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Effects of parenting style and involvement in sibling conflict on adolescent sibling relationships

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Abstract

This study examined relationships among maternal and paternal parenting styles, patterns of involvement in adolescent sibling conflict, and sibling relationship quality. Students ($N = 272$) in grades 9 and 11 from a public high school in a metropolitan area of the Northeastern US completed measures of parenting styles, parental sibling conflict intervention styles, sibling closeness, sibling support, and sibling warmth and conflict. An authoritative parenting style was associated with sibling support and closeness. Cluster analyses identified gender-specific patterns of parental involvement. Participants reporting maternal or paternal coaching involvement style reported greater sibling warmth compared with those who did not report such patterns. The results highlight indirect and direct relationships between parental behavior and sibling relationship quality. In addition, the study identifies the existence of a meaningful typology of parental involvement in sibling conflict.

Keywords

adolescence, parental involvement, parenting styles, sibling conflict, sibling relationships

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Recent socialization dynamics research that decentralized the mother–child dyad has generated interest in other family relationships, including siblings. Children reporting positive sibling relationships exhibit greater emotional, cognitive, and social understanding (Bryant & Crockenberg, 1980; Howe, Aquan-Assee, Bukowski, Lehoux, & Rinaldi, 2001; Milevsky, 2011). Siblings also play a significant role in older adults' lives (Bigby, 1997; Cicirelli, 1977). Hence, sibling relationships' positive outcomes should compel scholars to examine factors that contribute to these adaptive relationships.

Research on the predictors of adolescent sibling relationship quality has primarily centered on demographic variables, such as gender, age, age spacing, and family size (Buhrmester, 1992; Cole & Kerns, 2001; Tucker, Barber, & Eccles, 1997; Updegraff, McHale, Whiteman, Thayer, & Delgado, 2005). However, MacKinnon (1989) suggests that families' interactive processes are more salient determinants of the variability of sibling relationships than demographic variables. Parental behavior is one such familial process that has received recent attention in the context of sibling relations. More specifically, recent studies suggest both indirect and direct parental behaviors that influence sibling relationships.

Indirect parental influence

Given recent advances in systems-driven social network approaches, studies have examined process variables, such as parent–child interactions, as facilitating positive childhood and adolescent sibling relationships (Brody, Stoneman, & Burke, 1987; Feinberg, McHale, Crouter, & Cumsille, 2003; Milevsky, 2011). Expectations of congruous patterns of warmth between parent–child and sibling relationships stem from attachment and social learning perspectives, which suggest that maternal responsiveness serves as an internal working, or social, model for the child that generalizes to other relationships (Bryant & Crockenberg, 1980; Parke, MacDonald, Beitel, & Bhavnagri, 1988). Furthermore, cognitive schema theory claims that future relationships are mediated by individually constructed relationship schema (Fiske & Taylor, 1991). Studies report congruous patterns, both in positive and negative configurations. Teti and Ablard (1989) proposed that insecurely attached children develop a hostile relationship with siblings. Brody, Stoneman, and McCoy (1992) observed that older siblings were more likely to develop positive, non-conflicted, relationships with younger siblings when family functioning included parental impartiality, harmonious family problem-solving discussions, and global positive family-functioning perceptions. Among Mexican-American adolescent siblings, Updegraff et al. (2005) reported that sibling relationship quality was related to familism values.

Most work on the role of parent–child interactions on sibling relationships, however, focuses on childhood and pre-adolescence. Considering the evolution of adolescents' social networks (Furman & Buhrmester, 1992), and the advantages of having close sibling relationships during adolescence (Milevsky & Levitt, 2005), it is important to examine predictors of adolescent sibling relationship quality. It is unclear whether associations identified among children and early adolescents will appear among adolescents. Furthermore, limited work has assessed specific aspects of parental behaviors, such as parenting styles, in this area.

Baumrind's (1971) seminal classification of parenting styles originally suggested three distinct styles present in most families. Authoritative parenting, a pattern of parent–child interactions marked by warmth, non-punitive discipline, and consistency has been associated with several adaptive behaviors in children and adolescents (Fletcher, Darling, Dornbusch, & Steinberg, 1995; Gonzalez, Holbein, & Quilter, 2002; Milevsky, Schlechter, Netter, & Keehn, 2007; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994; Weiss & Schwarz, 1996). The authoritarian style is marked by low warmth, harsh discipline, and inconsistency. Finally, the permissive style is characterized by low levels of supervision. Both authoritarian and permissive styles are associated with maladaptive developmental patterns (Maccoby & Martin, 1983).

The limited work assessing the role of parenting styles on adolescent sibling relationship outcomes reports distinct associations between these variables. Milevsky, Machlev, Leh, Kolb, and Netter (2005), for example, found that adolescents with authoritative parents reported higher sibling support than adolescents with other styles of parenting. Research linking parenting and sibling relationships, however, is incomplete because they typically have few participants from *neglectful* homes as these parents are unlikely to respond to calls for participants. Finally, it is unclear whether these associations function similarly when maternal and paternal patterns are examined separately.

