adolescents’ emotional adjustment.

Keywords: family conflict, emotional distress, Asian American adolescents, Latino adolescents

Family conflict is one of the most frequently and thoroughly investigated phenomena over the last several decades of adolescent research. Yet current knowledge about this topic is limited by several of the same gaps that were identified by Laursen, Coy, and Collins (1998) in their meta-analytic review. According to the review, the frequency of conflict with parents does not increase substantially during the teenage years, and adolescents maintain fairly harmonious relations with their parents. This suggested stability, however, merits further attention, because most studies have examined only global measures of conflict (Laursen et al., 1998). In addition, there is inconsistency in research regarding the extent to which parent–adolescent conflict mediates the effect of interparental conflict on adolescents’ emotional distress (see, e.g., Buehler & Gerard, 2002; Gerard, Krishnakumar, & Buehler, 2006; Harold, Fincham, Osborne, & Conger, 1997). Testing this mediation at both the individual and daily levels would increase the confidence with which psychologists can explain this phenomenon. Our knowledge is further limited by the lack of studies of adolescents from non-European backgrounds, who are becoming an increasingly large segment of the U.S. population (Krishnakumar & Buehler, 2000; Laursen et al., 1998). Finally, despite the daily nature of family conflict (Margolin, Christensen, & John, 1996), few studies have captured a microscopic view of this everyday phenomenon at the daily level. In the present study, we attempted to address these limitations by employing a daily diary method over a 2-week period when adolescents were in 9th grade, and again in 12th grade, to assess frequencies of interparental and parent–adolescent conflict on a daily basis across the high school years among adolescents from Latin American, Asian, and European backgrounds. In addition, the study assessed the significance of these different aspects of family conflict for emotional distress of the adolescents and a potential mediating role of parent–adolescent conflict for the effect of interparental conflict on distress. The daily diary approach enabled us to get closer to these phenomena at the daily level.

Frequency and Change in Family Conflict

A longitudinal study conducted by Galambos and Almeida (1992) showed that the level of overall conflict between adolescents and their parents did not increase across the 6th and 8th grades. Concerns have been raised, however, over the accuracy of the conflict frequency measurement used in previous studies, because the support for the stability in parent–adolescent conflict comes mainly from the traditional survey studies that are based on retrospective report (Laursen et al., 1998). By employing the daily diary method, assessed episodes of family conflict once each day over a period of 14 days in the 9th and 12th grades. A methodological advantage of this daily measurement is that it reduces the amount of error associated with the retrospective reporting of events because participants are asked to report about events closer to the time that they occur (Bolger, Davis, & Rafaeli, 2003).

Ethnic Variations

Despite numerous suppositions in the existing literature regarding ethnic variation in family conflict, few studies have actually examined this topic. On one hand, one may expect cultural norms
of parental respect and family harmony (Uba, 1994) to lead to less conflict among families with Latin American and Asian backgrounds. Because of these values, adolescents from these backgrounds may be socialized to delay their autonomy pursuit as compared to their European peers (Feldman & Quatman, 1988), thus creating fewer circumstances that trigger conflict with parents. Also, they may be simply less inclined to engage in overt argument with their parents, in compliance with cultural expectations for being obedient and deferential toward authority figures (Phinney, Kim-Jo, Osorio, & Viljalmssottir, 2005; Uba, 1994).

On other hand, issues that are particularly relevant for immigrant Asian and Latin American families, such as parental stress in the process of adapting to a new culture upon immigration and acculturation differences between parents and children (Costigan & Dokis, 2006; Farver, Narang, & Bhadha, 2002; Pyke, 2000), could create conflict within these families.

Two previous studies that examined ethnic differences in parent–adolescent conflict used traditional questionnaire measures and reported contrasting findings. Specifically, Fuligni (1998) found no ethnic differences among adolescents from Mexican, Chinese, Filipino, and European backgrounds, whereas Greenberger and Chen (1996) found that late adolescents of Asian descent reported more conflict with parents than their European peers did. In light of these discrepant findings, the present study also examined how much adolescents from diverse ethnic backgrounds differ from one another in the average level of daily family conflict experienced over a 2-week period.

Variations by Gender and Parental Composition

There are reasons to expect that the frequency of family conflict also may vary by gender and parental composition. Adolescent daughters have been shown to engage in more frequent conflicts with their mothers than sons do (Collins & Russell, 1991; Laursen, 2005). Also, more frequent angry disagreements between adolescents and their parents appear to take place in single-parent families than two-parent families (Walker & Henning, 1997). Given this potential role of gender and parental composition in the frequency of family conflict, the present study also examined how daily family conflict varied across the 14 days as a function of these two variables.

Family Conflict and Emotional Distress

Family conflict, in the form of interparental conflict as well as parent–adolescent conflict, is highly consequential for adolescents’ emotional distress. Specifically, when adolescents are exposed to a high level of marital conflict compared to their peers from non-conflictual families, they exhibit significantly higher levels of emotional difficulties over time (Gerard et al., 2006; Harold & Conger, 1997). Exposure to parent–adolescent conflict has also been associated with greater emotional distress among adolescents from ethnically diverse backgrounds (Costigan & Dokis, 2006; Pasch et al., 2006).

