

SOCIAL SKILLS AND SIBLINGS IN INDIA

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by

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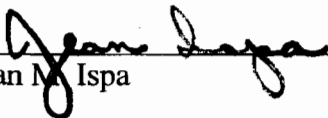
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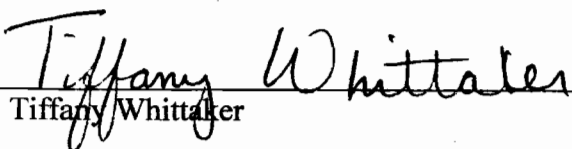
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## SOCIAL SKILLS AND SIBLINGS IN INDIA

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### ABSTRACT

Parents and teachers in India completed questionnaires giving details about the quality of children's sibling and peer relationships. Analyses of social skills of children with and without siblings revealed no significant difference between the two groups on aggressive, asocial and prosocial behavior. Additionally, warmth and conflict in children's sibling relationships were not associated with their social skills. The interaction of warmth and conflict was significant for asocial behavior. A significant correlation between warmth and conflict was observed. Finally, age was inversely related to both aggression and asocial behavior.



## Chapter 1

### Introduction

Sibling relationships are probably the most long-lasting relationships in the lives of individuals. Since sibling relations begin early and usually last long, the relationship patterns developed may be generalized to other relationships such as those with peers and even relationships in adult life (Newman, 1994). Research suggests that the quality of the sibling relationship is stable through middle childhood into adolescence (Dunn, 1996), so the emergence of the relationship pattern in early stages of life is important.

By the preschool years, siblings spend more time together than with parents, suggesting the growing influence of siblings (Dunn, 1993; Larson & Richards, 1994). They imitate each other. They provide each other opportunities for understanding each other's needs (Richman & Lansdown, 1988). Toddlers tend to talk with their parents more than with their older siblings, but when the younger siblings are 4, they talk more to their older siblings than to their mothers (Brown & Dunn, 1992). Older siblings may also become a source of care and comfort (Whiting & Whiting, 1975).

Sibling relationships are similar to and yet different from peer relationships or parent-child relationships. Sibling relationships are not voluntary and are usually not symmetrical depending on the age-gap between siblings, the sex of the siblings, etc. The similarity between peer relationships and sibling relationships is in closeness and familiarity. This is especially true in early and middle childhood. Closeness, intimacy, high quantity of interaction, similar needs and interests indicate the reciprocal nature of the sibling relationship (Dunn, 1988).

The age difference between siblings is likely to be a determinant of the nature of the relationship. If the age gap between siblings is large, the older sibling may be like a caretaker or have a vertical relationship with the younger sibling (DeHart, 1999). This may be especially seen in cultures like India where birth order and sex of the child determine roles and responsibilities. Older siblings are often required to take care of younger siblings. In western civilizations, the role of caretaker is primarily played by the parents more than the siblings (Nuckolls, 1993). Traditionally in most parts of India, females are expected to be the homemakers whereas the males are the bread winners of the family.

There is a presumption that interactions with siblings provide practice which is important for interacting with other children (Brody, 1998). In a comparative study of children without siblings and children with siblings, Kitzmann, Cohen and Lockwood (2002) found that children without siblings, compared to classmates with siblings, were less liked by their peer groups, but were similar to children with siblings in number of close friendships and quality of mutual friendships.

Two qualities of the sibling relationship that may have implications for relationships with extrafamilial peers are warmth and conflict (Furman & Buhrmester, 1985; Hetherington, 1988; Stormshak, Bellanti, & Bierman, 1996). Findings from studies on these constructs are presented below. It is notable, however, that the extant literature is based primarily on studies conducted in the United States, where the culture tends to be individualistic in orientation (Furman & Buhrmester, 1985; Lockwood, Kitzmann, & Cohen, 2001; Stormshak, Bellanti, & Bierman, 1996).

### *Warmth*

Howe et al. (2000) hypothesized that feelings of closeness and warmth in sibling relationships would encourage siblings to share information and look towards siblings for emotional support. Howe, Aquan-Assee, Bukowski, Lehoux, and Rinaldi (2001) found that sibling relationship warmth was associated with emotional understanding as well as self-disclosure between siblings.

