Maternal Management of Social Relationships as a Correlate of Children's School-Based Experiences

Anne C. Fletcher, Jill K. Walls, Angella Y. Eanes, and David R. Troutman

Abstract

We tested a model considering the manner in which mothers' use of their own social relationships and efforts to facilitate their children's school-based social relationships were associated with two distinct types of school-based competence: academic achievement and levels of stress experienced within the school environment. Fourth grade children (n = 311) and their mothers participated in interviews and completed questionnaires providing information on social relationships and school experiences. Structural equation modeling (SEM) analyses indicated a good fit for a model in which mothers' efforts to facilitate children's social relationships with peers were associated with lower levels of school-based stress, but mothers' efforts to maintain social connections with the parents of their children's school friends were linked with lower levels of objectively measured academic achievement.

Key Words: maternal, mothers, management, social, relationships, stress, closure, children, students, structural equation modeling, SEM, correlation, experiences, networks, facilitation, friendships, achievement, peers, parents

Introduction

Academic achievement is of critical importance in relation to children's overall well-being and success in life (Chen, Lee, & Stevenson, 1996; Dubow,

Huesmann, Boxer, Pulkkinen, & Kokko, 2006). Yet time spent in school is characterized not just by academic achievement, but also by children's psychosocial adjustment and the nature of relationships children maintain within the school environment. In fact, various indicators of school-based adjustment including academic self-concept, experiences of classroom-related stress, relationships with peers and teachers, and participation in classroom activities are all interrelated (Harter & Whitesell, 2003; Ladd & Burgess, 2001; Lindahl, Theorell, & Lindblad, 2005; Mantzicopoulis, 2006; Sandstrom & Herlan, 2007), and relationships with school peers are important influences on children's attitudes toward and experiences within schools (Dubow et al., 2006; Fletcher, Hunter, & Eanes, 2006; Moulds, 2003). A comprehensive consideration of children's school-based adjustment must take into account the nature and correlates of both academic and non-academic aspects of what can be termed school-based competence.

Within School and Out-of-School Correlates and Predictors of Academic Achievement

Traditionally, research focused on the promotion of academic achievement among children has tended to fall into two categories. The first category focuses on within-school factors such as class or school size (Archibald, 2006; Englehart, 2007) and classroom factors such as teaching strategies (Douglas, Burton, & Reese-Durham, 2008). A second category of research focuses on out-of-school influences on children's academic achievement. For example, a large body of research has demonstrated that children's achievement is linked with parental involvement in educational experiences. In this vein, children's achievement has been demonstrated to be higher when parents attend school conferences (Ho & Willms, 1996), assist children with homework (Gonzalez & Blanco, 1991; Peng & Wright, 1994), and provide children with out-of-school enrichment experiences (Grolnick, Kurowski, Dunlap, & Hevey, 2000). Although research on parental involvement in and support of children's academic experiences has increasingly recognized the diversity of ways in which such involvement may be demonstrated (Fan & Chen, 2001), it has been remarkably consistent in its focus on links between parental behaviors and academic achievement, as opposed to other indicators of school-based success.

Parental Management of Social Relationships as a Correlate of School-Based Experiences

Despite the potential influence of social experiences on how children feel about and behave within school, little research has considered the manner in which parents both recognize the importance of social relationships as a

component of their children's school-based successes and utilize social relationships as strategies to help their children to succeed (academically and socially) at school. Sparse empirical literature has suggested that the emphasis parents place on social relationship formation and maintenance outside of the school environment may have benefits in terms of children's school-based competence (Carbonaro, 1998). Such a perspective also is supported by theoretical work emphasizing the role of social capital in the lives of children and their parents.

The consideration of social capital as an influence on children's social development was suggested by Coleman (1988) who introduced the concept of *social network closure*. Social network closure focuses on relationships among parents whose children are friends. When parents maintain relationships with their children's friends' parents, closed systems (closure relationships) are created. Such systems are characterized by what Coleman terms "social capital," defined in terms of individuals' abilities to benefit themselves from the values and behaviors of others with whom social connections are maintained. In turn, social capital should promote children's positive social development by allowing parents to access a broader range of strategies and information that can be applied to the parenting process. Coleman (1988) theorized that closure relationships would be associated with higher levels of child academic achievement largely due to their potential to facilitate communication about children and childrearing issues among parents. Interparental communication among families whose children are friends may be a source of information concerning what goes on at school and what strategies other parents are using to support children's academic successes.

In the case of school-based friendships, closure relationships are likely to arise subsequent to the development of relationships among children (as opposed to community-based friendships, which may emerge as a result of pre-existing close relationships among parents; Fletcher, Bridges, & Hunter, 2007). It is likely that parents use closure relationships as a source of information regarding the school context rather than as a way to encourage and support their children's social experiences within school. Consequently, stronger closure relationships are likely to be linked with indicators of academic achievement as measured through objective indicators such as academic grades and standardized test scores. This premise is supported by research indicating that stronger school-based closure relationships are linked with indicators of academic competence that include higher performance on math achievement tests and a decreased likelihood of school dropout in adolescence (Carbonaro, 1998) as well as higher achievement test scores (Fletcher, Newsome, Nickerson, & Bazley, 2001) and academic grades (Fletcher, Hunter, et al., 2006) during the elementary years.