Ethnic and Gender Variations

Even though family conflict may not affect all adolescents in the same way (Laursen et al., 1998), we do not fully know the extent to which the association between family conflict and adolescents’ emotional distress might vary according to their ethnic background and gender. The negative impact of family conflict may be greater in families with Asian and Latin American backgrounds because it may be equated with violating cultural norms of respect, obedience, and family harmony in these families (Phinney & Ong, 2002). Further, experiences of these families might also be colored by other factors, such as parents’ immigration status (Zhou & Xiong, 2005). For instance, adolescents whose parents were born in the United States might experience less emotional distress following family conflict than their peers whose parents were foreign born, because the U.S.-born parents might have adopted socialization strategies that are more consistent with those of the mainstream U.S. society, including promoting a sense of autonomy and independence in their adolescents. As a result, these adolescents may report less emotional distress in response to arguments between parents compared to their peers whose parents were born abroad and then immigrated to the United States. In an effort to address this complex interplay between ethnicity and immigration, we considered parents’ immigration status in the present study. Family conflict also may be more consequential for adolescent girls than boys, given that females tend to be closer to families and more reactive to stressful events that happen to members of their social networks (Davies & Windle, 2001). Our inclusion of a diverse sample of adolescents allowed us to examine whether the implications of family conflict for emotional distress varied across adolescents.

Parent–Adolescent Conflict as a Mediator

The spillover model (see Repetti, 1987) provides an explanation for the relation between family conflict and adolescent emotional distress. It posits that negative moods transfer from one setting to another, affecting the quality of interactions that occur in that setting (Repetti, 1987). For instance, when parents experience conflict with a spouse, they are more likely to show hostility, rejection, and withdrawal in a subsequent interaction with their children (Almeida, Wethington, & Chandler, 1999; Buehler & Gerard, 2002; Margolin, Gordis, & Oliver, 2004; Repetti, 1987). In addition, studies drawing from this model have found evidence that it is partly through parent–adolescent conflict that interparental conflict brings about emotional distress among adolescents (Buehler & Gerard, 2002; El-Sheikh & Elmore-Staton, 2004; Gerard et al., 2006). That is, conflict between parents heightens the probability of conflict between adolescents and their parents, which in turn leads to higher levels of adolescent distress. In the present study, we attempted to acquire a much closer view of this family process by examining parent–adolescent conflict as a mediator of the conflict–distress link on a day-to-day basis.

Daily Diary Approach

Because it allowed us to examine the role of family conflict in adolescents’ emotional adjustment at the daily level, the use of the daily diary method in the present study helped address some of the issues that previous studies have not addressed. For instance, because researchers have predominantly used laboratory observations and traditional questionnaires to document the link between family conflict and distress, the estimates offer information only
Research Questions

The present study addressed the following key questions about family conflict and adolescents’ emotional distress: (a) What are the frequencies of interparental, mother–adolescent, and father–adolescent conflicts? (b) To what extent does the frequency of each type of conflict vary as a function of grade level, gender, ethnicity, and parental composition? (c) Is the frequency of each type of conflict associated with adolescents’ emotional distress across the two grades, and do these associations vary by gender, ethnicity, and parents’ immigration status at either the individual or daily level? (d) To what extent does parent–adolescent conflict mediate the association between interparental conflict and adolescents’ emotional distress at both the individual and the daily levels?

Method

Sample

Ninth grade students were recruited from three public high schools in the Los Angeles metropolitan area. The three schools reflected the ethnic compositions and socioeconomic distribution of the communities from which the students came. The first school consisted primarily of students from Latin American and Asian families with lower middle- to middle-class educational, occupational, and financial backgrounds. The second included students with Latin American and European backgrounds from lower middle- to middle-class backgrounds. The third school included mostly students with Asian and European backgrounds from middle- to upper middle-class families. No single ethnic group dominated any one school. Approximately 65% of the recruited students actually participated in the study, resulting in a total sample of 783 ninth grade students varying in ethnic, socioeconomic, and immigrant backgrounds.

The current study focused on a longitudinal subsample of 415 adolescents from Latin American, Asian, and European backgrounds who completed daily diary checklists in both the 9th grade ($M = 14.86$ years, $SD = 0.37$) and the 12th grade ($M = 17.79$ years, $SD = 0.38$). Approximately 36% of the original 9th grade sample of 783 students either dropped out of the study ($n = 230$) or did not complete the diaries at either time point ($n = 50$). Of the remaining 503 adolescents who completed diaries at both time points, those without European, Asian, or Latin American backgrounds ($n = 44$) and those with multiethnic backgrounds ($n = 44$) were not included.

Attrition analyses revealed that our longitudinal sample did not differ from the nonlongitudinal participants in terms of gender, ethnicity, and reported levels of family conflict and emotional distress. The largest ethnic group in our study sample was Asian ($n = 191$), followed by Latin American ($n = 145$) and European ($n = 79$). Approximately 19% and 26% of adolescents from Latin American and Asian backgrounds, respectively, were of the first generation—that is, foreign born. The majority of the adolescents from Latin American (78%) and Asian (93%) backgrounds came from immigrant families (i.e., of the first and second generations)—that is, at least one of their parents was born outside the United States—compared to only 24% of adolescents from European backgrounds. Also, relatively smaller percentages of adolescents from Latin American (22%) and Asian (7%) backgrounds, as compared to European-background adolescents (76%), were of the third generation, where at least one of their parents was also born in the United States. Of the adolescents from Latin American and Asian backgrounds, 77.2% had Mexican ancestry and 64.4% had Chinese ancestry, respectively. Our sample included slightly more girls (56.4%) than boys (43.1%). The majority of adolescents lived with two parents at each of the time points (72.3% in 9th grade and 70.1% in 12th grade).

