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ABSTRACT

This study examined the associations between the early family environment, older siblings' early characteristics, and later sibling relationships. Participating were 37 families with infants and preschool-age older siblings who were observed in the laboratory at 3 time points and followed-up 3 years later. Findings indicated that parents' early marital relationship was associated with more positive sibling involvement and teaching, and less sibling conflict and rivalry 3 years later. Fathers who were more controlling of their children's emotions during preschool had children who later demonstrated less sibling teaching. Mothers' sensitivity with infant siblings was associated with positive sibling relations 3 years later, but fathers' sensitivity correlated positively with later sibling conflict and negatively with later sibling teaching. Older siblings who were securely attached to fathers provided more care to younger siblings 3 years later, while older siblings' early emotion understanding was negatively associated with later caretaking. Multiple regression analyses revealed that parents' early marital love and their sensitivity with infant siblings were the most consistent predictors of all sibling relationship measures other than instrumental caretaking. The findings underscore the importance of the early affective family environment in shaping sibling relationships over time as well as the importance of examining both parents' contributions to sibling relationships. (Author)

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# Early childhood predictors of school-age children's reports of sibling relationships

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A poster presented at the Biennial meeting of the Society for Research in Child Development, Albuquerque, NM, April 1999.

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## ABSTRACT

This research examined the associations between the early family environment, older siblings' early characteristics, and later sibling relationships. Thirty-seven families with infants and preschool-age older siblings were observed in the laboratory at three time points and followed-up three years later. Parents' early marital relationship was associated with more positive sibling involvement and teaching, and less sibling conflict and rivalry three years later. Fathers who were more controlling of their children's emotions during preschool had children who later demonstrated less sibling teaching. Mothers' sensitivity with infant siblings was associated with positive sibling relations three years later, but fathers' sensitivity correlated positively with later sibling conflict and negatively with later sibling teaching. Older siblings who were securely attached to fathers provided more care to younger siblings three years later, while older siblings' early emotion understanding was negatively associated with later caretaking. Multiple regression analyses revealed that parents' early marital love and their sensitivity with infant siblings were the most consistent predictors of all sibling relationship measures other than instrumental caretaking. These findings underscore the importance of the early affective family environment in shaping sibling relationships over time as well as the importance of examining both parents' contributions to sibling relationships.

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## INTRODUCTION

Siblings have been increasingly recognized as having long-lasting influence on children's development. Although some longitudinal investigations of sibling relationships have begun as early as infancy (e.g., Abramovitch, Corter, Pepler, & Stanhope, 1986; Dunn, Slomkowski, & Beardsall, 1994), such research on young children has not systematically investigated both family environment and individual correlates of sibling relationships over time.

The current research examines the influence of early features of the family environment (i.e., parental sensitivity and intrusiveness, parental attitudes toward emotional expressiveness, and marital relationship quality) and the older siblings' characteristics (i.e., attachment security and emotion understanding) on these children's later perceptions of sibling relationships. Data were collected from families with siblings who were infants and preschool-age. These families were contacted again three years later when older siblings were in elementary school and younger siblings were preschoolers. Older siblings were interviewed about their sibling relationship at this time.

## AIMS

The current study addressed 3 questions:

1. What is the influence of features of the family environment during the preschool years on school-age older siblings' reports of sibling relationships?
2. What is the influence of characteristics of older siblings during the preschool years on their school-age reports of sibling relationships?
3. What is the relative contribution of early features of the family environment and characteristics of older siblings during the preschool years on school-age older siblings' reports of sibling relationships?

## PARTICIPANTS

Total N: 37 families participating in a longitudinal study of sibling relationships

Older sibling characteristics: Age at Time 3: 26-83 months ( $M = 49$  months) Age at Time 4: 5- to 10-years ( $M = 7.3$  years)

Gender:  
22 girls  
15 boys

Younger sibling characteristics: Age: Time 1 = 12 months Time 2 = 13 months Time 3 = 16 months Time 4 = 4 years ( $M = 4.2$  years) Gender: 18 girls 19 boys

