BRIEF REPORT

Longitudinal Associations Between Parent-Child Relationships in Middle Childhood and Child-Perceived Loneliness

Jia Yan, Xin Feng, and Sarah J. Schoppe-Sullivan
The Ohio State University

Loneliness may affect children's psychological well-being and academic achievement. Parent-child relationships have been consistently associated with child adjustment. However, parental antecedents of child loneliness have been relatively understudied. Guided by attachment theory, we examined the trajectories of father-child and mother-child relationship closeness and conflict, and their associations with trajectories of child loneliness with National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development (SECCYD) data to understand parents' roles in child loneliness in middle childhood. In Grades 1 ($M_{age} = 6.57$, $SD = .29$), 3, 4, and 5, both resident fathers and mothers reported on parent-child relationships. At Grades 1, 3, and 5, children reported on their loneliness. Loneliness declined from Grade 1 to Grade 5. After controlling for socioeconomic status (SES), the slope of father-child relationship closeness was negatively associated with the slope of loneliness for girls ($n = 341$), but not for boys ($n = 354$). The more slowly father-child closeness declined, the more quickly girls' loneliness declined. These findings highlight the role of father-child relationships in child loneliness for girls. Future research on child loneliness should take both maternal and paternal roles into consideration.

Keywords: father-child relationships, parent-child closeness, parent-child conflict, child loneliness, middle childhood

Loneliness is conceptualized as a cognitive and emotional reaction to the discrepancy between experienced and desired relationships (Rotenberg, 1999). Child loneliness has been associated with indicators of impaired emotional well-being, such as depressive symptoms (Qualter, Brown, Munn, & Rotenberg, 2010), suicidal ideation and behaviors (Lasgaard, Goossens, & Elklit, 2011), poor health (Harris, Qualter, & Robinson, 2013), and poor social competence (Zhang et al., 2014). In addition, elevated levels of loneliness appear to undermine academic performance (Asher & Paquette, 2003), and predict school dropout (Heinrich & Gullone, 2006). Loneliness is not uncommon in childhood—approximately one in five 8-year-old children reported loneliness (Lempinen, Junttila, & Sourander, 2018). In the middle childhood period, one of the most salient tasks is to establish meaningful peer relationships (Bohlin, Hagekull, & Rydell, 2000). Severe and persistent loneliness, however, suggests difficulties in completing this task, and warrants concern (Asher & Paquette, 2003). Understanding the antecedents of loneliness in middle childhood is therefore critical.

Attachment theory posits that high quality parent-child relationships enhance children's emotional adjustment (Mikulincer & Shaver, 2012). The quality of relationships with primary caregivers may structure and shape children's views of self and others, including their sense of self-worthiness, expectations toward social interactions, interpretations of other people's behaviors, and reactions to the world (DeKlyen & Greenberg, 2016). Children who have healthy relationships with parents may form positive expectations about interpersonal relationships and be better prepared to develop peer relationships (Ladd & Pettit, 2002). Distant and conflictual parent-child relationships may make children feel that they do not deserve strong relationships and interpret their surroundings via a lens of insecurity. Children might behave accordingly and elicit peer rejection and parental disapproval, which, in turn, give them more reasons to feel lonely and insecure (Ladd & Pettit, 2002). Poor parent-child relationships may also lead to greater loneliness through lower levels of parental support (Cavanaugh & Buehler, 2016), higher levels of perceived rejection, and fewer positive social interactions to observe and model (Cassidy & Berlin, 1999). Extant literature, however, is limited regarding the parental—and particularly paternal—antecedents of loneliness in middle childhood.

Le Roux (2009) found adolescents' attitudes toward their fathers to be the most important predictor of adolescents' loneliness. Al-Yagon (2014) examined parent-child attachment and loneliness in children aged 8 to 12, finding that perceived attachment toward father and mother negatively predicted child loneliness. Cavanaugh and Buehler (2016) reported the negative longitudinal association between perceived parental support and child loneli-

ness during preadolescence, after controlling for previously reported child loneliness, peer support, teacher support, and interparental support. Harris et al. (2013) suggested that loneliness declines from 8 to 11 years of age. Yet, the existing literature does not address how loneliness may change in accordance with the evolution of mother-child and father-child relationships during middle childhood. Moreover, reliance on a single-reporter design might have inflated the associations between parent-child relationships and child loneliness due to shared-method variance.