Procedures

Students who returned their own assent and parent consent forms completed a questionnaire during school time. Questionnaires took approximately 30 min to complete. Students then received a packet of daily diary checklists and were instructed to complete one at the end of each day over a 14-day period. On these checklists adolescents provided daily reports of family conflicts and their emotions. Each checklist took about 5–10 min to complete. Participants sealed each diary in a manila envelope and stamped the seal with a hand-held electronic time stamper provided by the researchers. The stamper marked the current date and time and was programmed to prevent alteration of the date and time. After the 2-week study period, research assistants visited schools to collect completed diaries. Consent forms and study materials were available in English, Spanish, and Chinese. Spanish and Chinese versions were translated from the English version and then back-translated by bilingual speakers. All participants chose the English version in both grades except for one student who chose the Chinese version in the ninth grade. Students were paid $30 for participating, and two movie passes were provided if they completed diaries correctly and on time. Approximately 95% of the diaries were completed and returned; 86% of these were completed on time, meaning either at night or before noon the following day.
Questionnaire Measure

To determine parental composition at each grade level, we used a list of family members with whom adolescents reported that they were currently living. Adolescents were classified as living in single-parent households and then coded as 0 if they indicated living with one parent. If the list included two parents, whether they were stepparents, biological, or combination of each, adolescents were classified as living in a two-parent household and coded as 1.

Daily Diary Checklist Measures

Family conflict. To assess conflict between parents, participants were asked each day for 14 days to indicate whether “parents had an argument with each other.” A daily episode of conflict with the mother was assessed by asking adolescents each day if they had “argued with mother about something.” For conflict with the father, adolescents were asked each day to report whether they had “argued with father about something.” Respondents indicated when an event occurred by marking a box next to the relevant items on their daily checklist sheets. For individual-level analyses, a mean score was calculated for each conflict across the days on which daily reports were provided. Daily interparental conflict and adolescent conflict with each parent were successfully assessed in previous research by using a single-item measure for each conflict, showing significant associations with each other (Almeida et al., 1999).

Emotional distress. Daily emotional distress was assessed using the Anxiety and Depression subscales of the Profile of Mood States (Lorr & McNair, 1971). These two subscales have been used successfully to measure daily emotional distress in previous diary studies (Bolger, Zuckerman, & Kessler, 2000; Fuligni, Yip, & Tseng, 2002). Also, participants reported each day on a 5-point Likert-type scale (ranging from 0 = not at all to 4 = extremely) the extent to which they felt each item for each subscale. The Anxiety subscale items included on edge, nervous, uneasy, and unable to concentrate. The Depression subscale items included sad, hopeless, and discouraged. Higher scores reflect greater anxiety and depression. To assess daily emotional distress, we combined the two subscales by averaging them to create a single daily score, and then for individual-level analyses we calculated a mean of the daily scores across the 2 weeks. Internal consistencies at the individual-level were acceptable and equal at both grade levels (α = .93) and similar across ethnic groups (Latin American: α = .93, .94; Asian: α = .95, .95; European: α = .90, .93). Internal consistencies for emotional distress were calculated at the daily level and were acceptable (9th grade: α = .77; 12th grade: α = .80) and similar across ethnic groups (Latin American: α = .78, .83; Asian: α = .77, .80; European: α = .73, .77).

Results

Analysis Plan

First, analyses were conducted at the individual level, using mean scores for each conflict averaged across the 2-week diary period. Within-subject analyses of variance (ANOVAs) were performed separately for each index of family conflict where grade (9th vs. 12th) was treated as a within-subject effect, and gender, ethnicity, and parental composition in each grade were treated as between-subjects effects. Given that parental composition could change between the 9th and the 12th grades, parental composition at each grade was treated as a separate independent variable. Additional within-subjects ANOVAs were conducted separately within each ethnic group to examine potential generational differences. To see if the frequency of parent–adolescent conflict differed by parent gender, additional ANOVAs were conducted in which parent gender was treated as a within-subjects factor. Second, to examine if the associations between each conflict and emotional distress varied by gender or ethnicity, analyses of covariance (ANCOVAs) were performed in which adolescents’ ethnicity and gender were treated as the categorical variables, the indices of conflict were treated as covariates, and distress was treated as the dependent variable. Additional analyses were conducted with parents’ immigration status as the categorical variable. Then, parent–adolescent conflict was examined as a potential mediator of interparental conflict and adolescent emotional distress in cases where interparental conflict predicted parent–adolescent conflict, and both interparental conflict and parent–adolescent conflict were significantly associated with adolescent distress. These mediation analyses were guided by the suggestions in Baron and Kenny (1986).