In contrast, parents may seek to influence children's school-based friendships not by developing relationships with other parents but by explicitly and intentionally facilitating and supporting their children's development of peer relationships. This approach is consistent with the work of Ladd and colleagues (Ladd, Le Sieur, & Profilet, 1993) and Mounts (2001, 2002) who have reported that parental efforts to support children's and adolescents' friendships are linked with a variety of positive behavioral outcomes. For example, direct efforts to support and facilitate children's friendships have been linked positively with both the quantity and quality of preschool-aged children's peer relationships (Ladd et al., 1993). During the adolescent years, parental knowledge about children's day-to-day peer interactions and activities and greater parental involvement in and knowledge of adolescents' friendships have been linked with a wide range of indicators of social competence and friendship quality (Knoester, Haynie, & Stephens, 2006; Mounts, 2001, 2002; Updegraff, Madden-Derdich, Estrada, Sales, & Leonard, 2002).

Clearly there is reason to suspect that children whose parents spend more time facilitating their children's friendships will perform better with respect to social challenges within the school environment. As a result, they are likely to experience lower levels of stress at school, because they will have at their disposal social resources to buffer them against the stressors inherent to the school environment. Although links between parents' efforts to support children's friendships and children's experiences of stress have not been examined prior to the current effort, children's experiences of stress are recognized as an important aspect of school-based adjustment, as more stress is linked with lower grades and lower academic self-concept (Lindahl et al., 2005). Sources of school-based stress may vary, but there is reason to think that a variety of stressors might be minimized by parents' efforts to facilitate children's friendships. Stressors likely include those that are directly impacted by parents' efforts to facilitate friendships (lower levels of stress within peer relationships) and those that may be indirectly impacted by parents' efforts (lower levels of stress in terms of relationships with teachers, stress related to academic tasks, and perceptions of academic competence). Such indirect effects are likely accounted for by the strong associations among these different sources of stress. For example, children who are skilled at dealing with peers are likely to utilize some of their social interaction skills within interactions with teachers. Children who have stronger relationships with peers will be more easily able to enlist the assistance of peers within the academic learning process. We propose that parents may take either (or both) of the two approaches discussed above in their efforts to support their children's school-based competence. Yet social network closure and friendship facilitation strategies are likely to be associated with distinct aspects of such competence.

In the current study, we sought to address research questions concerning the nature of associations between two distinct types of parental behaviors relating to the support and maintenance of social relationships and two aspects of school-based adjustment. Specifically, we asked (1) whether greater efforts by parents to form relationships and communicate with the parents of their children's school-based friends (stronger closure relationships) might be linked with greater academic achievement and (2) whether more efforts on the part of parents to support the formation and maintenance of children's friendships (greater friendship facilitation) would be associated with lower levels of children's stress experienced within the context of the school environment.

Description of Proposed Model

Based on the theoretical and empirical evidence reviewed above, we developed the model presented in Figure 1. This model predicts that stronger closure relationships will be associated with higher academic achievement. In contrast, we hypothesized that higher levels of friendship facilitation would be associated with lower levels of school-based stress. We tested this model using latent constructs for academic competence, school-based stress, and friendship facilitation and a single observed indicator of closure. Given empirical evidence suggesting ethnic, social class, and gender differences in children's school-based experience, we elected to control for these three demographic variables within the model.
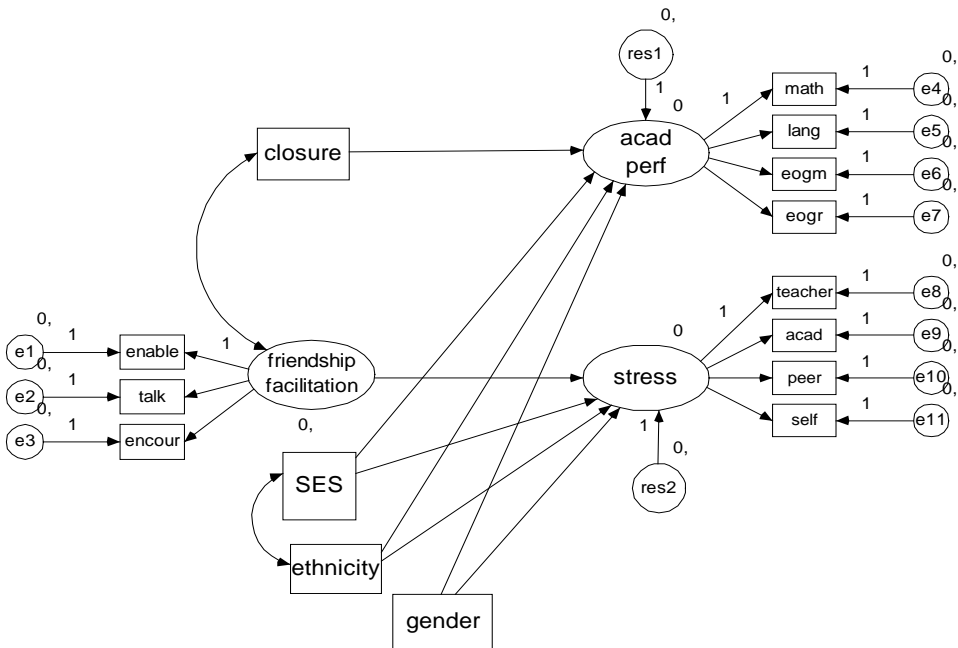

Figure 1. Initial model testing associations between parental management strategies and indicators of school-based competence.