Findings have also been mixed regarding the existence of gender differences in child loneliness. Gender differences have not been documented consistently, but when gender differences are detected, boys tend to experience greater loneliness. A meta-analysis of predictors of loneliness in adolescents (Mahon, Yarcheski, Yarcheski, Cannella, & Hanks, 2006) revealed that 19 out of 31 studies did not find gender differences. Among the 12 studies that found gender differences, nine concluded that boys were lonelier than girls. Moreover, parent-child relationships may affect boys' and girls' social-emotional development differently. For instance, parent-child conflict is associated with girls' maladjustment to a greater extent than with boys' maladjustment (see Weymouth, Buehler, Zhou, & Henson, 2016 for a review). We therefore considered child gender as a moderating variable in the associations between parent-child relationships and child loneliness.

To advance the literature on the roles of parent-child relationships in children's loneliness during middle childhood, the current study aimed to: (a) explore the developmental trajectories of child loneliness over middle childhood by child gender, and (b) examine the associations between trajectories of parent-reported parent-child relationship and child-reported loneliness, with efforts to distinguish paternal and maternal contributions to boys' and girls' loneliness. Specifically, we expected that greater starting point and slower decrease in parent-child closeness, as well as fewer conflicts at starting point and slower increase would predict a lower starting point and greater improvement (i.e., faster decrease or slower increase) in child loneliness.

Method

Participants

We used data from the NICHD SECCYD. Participating families ($N = 1,364$) were followed across 15 years starting from 1 month after childbirth. For a detailed description of the recruitment and sampling procedures, see NICHD Early Child Care Research Network (1997). Data at Grades 1 (child $M_{age} = 6.57$, $SD = .29$), 3, 4, and 5 were used in the current study. The current study focused on families with resident biological fathers and mothers to control for residence status as a confounding variable. A subsample of 695 families was selected on the basis of this criterion.

Half of the study children ($n = 341$; 49.1%) were girls. Most of the study children ($n = 625$; 89.9%) were identified as White, and nearly half ($n = 304$; 43.7%) were the firstborn. At the child's birth, the average ages of fathers and mothers were 31.53 ($SD = 5.05$) and 29.93 ($SD = 5.35$), respectively. Most of the fathers ($n = 668$; 96.1%) and mothers ($n = 672$; 96.7%) graduated from high school or received the equivalent. At Grade 1, the average income-to-needs ratio was 4.62 ($SD = 3.09$). A ratio of 3 indicated that the family was middle class (Dearing, McCartney, & Taylor,

2001). Thus, the current sample comprised middle to upper class families.

Procedures and Measures

Both fathers and mothers rated their relationships (i.e., conflict and closeness) with the study child at Grade 1, 3, 4 and 5. At Grades 1, 3, and 5, children reported on their loneliness. Mothers reported the child's gender and ethnicity, and both parents' ages and educational background (i.e., years of schooling), when the families were recruited. Mothers also reported the annual household income at Grade 1. The secondary data analysis of the NICHD SECCYD data was approved by The Ohio State University's Institutional Review Board.

Child loneliness. Child loneliness was measured with children's self-report on the Loneliness and Social Dissatisfaction Questionnaire (Asher, Hymel, & Renshaw, 1984). The questionnaire contained 16 principal items, which asked about children's lonely feelings, social distress, feelings of social competence versus incompetence, and self-evaluation of peer status (e.g., "I don't have any friends," "It's hard for me to make friends"). Children were asked to rate these items on a 5-point Likert-type scale (1 = not at all true, 5 = always true). The loneliness score was the sum of the 16 items. In the current sample, the Cronbach's alpha was .73, .72, and .79 at Grades 1, 3, and 5, respectively.

Parent-child relationships. Father- and mother-perceived parent-child relationships were reported on the 15-item short form of the Child-Parent Relationship Scale (Pianta, 1992). Eight out of the 15 items were about parent-child relationship closeness (e.g., "I share an affectionate, warm relationship with my child"), whereas the rest of the items were about relationship conflict (e.g., "My child easily becomes angry at me"). Parents responded on a 5-point Likert-type scale (1 = definitely does not apply, 5 = definitely applies). One of the closeness items (i.e., "My child is uncomfortable with physical affection") was excluded from the total score due to its low correlation with other items and poor psychometric properties. The Cronbach's alpha ranged from .65 to .85 in the current sample (Table 1).