Daily-level data were analyzed using hierarchical linear modeling (HLM) to account for the nested structure of the data, in which daily reports are nested within individuals (Raudenbush & Bryk, 2002). For dichotomous outcomes, we conducted nonlinear analyses using hierarchical generalized linear modeling with Bernoulli events specified. The analyses yielded comparable results to those modeled using regular HLM. For consistency and ease of comparisons across models, the results of the HLM analyses are presented. First, daily-level associations between family conflict episodes and adolescents’ emotional distress were tested. To observe potential differences according to individual-level characteristics, gender and ethnicity were examined as moderators of these daily-level associations. For significant daily-level associations with ethnicity, additional analyses were conducted with parents’ immigration status as a moderator. Next, arguments that occurred between parents were examined as a predictor of arguments between adolescents and their parents. Then, the same plan of analysis that was used at the individual level was followed to conduct mediation analyses at the daily level.

Variations in the Frequency of Family Conflicts

Overall, adolescents reported low levels of family conflict over a 2-week period in 9th and 12th grades, respectively (interparental conflict: M = .03, .03, SD = .08, .08; mother–adolescent conflict: M = .11, .10, SD = .15, .15; father–adolescent conflict: M = .06, .06, SD = .10, .10), with few ethnic differences. Across both 9th and 12th grades, adolescents from European backgrounds reported more frequent episodes of interparental conflict compared to adolescents from Asian backgrounds, F(2, 360) = 4.68, p < .01. There were no significant overall ethnic differences in adolescents’ reports of their own conflict with either parent. However, significant overall gender differences were obtained for all types of family conflict across both grades. Overall, girls reported significantly more episodes of interparental conflict, mother–adolescent conflict, and father–adolescent conflict, F(1, 360) = 8.56–13.28,
Finally, there was only one significant difference in terms of parental composition, such that adolescents who lived with two parents in 9th grade reported more frequent episodes of father–adolescent conflict than those who lived with a single parent, overall, $F(1, 360) = 4.25, p < .05$. The parent in 90% of the single-parent households was a mother.

The frequency of all types of family conflicts remained constant across the two time points, suggesting that there was no overall change in family conflict between the 9th and the 12th grades, $F(1, 360) = 0.01–0.37, ns$. Moreover, grade did not interact with gender, ethnicity, or parental composition, $F(1, 360) = 0.06–0.91, ns$. There were no significant differences in overall frequency of any aspect of family conflict according to adolescents’ generational status, and the change between 9th and 12th grades did not vary according to generation, $F(2, 406) = 0.42–1.55, ns$. Overall, adolescents reported significantly more conflicts with mothers than with fathers, $F(1, 406) = 69.83, p = .001$.

### Individual-Level Associations of Family Conflict With Adolescents’ Emotional Distress

Bivariate correlations between conflict and distress. As shown in Table 1, all three types of family conflict were significantly correlated with higher levels of emotional distress at each grade level. The association did not vary significantly by gender at either time. Only two out of six possible differences according to ethnicity emerged and remained significant even after controlling for parents’ immigration status. The association between mother–adolescent conflict and emotional distress in 9th grade was greatest for Asian American adolescents ($b = 1.57, SE = .26, p = .00$) as compared to European ($b = .84, SE = .35, p = .01$) and Latin American adolescents ($b = .25, SE = .30, ns$), $F(2, 402) = 5.69, p < .001$. In the 12th grade, adolescents from Latin American backgrounds reported the greatest level of emotional distress related to mother–adolescent conflict ($b = 1.45, SE = .60, p = .05$) as compared to adolescents from Asian ($b = .85, SE = .69$, $ns$) and European backgrounds ($b = .17, SE = .55, ns$), $F(2, 402) = 3.25, p < .05$. Additional analyses were conducted to see if the association between family conflict and emotional distress differed by whether adolescents’ parents were immigrants or not. Significant differences emerged only for father–adolescent conflict, where it was more highly associated with emotional distress for adolescents with nonimmigrant parents in both the 9th and 12th grades ($bs = 1.51, 1.55, SEs = .49, .66, ps < .05–.01$), compared to their peers from immigrant families ($bs = .06, .42, SEs = .28, .27, ns$), $Fs(1, 408) = 4.72–7.59, ps < .05–.01$. These effects remained significant even after accounting for ethnicity.

Parent–adolescent conflict as a mediator of the association between interparental conflict and adolescent distress. Given that interparental conflict and parent–adolescent conflict were significantly associated with each other (see Table 1), additional analyses were conducted in order to determine whether the associations between interparental conflict and adolescent distress were mediated by conflict between adolescents and their parents.

Table 2 shows the results of the mediation analyses. The column labeled “Total effect,” shows the initial total effect of interparental conflict on emotional distress at each grade level. The columns labeled “Indirect effect” and “Z” show the indirect effects of interparental conflict on adolescent distress through each measure of parent–adolescent conflict and the tests of the statistical significance of the indirect effects, respectively. Finally, the last column reports the proportions of the total effects that were accounted for by the indirect effects.

Significant portions of the link between interparental conflict and emotional distress were accounted for by conflict with either parent. The indirect effect of interparental conflict on emotional distress through parent–adolescent conflict was significant for both grade levels, although the effect was greater in 12th grade. In 12th grade, conflict with mother and father accounted for about 25% and 30%, respectively, of the overall effect of interparental conflict on adolescents’ distress, whereas in 9th grade about 21% and 13% of the total effect of interparental conflict on distress was mediated by conflict with mother and father, respectively.