Direct parental influence

In addition to indirect parental roles in fostering close sibling relationships, limited work has assessed more direct parental influences (e.g., conflict mediation) on sibling interactions (Siddiqui & Ross, 2004). Theoretically based expectations concerning parental involvement in sibling conflict is unclear. Adlerian theory (Dreikurs, 1964) suggests that sibling confrontations attempt to draw parental attention. Thus, intervention may facilitate future hostility between siblings. Alternatively, Dunn and Munn (1986) suggest that parents may serve an important role in mediating between siblings by serving as a guide in conflict resolution (Bhavnagri & Parke, 1991; Ladd & Golter, 1988). Parents can arbitrate by encouraging family fairness rules (Ross, Filyer, Lollis, Perlman, & Martin, 1994) and reducing conflict tension (Valsiner & Cairns, 1992). Perlman and Ross (1997) found that parental intervention in pre-school sibling conflict facilitated positive sibling interactions.

Research on direct parental involvement in sibling interactions predominantly focuses on sibling relationships in pre-school children or considers maternal (but not paternal) intervention (Kramer & Baron, 1995; Kramer & Perozynski, 1999; McHale, Updegraff, Tucker, & Crouter, 2000). In one of the few studies on intervention in sibling disputes in adolescents, McHale et al. (2000) interviewed mothers and fathers in 185 families about hypothetical vignettes on problems between siblings. Both mothers and fathers rated the likelihood of seven responses, which were combined to derive the styles of non-involvement, coaching, and intervention. Interviews were also conducted with the parents and two siblings to assess sibling intimacy and negativity. Both mothers and fathers direct intervention strategies were associated with lower sibling intimacy and higher sibling negativity. Maternal non-involvement was linked with overall greater sibling intimacy; however, this relationship disappeared once the sibling dyad gender

constellation was taken into account. Thus, sibling intimacy varied not as a function of the non-intervention, but siblings' gender combination, suggesting that maternal intervention is driven, in part, by siblings' characteristics. Parents may choose to ignore sibling conflict when they are confident that the siblings have a strong relationship and can manage the problem themselves.

However, conclusions based on the limited previous work are based on data averaged across participants using variable-oriented approaches. These studies using average trends often overlook important individual differences (Levitt et al., 2005) and fail to examine the combination of conflict management approaches used by parents. Examining the intricacy of parental involvement in sibling disputes and their consequences requires a more comprehensive, holistic, person-centered approach. Furthermore, research should examine involvement styles employed by both parents during sibling conflict and their consequences on sibling relationship quality.

In summary, although previous work indicates that parents may contribute to positive sibling relationships indirectly through warmth and, to a lesser extent, directly through intervention in sibling conflict, many questions remain unanswered. The current study addresses limitations in the existing research.

The current study

The primary goal of the current study was to assess outcomes associated with both maternal and paternal direct and indirect involvement in adolescent sibling relationships. Specifically, this study assessed both maternal and paternal parenting styles, using Baumrind's (1971) parenting styles: *authoritative* (a combination of warmth and understanding with control and demands), *authoritarian* (controlling, detached and less warm), and *permissive* (exerting very little control). The permissive category was divided into *indulgent* and *neglectful* parents (Steinberg, Lamborn, Dornbusch, & Darling, 1992). Indulgent parents offer considerable acceptance and little discipline. Neglectful parents provide little acceptance or discipline.

Most work on adolescents and their families that employs "active" consent procedures (i.e., requiring parents' written consent for adolescents' participation) screens out many neglectful homes, likely resulting in significant sampling bias against families with adjustment and family problems. Therefore, studies assessing neglectful parenting may have few neglectful parents. Consequently, we employed a "passive" consent procedure (i.e., informing parents of the study and allowing parents to withhold their child's participation by contacting the researchers), allowing a fairer assessment of all four parenting styles, including neglectful.

Furthermore, the current study examines the association between adolescents' self-report of parental involvement style in sibling conflict and sibling relations. Cluster analyses were used to describe variations in parental involvement in sibling conflict. Such analyses have identified person-level variation in developmentally related variables (Roeser, Eccles, & Freedman-Doan, 1999) and have the ability to detect and explain groups of cases, based on dimensions of interest, congruent with the multidimensional emphasis of systems theory (Henry, Tolan, & Gorman-Smith, 2005; Levitt et al., 2005).

Two research questions direct this study. Firstly, what is the link between maternal and paternal parenting styles and the quality of sibling relationships? Secondly, what patterns emerge in maternal and paternal involvement in sibling conflict and what are their consequences for the quality of sibling relationships in adolescents?