Method

Participants

Participants were 311 fourth grade children and their mothers. Children were recruited from 37 classrooms in 9 public elementary schools in a single county in the southeastern U.S. Schools were targeted because they enrolled large percentages of the two ethnic groups of interest in the study yet were diverse with respect to both socioeconomic and community (rural, suburban, urban) composition. Participation was limited to dyads self-identifying as either Black or White (the two most prevalent ethnic groups within the region). The sample for the analyses reported here included children who reported having at least one friend at school. Children who reported having no friends within the context of school were excluded ($n = 35$). Children were between 8 and 11 years of age (Mean = 9.26, SD = .49). Sixty-four percent ($n = 200$) of dyads were White and 54% ($n = 166$) of children were female. No dyads self-identified as multiethnic. Social class of participating families was determined using the Hollingshead Four Factor Index of Social Status (Hollingshead, 1975). Hollingshead scores ranged from 16 (unskilled laborers) to 66 (major business persons and professionals) with a mean of 44 (medium business personnel and minor professionals) and a standard deviation of 11.49.

Measures

Demographic Information

Mothers were asked to identify all household members and provide each member's ethnicity, age, gender, and relationship to the participating child. Mothers were also asked to provide information regarding the highest level of education they had completed and their current occupation. If the participating child's biological father was involved in the child's life, mothers were also asked to provide educational and occupational information for the father. This information was used to calculate social class scores using the Hollingshead (1975) method, which yielded scores that could potentially range from 8 to 66. The Hollingshead is a widely used measure of social class that takes into account a variety of characteristics of individuals and family units (e.g., education, employment prestige, family structure), making it preferable to single-indicator measures. Child gender was coded as 0 = female, 1 = male. Ethnicity was coded as 0 = Black, 1 = White.

School-Based Friendships

Children's school-based friendships were identified using the Social Contexts of Friends Interview, developed for the project. The Social Contexts of Friends Interview (Fletcher, Troutman, Gruber, Long, & Hunter , 2006) was

completed jointly by children and mothers. Children and mothers worked together to generate a list of no more than 10 of the participating child's closest non-sibling, non-adult friends. Mothers and children were asked to indicate each friend's ethnicity, gender, and the context(s) in which the friendship was maintained (e.g., school, neighborhood, extracurricular activities).

School-Based Social Network Closure

Using the list of friends identified during the Social Contexts of Friends Interview, mothers rated the closeness of their relationship with each friend's parents (Fletcher, Troutman, et al., 2006). Response options were 1 (*Never met*), 2 (*Met in passing*), 3 (*Know somewhat well*), and 4 (*Know well*). School-based social network closure was calculated as the average of mothers' ratings of their relationships with the parents of school friends from this Interview. Closure scores ranged from 1 to 4 with higher scores indicating higher amounts of closure within participating children's friendships. Given the individualized nature of parents' relationships with different friends' parents, this measure is not considered a "scale," and thus calculation of inter-item reliability indices across closure ratings for different friendships is not appropriate.

Maternal Friendship Facilitation

Children completed the Friendship Facilitation Strategies Questionnaire (Vernberg, Beery, Ewell, & Abwender, 1993) which assessed the extent to which mothers assisted their children in developing and maintaining relationships with same-age peers. Children indicated on a 5-point scale ranging from 0 (*Never*) to 4 (*Very often*) how often mothers engaged in facilitation activities. The measure yielded three subscales that were relevant to the current project in terms of their focus on parental behaviors that supported children's access to and relationships with friends: enabling proximity to peers (seven items, sample item "drove you to a friend's house," alpha = .79), talking to offspring about friendships (five items, sample item "pointed out the qualities you should look for in friends," alpha = .74), and encouraging activity involvement (four items, sample item "encouraged you when the school sent notices of activities," alpha = .62). For each subscale, children's responses were averaged across items. Higher scores on each subscale indicated more friendship facilitation by mothers.

Academic Achievement

Children's academic achievement was measured using end-of-year grades in math and language arts (scored on a conventional 4-point scale) and End-of-Grade (EOG) achievement test scores in math and reading. EOG tests were required for all children enrolled in public schools in the state from which participants were recruited as a method of determining whether children met learning goals and promotion standards in these two subject areas. Parents

provided permission for researchers to obtain children's official academic grades and test scores from schools at the end of the academic year. Measures of academic grades and EOG scores do not constitute "scales," and thus measures of inter-item reliability were not calculated for these indicators.

School Related Stress

The School Situation Survey (Helms & Gable, 1989) was used to assess sources of school-based stress among children. Children completed the 34-item measure by indicating on a 4-point scale ranging from 0 (*Never*) to 3 (*Most of the time*) how frequently they experienced a variety of potentially stressful situations at school. The current study utilized scores from the four measure subscales that focused on specific sources (as opposed to manifestations) of stress, consistent with our interest in predicting overall levels of school-based stress and not differences in how it was expressed. These subscales included teacher interactions (six items, sample item "I feel that some of my teachers don't like me very well," Cronbach's alpha = 0.72), academic stress (three items, sample item "I worry about not doing well in school," Cronbach's alpha = 0.76), peer interactions (six items, sample item "Other students make fun of me," Cronbach's alpha = 0.69), and academic self-concept (four items, sample item "I feel that I learn things easily" – reverse coded, Cronbach's alpha = 0.72). For each subscale, children's responses were averaged across items. Higher scores indicated greater amounts of stress within the domain of interest. Descriptive statistics for all variables are provided in Table 1.