### Daily-Level Associations of Family Conflict With Adolescents’ Emotional Distress

Daily-level associations between conflict and distress. The following equation shows the basic model for examining daily-level associations. Daily emotional distress was predicted by a same-day family conflict event while controlling for distress the prior day.

\[
\text{Emotional distress}_i = b_{0i} + b_{ij}(\text{family conflict}) + b_{3j}(\text{emotional distress}_{i-1}) + b_{4j}(\text{week of study}) + e_i
\]

In Equation 1, emotional distress on a given day ($i$) for a particular adolescent ($j$) was modeled as a function of each individual’s intercept ($b_{0j}$) and episode of family conflict ($b_{3j}$). Each of the three types of family conflict events (i.e., interparental, father–adolescent, and mother–adolescent conflict) was modeled in a separate equation. Prior-day emotional distress ($b_{3j}$) was included to control for earlier levels of distress. To reduce possible confounds resulting from effects of the repeated-measures diary method, the week of the study (effect coded –1 for Week 1, Days 1 to 7, and 1 for Week 2, Days 8 to 14) was entered as a control variable in all equations ($b_{4j}$). Unexplained variance is captured by the error term ($e_i$).

Table 3 shows the results of daily-level analyses predicting adolescents’ daily emotional distress from family conflict events. In the 9th grade, on days in which adolescents argued with their mother or father, they reported more emotional distress even after accounting for the prior-day level of distress. This pattern, however, was not observed for adolescents in the 9th grade whose

<table>
<thead>
<tr>
<th>Variable</th>
<th>9th grade</th>
<th>12th grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercparental conflict $\rightarrow$ Distress</td>
<td>.16**</td>
<td>.17**</td>
</tr>
<tr>
<td>Intercparental conflict $\rightarrow$ Conflict with mother</td>
<td>.30**</td>
<td>.22**</td>
</tr>
<tr>
<td>Intercparental conflict $\rightarrow$ Conflict with father</td>
<td>.25***</td>
<td>.31***</td>
</tr>
<tr>
<td>Conflict with mother $\rightarrow$ Distress</td>
<td>.32**</td>
<td>.23**</td>
</tr>
<tr>
<td>Conflict with father $\rightarrow$ Distress</td>
<td>.18**</td>
<td>.19***</td>
</tr>
</tbody>
</table>

** $p < .01$. *** $p < .001$. 

Table 1: Bivariate Correlations in the 9th and 12th Grades
parents argued. In the 12th grade, adolescents’ arguments with their parents and arguments between their parents were both
in 9th grade
Interparental conflict
1.06*** .32 .22 .03 6.33*** 20.68
Father–adolescent
Conflict
Interparental conflict
1.06*** .32 .28 .09 2.98** 25.45
in 12th grade
Interparental conflict
1.10*** .32 .14 .03 5.03** 13.16
in 12th grade
Interparental conflict
1.10*** .32 .32 .11 2.78** 29.09

Note. Mediation of interparental conflict at each grade level was con- ducted using the measures of parent–adolescent conflict at the respective
grade levels. Coefficients are unstandardized regression coefficients.
** p < .01. *** p < .001.

parents argued. In the 12th grade, adolescents’ arguments with their parents and arguments between their parents were both associated with adolescents’ emotional distress. As indicated by the variance components in Table 3, there was significant variability in the association between family conflict and daily distress among adolescents.

To examine whether the association between family conflict and daily distress varied by gender or ethnicity, the following individual-level equations were mapped onto the daily-level Equation 1:

\[
(\text{Intercept}) \, b_{0j} = c_{0j} + c_{0}(\text{gender}) + c_{0}(\text{Asian}) + c_{0}(\text{Latin American}) + u_{0j} \quad (2)
\]

\[
(\text{Slope}) \, b_{1j} = c_{10} + c_{1}(\text{gender}) + c_{1}(\text{Asian}) + c_{1}(\text{Latin American}) + u_{1j} \quad (3)
\]

The intercept equation (2) tested whether there were gender or ethnic differences in the average levels of the outcome variable (i.e., distress or family conflict). The slope equation (3) examined gender and ethnicity as moderators of the association between family conflict and distress and types of family conflict. Gender was effect coded, −1 for males and 1 for females. Ethnicity was dummy coded, with adolescents from European backgrounds designated as the reference group for comparison with adolescents from Latin American and Asian backgrounds. Comparisons between adolescents from Latin American and Asian backgrounds were made by designating Latin American adolescents as the reference group in Equations 2 and 3. Error terms contributing to unexplained variance are represented by \( u_{0j} \) and \( u_{1j} \).

As shown in Figure 1, the daily-level associations between parent–adolescent conflicts and distress in 9th grade were stronger for girls than boys (mother conflict slope: \( b_{0\text{Gender}} = .14, b_{0\text{Female}} = .28, p < .05 \); father conflict slope: \( b_{0\text{Gender}} = .19, b_{0\text{Female}} = .41, p < .05 \)). With regard to ethnicity, the daily association between interparental conflict and emotional distress in 12th grade was stronger for Asian adolescents as compared to European adolescents (\( b_{0\text{Asian}} = -0.01, b_{0\text{Latin American}} = 0.08, b_{0\text{Asian}} = 0.23, p < .05 \)). That is, adolescents from Asian backgrounds experienced more of an increase in emotional distress on days when their parents argued with each other, compared to their European peers. Follow-up analyses indicated, however, that this ethnic difference was no longer significant when parents’ immigration status was controlled for. Also, adolescents whose parents were foreign-born immigrants experienced a significantly higher level of emotional distress (\( b = .21, p < .05 \)) on days when their parents argued with each other, compared to their peers with U.S.-born parents (\( b = -0.05, ns \)).