Sample characteristics: Primarily middle-class, white, maritally-intact families

## MEASURES

### *Early family environment*

- Mothers' and fathers' sensitivity and intrusiveness toward younger siblings during infancy  
Assessed at Time 1 and Time 2 (order of parent visits was determined through counter-balancing) during an unstructured freeplay session and a structured teaching session with younger siblings.
- Parents' marital relationship  
Assessed with the marital love and marital maintenance subscales of the Braiker & Kelley (1979) Intimate Relations Scale, completed by both parents at Time 1 or Time 2 (counter-balanced). Mothers' and fathers' reports of marital love and of maintenance were correlated at  $r = .40$  ( $p < .01$ ) and  $r = .50$  ( $p < .001$ ), respectively, and thus scores across parents were averaged.
- Parents' attitudes toward emotional expressiveness of older siblings  
Assessed with Saarni's (1985) Parent Attitude toward Child Expressiveness Scale (PACES), completed by both parents at Time 3. High scores indicate more parental control of older siblings' emotional expressiveness.

### *Early characteristics of older siblings*

- Attachment  
Older siblings' attachment security to mothers and fathers was assessed with the Waters and Deane (1985) Attachment Q-Set, which was completed by both parents individually at Time 1 or Time 2.
- Emotion understanding  
Older siblings' emotion understanding was assessed at Time 3 with Denham's (1986) affective perspective-taking puppet task.

### *Sibling relationships during the school years*

- Rivalry, conflict, positive involvement, teaching, instrumental caretaking  
Older siblings' perceptions of sibling relationships were assessed using a modified version of the Sibling Inventory of Behavior (Hetherington & Clingempeel, 1989; Schaefer & Edgerton, 1981). Siblings were interviewed using this instrument at Time 4. See Table 1 for scale items, means, and alpha levels.

## RESULTS

[Note: All correlational analyses controlled for the age of older siblings.]

### **1. What is the influence of features of the family environment during the preschool years on school-age older siblings' reports of sibling relationships? (See Table 2.)**

#### *Parents' sensitivity and intrusiveness*

- Mothers' sensitivity during the teaching task with younger siblings at one year was positively associated with the older siblings' reports of teaching, positive involvement, and instrumental caretaking in the sibling relationship three years later.

- Fathers' sensitivity during the freeplay session with younger siblings at one year was positively associated with older siblings' later reports of conflict and negatively associated with sibling teaching.
- Neither mothers' nor fathers' intrusiveness with younger siblings during infancy was related to older siblings' reports of the sibling relationship three years later.

#### *Parents' marital relationship*

- Parents' reported feelings of love in the marital relationship at one year were positively associated with later sibling teaching and positive involvement, and negatively associated with sibling rivalry and conflict three years later.
- The extent to which parents reported efforts to maintain the marital relationship at one year was negatively associated with later sibling rivalry.

#### *Parents' emotional expressiveness*

- The extent to which fathers reported controlling attitudes toward emotional expressiveness at one year was negatively associated with sibling teaching three years later.

### **2. What is the influence of characteristics of older siblings during the preschool years on their school-age reports of sibling relationships? (See Table 2.)**

#### *Attachment*

- Older siblings who were securely attached to their fathers as preschoolers were more likely to provide instrumental caretaking to younger siblings than were less securely attached older siblings.

#### *Emotion understanding*

- The extent to which preschool older siblings displayed early emotion understanding was negatively associated with their reports of instrumental caretaking of younger siblings three years later.

### **3. What is the relative contribution of early features of the family environment and characteristics of older siblings during the preschool years on school-age older siblings' reports of family relationships? (See Table 3.)**

After controlling for the age and gender of the older sibling...

- older siblings' school-age report of positive involvement toward siblings was positively predicted by early maternal sensitivity in the teaching task with infant siblings and early parental marital love.

(Preliminary analyses revealed that gender was associated with the positive involvement measure and therefore was included in this regression equation.)

After controlling for the age of the older sibling...

- early maternal sensitivity in the teaching task with infant siblings and early parental marital love were the strongest predictors of sibling teaching three years later.
- older siblings' secure attachment to fathers and older siblings' lack of early emotion understanding were the only predictors of later sibling instrumental caretaking, yet the associations were marginal.
- less paternal sensitivity in the freeplay with infant siblings was the only predictor of school-age reports of conflict with siblings, yet the association was marginal.
- a lack of early parental marital love was the strongest predictor of school-age reports of sibling rivalry.