Dunn and colleagues (Dunn, Slomkowski, & Beardsall, 1993; Dunn, Slomkowski, Beardsall, & Rende, 1993) found in a study of English families from childhood to adolescence that a warm and supportive relationship with an older sibling was associated with higher perceived self-competence and better adjustment of the younger sibling, while negative behavior from an older sibling was associated with the younger sibling's poorer perceived self-competence and poorer adjustment, even when controlling for mother's mood.

Links between sibling emotional closeness and the social skills of children with their peers have been found (Vondra, Shaw, Swearingen, Cohen, & Owens, 1999). Lockwood, Kitzmann, and Cohen (2001) found that warmth in the sibling relationship predicted positive peer relations in a sample of third through sixth grade children. This result was true regardless of sibling conflict level. Results indicated that children with warm sibling relationships were likely to be liked overall in the peer group. These children described feeling less lonely than children with low or no warmth in sibling relationships. Similar results were observed in other studies as well. Dunn and Munn (1986) did a correlational study of 18-24 month old children and followed up after

6-12 months. They found that if children had friendly older siblings, the children tended to be cooperative with peers.

### *Conflict*

During childhood, even intense conflict in the sibling relationship does not lead to the end of the relationship, as it might in other relationships. Conflict is common in sibling relations in childhood. The reasons are many and may include familiarity, access to the sibling, parental differential treatment, expectations of the siblings as well as the parents, uneven dominance, and power sharing (Wilson, Smith, Ross, & Ross, 2004; Lockwood et al. 2001).

Kitzmann et al. (2002) suggested that children without siblings may be less able to manage conflict, and could be more victimized and aggressive in peer groups. Their study suggested the possibility that the number and quality of friendships a child forms may be more influenced by the parent-child relationship than by the sibling relationship. The study also suggests that social skills like conflict management in relationships were more affected by the presence of siblings than by parents. Sibling conflict may provide practice with negotiation, compromise, and resolution of conflict. These experiences may help in developing better perspective taking abilities (Perner, Ruffman, & Leekam, 1994). This may be transferred to other relationships like peer relationships.

Katz et al. (1992) found that when the older sibling is aggressive or rejected by others, the younger sibling does not learn effective social skills. However, a few studies found that second-borns may benefit from challenges faced due to the older sibling being dominant and more skilled than they (Abramovitch, Corter, Pepler, & Stanhope,

1986; Minnett, Vandell, & Santrock, 1983). In a study conducted by Bedford, Volling, and Avioli (2000), 72.5% of the respondents reported that conflict in sibling relationships during childhood led to benefits in later life. Benefits ranged from social development, parenting or grandparenting skills, personal development to improvements in sibling relationships. Out of the total respondents reporting benefits of troubles in sibling relationship, about 25% perceived benefits in social development. Qualitative analysis indicated two reasons conflict could have benefited later social development. The siblings may have become more sensitive and did not treat others the same way. Also, the siblings experiencing conflict may have learned conflict management strategies better.

The research thus does not show clear effects of conflict in sibling relationships on the social skills of younger sibling later in life. The sources of the information of the sibling relationship may have led to varying results. In most studies, parents completed the questionnaires. The child could perceive the relationship differently than the parents. The influence of other factors like sex of the sibling (especially in countries like India), temperament of the siblings, and other role models may influence relationship quality.

### *Culture*

Each culture has a set of beliefs and values that are passed from one generation to another. Culture involves the societal rules that guide the action of its members and that are transmitted to the next generation so that they can function in their society

(Whiting & Whiting, 1974). A child interacts with adults, siblings, and peers in an environment that is culturally organized. This regulates the development of the child.

In a collectivistic culture, the individual is less important than the group or family. The membership of the individual in the group is most important. Group goals are given more importance than individual goals or individual aspirations. Collectivistic societies induce a sense of responsibility for each other's welfare in a family or group. Individuals in individualistic societies tend to focus on personal beliefs, goals, and aspirations which may be more idiosyncratic than common. Miller and colleagues have found that when placed in hypothetical situations with life-threatening, moderately serious, or minor need, Indians seemed to have a greater sense of obligation irrespective of need, liking towards the person, or relationship to the person, when compared to Americans (Miller & Bersoff, 1998; Miller, Bersoff & Harwood, 1990). Along the same lines, Verma and Triandis (1999) found that the Indian students of Patna University were more collectivistic than students at the University of Illinois. The group of Indian students was found not to be particularly interested in being unique and independent of their group. On the other hand, Oyserman, Coon and Kimmelmeier (2002) did not find that Indians are significantly less individualistic when compared to Americans.