Table 1. Descriptive Statistics for Background, Independent/Dependent Variables

Variables	M	SD	Range	N
Child gender	.47	.50	0-1	311
Social status	43.95	11.49	16-66	311
Math	3.13	.88	0-4	306
Language arts	3.14	.87	1-4	306
Math EOG	261.27	7.32	235-282	305
Reading EOG	256.27	8.67	232-280	305
Stress- Teacher	1.69	.72	1-5	310
Stress- Academics	2.56	1.12	1-5	311
Stress- Peers	1.64	.67	1-4.8	311
Stress- Self-concept	2.02	.86	1-4.5	311
Enabling proximity	3.15	.86	1.14-5	310
Talking to offspring	3.52	.94	1-5	310
Encouraging activities	3.03	.95	1-5	310
School-based closure	2.74	.86	1-4	311

Procedure

Institutional Review Board (IRB) approval for data collection was obtained prior to participant recruitment. Participating children were a subset of children who had been involved in an earlier, school-based study. Parents were contacted initially through letters distributed to all children in the nine participating schools and were asked to provide consent for their children's participation in the school-based study. Eighty-five percent of eligible children's mothers consented to their child's participation in the school-based portion of the study. A subset of children participating in the school-based study were then contacted and asked to participate in a home-based portion of the study. Children were considered eligible for the home interview if they self-identified ethnicity as either White or Black, resided with their biological or adoptive mothers, and were born in the United States.

Home interviews took place in participants' homes or at a location of participants' choosing (in several cases, a university research laboratory; in one case, a public library). Interviews were conducted by two research assistants and took approximately 75 minutes to complete. Research assistants underwent extensive training prior to initiation of interviews and were monitored throughout the course of the project in order to assure data quality. Mothers signed consent forms for their own and their children's participation. Children provided verbal assent for their own participation. Mothers and children completed questionnaires and answered interview questions separately, then participated in the Social Contexts of Friends Interview together. All questionnaire items were read aloud to children. Items were read aloud to mothers if they appeared to have difficulty completing questionnaires. Mothers received $35.00 each as compensation for participation, and children received small gifts.

Analytic Strategy

Structural equation modeling (SEM) analyses were conducted with Amos (Version 7.0; Arbuckle, 1989; Byrne, 2001). Structural equation modeling is appropriate for this study because it allows for modeling latent or unobserved variables and offers a number of benefits not available in regression-based approaches. For example, an SEM approach provides parameter estimates that are computed with a consideration for measurement error associated with observed variables (Raykov & Marcoulides, 2006), whereas traditional regression analyses assume perfect measurement of observed variables (i.e., no measurement error). Analyses proceeded according to the following steps. First, measurement models for each latent variable were analyzed through confirmatory factor analysis to determine if individual scale items reflected their respective underlying latent constructs (as indicated by significant factor loadings).

Second, the structural model was evaluated by examining the chi-square statistic and two goodness-of-fit indices. The chi-square statistic is a basic fit statistic that tests the difference between the hypothesized model and the sample covariance matrix. Smaller, nonsignificant chi-square values indicate that the hypothesized model is not significantly different from the data, thereby indicating a good fitting model; however, large sample sizes have been known to artificially inflate chi-square statistics, resulting in a significant chi-square value (Byrne, 2001). For this reason, we also examined the root mean square error of approximation (RMSEA; Browne & Cudeck, 1993) as an index of absolute fit and the Comparative Fit Index (CFI; Bollen & Long, 1993) as an index of comparative fit. Byrne (2001) has recommended cutoff values at or below .08 for RMSEA and above .90 for CFI as indicators of adequate model fit. Although missing data were few (approximately 2%) and unlikely to bias our results, we used full information maximum likelihood estimation (FIML) in order to maximize the amount of information available for analysis. FIML provides less biased parameter estimates than listwise deletion, pairwise deletion, and mean imputation techniques (Acock, 2005). An assumption of FIML is that data are missing completely at random (MCAR) or missing at random (MAR). Compared to deletion techniques (which drop cases that have missing data on one or more variables) or mean imputation (which substitutes the mean scale score for missing responses), FIML preserves statistical power by retaining cases with missing information and generating the most probable parameter estimates based on information from all variables in the model and taking into account measurement error. Also, because FIML allows for analyses based on a "full" sample, it reduces the chances of making a Type I or Type II error. (For more information on the benefits of FIML over other approaches see Acock, 2005; for a non-technical description of the method of maximum likelihood estimation see Nunnally & Bernstein, 1994.)