**Daily parent–adolescent conflict as a mediator of the associations between daily interparental conflict and adolescent distress.** Given the significant daily-level association between interparental conflict and adolescent distress at the 12th grade, additional analyses were conducted to examine whether this association was mediated by parent–adolescent conflict. First, the daily associations between interparental conflict and parent–adolescent conflict at the 12th grade were examined for mothers and fathers separately, using the following equation:

\[
\text{Parent–adolescent conflict}_j = b_{0j} + b_{1j}(\text{interparental conflict}) + b_{2j}(\text{week of study}) + e_j \quad (4)
\]

### Table 2

**Mediation of the Association of Interparental Conflict With Distress by Conflict With Mothers and Fathers**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total effect</th>
<th>SE</th>
<th>Indirect effect</th>
<th>SE</th>
<th>Z</th>
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</tr>
<tr>
<td>in 9th grade</td>
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<td>.22</td>
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<td>6.33***</td>
<td>20.68</td>
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<td>.09</td>
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<td>Father–adolescent conflict</td>
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<tr>
<td>Interparental conflict</td>
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<td>.32</td>
<td>.14</td>
<td>.03</td>
<td>5.03**</td>
<td>13.16</td>
</tr>
<tr>
<td>in 12th grade</td>
<td>1.10***</td>
<td>.32</td>
<td>.32</td>
<td>.11</td>
<td>2.78**</td>
<td>29.09</td>
</tr>
</tbody>
</table>

### Table 3

**Daily-Level Associations Between Family Conflict and Emotional Distress**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Daily emotional distress predicted by interparental conflict</th>
<th>Daily emotional distress predicted by conflict with mother</th>
<th>Daily emotional distress predicted by conflict with father</th>
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</thead>
<tbody>
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<td></td>
<td>9th grade b (SE)</td>
<td>12th grade b (SE)</td>
<td>9th grade b (SE)</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.06 (.03)**</td>
<td>.92 (.03)**</td>
<td>1.04 (.03)**</td>
</tr>
<tr>
<td>Family conflict</td>
<td>.09 (.07)</td>
<td>.11 (.05)*</td>
<td>.21 (.03)**</td>
</tr>
<tr>
<td>Emotional distress, ( s - 1 )</td>
<td>.30 (.02)**</td>
<td>.40 (.02)**</td>
<td>.31 (.02)**</td>
</tr>
<tr>
<td>Week of study</td>
<td>-.04 (.01)**</td>
<td>-.02 (.01)**</td>
<td>-.03 (.01)**</td>
</tr>
<tr>
<td>Variance component of predictor</td>
<td>.20**</td>
<td>.04**</td>
<td>.09**</td>
</tr>
</tbody>
</table>

Note. Family conflict is a predictor variable that refers to the measure of family conflict that corresponds to each column heading. Week of study was coded so that \(-1 = \text{Week 1 (Days 1–7)}, 1 = \text{Week 2 (Days 8–14)}\).

* p < .05  ** p < .001.
In Equation 4, adolescents’ arguments with their mother and father (tested separately) were predicted by arguing between parents ($b_{ij}$). This model also included week of study as a control variable ($b_{ij}$) and an error term ($e_{ij}$). Results indicated that on days in which an argument occurred between parents, adolescents were more likely to have an argument with each of their parents (mother: $b = .15, p < .01$; father: $b = .20, p < .01$).

Next, the extent to which daily parent adolescent conflict mediated the daily association of interparental conflict with distress was examined using the following equation:

$$\text{Emotional distress}_{ij} = b_0 + b_j \text{(interparental conflict)}$$

$$+ b_2 \text{(parent–adolescent conflict)} + b_3 \text{(week of study)} + e_{ij} \quad \text{(5)}$$

Adolescents’ arguments with their mother and father, represented by parent adolescent conflict ($b_{ij}$) in Equation 5, were each separately examined as mediators. Results indicated that both types of parent–adolescent conflict independently mediated the association between interparental conflict and adolescent distress at the daily level. Recall that previously, interparental conflict significantly predicted adolescent distress ($b = .11, p < .01$). However, interparental conflict was no longer a significant predictor of adolescent distress when adolescents’ conflict with their fathers was taken into account ($b_{\text{interparental conflict}} = .07, p > .10$; $b_{\text{father–adolescent conflict}} = .22, p < .01$). Father–adolescent conflict explained 64.7% of the variation in the overall effect of interparental conflict on adolescent distress. Similarly, when adolescents’ conflict with their mothers was accounted for, conflict between parents no longer predicted adolescent distress ($b_{\text{interparental conflict}} = .07, p > .10$; $b_{\text{mother–adolescent conflict}} = .18, p < .01$). As a mediator, mother–adolescent conflict explained 37.1% of the variance in the overall effect.