Sinha and Tripathi (1994) have argued against dichotomizing the categories of individualism and collectivism. According to their study, India is a country where collectivism and individualism coexist. They found that individualism and collectivism coexist with context-based values. Neither is predominantly present. The older generation in India is more collectivistic than the younger generation. The younger

generation is individualistic yet reaps the benefits of a collectivistic society. The younger generation is more likely to live in a nuclear family but to continue to maintain close kinships with the extended family. It does not lose the benefits of collectivistic society (Mishra, 1994). Mishra (1994) found that residential and educational background also predicted individualistic or collectivistic orientation. Individuals in rural regions were found to be more collectivistic than Indians from urban regions. Individualism was seen in choice of religion and ethical practices and preferences, but cultural expectations of closeness to family and type of duties and responsibilities had a predominantly collectivistic flavor.

Seymour (1993) found that in South Asian cultures, like India, the role played by siblings is more visibly outlined by the society when compared to western cultures. For example, a set of brothers are expected to live together and cooperate, or brothers are expected to look out for the welfare of married sisters who leave the maternal house at the time of marriage. Also, in Asian cultures, siblings are culturally obligated to be involved with each other throughout their lives, whereas in Euro-American culture, it may be a personal choice in adulthood (Weisner, 1993).

Joint family structure is fairly common in South Asia. It is common for there to be more than two generations in a household. It is also common for siblings and extended family members to share resources and work and to be involved with each other throughout their lives (Nuckholls, 1993).

In Indian families, the children are additionally socialized by frequent social contacts with the extended family (Kakar, 1981). Cousins may play the role of siblings

in the absence of siblings in a family, acting as playmates when of a similar age or as caretakers when of different age-groups. Moreover, children in India play in large groups that require high levels of cooperation and sharing. Most of the children engage in play that occurs in unison and involves physical contact like touching and holding, and this practice could continue beyond the preschool years (Roopnarine, Johnson, & Hooper, 1994).

In Asian cultures, the practice of having siblings and cousins take care of younger ones in the family may lead the older ones to develop nurturing and caring qualities early in life (Nuckolls, 1993). Sibling rivalry was hardly found in research by Minturn and Hitchcock (1963) and Beals and Eason (1993) on Indian samples. Seymour (1993) suggested that this may be due to cultural values and structural factors; the manifestation of sibling rivalry may be reduced by the importance given to family and its members in the culture. She concluded that siblings in cultures like those of South Asia may increase or decrease the intensity of *expression* of behavior even though they may experience the same range of feelings as siblings in the United States.

#### *Present study*

Development is essentially a context-bound process (Valsiner, 1989). Very few studies have directly compared the peer related social competence of children with and without siblings (Kitzmann et al. 2002). The purpose of the current research was to explore relations between early childhood sibling status and social competence with nonfamilial peers, and between early childhood sibling relationship quality and social competence with nonfamilial peers. It was expected that in India, children with siblings



would not differ in social skills from children without siblings as the children are additionally socialized by extended family members. It was hypothesized that warmth as well as conflict in the sibling relationship would predict social skills of children in India as the children would learn the social skills from the siblings and extend them to their interactions with peers. Exploratory analyses was conducted to determine if warmth and conflict in sibling relationships would interact to predict the social skills of children. Exploratory analysis were also conducted to test associations between children's social skills, education of their mothers, the age of their mothers, their fathers' education, and the age of their fathers.

## Chapter 2

### Methods

#### *Participants*

Data were collected from two preschools in Chennai, India. The schools specifically catered to only preschoolers. The schools accommodated different socioeconomic strata. Only children whose parents and teachers both returned completed questionnaires were included in the study. Therefore, though 150 questionnaires were handed out, the final sample included 119 preschool children. There was no limit on number of siblings of the target child. Of the 119, 75 children had siblings and 44 children were only children. The mean age in months of all the children was 48.02 (SD = 11.14). The mean age, in months, of the children with siblings was 50.18 months (SD = 10.30; range = 21-69). The mean age, in months, of the children without siblings was 44.40 (SD = 11.76; range = 22-64). Except for age, missing data were replaced using linear interpolation. The mean ages of the fathers and mothers of children with siblings was 35.77 years (SD = 4.25; range = 27-50) and 29.61 years (SD = 3.56; range = 22-41), respectively. The mean age of fathers and mothers of children without siblings was 33.57 years (SD = 4.87; range = 28-54) and 28.59 years (SD = 3.90; range = 21-41), respectively. No two target children were from the same family.