Finally, modification indices informed the estimation of additional paths to improve model fit. Modification indices are numerical estimates calculated in Amos that indicate places in the model where paths could be added to improve model fit. Specifically, by allowing for error terms with similar sources of measurement error to covary, the resulting observed scores are closer to participants' "true" scores on those measures, and this will often improve model fit. Amos does not provide modification indices when FIML is selected. To address this issue, we first computed a separate correlation matrix (with means and standard deviations) in SPSS using the variables specified in our model. This data matrix (with no missing values) was then uploaded into Amos and enabled modification indices to be computed. Modification indices were analyzed to determine if additional covariance paths should be specified in the final model.

Larger values (i.e., those greater than 4.0) were considered to be an indication that covariance paths should be considered; however, additional paths were specified only when it made sense theoretically. Final analyses were conducted using the original dataset (using FIML), not the correlation matrix.

Results

Bivariate Associations Among Model Variables

Correlational analyses were used to determine relationships among model variables. Pearson product-moment correlation coefficients for all variable associations are presented in Table 2. Child gender was unrelated to independent and dependent variables with one exception: boys tended to report lower levels of stress related to academics. Social class and child ethnicity were associated such that White children tended to be from families with higher social class scores. Social class and child ethnicity were associated with all indicators of academic performance and stress. Specifically, being White or from a higher social class background were associated with higher math and reading grades, higher math and reading EOG scores, and lower levels of stress as assessed by all four subscales. Ethnicity was associated with two of the three friendship facilitation subscales. White children tended to have mothers who engaged in higher levels of enabling proximity to peers, but lower levels of talking to children about friendships. Children from higher social class backgrounds had mothers who engaged in higher levels of encouraging children's involvement in activities and lower levels of talking to children about friendships.

All measures of academic achievement were intercorrelated positively. Measures of stress also were intercorrelated positively such that higher levels of stress in one domain (e.g., academics) were associated with higher levels of stress in any other domain (e.g., self, peers, teacher). All friendship facilitation subscales were intercorrelated positively. Associations between academic achievement and stress variables indicated that children who experienced higher levels of stress in each domain tended to score lower on measures of academic achievement.

Closure and one friendship facilitation subscale (encouraging proximity to peers) were associated positively such that mothers with higher levels of school-based closure also had higher levels of encouraging children's proximity to peers. Closure was not associated with any of the stress variables. Higher levels of closure were associated with higher language arts grades, but no significant associations emerged between closure and any of the other academic achievement indicators.

Table 2. Bivariate Correlations Among All Model Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Closure	–														
2. Enabling	.28*	–													
3. Talking	-.06	.35*	–												
4. Encouraging	.11	.46*	.52*	–											
5. Math	.05	.10	-.07	.05	–										
6. Language arts	.11*	.13*	-.02	.03	.73*	–									
7. Math EOG	.08	.15*	-.12*	.06	.59*	.57*	–								
8. Reading EOG	.06	.12*	-.15*	-.04	.55*	.64**	.57*	–							
9. Stress– Teacher	-.02	-.16*	-.02	-.06	-.29*	-.31*	-.20*	-.29*	–						
10. Stress– Academics	-.01	-.14*	-.01	-.06	-.28*	-.26*	-.27*	-.31*	.41*	–					
11. Stress– Peers	-.09	-.26*	.00	-.11	-.27*	-.29*	-.17*	-.29*	.42*	.33*	–				
12. Stress– Self	-.11	-.21*	-.01	-.13*	-.43*	-.42*	-.38*	-.39*	.31*	.42*	.47*	–			
13. Child gender	.10	-.08	-.07	-.01	-.10	-.10	.05	-.01	-.08	-.15*	.02	-.00	–		
14. Social class	.21*	.10	-.12*	-.04	.41*	.46*	.36*	.42*	-.19*	-.22*	-.20*	-.24*	.06	–	
15. Child ethnicity	.34*	.22*	-.26*	.04	.37*	.39*	.37*	.42*	-.22*	-.15*	-.24*	-.22*	.02	.40*	–

Note: *$p < .05$.

Associations among measures of friendship facilitation, academic achievement, and stress revealed inconsistent patterns. Enabling proximity to peers was associated with higher reading grades, EOG reading scores, and EOG math scores, whereas talking with offspring was associated with lower reading grades, EOG reading scores, and EOG math scores. Encouraging children's involvement in activities was unrelated to all academic achievement indicators. Enabling proximity to peers was associated with lower levels of stress in all domains. Encouraging children's involvement in activities was associated with lower levels of stress related to self, and talking with offspring was unrelated to all of the stress subscales.

Validation of Measurement Models

We employed a confirmatory factor analytic approach to establish that our dependent variables—academic achievement and sources of stress—were distinct latent constructs. Confirmatory factor analysis in SPSS with principal axis factoring and varimax rotation confirmed that academic- and stress-related measures formed two independent clusters: academic achievement and sources of stress. Measurement models for academic performance, stress, and friendship facilitation were then evaluated simultaneously using Amos. We examined factor loadings from each observed variable to its respective latent variable. All factor loadings were significant and greater than .52, indicating that our measures reflected their respective latent constructs. Unstandardized and standardized factor loadings for the measurement models are presented in Table 3. Standardized factor loadings are equivalent to betas in standard regression models.