Method

Participants

Participants in this study included 272 grade 9 and 11 students (145 males and 127 females) from a public high school in a Northeastern US metropolitan area. The 146 9th grade students ($M = 14.69$, $SD = .55$) and 126 11th grade students in ($M = 16.55$, $SD = .50$) included 253 European-Americans, 10 African-Americans, five Hispanic-Americans, three Asian-Americans, and one with no ethnicity data. Only seven students reported having no siblings and were excluded. Participants reported having an average of 1.99 siblings ($SD = 1.45$). Most siblings ($n = 192$, 70.6%) were more than two years younger or older than participants. Participants with multiple siblings were instructed to consider their most important sibling for use in specific analyses described below. Those with one sibling were instructed to consider that sibling. A strong majority of chosen siblings were full biological siblings ($n = 211$; 77.6%; M = 16.05, $SD = 5.24$, years old). Most participants ($n = 194$, 71.3%) reported having married biological parents, while fewer reported divorced parents ($n = 57$, 21%), neither married nor divorced parents ($n = 13$, 4.8%), or provided no marital data ($n = 8$, 2.9%).

Procedures

We employed a "passive" consent procedure, previously approved by the U. S. Department of Education (see Steinberg et al., 1992) to avoid the sampling bias concerning the neglectful style. Letters, sent to students' parents in target classes, informed them of the study and provided an opportunity to contact the school or the researches about the project. Less than 1% of parents requested that their child not be involved in the project. Questionnaires were administered in class and participants received a small gift. Although consent was provided by parents passively, participants provided assent.

Measures

Participants were first asked to indicate their relationship to the female/male raising them and subsequently asked to answer all mother/father questions as referring to the individuals raising them. Most participants described their birth mothers (93.8%) and birth fathers (84.6%).

Maternal and paternal parenting style. Both mothers' and fathers' parenting styles were assessed with the acceptance/involvement and the strictness/supervision sub-scales of the Authoritative Parenting Measure (Steinberg et al., 1992). For this study we used a categorical, rather than a dimensional, approach to parenting practices (Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Steinberg, 1990; Steinberg, Elman, & Mounts, 1989) to

reflect Baumrind's (1971) theoretical view of parenting practices supported by 35 years of Baumrind's work on parenting (Milevsky, in press). The acceptance/involvement sub-scale (nine items), each accompanied by five-interval Likert-style scales (coded such that higher scores indicated more of each dimension), assessed adolescents' perception of parental love, acceptance, involvement, and closeness (e.g., "I can count on my mother/father to help me out if I have some kind of problem"; $\alpha = .82$ for mothers, and .85 for fathers). The strictness/supervision sub-scale (eight items) assessed the adolescents' perception of parental supervision and monitoring (e.g., "How much does your mother/father try to know where you go at night?"). Items were accompanied by either a three-interval or seven-interval scale. Items were combined such that higher scores indicated greater strictness/supervision ($\alpha = .71$ for mothers, and .77 for fathers).

Maternal and paternal sibling conflict intervention style. The measure of parental intervention style was developed for this study based on the three categories employed by McHale et al. (2000). Participants were first asked to choose their most important sibling and then asked how their mother/father responds when they fight with this chosen sibling. Seven items, each accompanied by five-interval scales (1 = never, 5 = almost always) tapped three intervention styles: non-involvement, coaching, and intervention. Responses to "ignores the problem", "tells you to work out the problem yourselves", and "asks your father/mother to handle the problem" were averaged to derive the non-involvement score. Responses to "gives you advice" and "explains your siblings' feelings to you" were averaged to derive the coaching score. Finally, responses to, "steps in and solves the problem" and "punishes you for fighting" were averaged to derive the intervention score.

Sibling support. Overall sibling support was assessed with support items from the adolescent version of the Convoy Mapping Procedure (Levitt, Guacci-Franco, & Levitt, 1993; e.g., "I confide in my siblings about things that are important to me"). Items were accompanied by a 1 ("strongly agree") to 5 ("strongly disagree") scale. Responses to the six support functions were reverse coded as appropriate and averaged such that higher scores indicate greater support ($\alpha = .92$).

Sibling closeness. The sibling closeness measure asked participants to indicate, for each sibling, "How close do you feel to this sibling?" (1 = Extremely close, 5 = not at all close). Scores were averaged for all siblings to create the total sibling closeness score (Milevsky, Smoot, Leh, & Ruppe, 2005).

Sibling warmth and conflict. Warmth and conflict with the most important chosen sibling were assessed with the sibling warmth and conflict sub-scales of the short version Sibling Relationship Questionnaire (Furman & Buhrmester, 1985). Participants responded to 21 items concerning the extent to which different behaviors and feelings occur in their relationship with this sibling ($\alpha = .92$ for warmth and $\alpha = .82$ for conflict).