The education of the parents was coded on a scale of 1-6. Educational levels of 8th grade and below were coded as 1; 9th and 10th grade were coded as 2; 11th and 12th grade were coded as 3; bachelors degree and equivalent were coded as 4; master's

degree and equivalent were coded as 5; doctorate and equivalent were coded as 6. On this scale, the mean education level coded for fathers and mothers of children with siblings was 2.97 (SD = 1.361; range = 1-5) and 2.91 (SD = 1.107; range = 1-5), respectively. For children without siblings, the father and mother had coded education levels of 3.78 (SD = 1.183; range = 2-6) and 3.61 (SD = 1.368; range = 1-5) respectively. Parents of 113 of the children listed their religion as Hindu, 3 as Christian, 2 as Muslim, and 1 did not respond.

### *Procedure*

Permission was obtained from the school authorities to contact teachers, who in turn contacted parents. Questionnaires for parents and teachers were given to the teachers. The teachers filled out the Child Behavior Scale, which gave an indication of the social skills of the target child in relation to peers. The parents were asked by the teachers to fill in the Sibling Relationship Questionnaire, which was an indicator of the quality of the sibling relationship. One of the parents from each family also completed a demographic details questionnaire. The demographic questionnaire yielded information about the age and sex of the child and the child's siblings. It also gave information about the educational background, occupation, religion, and age of the parents.

### *Measures*

*Sibling Relationship Questionnaire.* Parents of children with siblings completed measures of warmth and closeness taken from the Sibling Relationship Questionnaire (SRQ) (Furman & Buhrmester, 1985). A 5-point Likert-type format (1 = hardly at all, 2 = not too much, 3 = some what, 4= very much, 5= extremely much) was used for all

items. Furman and Buhrmester's factor analysis of the items in the SRQ yielded 4 factors; for the current study, two were used. The Warmth and Closeness measure had 21 items and hence a score range of 21-105. The Warmth and Closeness measured affection (sample item: "How much the children care about each other?"), companionship (sample item: "How much time do your children spend with each other?"), similarity, admiration of sibling, admiration by sibling, intimacy and prosocial behavior between siblings (example: "How much do your children cooperate with each other?"). Conflict had 9 items and the score ranged from 9-45. This scale include antagonism, competition, and quarreling between siblings (sample items: "How much do your children insult and call each other names?", "How much do your children try to out-do or beat each other at things?", "How much do your children disagree and quarrel with each other?"). Higher scores on the Conflict and Warmth and Closeness scales indicate perceptions of higher levels of these characteristics in the sibling relationship. The internal consistency coefficients exceed .70 (Furman, & Buhrmester, 1985). In the current sample, the Cronbach alpha for warmth was found to be .83. The reliability for conflict was found to be .81.

A study by Moser and Jacob (2002) demonstrated the construct validity of the SRQ. It was expected and found that Warmth would correlate significantly and positively with the Family Environment Scale factors of Affect and Activities (2002). The conflict scale of the Sibling Relationship questionnaire was expected and found to be negatively correlated with the same Family Environment Scale factors (2002).

*Child Behavior Scale (CBS)*. The Child Behavior Scale was formulated by Gary Ladd and Susan Profilet (1996). The scale has been designed for the age group of 4 to 6 year olds. The norms were based on data collected from various cultural and ethnic groups like African-Americans, Caucasians, Latinos, and others. Criterion validity was assessed and found to be acceptable (1996). The CBS consists of 59 items but only 21 items were used for the current study. In this study, the teacher-rating instrument was used to collect information about the child's aggression toward peers (example: "fights with other children"), prosocial behavior with peers (sample item: "helps other children"), and asocial behavior (sample item: "prefers to play alone"). The teachers were asked to rate the extent to which the descriptions applied to the child on a 3 point scale of "doesn't apply," "applies sometimes," or "certainly applies". For the purpose of this study, the scores were averaged for each scale. Aggression and Prosocial behavior had 7 items and Asocial had 6 items. Cronbach alpha for Aggression, Asocial, and Prosocial behavior for this study was found to be .68, .39, and .81 respectively.