## **DISCUSSION**

### **Sibling relationships and the early family environment**

- The marital relationship was an especially important component of the early family environment in predicting school-age children's report of sibling relationship quality. For example, parents' early marital love was positively associated with measures of sibling positive involvement and teaching, and negatively associated with sibling conflict and rivalry three years later. Similarly, older siblings with fathers who were more controlling of their emotional expressiveness during preschool later demonstrated less sibling teaching. These findings suggest that families who create a nurturing affective family environment early in their children's lives, as indicated by the parents' loving relationship with one another, can have a long-term positive impact on their children's sibling relationship.
- Parents' behavior with younger siblings at the early time points also had a long-term association with how older siblings related to younger siblings three years later. In particular, mothers' sensitivity toward infant siblings was positively associated with later sibling teaching, instrumental caretaking, and positive involvement. On the other hand, fathers' sensitivity with infant siblings was negatively (yet marginally) related to later sibling teaching and positively associated with later sibling conflict. These findings suggest that when mothers act sensitively with younger siblings during infancy, older siblings appear to learn to act with compassion toward their siblings. Alternatively, it may be that in families where mothers display sensitive behavior toward infants, older siblings are themselves experiencing positive interactions with their mothers which could correspond to their own positive interactions with their siblings. Because fathers seem to play an important role for older siblings after the birth of a new sibling (Volling & Elins, 1998), older siblings might feel jealous when observing fathers' sensitive interaction with the baby siblings and this may have repercussions for the development of positive sibling relationships.

### Sibling relationships and early characteristics of older siblings

- Older siblings who were securely attached to their fathers in early childhood later provided more instrumental caretaking to siblings, supporting research that children form an internal working model of relationships based on their attachment to parents which they then draw upon in their own relationships with other individuals (Bretherton, 1985). Contrary to expectations, however, early emotion understanding was negatively associated with later instrumental caretaking. This contradicts findings by Stewart & Marvin (1984) and Garner, Jones, & Palmer (1994) that older siblings who can take others' perspectives are more likely to provide care to younger siblings. However, these earlier studies measured caretaking in response to sibling distress rather than the current study's focus on instrumental assistance. Perhaps an understanding of emotions is not necessary to provide help such as getting a sibling ready for bed.

### Relative contribution of the early family environment and early characteristics of older siblings to later sibling relationships

- Parents' sensitivity with younger siblings in infancy and their early marital love were the most consistent predictors of the older siblings' report of sibling relationship quality three years later, confirming the important long-term repercussions of the early affective family environment on sibling relationships. Families in which parents consistently display warm and caring relationships with each other and with their children appear to create an environment conducive to positive sibling relationships. Interestingly, characteristics of older siblings were more important than the early affective environment (yet still marginal) when considering children's instrumental caretaking. As noted above, older siblings' may draw upon their secure attachment relationship in interacting with younger siblings, as demonstrated by their later caretaking behaviors. Finally, it must be noted that sibling conflict, unlike the other sibling relationship measures, was positively associated with early paternal sensitivity with infants. Perhaps sibling conflict follows a different developmental trajectory than positive sibling involvement, with children experiencing feelings of jealousy that surface when fathers act sensitively toward their baby siblings.
- Findings from this study underscore two important points about the developmental course of sibling relationships. First, the early affective environment of the family plays a key role in the long-term relationships that siblings develop. Second, future investigations must continue to explore the role of the affective environment created by both parents in shaping their children's sibling relationships.



Table 1. Sibling relationship scales.