Results

Analytic Plan

We first examined the differences in trajectories of parent-child relationship and child loneliness between boys and girls by testing multiple-group unconditional growth models and comparing the model fit for reduced models (i.e., boys' and girls' growth factors constrained equal) and augmented models (i.e., boys' and girls' parameters freely estimated). Next, two multiple-group (boys vs. girls) structural equation models were estimated with maximum likelihood estimator with robust standard errors, regressing growth factors (i.e., intercept and slope) of child loneliness on growth factors of parent-child relationships. The first model tested the associations between growth factors of mother-child and father-child closeness and growth of child loneliness. The second model tested the associations between the growth of mother-child and father-child conflict and that of child loneliness. Mother's education and household income-to-needs ratio were included as covariates to rule out the confounding effects of SES. Missing data

Table 1

Missing Rates, Ranges (Minima and Maxima), Means, Standard Deviations, and Cronbach's Alphas (α) of the Study Variables

Variables	N	Missing rate (%)	Min.	Max.	M	SD	α
C-Loneliness G1	617	11.20	16.00	72.00	29.48	9.99	.73
C-Loneliness G3	640	7.90	16.00	59.00	27.38	8.88	.72
C-Loneliness G5	635	8.60	16.00	63.00	24.94	8.18	.79
F-Conflict G1	598	14.00	7.00	29.00	14.04	4.78	.77
F-Conflict G3	600	13.70	7.00	31.00	14.72	5.02	.79
F-Conflict G4	552	20.60	7.00	33.00	14.72	5.18	.82
F-Conflict G5	593	14.70	7.00	34.00	15.57	5.19	.81
M-Conflict G1	644	7.30	7.00	33.00	15.04	5.92	.85
M-Conflict G3	642	7.60	7.00	32.00	15.93	5.99	.85
M-Conflict G4	634	8.80	7.00	35.00	15.79	5.94	.84
M-Conflict G5	637	8.30	7.00	33.00	16.22	5.86	.83
F-Closeness G1	597	14.10	20.00	35.00	32.26	2.47	.70
F-Closeness G3	599	13.80	15.00	35.00	31.05	3.13	.76
F-Closeness G4	550	20.90	19.00	35.00	30.85	3.32	.77
F-Closeness G5	591	15.00	17.00	35.00	30.12	3.50	.80
M-Closeness G1	644	7.30	20.00	35.00	33.47	2.01	.70
M-Closeness G3	641	7.80	20.00	35.00	32.74	2.24	.65
M-Closeness G4	634	8.80	18.00	35.00	32.64	2.46	.70
M-Closeness G5	636	8.50	21.00	35.00	32.26	2.62	.73
Maternal education	695	.00	7.00	21.00	15.04	2.33	
Income-to-needs ratio	629	9.50	.10	21.29	4.62	3.11	

Note. Alphas were computed based on the current sample ($N = 695$). At Grade 3, children in families with father-child relationship data missing were closer to their mothers ($M_{\text{Father-data missing}} = 18.00$, $M_{\text{Father-data available}} = 15.78$, $t = 2.12$, $df = 49.05$, $p = .04$), and were lonelier than their counterparts ($M_{\text{Father-data missing}} = 32.97$, $M_{\text{Father-data available}} = 28.98$, $t = 2.96$, $df = 93.94$, $p = .004$). There were no differences on the other study variables between families with or without father-child relationship data at any time point. C = child; F = father; M = mother; G = grade.

were handled with the full information maximum likelihood (FIML) method.

The model chi-squared (χ^2) statistic with its degrees of freedom and p value, the root-mean-square error of approximation (RMSEA) and its 90% confidence interval (CI), the Bentler comparative fit index (CFI), and the standardized root-mean-square residual (SRMR) were used to examine the model fit. RMSEA values below .05, CFI values greater than .95, and SRMR values less than .08 were considered indicative of a close fit (Hu & Bentler, 1999).

Preliminary Analyses

The missing rates, ranges, means, standard deviations, and bivariate correlations of the variables are shown in Tables 1 and 2. For the unconditional growth models of parent-child relationships, because they were reported at four time points, we estimated both linear and quadratic trajectories to ensure that we appropriately modeled the changes in parent-child relationships over time. The results showed that for all parent-child growth models, the quadratic models were either uninterpretable due to negative variances, or not fitting better than linear models. Child loneliness was reported at three time points, which only allowed for fitting linear trends.

The linear unconditional growth models displayed good model fit (Figure 1). No child gender differences were found in parent-child closeness and conflict. For both boys and girls, parent-child closeness decreased, whereas conflict increased over time. Mother-child pairs who started closer experienced slower declines in closeness. The slope and intercept of loneliness or other parent-

child relationship constructs were not correlated within each model. There was an overall decline in child loneliness across the study period. Results of Wald's test revealed that boys and girls started off similarly in levels of loneliness, $\Delta\chi^2(1) = 0.00$, $p = .99$, but boys declined in loneliness more slowly than girls, $\Delta\chi^2(1) = 5.70$, $p = .02$.[1]

Predicting Developmental Change in Child Loneliness

Parent-child closeness and child loneliness. We tested a multigroup conditional model (shown in Figure 2a) in which: (a) the slope of child loneliness was regressed on the intercepts and slopes of father-child and mother-child closeness, and (b) the intercept of child loneliness was regressed on the intercepts of father-child and mother-child closeness. The model showed good fit. In particular, the slope of father-daughter closeness was negatively associated with the slope of loneliness for girls ($B = 11.57$, $SE = 5.22$, $\beta = -0.46$, $p = .03$). When father-daughter closeness declined more slowly, girls' perceived loneliness declined more quickly.