Table 1. Sample size and scores on the acceptance/involvement and strictness/supervision scales of maternal and paternal parenting styles category

	Parenting styles					
	Sample size		Acceptance scores		Strictness scores	
Maternal style	Frequency	Percent	Mean	*SD*	Mean	*SD*
Authoritative	99	36.8	4.40	.33	3.11	.27
Authoritarian	60	22.3	3.36	.38	3.97	.24
Permissive	31	11.5	4.28	.32	2.38	.29
Neglectful	79	29.4	3.21	.46	2.29	.32
Total	269	100	3.80	.67	2.75	.46
Paternal style						
Authoritative	71	27.3	4.48	.33	3.08	.26
Authoritarian	34	13.1	3.51	.35	3.01	.26
Permissive	47	18.1	4.36	.30	2.35	.26
Neglectful	108	41.5	3.21	.58	2.13	.38
Total	260	100	3.80	.73	2.55	.53

Participants without a mother or a father were excluded from the analysis.

Results

Outcome variable intercorrelations

Firstly, intercorrelations were calculated. Sibling support was strongly related to both sibling closeness, $r(255) = .60$, $p < .01$ and sibling warmth, $r(254) = .72$, $p < .01$. Sibling warmth was positively related to sibling closeness, $r(256) = .58$, $p < .01$ and negatively related to sibling conflict, $r(256) = -.21$, $p < .01$.

Indirect parental influence

To assess the role of parenting styles on sibling relationships, the sample was divided into four parenting styles based on median splits of acceptance/involvement (median for mother = 3.78, father =3.89) and strictness/supervision (median for mother = 2.75, father =2.54). Based on Baumrind (1971), *authoritative* parents scored above the median on both acceptance/involvement and strictness/supervision; *authoritarian* parents scored below the median on acceptance/involvement and above average on strictness/supervision; *permissive* parents scored above the median on acceptance/involvement but below average on strictness/supervision; and *neglectful* parents scored below average on both acceptance/involvement and strictness/supervision. This categorization was followed separately for maternal and paternal styles. Information on the four maternal and paternal categories (i.e., size and scores on acceptance/involvement and strictness/supervision) is presented in Table 1.

The role of parenting styles on sibling support and closeness was assessed with separate multivariate analysis of variance (MANOVA) for maternal and paternal styles with style, the child's gender, and grade as independent variables and sibling support and

Table 2. Sibling support and closeness for maternal parenting style categories

	Outcome			
	Sibling support		Sibling closeness	
Maternal parenting style	*M*	(*SD*)	*M*	(*SD*)
Authoritative	4.05[ab]	(.94)	4.02[ab]	(.77)
Permissive	4.21[cd]	(.61)	3.95	(.66)
Authoritarian	3.37[ac]	(.97)	3.57[a]	(.95)
Neglectful	3.43[bd]	(.83)	3.49[b]	(.85)

Within columns, means with common subscripts denote a significant difference from each other at $p < .01$.

Table 3. Sibling support and closeness for paternal parenting style categories

	Outcome			
	Sibling support		Sibling closeness	
Paternal parenting style	*M*	(*SD*)	*M*	(*SD*)
Authoritative	4.18[ab]	(.68)	4.07[ac]	(.70)
Permissive	3.87[cd]	(1.08)	3.81	(.90)
Authoritarian	3.46[ac]	(1.06)	3.68[c]	(.98)
Neglectful	3.54[bd]	(.83)	3.56[a]	(.79)

Within columns, means with common subscripts [a] and [b] denote a significant difference from each other at $p < .01$ and means with common subscripts [c] and [d] denote a significant difference from each other at $p < .05$

closeness as dependent variables. The main effect of maternal parenting style was significant for sibling support, $F(3,238) = 12.88$, $p < .01$, and closeness, $F(3,238) = 8.91$, $p < .01$. In addition, the main effect for paternal parenting style was significant for sibling support, $F(3,231) = 6.81$, $p < .01$ and for closeness $F(3,231) = 4.86$, $p < .01$. Post hoc comparisons (least-squared difference), for both maternal and paternal styles, indicated that the authoritative and permissive styles were associated with higher support than the authoritarian and neglectful styles. In addition, for both maternal and paternal styles, the authoritative style was associated with higher closeness than the authoritarian and neglectful styles (see Tables 2 and 3).

Direct parental influence

Analyses for direct parental influence on sibling relationships, firstly, examined patterns of involvement in sibling conflict. Secondly, analyses assessed the association between involvement and sibling relationship quality.