Analysis of Hypothesized Model Predicting Academic Performance and Sources of Stress

Our initial model (presented in Figure 1) was tested for overall fit. Model fit was borderline acceptable, $\chi^2 (61) = 202.80$, $p < .001$, CFI = .88, root mean square error of approximations (RMSEA) = .09. Modification indices were consulted to determine if the estimation of additional paths would improve model fit and also made sense theoretically. Based on modification indices, prior research, and theory, four additional paths were added to the original model. First, we added a covariance path between the error terms for end-of-grade scores in reading and math. We considered this path theoretically justifiable because measurement error from reading and math portions of the end-of-grade exam is likely to stem from a common source of bias (e.g., being sick during the week of testing would lower a child's scores on both portions of the exam). Second, we added a covariance path between the error terms for sources of

stress stemming from teachers and academics. Because teachers are the judges of academic success within the school environment, a common source of bias (e.g., characteristics of children) likely contributes to error terms for these subscales. Third, we estimated the covariance of ethnicity and closure, which have been found to covary in past research (Fletcher, Hunter, et al., 2006). Finally, we estimated the relation between sources of stress and academic achievement (in both directions). This seemed reasonable given that all measures of stress were correlated positively with all measures of academic achievement in bivariate analyses and that previous research indicates that children who experience more stressful school environments have lower academic performance than children who experienced less stressful environments. To preserve degrees of freedom and test the most parsimonious model, we omitted non-significant paths that were extraneous to the core hypotheses being tested (Kline, 1998). Gender was unrelated to sources of stress and this path was thus dropped from the final model.

The aforementioned adjustments improved the overall fit of the model. The final model (Figure 2) was a good fit to the data, $\chi^2 (80) = 217.60$, $p < 0.001$; CFI = .90; RMSEA = 0.07. All path coefficients for the structural model are presented in Table 3. Above and beyond demographic controls, higher levels of school-based closure were associated with lower levels of academic performance, $\beta = -.09$, $p = .03$ while higher levels of friendship facilitation were associated with lower levels of stress, $\beta = -.21$, $p = .00$.

Table 3. Summary of Measurement Model and Structural Model Estimates in
Figure 2 (Standard Errors in Parentheses; N = 311)

	Unstandardized coefficient	Standardized coefficient
Measurement Model Estimates		
Academic Performance → Math	1.00[a]	.83
Academic Performance → Language Arts	1.04 (.06)***	.87
Academic Performance → Math EOG	6.86 (.55)***	.68
Academic Performance → Reading EOG	8.69 (.64)***	.73
Stress → Teacher	1.00[a]	.52
Stress → Academic	1.62 (.22)***	.55
Stress → Peers	1.12 (.16)***	.63
Stress → Self-concept	1.68 (.23)***	.74
Friendship Facilitation → Enabling Proximity	1.00[a]	.59
Friendship Facilitation → Encouraging Activity	1.53 (.21)***	.81
Friendship Facilitation → Talking with Offspring	1.16 (.15)***	.62
Covariances		
Closure with Friendship Facilitation	.06 (.03)*	.13
Closure with Ethnicity	.11 (.02)***	.27
SES with Ethnicity	1.86 (.31)***	.34
Error Math EOG with Reading EOG	4.79 (2.21)*	.15
Error Teacher Stress with Academic Stress	.10 (.04)*	.18
Structural Model		
Closure → Academic Performance	-.09 (.04)*	-.09
Friendship Facilitation → Stress	-.20 (.05)***	-.21
Academic Performance → Stress	-.10 (.11)	-.14
Stress → Academic Performance	-.69 (.28)*	-.39
Residual for Academic Performance	.23 (.04)***	.17
Residual for Stress	.10 (.04)**	.25

Note: $\chi^2(80) = 217.60$, $p < .001$; CFI = .90; RMSEA = .07.
[a] SEM analyses require one variable loading on each latent factor to be set equal to 1.00 to set
the metric for that factor. This prevents significance testing for those variable loadings.
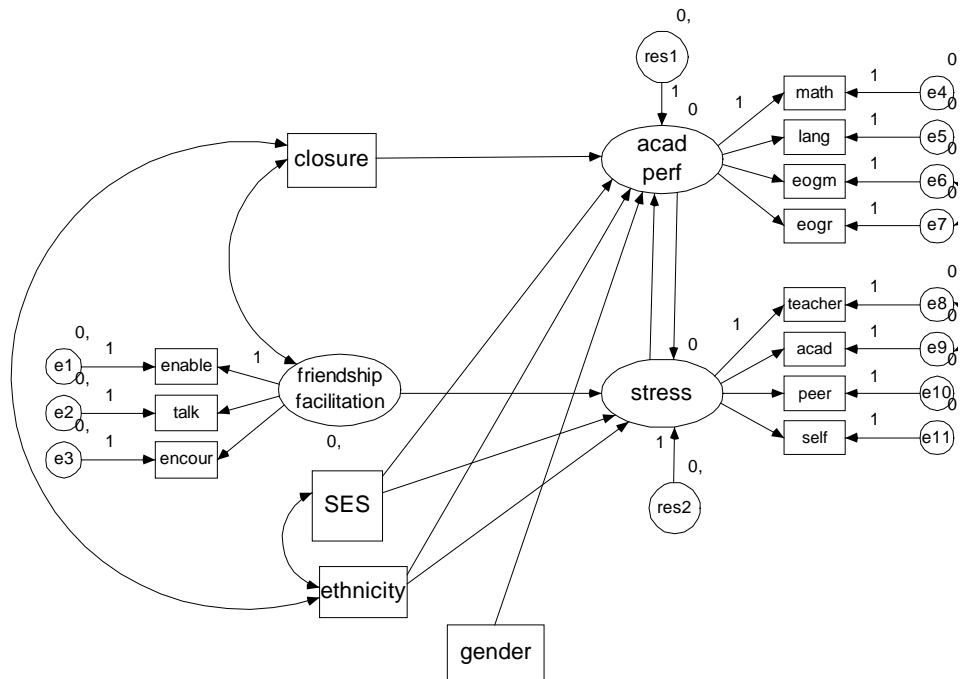* $p < .05$. ** $p < .01$. *** $p < .001$.