Parent-child conflict and child loneliness. The conditional model yielded no significant associations between parent–child conflict and child loneliness. The results of the conditional model are shown in Figure 2b. The model showed good fit.

---

[1] We found consistent patterns in the entire SECCYD sample and the selected sample: child loneliness declined from Grades 1 to 5. However, in the entire sample, gender differences in the growth factors of child loneliness were not significant.

Table 2
Bivariate Correlations of the Study Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. C-Loneliness G1																				
2. C-Loneliness G3	.22**																			
3. C-Loneliness G5	.16**	.36**																		
4. F-Conflict G1	.05	.02	.06																	
5. F-Conflict G3	.03	.06	.07	.61**																
6. F-Conflict G4	.02	.03	.13**	.59**	.68**															
7. F-Conflict G5	.04	.06	.08*	.56**	.66**	.71**														
8. M-Conflict G1	.03	.07	.12**	.29**	.38**	.40**	.37**													
9. M-Conflict G3	.01	.05	.08	.30**	.45**	.42**	.38**	.68**												
10. M-Conflict G4	.05	.05	.09*	.30**	.44**	.48**	.42**	.70**	.79**											
11. M-Conflict G5	.04	.04	.11**	.30**	.41**	.46**	.48**	.64**	.70**	.76**										
12. F-Closeness G1	−.10*	−.06	−.07	−.32**	−.25**	−.24**	−.23**	−.15**	−.12**	−.16**	−.17**									
13. F-Closeness G3	−.03	−.01	−.15**	−.24**	−.32**	−.31**	−.28**	−.12**	−.16**	−.19**	−.18**	.54**								
14. F-Closeness G4	−.01	−.09*	−.14**	−.22**	−.26**	−.37**	−.29**	−.18**	−.16**	−.23**	−.22**	.61**	.63**							
15. F-Closeness G5	−.09*	−.05	−.12**	−.22**	−.29**	−.32**	−.35**	−.13**	−.15**	−.20**	−.26**	.52**	.62**	.65**						
16. M-Closeness G1	−.03	−.05	−.05	−.05	−.12**	−.14**	−.11**	−.34**	−.25**	−.24**	−.19**	.18**	.13**	.20**	.22**					
17. M-Closeness G3	−.02	−.10*	−.11**	−.06	−.17**	−.15**	−.15**	−.26**	−.32**	−.29**	−.29**	.11*	.15**	.14**	.19**	.50**				
18. M-Closeness G4	−.02	.01	−.06	−.08	−.15**	−.17**	−.19**	−.29**	−.31**	−.35**	−.31**	.10*	.14**	.20**	.20**	.55**	.63**			
19. M-Closeness G5	−.02	−.09*	−.08*	−.06	−.13**	−.16**	−.19**	−.22**	−.23**	−.24**	−.32**	.16**	.17**	.20**	.29**	.47**	.61**	.61**		
20. M-Edu	−.09*	−.14**	−.10*	−.08*	−.02	.00	−.05	−.03	−.08*	−.10*	−.09*	.02	.07	.07	.06	−.03	.04	.04	.02	
21. ITN Ratio	−.11**	−.14**	−.16**	−.08*	−.04	−.06	−.05	−.06	−.06	−.11**	−.10*	.07	.04	.07	.10*	−.01	−.01	.08	.04	.44**

Note. C = child; F = father; M = mother; G = grade; Edu = education; ITN ratio = income-to-needs ratio.
* $p < .05$. ** $p < .01$.