Patterns of involvement. Maternal and paternal involvement pattern clusters were generated through iterative *k*-means clustering. No firm guide to the selection of clustering approaches exists. However, the iterative *k*-means method is considered useful for large

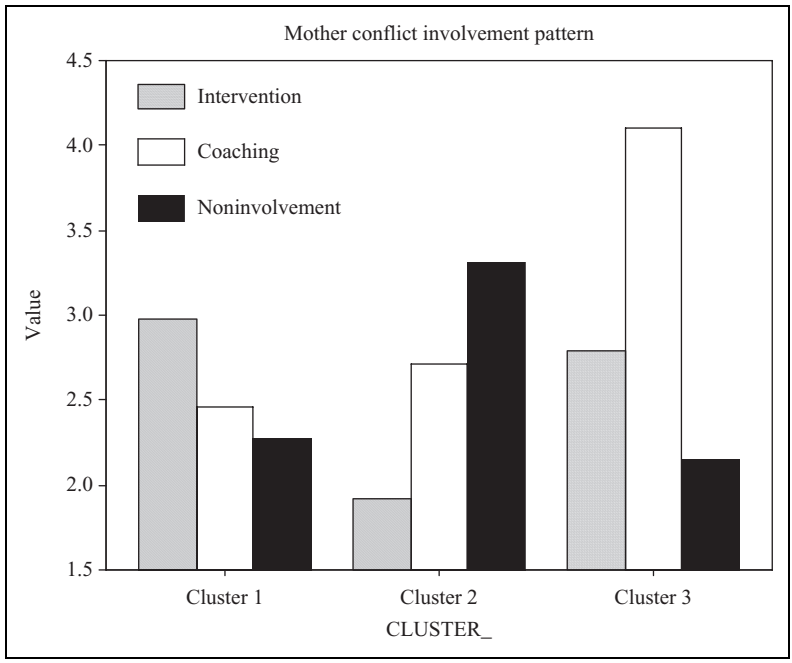

Figure 1. Maternal conflict involvement pattern clusters.

datasets (Aldenderfer & Blashfield, 1984), but it requires that the number of clusters be specified in advance. Based on the limited work on parental intervention and the current sample size, three clusters were specified.

K-means clustering (SPSS, 1990) identifies maximally distinct groupings of cases for a specific number of clusters. Cases with distinct values on target variables are initially selected as cluster centers. Cases are added to each cluster through an algorithm that minimizes the squared Euclidean distance between cases and the cluster center. Cluster centers are updated as cases are added, and cluster means shift. To reduce overlap and fuzzy boundaries between clusters, the *k*-means method is especially suited for delineating divergent patterns of parental involvement in sibling conflict.

To validate the three cluster solution, we reanalyzed the data using hierarchical clustering with Ward's (1963) linkage. There was considerable congruity across clustering methods (see Henry et al., 2005). In addition, the derived clusters' ability to predict sibling warmth and conflict, discussed below, provides further evidence of our cluster solution's validity (Aldenderfer & Blashfield, 1984).

Analyses were conducted initially for the entire sample followed by a MANOVA to determine the comparability of cluster solutions across gender subgroups. The MANOVA results were followed by separate cluster analyses within gender subgroups.

Cluster solutions. Cluster center means for each variable generated from the entire sample are depicted in Figures 1 (maternal styles) and 2 (paternal styles). The size of

Table 4. Sample size of cluster membership for maternal and paternal involvement style

	Size	
Cluster membership	Frequency	Percent
Mother		
Intervention	78	30.7
Non-involvement–Coaching	63	24.8
Coaching	113	44.5
Total	254	100
Father		
Coaching	111	45.1
Non-distinct	82	33.3
Non-involvement	53	21.5
Total	246	100

Participants without a mother or a father were excluded from the analysis. The smaller mother and father sample sizes for the involvement style measure in comparison to the sample sizes for the parenting styles measure is a function of an increase in missing data for the intervention measure.

each cluster is provided in Table 4. For maternal styles (Figure 1), Cluster 1, or *Intervention*, was characterized by relatively high intervention and relatively low levels of coaching and non-involvement. Cluster 2, or *Non-involvement–Coaching*, was characterized by very high levels of non-involvement, paired with moderate coaching and comparatively little intervention. Cluster 3, or *Coaching*, was notable because of high levels of coaching, moderate intervention, and low levels of non-involvement. For paternal styles (Figure 2), Cluster 1, *Coaching*, was characterized by very high levels of coaching, relatively high intervention, and relatively low non-involvement. Cluster 2, *Non-distinct*, was low on all three involvement styles. Cluster 3, *non-involvement*, was very high in non-involvement, moderate in intervention, and very low in coaching.

To assess cluster solutions' comparability across participant gender, a MANOVA was performed with parental intervention, coaching, and non-involvement as dependent measures and gender as the independent variable. The main effect of gender was significant for maternal intervention, $F(1,241) = 10.20$, $p < .01$. Males reported higher levels of maternal intervention ($M = 2.78$, $SD = .73$) than did females ($M = 2.48$, $SD = .77$). In addition, the gender main effect was significant for paternal intervention, $F(1,241) = 6.46$, $p < .05$, coaching, $F(1,241) = 6.07$, $p < .05$, and non-involvement, $F(1,241) = 8.50$, $p < .01$. Compared with females, males reported higher intervention ($M = 2.70$, $SD = .73$ versus $M = 2.45$, $SD = .76$) and coaching scores ($M = 3.00$, $SD = .94$ versus $M = 2.68$, $SD = 1.09$). For non-involvement, however, females reported higher scores than did males ($M = 2.83$, $SD = .97$ versus $M = 2.51$, $SD = .77$). Thus, subsequent analyses were performed separately for males and females.