We conducted these daily-level mediational analyses in accordance with the recommendations of Kenny, Korchmaros, and Bolger (2003). Using this strategy takes into account the covariance between lower level paths in multilevel models with variability in the paths across upper level units. Specifically, the strategy involves reporting the amount of variability in the total effect of the predictor (i.e., interparental conflict) that is accounted for by variation in the mediators (i.e., conflicts with mother and father), in addition to the traditional mediational results reported above. Results indicated that variation in father–adolescent conflict explained 74.2% of the variance in the effect of interparental conflict, and variation in mother–adolescent conflict explained 12% of the variance in the effect of interparental conflict.

Discussion

The goal of the present study was to advance extant research in family conflict during adolescence. Our study is one of the first to employ the daily diary method to examine family conflict across the high school years at both the individual and daily levels among a large sample of adolescents from Latin American, Asian, and European backgrounds. Measuring episodes of family conflict on a daily basis confirmed previous research regarding conflict frequency in several aspects.

First, significantly low frequencies reported in the current study over the 14 days complement previous daily studies of parent–adolescent conflict (Montemayor, 1982) and tension within marital and parent–child dyads (Almeida et al., 1999). It appears that, at least from the adolescents’ perspectives, episodes of interparental and parent–adolescent conflict are rare events in their everyday lives. Also, consistent with earlier findings in Laursen et al.’s (1998) and Fuligni’s (1998) studies, the rate of conflict remained stable across the high school years. This steadiness of low conflict frequency may reflect harmonious rather than confrontational day-to-day interactions between adolescents and their parents, thus highlighting the need for attention to positive daily exchanges between them. Second, the present study also yielded consistent findings in terms of gender, where conflict with mothers occurred significantly more frequently than conflict with fathers and girls reported more frequent interparental conflict than boys (Collins & Russell, 1991; Shearer, Crouter, & McHale, 2005). Third, in line with the popular portrayal of marital relations within Asian American families as harmonious and respectful (Uba, 1994), adolescents from Asian backgrounds in the present study perceived the

![Figure 1](image-url)
least frequent arguments between parents, compared to their European peers.

Although few ethnic differences were found in the present study, it is important to consider other variables that might account for variations in the frequency of family conflict. For instance, stressors such as unemployment and marital tension might place family stability at risk, and these families might be more likely to experience frequent conflict compared to other families. In addition, families in the context of low household income and low family cohesion might report more frequent episodes of family conflict as compared to families that are financially stable and highly cohesive. Also, our ethnic similarity (as opposed to disparity) finding in adolescent conflict with parents lends support to Fuligni’s (1998) conjecture that the role of ethnically differential cultural ideals may not be eminent in parent–adolescent relations during the high school period. Greenberger and Chen’s (1996) findings, however, suggest that it may be during the college years that ethnic differences in the level of conflict emerge. It is possible that being away from family for college might allow adolescents from Asian backgrounds to pursue autonomy, which may subsequently increase tension with parents during this period due to cultural expectations of respect and obedience toward parental authority in Asian American families (Uba, 1994). Thus, it might be useful to extend the diary method in future research beyond the high school years to see if ethnic differences are detected with this method.

In terms of the role of interparental and parent–adolescent conflicts in adolescents’ emotional distress, we found that each of these episodes was significantly associated with greater emotional distress at both the individual and daily levels. These findings not only confirm but also, because we assessed mediation at the daily level, extend existing research that has primarily examined between-person associations. It is especially important to note that the effect of these conflictual interactions was significant within individuals even after we controlled for the prior-day level of distress. This suggests a temporal ordering of this link, although a definitive statement about causality cannot be made due to the nonexperimental nature of the present study.

Interesting group differences in the emotional reactivity to family conflict emerged at the daily level. First, compared to boys, girls were significantly more likely to be distressed on days in which they argued with a parent, compared to days when they did not. Although our finding bears similarity to gender differences found in Buehler and Gerard’s (2002) study that examined between-persons associations, our gender difference finding at the daily level further demonstrates how conflict with a parent on a given day immediately leads to emotional distress, particularly for adolescent girls. This greater psychological vulnerability among girls may be because of their greater sensitivity to interpersonal relationships than boys (Gore, Aseltine, & Colton, 1993) or because girls are socialized to react to stressful familial situations in a gender-appropriate way by internalizing their feelings, rather than exhibiting overtly hostile or aggressive actions toward others (Zahn-Waxler, 1993).