Discussion

The current study contributed to a further understanding of the trajectory of child loneliness over middle childhood and its longi-
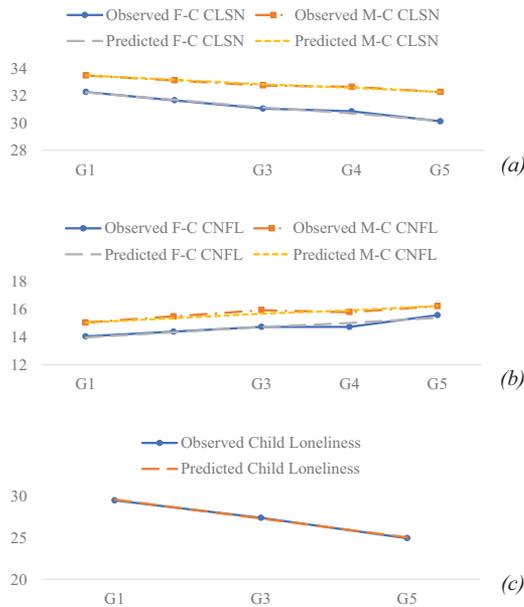

Figure 1. Trajectories of observed and predicted growth curves for parent child closeness (a), parent child conflict (b), and child loneliness (c) from Grade 1 to Grade 5. F-C = father-child; M-C = mother-child; CNFL = conflict; CLSN = closeness; G = grade. Model fit indices: (a) a multigroup model of mother-child and father-child closeness: $\chi^2(44) = 91.39$, $p < .001$, RMSEA = .06, RMSEA 90% CI [.04, .07], CFI = .98, SRMR = .04; (b) a multigroup model of mother-child and father-child conflict: $\chi^2(44) = 101.67$, $p < .001$, RMSEA = .06, RMSEA 90% CI [.05, .08], CFI = .98, SRMR = .04; (c) a multigroup model of child loneliness: $\chi^2(2) = 2.59$, $p = .03$, RMSEA = .03, RMSEA 90% CI [.00, .11], CFI = .99, SRMR = .02. See the online article for the color version of this figure.

tudinal associations with parent-child relationships. We found that child loneliness decreased for both boys and girls from Grade 1 to Grade 5, with a steeper decline for girls. Such gender difference was only found among the subsample with resident fathers. Additionally, we found that when father-child relationship closeness declined more slowly across middle childhood, girls' loneliness declined more quickly.

The results of the unconditional model showed that in middle childhood, children experienced greater loneliness when they were younger. Children reported the greatest level of loneliness at Grade 1, and the level of loneliness declined from Grade 1 to Grade 5. Previous research found that the occurrence of loneliness declined over adolescence (Ladd & Ettekal, 2013). Harris et al. (2013) identified two classes of preadolescents aged 8 to 11 based on the trajectories of loneliness. One group was characterized as declining in loneliness, whereas the other group was constantly low in loneliness. Thus, a declining trend in loneliness over middle childhood is consistent with the stable or declining trends found in later stages. The current study complemented the existing literature by providing preliminary evidence for the trajectories of loneliness over middle childhood. Future research is encouraged to measure loneliness over a longer period to better examine the trajectory of loneliness, particularly in early and middle childhood. More efforts should also be devoted to elucidating the reasons why some children feel very lonely starting from a relatively young age (i.e., at Grade 1).