Figure 2. Revised model testing associations between parental management strategies and indicators of school-based competence with additional parameters based on modification indices.

Discussion

SEM analysis of data for this project indicated that mothers' use of two distinct strategies to manage their children's school-based experiences were linked with separate factors indicative of success within the school environment. Parents' efforts to work with their children to facilitate positive friendship interactions (indexed in terms of enabling children's proximity to peers, talking to children about peer relationships, and encouraging children's activity involvement) were linked with children's reports of less stress in the school environment, with experiences of stress indexed in terms of stress experienced as a result of interactions with teachers, academic success, interactions with peers, and academic self-concept. Parents' efforts to facilitate children's friendship interactions were not associated with academic success. Surprisingly, parents' efforts to know and communicate with the parents of their children's school friends' parents were linked with *lower* academic performance as indexed in terms of academic grades (math and language arts) and standardized test scores (math and reading). Such interparental relationships were not associated with children's reports of stress experienced within the school environment.

The distinct nature of pathways connecting maternal relationship variables and different aspects of success within the school environment highlight the importance of two important and interrelated aspects of children's school experiences: academic and psychological. The explicit agenda of the elementary school environment is to provide children with academic instruction that maximizes their mastery of a key set of learning objectives. Children's mastery of such objectives is reflected in their academic grades and scores on end-of-grade achievement tests. Scores on such indicators are often examined in isolation and considered to be appropriate indicators as to whether academic "success" has been achieved. Yet successful adaptation within the school environment is also reflected in the extent to which children feel comfortable within this setting. Although our data indicated the interrelatedness of these two indicators of school success (a finding consistent with the work of Buhs, Ladd, & Herald, 2006), their distinctness was highlighted by differences in the nature of their associations with distinct parental management strategies.

Previous work examining out-of-school correlates and predictors of children's school-based competence has tended to focus on the role of parents in explicitly supporting the academic agenda of the school (Gonzalez & Blanco, 1991; Grolnick et al., 2000; Ho & Willms, 1996; Peng & Wright, 1994). The current project was unique in that it focused on parents' efforts to use social relationships as a tool for promoting children's school success. We focused on two distinct types of parental use of social relationships to this end and found that these two different approaches were correlated with different child outcomes with accompanying differences in directions of associations.

Mothers varied in the extent to which they maintained meaningful social relationships with the parents of their children's friends. Such relationships have been termed "closure" relationships and have been proposed to promote the development of social capital within families (Coleman, 1988). We speculated that closure relationships would represent a source of information about academic requirements within the school environment and strategies for meeting such requirements and hypothesized that higher levels of closure would be associated with higher academic achievement among children. Our hypothesis was not supported. Instead, higher levels of closure relationships were associated with lower academic achievement among children. This finding may reflect the bi-directional nature of associations between parents' efforts to impact their children's educational experiences and children's academic success. Although it is generally true that parental efforts to support their children's educational experiences predict higher levels of child achievement (Jeynes, 2005), associations between parental involvement/support and indicators of academic achievement have sometimes been inconsistently observed (e.g., Grolnick

& Ryan, 1989). One explanation for such inconsistency may be that parents respond to concerns regarding their children's academic performance by increasing their efforts to support academic success. Parents whose children are struggling academically may use one another as sources of information about what is going on at school and what steps they need to take at home to support their children's success within the school environment. In this manner, parents may seek to manage their children's school experiences by themselves forming and utilizing social relationships with other parents as sources of support. Maternal use of such strategies would account for the observed negative associations between our measure of social network closure and children's academic achievement.

Parents, educators, and researchers (Austin & Draper, 1984) all recognize that success within the school environment encompasses both academic and social challenges. Yet mothers within our sample varied considerably in the extent to which they engaged in explicit efforts to promote the social competence of their children. Specifically, mothers varied in the extent to which they engaged in friendship facilitation—efforts by parents to provide opportunities for children to form and maintain positive peer relationships and "coach" children as to the best ways to negotiate such relationships. Friendship facilitation represents an explicit effort on the part of parents to support their children's social development. Within our sample, it was associated with lower feelings of stress on the part of children within the school environment. We suspect that mothers' who engaged in higher levels of friendship facilitation had children who were able to more successfully negotiate their interactions with peers and were then able to utilize their relationships with peers as sources of academic and social support while at school.