Maternal style clusters generated for the male and female participants are illustrated in Figure 3. For the most part, clusters generated for males and females were similar to those from the entire sample. There are two important exceptions to this claim.

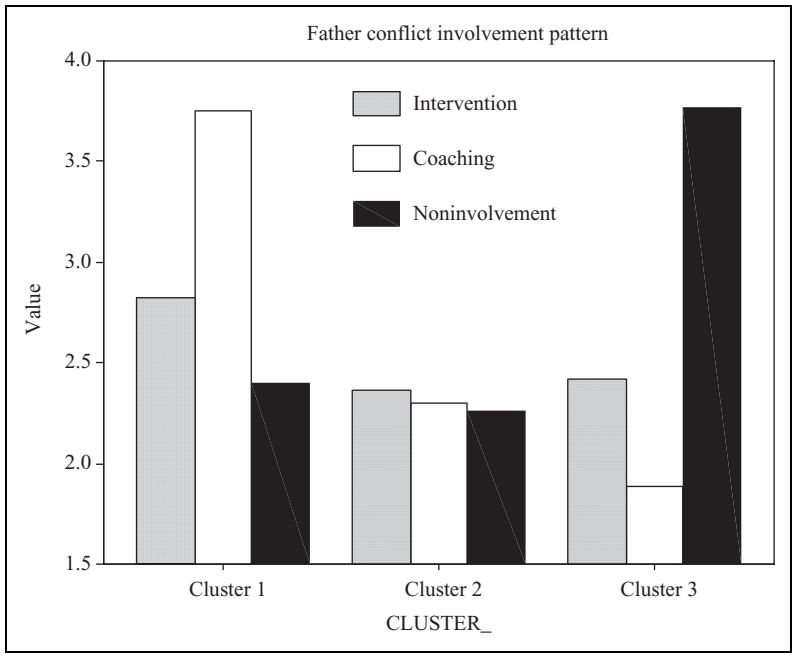

Figure 2. Paternal conflict involvement pattern clusters.

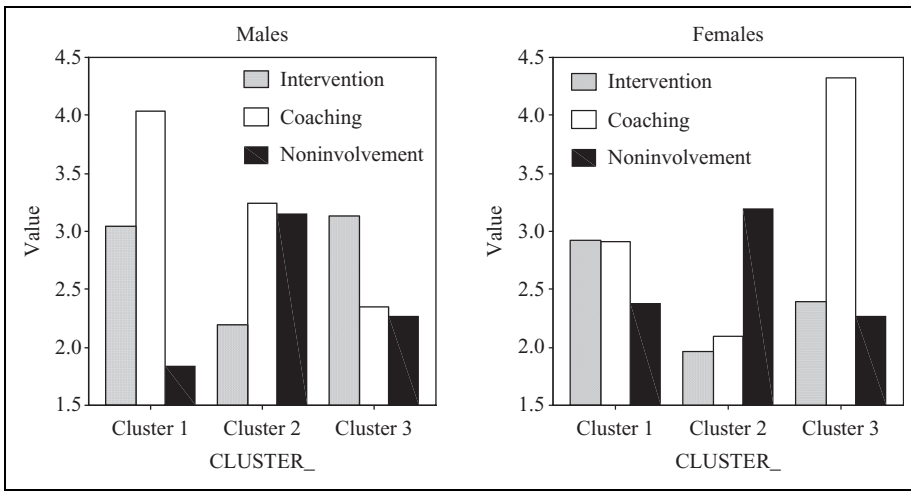

Figure 3. Maternal conflict involvement pattern clusters within gender subgroups.

Firstly, for males, the Non-involvement–Coaching cluster included similar levels of non-involvement and coaching. Secondly, for females, the Intervention cluster included similar levels of coaching and intervention.