Additionally, we found that the rate of change in father-child closeness negatively predicted the rate of change in loneliness for girls. When father-child closeness decreased more slowly, girls' loneliness decreased at a faster rate, after controlling for mother-child relationship closeness. Although the correlational nature of the current study prevents us from drawing causal conclusions, such findings suggest that maintaining greater relationship closeness with fathers in middle childhood may protect girls from persistent loneliness. This is not surprising, given that fathers are particularly attentive to daughters' sadness and
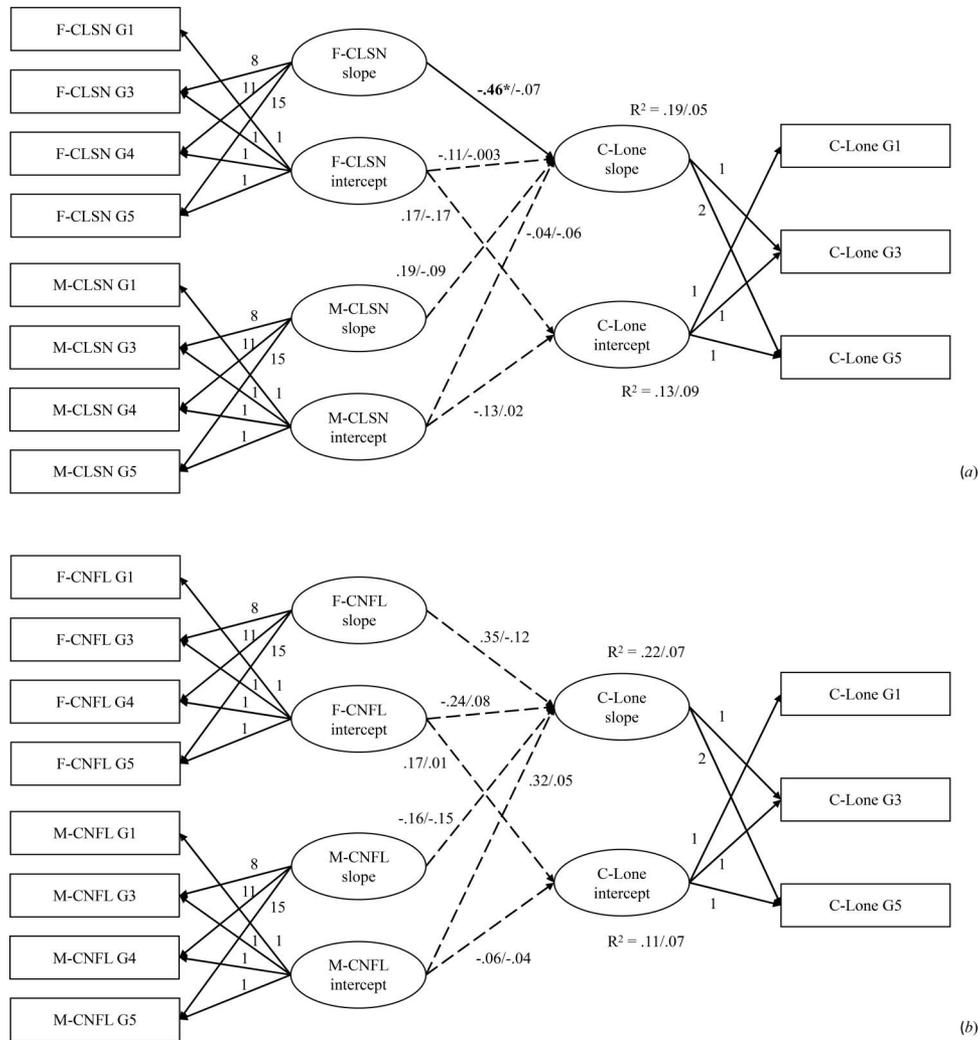
Figure 2. Final standardized path estimates and explained variance (R^2) for girls (values before "/") and boys (values after "/") in the model of trajectories of parent-child closeness (a) and conflict (b) predicting the trajectories of child loneliness F = father; M = mother; C = child; CLSN = parent-child closeness; CNFL = parent-child conflict; Lone = loneliness; G = grade. Covariates: maternal education, income-to-needs ratio at Grade 1. The slope loadings for parent-child relationships were fixed to 0, 8, 11, 15, and 19, because, on average, the Grades 2 and 3 data were collected 9 months apart. Each unit in the slope loading represented a 3-month interval. Model fit indices: (a) $\chi^2(116) = 193.52$, $p < .001$; RMSEA = .04, 90% CI [.03, .06]; CFI = .96; SRMR = .08; (b) $\chi^2(122) = 199.55$, $p < .001$; RMSEA = .04, 90% CI [.03, .05]; CFI = .98; SRMR = .05.

anxiety (Chaplin, Cole, & Zahn-Waxler, 2005). A closer relationship with fathers may provide girls with greater paternal support, which protects girls from feeling lonely when they feel sad or anxious. A close relationship with fathers may also provide girls with opportunities to practice social skills (Leidy, Schofield, & Parke, 2013), which may serve as stepping stones toward better social relationships with peers and other adults. In accordance with attachment theory, close relationships with fathers may also predict lower loneliness in girls because those girls develop secure attachment and adaptive internal working models that can help build meaningful relationships with other people (Ladd & Pettit, 2002). The reason that we did not find

mother-child closeness to be a statistically significant predictor of child loneliness may be that mother-child relationship closeness was more homogeneous.

Moreover, parent-child relationships were found to be more predictive of girls' adjustment than of boys' adjustment in meta-analytic research (Weymouth et al., 2016). Girls are also socialized to expect closer relationships, and place greater emphasis on close relationships (Burleson, 2003). Moreover, parents discuss more emotional experiences with daughters than with sons (Fivush, Brotman, Buckner, & Goodman, 2000). This might explain why we found the association between father-child closeness and child loneliness among girls but not boys.

Parent-child relationship closeness might be more closely related to girls' loneliness than relationship conflict, because a certain level of conflict is common and normal in interpersonal relationships (Saavedra, Chapman, & Rogge, 2010). Although relationship conflict may involve negative emotion expressions, they are indicators of parent-child dyads' intention and efforts to interact and communicate with each other. Emotionally distant relationships with parents can leave children lonelier than a conflictual relationship, because children who are not close to their parents may feel unworthy of their parents' or anyone's attention and time (Ladd & Pettit, 2002). These children do not get the parental support that they need to feel safe and confident in peer interactions. Therefore, they might feel lonelier than children who are close to their parents.