We had initially hypothesized we would find support for a model that linked mothers' use and promotion of social relationships (formation of closure relationships, facilitation of children's friendships) with higher levels of adjustment within the school context but with different types of maternal efforts associated with different indicators of school-based adjustment. Our findings, although unexpected in some ways, still suggest the importance of mothers' actions with respect to their own and their children's social relationships as strategies that may be utilized to shape children's experiences at school. It is important to note that we did not find that mothers' efforts were unassociated with indicators of child adjustment. Instead we found that mother's efforts to support their children's friendships were associated with lower levels of stress experienced at school, but that mothers' own social relationships (with the parents of their children's school friends) were linked with lower levels of academic achievement. We propose that these findings both suggest that mothers look to social relationships (their own and their children's) as tools they might use

to support their children at school. Yet the manner in which these strategies are applied and their associations with indicators of school-based competence are complex.

Findings reported here expand our current understanding both in terms of the range of ways parents may support and promote their children's school success and the manner in which such success is defined. Yet the data and analyses that have yielded these findings are not without their limitations. Despite our efforts to recruit a sample that was as diverse as possible with respect to factors including social class, family structure, and community of residence, this sample was, in the end, one of convenience. Of particular concern is that it represented only two ethnic groups, that all participants resided in the southeastern section of the United States, and that all participants were enrolled in public schools. Accordingly, findings cannot be generalized to other ethnic groups, regions or the United States, or school types.

This project involved analysis of cross-sectional data. Accordingly, we are only able to state definitively that there are contemporaneous associations between parents' efforts with respect to their own and their children's social relationships and indicators of well-being at school, but not that parents efforts shape children's experiences at school or that children's experiences at school shape parental behaviors. Further research on this topic should focus on analysis of longitudinal data and testing of models that consider the reciprocal nature of associations between parental behaviors and indicators of child adjustment as each unfolds over time.

Analyses were also limited by the fact that indicators of both friendship facilitation and school stress were reported by children themselves. Accordingly, it is possible that the association between the latent constructs modeled by these indicators is due in part or in entirety to shared source variance. In such a case, children who were predisposed to view the school environment as stressful/non-stressful might also be predisposed to view their parents as engaging in fewer/more (respectively) efforts to support their interactions with peers. Further work in this area should take into account reports of both parents and children in operationalizations of friendship facilitation. It is difficult to say the same for the measure of school stress, as children are in a unique position to recognize and report upon their own psychological well-being in a given setting. Fortunately, our measures of closure and academic achievement are not limited by issues related to shared source variance, as closure relationships were reported by parents themselves and measures of academic achievement were reported by teachers.

Finally, the findings we have reported here are also limited by the lack of explanatory mechanisms available within the model we have tested. Our intent

here was merely to determine whether different efforts on the part of parents were linked with distinct aspects of success within the school environment. However, limitations within our data prevented us from explicitly testing the mechanisms that might explain these differences. We have speculated that the association between closure and academic achievement may be explained by parental concerns regarding their children's academic performance. We suspect that the association between friendship facilitation and children's perceptions of stress are explained by actual levels of competence within peer relationships. However, no measures of these potential mediating constructs were available within our data set.

Despite these limitations, the findings reported provide a window into a heretofore unconsidered manner through which parents may potentially influence and be influenced by their children's school-based experiences. By recognizing that successful adaptation within the school context involves both academic achievement and psychological comfort, and by acknowledging that parents may utilize diverse strategies with the intent of supporting such adaptation, we have expanded current understanding concerning both the manner in which parents may seek to exert influence on children's school experiences and potentially explained why previous conceptualizations of parental involvement have sometimes been only weakly associated with child outcomes in this arena. We suggest that social relationships represent a critical source of support to both parents and children alike and that efforts to promote children's success within the school arena must not overlook the existence of such relationships. Parents clearly recognize the potential importance of these relationships and appear to use them in their efforts to promote their children's school-based success. Educators and researchers would do well to recognize such efforts and incorporate an understanding of them into their conceptualizations of parental involvement in schooling.

To this end, schools may wish to consider developing ways to make social connectedness an increased part of children's and parents' school experiences. For example, school conferences might be used as an opportunity not only to discuss children's behavior and achievement, but also provide parents with information concerning the identities of children's school friends and the nature of their relationships with these individuals. Parents might also be provided contact information for classroom parents, and school functions might be structured so as to encourage the formations of social connections among parents. Finally, schools might provide a setting through which information can be filtered to parents regarding the importance of friendships in their children's lives and ways in which parents can effectively support the development and maintenance of such relationships.

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Anne C. Fletcher is an associate professor in the Department of Human Development and Family Studies at the University of North Carolina at Greensboro. Her research focuses on the intersection of parental and peer influences on child and adolescent well-being. Correspondence concerning this article may be addressed to Anne Fletcher, Ph.D., Department of Human Development & Family Studies, 248 Stone Building, The University of North Carolina at Greensboro, Greensboro, NC, 27402.

Jill Walls is a doctoral candidate in the Department of Human Development and Family Studies at The University of North Carolina at Greensboro. Her research focuses on intersections of work and family with an interest in the well-being of employed mothers and their beliefs about motherhood.

Angella Eanes is an assistant professor in the Department of Family and Consumer Sciences at South Carolina State University. Her research interests focus on parenting and parental experiences within adoptive families.

David Troutman is a research associate in the Office of the Registrar and lecturer in the Department of Educational Administration at the University of Texas at Austin.