Rivalry	Positive involvement	
<ul style="list-style-type: none"> <li>• mad when has to be with sib</li> <li>• tattles/ tells on sib</li> <li>• jealous of sib</li> <li>• blames sib when bad things happen</li> <li>• tries to win when plays games with sib</li> <li>• tries to stay away from sib</li> </ul>	<ul style="list-style-type: none"> <li>• plays with sib</li> <li>• comes up with ideas for things to do with sib</li> <li>• has fun with sib</li> <li>• feels sib is good friend</li> <li>• brings sib when playing with friends</li> <li>• tells sib secrets</li> <li>• would rather be with sib than alone</li> </ul>	<ul style="list-style-type: none"> <li>• sad when things are hard for sib</li> <li>• tries to make sure sib is happy</li> <li>• tries to make sib feel better</li> <li>• gives sib hugs and kisses</li> <li>• wants sib to do a good job</li> <li>• happy when sib does well</li> </ul>
<p><i>M</i>: 2.64 alpha: .62</p>	<p><i>M</i>: 3.53 alpha: .87</p>	
Teaching	Instrumental caretaking	Conflict
<ul style="list-style-type: none"> <li>• teaches sib to do new things</li> <li>• helps sib in new places</li> <li>• teaches sib to be good</li> <li>• tells sib about school</li> <li>• reads to sib</li> <li>• explains how things work</li> <li>• explains new games</li> </ul>	<ul style="list-style-type: none"> <li>• baby sits or watches sib</li> <li>• helps sib get ready for bed</li> <li>• helps sib get ready in morning</li> <li>• helps to take care of sib</li> </ul>	<ul style="list-style-type: none"> <li>• teases sib</li> <li>• gets mad at sib</li> <li>• argues or fights with sib</li> <li>• hurts sib's feelings</li> <li>• hits or is hit by sib</li> <li>• is mean to sib</li> </ul>
<p><i>M</i>: 3.15 alpha: .80</p>	<p><i>M</i>: 2.39 alpha: .62</p>	<p><i>M</i>: 2.63 alpha: .80</p>

Table 2. Summary of significant associations between early features of the family environment and characteristics of older siblings during the preschool years, and sibling relationship measures three years later.

Positive Involvement	Teaching
<ul style="list-style-type: none"> <li>• parents' marital love (<math>r=.37^*</math>)</li> <li>• mothers' teaching sensitivity (<math>r=.32^\dagger</math>)</li> <li>• gender (<math>t=3.74^{**}</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• parents' marital love (<math>r=.41^*</math>)</li> <li>• fathers' freeplay sensitivity (<math>r=-.30^\dagger</math>)</li> <li>• mothers' teaching sensitivity (<math>r=.53^{**}</math>)</li> <li>• fathers' control of emotional expressiveness (<math>r=-.39^*</math>)</li> </ul>
Rivalry	Conflict
<ul style="list-style-type: none"> <li>• parents' marital love (<math>r=-.57^{***}</math>)</li> <li>• parents' marital maintenance (<math>r=-.44^{**}</math>)</li> </ul>	<ul style="list-style-type: none"> <li>• parents' marital love (<math>r=-.30^\dagger</math>)</li> <li>• fathers' freeplay sensitivity (<math>r=.34^*</math>)</li> </ul>
Instrumental Caretaking	
<ul style="list-style-type: none"> <li>• emotion understanding (<math>r=-.37^*</math>)</li> <li>• older siblings' attachment security to fathers (<math>t=2.96^{**}</math>)</li> <li>• mothers' teaching sensitivity (<math>r=.32</math>)</li> </ul>	



Table 3. Regression analyses predicting sibling relationship measures.

Sibling relationship measure	R <sup>2</sup>	F	df	Antecedent Variables	β	Change in R <sup>2</sup>	
Positive Involvement	.53	8.91***	4, 32	Step 1:			
				Older sibling age	-.16	.33**	
				Older sibling gender	.51***		
				Step 2:			
				Mothers' teaching sensitivity of younger sibling	.26*	.20**	
Parents' marital love	.36**						
Teaching	.47	5.23**	5, 30	Step 1:		.00	
				Older sibling age	-.03	.47**	
				Step 2:			
				Fathers' control of emotional expressiveness	-.18		
				Mothers' teaching sensitivity of younger sibling	-.11		
				Fathers' freeplay sensitivity of younger sibling	.31*		
Parents' marital love							
Instrumental caretaking	.29	2.97*	4, 29	Step 1:		.00	
				Older sibling age	.23	.22*	
				Step 2:			
				Older sibling attachment to fathers	-.32†		
				Older sibling emotion understanding	-.38†		
				Step 3:			
Mothers' teaching sensitivity of younger sibling	.27	.07					
Conflict	.19	2.65†	3, 33	Step 1:		.03	
				Older sibling age	.15	.17*	
				Step 2:			
				Father freeplay sensitivity	.30†		
Parents' marital love	-.27						
Rivalry	.36	6.30**	3, 33	Step 1:		.01	
				Older sibling age	-.25	.36**	
				Step 2:			
				Parents' marital love	-.48**		
				Parents' marital maintenance	-.22		



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