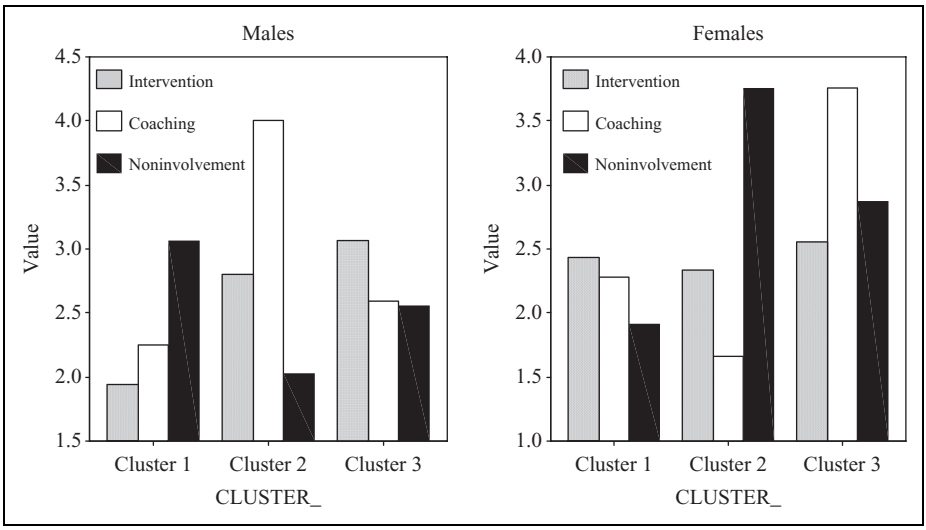

Figure 4. Paternal conflict involvement pattern clusters within gender subgroups.

Paternal style clusters generated for the male and female participants are illustrated in Figure 4. For male participants, clusters were very similar to those from the entire sample. The only marked difference was that the non-distinct cluster included higher levels of intervention. For female participants, clusters were also similar to those from the entire sample. However, Cluster 3 (Coaching) was identified by notably high levels of coaching, and more non-involvement than for the entire group.

Involvement patterns and sibling relationships

Means and standard deviations for warmth and conflict indices with the chosen target sibling by maternal cluster membership are presented in Table 5 and for paternal cluster membership are presented in Table 6. Differences in sibling warmth and conflict between the three maternal and paternal sibling conflict clusters were assessed separately for males and females using MANOVAs with parental involvement pattern clusters as the independent variable and sibling warmth and conflict as the dependent variables.

For females, the main effect of the maternal involvement pattern cluster was significant for sibling warmth, $F(2,116) = 4.39$, $p < .05$. Post hoc comparisons (least significant difference (LSD)) indicated that the Coaching cluster was associated with greater sibling warmth than the Intervention and Non-involvement–Coaching clusters (which did not differ from one another). For males, there was a significant main effect of paternal involvement pattern cluster for sibling warmth, $F(2,127) = 9.46$, $p < .01$. Post hoc comparisons (LSD) indicated that the Coaching cluster was associated with greater warmth than the Intervention cluster. No differences where found between the male or female clusters on the sibling conflict outcome.

Table 5. Differences in sibling warmth by maternal involvement pattern

	Sibling warmth	
Maternal involvement pattern	*M*	(*SD*)
Males		
Coaching ($N = 52$)	3.33	(.72)
Coaching– Non-involvement ($N = 44$)	3.29	(.65)
Intervention ($N = 39$)	3.02	(.84)
Females		
Intervention– Coaching ($N = 41$)	3.26[a]	(.71)
Non-involvement ($N = 33$)	3.29[b]	(.75)
Coaching ($N = 45$)	3.69[ab]	(.78)

Means with common subscript [a] denote a significant difference from each other at $p < .01$ and means with common subscript [b] denote a significant difference from each other at $p < .05$

Table 6. Differences in sibling warmth by paternal involvement pattern

	Sibling warmth	
Paternal involvement pattern	*M*	(*SD*)
Males		
Non-involvement ($N = 32$)	3.27	(.56)
Coaching ($N = 47$)	3.58[a]	(.65)
Intervention ($N = 52$)	2.96[a]	(.80)
Females		
Non-distinct ($N = 36$)	3.25	(.79)
Non-involvement ($N = 33$)	3.41	(.79)
Coaching ($N = 46$)	3.60	(.72)

Means with common subscripts denote a significant difference from each other at $p < .01$

Discussion

The current study's goals were to examine (i) the link between maternal and paternal parenting styles and the quality of sibling relationships, and (ii) patterns of maternal and paternal involvement in sibling conflict and the role of those involvement patterns on adolescent sibling relationship quality. Overall, our results are consistent with others on parenting practices and childhood sibling relationships (Brody et al., 1987; Feinberg et al., 2003). Compared with earlier studies, however, we focused more specifically on parenting styles. Adolescents with authoritative and permissive parents reported greater sibling support than those with authoritarian and neglectful parents. In addition, participants with authoritative parents reported greater sibling closeness than those with authoritarian or neglectful parents.

Authoritative parenting helps facilitate socioemotional development in multiple ways (Steinberg et al., 1989, 1994) and, perhaps, sibling relationships. Parenting based on warmth, non-punitive discipline, and consistency is associated with closer sibling

relationships (Brody et al., 1992; Seginer, 1998; Teti & Ablard, 1989). The similarity in warmth between parent–child and sibling relationships is consistent with parental socialization studies suggesting that parents indirectly foster close sibling relationships via attachment and social learning (Bryant & Crockenberg, 1980; Teti & Ablard, 1989).