Several limitations should be noted when interpreting the findings. First, the sample comprised mostly European American, middle to upper class families. To control for residency status, we focused on families with both resident biological fathers and mothers. Although the declining pattern in loneliness was also found in the overall SECCYD sample, children in the current sample were less lonely than children not selected in this sample at all time points. Moreover, the proportion of White families and SES in the current sample were higher than in the overall SECCYD sample, which further limited the socioeconomic and ethnic diversity in the sample. Second, the missing rates for father-child relationship data ranged from 13.7% to 20.9%. We used FIML to handle the missing data, which is believed to yield reasonable estimates (Enders, 2010). Third, we were unable to test the effects of parent-child closeness and conflict in the same model due to model complexity and lack of convergence. Testing them in separate models may risk leaving out important information because of the associations between conflict and closeness. Lastly, parents' reports on parent-child relationships may be affected by their own characteristics and well-being, and parents and children may differ in their perspectives on parent-child relationships. Future research should include both parent and child report, as well as observational measures to obtain more unbiased estimates of parent-child relationship quality.

Despite these limitations, the current study made several notable contributions. First, parent-child relationship quality was reported by fathers and mothers, whereas loneliness was reported by children themselves, which avoided the inflated associations stemming from shared-method variance. In addition, both relationship conflict and closeness were assessed, which better captured the multifaceted nature of parent-child relationships than a single score for overall relationship quality. Second, this study was among the first to investigate the longitudinal associations between the trajectories of both father- and mother-child relationships and child loneliness over middle childhood. The findings highlight the necessity of examining the effects of changes in parent-child relationships on child adjustment from a developmental perspective. In conclusion, the current study highlights the important role of fathers in child social-emotional adjustment over middle childhood, particularly for girls. Future research should pay greater attention to father-child relationships to attain a more complete understanding of the roles of parents in child social-emotional development.

References

Al-Yagon, M. (2014). Child-mother and child-father attachment security: Links to internalizing adjustment among children with learning disabilities. *Child Psychiatry and Human Development, 45,* 119–131. http://dx.doi.org/10.1007/s10578-013-0383-9

Asher, S. R., Hymel, S., & Renshaw, P. D. (1984). Loneliness in children. *Child Development, 55,* 1456–1464. http://dx.doi.org/10.2307/1130015

Asher, S. R., & Paquette, J. A. (2003). Loneliness and peer relations in childhood. *Current Directions in Psychological Science, 12,* 75–78. http://dx.doi.org/10.1111/1467-8721.01233

Bohlin, G., Hagekull, B., & Rydell, A. M. (2000). Attachment and social functioning: A longitudinal study from infancy to middle childhood. *Social Development, 9,* 24–39. http://dx.doi.org/10.1111/1467-9507.00109

Burleson, B. R. (2003). The experience and effects of emotional support: What the study of cultural and gender differences can tell us about close relationships, emotion, and interpersonal communication. *Personal Relationships, 10,* 1–23. http://dx.doi.org/10.1111/1475-6811.00033

Cassidy, J., & Berlin, L. J. (1999). Understanding the origins of childhood loneliness: Contributions of attachment theory. In K. J. Rotenberg & S. Hymel (Eds.), *Loneliness in childhood and adolescence* (pp. 34–55). Cambridge, UK: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511551888.003

Cavanaugh, A. M., & Buehler, C. (2016). Adolescent loneliness and social anxiety. *Journal of Social and Personal Relationships, 33,* 149–170. http://dx.doi.org/10.1177/0265407514567837

Chaplin, T. M., Cole, P. M., & Zahn-Waxler, C. (2005). Parental socialization of emotion expression: Gender differences and relations to child adjustment. *Emotion, 5,* 80–88. http://dx.doi.org/10.1037/1528-3542.5.1.80

Dearing, E., McCartney, K., & Taylor, B. A. (2001). Change in family income-to-needs matters more for children with less. *Child Development, 72,* 1779–1793. http://dx.doi.org/10.1111/1467-8624.00378

DeKlyen, M., & Greenberg, M. T. (2016). Attachment and psychopathology in childhood. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (3rd ed., pp. 639–666). New York, NY: Guilford Press.

Enders, C. K. (2010). *Applied missing data analysis.* New York, NY: Guilford Press.