Second, our findings shed light on the role of ethnicity and immigration in children’s response to interparental conflict, which is useful given the extreme paucity of research on this topic (Buehler & Gerard, 2002). In this study, adolescents from Asian backgrounds were more psychologically vulnerable to interparental conflict than their European and Latin American peers, even after taking gender into account. This robust effect of ethnicity, however, disappeared once adolescents’ parent immigration status was considered. Additionally, for adolescent children of foreign-born immigrants, the association was significantly stronger as compared to their peers with U.S.-born parents, regardless of their ethnic backgrounds. On the one hand, we suggest that the effect of ethnicity within Asian American adolescents across gender mirrors a potentially powerful role of ethnic cultural socialization that may be more salient than gender socialization in these families, especially when it comes to adolescents’ expectation for interparental relations. It is possible that, consistent with cultural traditions, both male and female Asian American adolescents may equally internalize their parents as authority figures and view them with a sense of respect (see Uba, 1994). Thus, when they perceive tension between the parents, they may feel more depressed and anxious than their non-Asian peers. On the other hand, our findings further suggest that the saliency of one’s ethnic cultural background in family processes may diminish over generations as families become more assimilated to the mainstream U.S. values and norms. Furthermore, the greater emotional reactivity to interparental conflict among adolescents with foreign-born parents as compared to those with U.S.-born parents indicates that the nature of emotional distress may not be uniform across all adolescents. The resulting distress, therefore, needs to be differentiated, especially in light of the immigration history and context of the families that these adolescents come from. For instance, because families with foreign-born parents experience a greater intergenerational acculturative gap than do families with U.S.-born parents, emotional distress resulting from conflict in these families may be more acculturative in nature compared to the other families. It might be beneficial for future studies to disentangle the complexity of ethnicity, immigration, acculturation, and the form of emotional distress experienced by adolescents within these ethnic groups.

Our results offer additional support for the mediating role of parent–adolescent conflict in the link between interparental conflict and emotional distress at both the individual and daily levels. Spillover of an argument from a parental subsystem onto the domain of parent–adolescent relationship was apparent, demonstrating a domino effect of conflict within the family system. Previous research on this spillover effect has been criticized for its failure to examine the possibility that it may be within-person characteristics, such as poor interpersonal skills, that lead to general conflictual interactions between family members, rather than the increased likelihood of arguing with a child in the face of marital conflict, which may lead to the spillover (Krishnakumar & Buehler, 2000). Because the daily diary method allowed us to control for such confounding factors within a person, our findings provide evidence that interparental relations do indeed have implications for how parents and adolescents interact on a daily basis. Also, it is important to highlight that interparental conflict was no longer a significant predictor of emotional distress when parent–adolescent conflict was brought into the picture, even after controlling for prior-day level of distress, thus suggesting directionality of this micro process (that is, parent–adolescent conflict, rather than interparental conflict, is in fact the mediator).

Finally, our mediation results highlight a need for examining the nature of fathering, particularly in the context of marital conflict. In this study, father–adolescent conflict, as compared to conflict
with mother, accounted almost six times more for the negative effect of interparental conflict on adolescents’ emotional distress at the daily level. This finding is consistent with previous research suggesting that marital conflict might affect fathering more than mothering (Belsky, Youngblade, Rovine, & Volling, 1991; Krishnakumar & Buehler, 2000). For instance, following a hostile spousal interchange, distressed fathers might be more likely than mothers to act in a rejecting and domineering manner during a subsequent interaction with a child, causing him or her emotional disturbance. Alternatively, adolescents may be simply more shielded from the negative effects of conflictual interactions with mothers than fathers due to their different conflict resolution styles. Given that fathers tend to show more attacking conflict resolution behavior than mothers, and mothers display more discussing behavior (Dadds, Atkinson, Turner, Blums, & Lendich, 1999), adolescents may feel less anxious or depressed after an argument with their mother if it was resolved in a calm manner. Further research is needed to explore the nature of this complex mechanism between marital conflict, father–adolescent conflict, and emotional distress among adolescents.

Several limitations must be noted. First, the present study assessed only a single indicator (arguing) and a single dimension (frequency) of family conflict. Use of multiple indicators, including nonverbal tension, and dimensions of conflict, such as content, intensity, and resolution, would capture a wider spectrum and more of the complex nature of family conflict in future studies. For instance, given the ethnic differences that we found in interparental conflict, future research may benefit from including multiple indicators of interparental conflict that may be more relevant to non-European parents. Because having an argument is a more overt expression of conflict, interparental conflict within families that encourage emotional control, such as families with Asian backgrounds, may be more effectively assessed by also examining less revealing aspects of conflict, such as the silent treatment or unspoken tension. In addition, the daily diary method could be modified by having adolescents report on detailed aspects of family conflict only on the days that they perceived tension in the family. Second, our reliance solely on adolescents’ self-reports to assess family conflict is a limitation. It is unclear to what extent adolescents’ perceptions of family conflict accurately represent parent behaviors and parent–adolescent interactions. Although children’s appraisals of interparental and parent–child conflicts play an integral role in understanding how marital conflict affects children (Harold et al., 1997), reports from parents as well as adolescents would allow a more reliable and objective assessment of conflict. And lastly, we did not consider other dyadic or triadic interactions in our models of family conflict. For instance, it is possible that interparental or parent–adolescent conflict may influence the way the adolescent or the parent interacts with his or her sibling. Overall, future studies should account for these limitations to fully convey the more complex nature of the relations between family conflict and adolescent emotional distress, and between interparental conflict and parent–adolescent conflict.

Despite these limitations, the present study demonstrated that family conflict is a low-frequency event, but its impact on emotional distress is generally consistent across the high school years, regardless of ethnicity and gender. Our use of the daily diary method enabled us to assess the day-to-day occurrences of family conflict over time within families from various ethnic backgrounds. Future studies could employ the same method to examine more subtle nuances in family tension and disagreement as the next step to better understand how adolescents’ emotional distress is shaped by conflictual interactions between family members during and beyond the high school years.

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Received January 24, 2008
Revision received August 9, 2008
Accepted September 15, 2008

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