Of particular note is that similar patterns were found for both maternal and paternal parenting. Fathers' importance in their children's lives has received growing attention (Lamb, 1986; Marsiglio, Amato, Day, & Lamb, 2000; Pleck, 2007). Although the theoretical link between parenting practices and sibling relationships comes from attachment theory, and its emphasis on the mother–child dyad as the primary relationship, the current findings are consistent with the evolving view that relationship models incorporate multiple attachment figures (Lewis, 1997).

Although previous work has examined the role of parental involvement in sibling conflict (McHale et al., 2000), the current study is the first we know of to assess patterns of parental involvement styles. The coaching pattern appeared for both maternal and paternal clusters; however, in the other two clusters mothers exhibited less non-involvement and greater intervention than fathers. In addition, gender differences in cluster membership appeared for both mothers and fathers. For maternal clusters, more exclusive intervention patterns emerged for males, when compared with intervention patterns with females, which also included equal amounts of coaching. Furthermore, for maternal clusters, a pattern of non-involvement was more likely to emerge for females than for males, which included coaching as well. Although non-involvement and coaching appear mutually exclusive, this pattern suggests parents vacillate between non-involvement and coaching. Taken together, these findings indicate that a subset of mothers exhibit greater intervention with males and a distinct cluster using non-involvement for females. For paternal clusters the most notable gender difference was males' decreased reported levels of non-involvement in the coaching and non-involvement cluster when compared with females. This is consistent with work suggesting that fathers may feel an increased sense of responsibility for parenting their sons (Harris & Morgan, 1991).

A speculative, but theoretical, explanation for gender differences in involvement with sibling conflict involves socialization dynamics prescribing gender-specific means of appropriate conflict engagement (Bandura, 1962). These findings mirror research documenting gender differences in how mothers and fathers involve themselves in sibling conflict (McHale et al., 2000; Perozynski & Kramer, 1999).

Contrary to previous work on parental involvement in sibling conflict in adolescence (McHale et al., 2000), we found that maternal and paternal coaching during sibling conflict is related to sibling warmth. The discrepancy between studies may be due to differences in assessments of parental intervention. Previous work used parental reports in hypothetical sibling conflict scenarios and we used adolescents' self-reports. When differing assessment methods are examined in the context of how child interactions are moderated by parents' communication (Burleson, Delia, & Applegate, 1992), apparent contradictions may appear in parents' and children's perceptions of "coaching".

It is particularly interesting that coaching was associated with sibling warmth only for female–maternal and male–paternal dyads. Given the limited literature on this topic, conclusions regarding these dynamics are necessarily speculative; however, future research should examining gender-structural variables in considering these questions.

It seems that interconnections among support providers and outcomes are complex and depend on many variables that may function differently across developmental stages. The interconnection between parental and sibling relationships further suggests the need to examine specific relationships in the context of the larger social network. The dynamic nature of social relationships and the importance of assessing these integrated processes represent the focus of several theoretical and empirical investigations (Levitt, Guacci-Franco, & Levitt, 1994; Levitt et al., 1993).

Limitations and directions for future research

The present study has several limitations. Firstly, the study does not solve the direction-of-effects problem. We posit that differences in parenting practices lead to differences in sibling relationships; however, it is also possible that sibling relationship differences lead to differences in parenting practices. Conflict-laden adolescent sibling relationships may elicit specific parental behaviors, or perceive parental behaviors, that are more punitive or perhaps less involved. Alternatively, the effects may be bidirectional: parenting influences sibling relationships which, in turn, influence parenting behaviors.

Secondly, relying on one sibling's responses does not allow consideration of the interdependence of these relationships. Similarly, we focused on adolescent perceptions of parenting behaviors without input from the parents. In order to capture the interconnected nature of family relationships it is important to study all members of the family context (Riggio, 2001).

In addition, despite a relatively large sample, the present results may not generalize beyond its homogeneous sample. Given ethnic differences in sibling relationships (Avioli, 1989; Hays & Mindel, 1973; Updegraff et al., 2005), future work should use samples drawn from multiethnic communities to assess the influence of parenting practices in a broader variety of sibling relationships.

Finally, we assessed parenting practices and sibling closeness globally without considering within-family differences. One relevant factor is parental conflict resolution style, as marital hostility may influence sibling relationship quality (Milevsky, 2004; Stocker, Ahmed, & Stall, 1997). Future studies should consider these factors when examining the connections among parental behaviors and sibling relationships.

Conclusion

This study highlights the importance of examining process-oriented factors as influencing sibling relations. Results indicate that parenting practices are related to adolescents' sibling relationships. In addition, we break new ground by examining the patterns of parental involvement in sibling conflict and their association with sibling relationship quality. Finally, when viewed in the context of previous research, some of the contradictions in the literature concerning the sibling relationship outcomes associated with parental intervention in sibling conflicts may be associated with developmental changes across childhood and adolescence (McHale et al., 2000). These developmental issues must be addressed in future sibling dynamics research.

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