Fivush, R., Brotman, M. A., Buckner, J. P., & Goodman, S. H. (2000). Gender differences in parent–child emotion narratives. *Sex Roles, 42,* 233–253. http://dx.doi.org/10.1023/A:1007091207068

Harris, R. A., Qualter, P., & Robinson, S. J. (2013). Loneliness trajectories from middle childhood to pre-adolescence: Impact on perceived health and sleep disturbance. *Journal of Adolescence, 36,* 1295–1304. http://dx.doi.org/10.1016/j.adolescence.2012.12.009

Heinrich, L. M., & Gullone, E. (2006). The clinical significance of loneliness: A literature review. *Clinical Psychology Review, 26,* 695–718. http://dx.doi.org/10.1016/j.cpr.2006.04.002

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6,* 1–55. http://dx.doi.org/10.1080/10705519909540118

Ladd, G. W., & Ettekal, I. (2013). Peer-related loneliness across early to late adolescence: Normative trends, intra-individual trajectories, and links with depressive symptoms. *Journal of Adolescence, 36,* 1269–1282. http://dx.doi.org/10.1016/j.adolescence.2013.05.004

Ladd, G. W., & Pettit, G. S. (2002). Parenting and the development of children's peer relationships. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 5. Practical issues in parenting* (pp. 269–309). Mahwah, NJ: Erlbaum.

Lasgaard, M., Goossens, L., & Elklit, A. (2011). Loneliness, depressive symptomatology, and suicide ideation in adolescence: Cross-sectional and longitudinal analyses. *Journal of Abnormal Child Psychology, 39,* 137–150. http://dx.doi.org/10.1007/s10802-010-9442-x

Leidy, M. S., Schofield, T. J., & Parke, R. D. (2013). Fathers' contribution to children's social development. In N. J. Canbrera & C. S. Tamis-LeMonda (Eds.), *Handbook of father involvement: Multidisciplinary perspectives* (pp. 151–167). New York, NY: Routledge.

Lempinen, L., Junttila, N., & Sourander, A. (2018). Loneliness and friendships among eight-year-old children: Time-trends over a 24-year period. *Journal of Child Psychology and Psychiatry, 59,* 171–179. http://dx.doi .org/10.1111/jcpp.12807

Le Roux, A. (2009). The relationship between adolescents' attitudes toward their fathers and loneliness: A cross-cultural study. *Journal of Child and Family Studies, 18,* 219–226. http://dx.doi.org/10.1007/s10826-008-9222-1

Mahon, N. E., Yarcheski, A., Yarcheski, T. J., Cannella, B. L., & Hanks, M. M. (2006). A meta-analytic study of predictors for loneliness during adolescence. *Nursing Research, 55,* 308–315. http://dx.doi.org/10.1097/ 00006199-200609000-00003

Mikulincer, M., & Shaver, P. R. (2012). An attachment perspective on psychopathology. *World Psychiatry, 11,* 11–15. http://dx.doi.org/10.1016/j .wpsyc.2012.01.003

NICHD Early Child Care Research Network. (1997). The effects of infant child care on infant-mother attachment security: Results of the NICHD Study of Early Child Care. *Child Development, 68,* 860–879.

Pianta, R. C. (1992). *Child-Parent Relationship Scale.* Unpublished measure, University of Virginia, Charlottesville.

Qualter, P., Brown, S. L., Munn, P., & Rotenberg, K. J. (2010). Childhood loneliness as a predictor of adolescent depressive symptoms: An 8-year longitudinal study. *European Child & Adolescent Psychiatry, 19,* 493–501. http://dx.doi.org/10.1007/s00787-009-0059-y

Rotenberg, K. J. (1999). Childhood and adolescent loneliness: An introduction. In K. J. Rotenberg & S. Hymel (Eds.), *Loneliness in childhood and adolescence* (pp. 3–8). Cambridge, UK: Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511551888.001

Saavedra, M. C., Chapman, K. E., & Rogge, R. D. (2010). Clarifying links between attachment and relationship quality: Hostile conflict and mindfulness as moderators. *Journal of Family Psychology, 24,* 380–390. http://dx.doi.org/10.1037/a0019872

Weymouth, B. B., Buehler, C., Zhou, N., & Henson, R. A. (2016). A meta-analysis of parent–adolescent conflict: Disagreement, hostility, and youth maladjustment. *Journal of Family Theory & Review, 8,* 95–112. http://dx.doi.org/10.1111/jftr.12126

Zhang, F., You, Z., Fan, C., Gao, C., Cohen, R., Hsueh, Y., & Zhou, Z. (2014). Friendship quality, social preference, proximity prestige, and self-perceived social competence: Interactive influences on children's loneliness. *Journal of School Psychology, 52,* 511–526. http://dx.doi .org/10.1016/j.jsp.2014.06.001