## Chapter 3

### Results

Descriptive statistics were computed for children with and without siblings. A summary of the means and standard deviations for the demographic variables is presented in Table 1. Table 2 gives the means and standard deviations of children's social skills scores.

Correlations were calculated between the measures reflecting peer behavior (aggression, asocial behavior, and prosocial behavior), and the following potential control variables: age, sex of the child, father's age, father's education, mother's age, and mother's education. The correlations presented in Table 3 indicate that age was significantly and negatively correlated with aggressive and asocial behavior though the correlations were low-moderate. None of the other associations were significant. Prosocial behavior was not significantly associated with any of the selected control variables.

To test the hypothesis that warmth and conflict between siblings would be predictors of aggressive, asocial and prosocial behavior of children, correlation and hierarchical regression were computed. Table 4 gives the intercorrelations among the dependent and the independent variables. The results indicated that warmth was positively correlated with conflict and aggressive behavior was positively associated with asocial behavior though the correlations were low-moderate. None of the simple correlations between the predictor variables (sibling warmth and conflict) and the criterion variables (the measures of peer-related behavior) were significant.

The hierarchical analyses predicting peer-related behavior were conducted in three steps. Separate analyses were conducted for aggressive, asocial, and prosocial behavior. In the first step, child age was entered as a control variable. In the second step, the terms for sibling warmth and conflict were entered as predictors. In the third step, a term for the interaction between sibling warmth and conflict was entered as a predictor. Warmth and conflict were centered with a mean of zero, so that the interaction terms could be interpreted (Aiken & West, 1991). Table 5 presents the results of these analyses. The analyses indicated, in step 1, that for children with siblings, child's age predicted aggressive, asocial, and prosocial behavior. Results also indicated that in Step 2, warmth and conflict did not significantly predict aggressive behavior, asocial behavior or prosocial behavior. Finally, in step 3, the interaction between sibling warmth and conflict significantly predicted asocial behavior. Figure 1 presents this interaction. Slope analyses of the relationship between conflict and asocial behavior were calculated at three levels of warmth: at the mean, 1SD above the mean, and 1 SD below the mean. At high levels of warmth, the relationship between conflict and asocial behavior was negative,  $\beta = -.22$ ,  $p = .053$ , at the median, there was no association between conflict and asocial behavior,  $\beta = .03$ , *n.s.*, and at low levels of warmth the association between conflict and asocial behavior were marginally positive  $\beta = .28$ ,  $p < .10$ . The relationship between conflict and asocial behavior is positive at lower levels of warmth, as might be expected. However, the pattern of the interaction was not anticipated. As can be seen in Figure 1, at high levels of conflict, levels of asocial behavior were intermediate for all levels of warmth. However, at low levels of

conflict, higher levels of warmth were associated with higher levels of asocial behavior and lower levels of warmth were associated with lower levels of asocial behavior.

My final hypothesis was that children with and without siblings would not significantly differ in terms of aggression with peers, asocial behavior, or prosocial behavior. Analysis of Covariance (ANCOVA) was computed to test the hypothesis. Age was used as a covariate for aggression and asocial behavior as age was found to be significantly correlated with the two dependent variables. Findings showed that children with siblings did not differ significantly from children without siblings on the measures of peer behavior. Sibling status did not seem to influence peer related behavior.



## Chapter 4

### Discussion

With limited recent studies of sibling relationship and social skills in cultures like India, a lot of questions remain unanswered regarding development in the early years of childhood and the influence of the extended family. The main purpose of this study was to look at the influence of sibling status on social skills of children in the early years in India. Associations between warmth/conflict and social skills were found in previous studies in countries like the United States (Lockwood et al. 2001). The findings of the current study, however, supported the hypothesized *absence* of relations between sibling status and social skills in India. Presence or absence of siblings did not seem to influence the aggressive, asocial or prosocial behavior of children in India in the early years. The additional socialization from extended family members may give children the opportunity to practice their social skills which they could transfer to peer relationships. This seems to support Kakar's (1981) emphasis on additional socialization by extended family members. However, because the current study did not assess relationships with cousins and other non-sibling peers, this conclusion is speculative and suggests an avenue for future research. Seymour (1993) suggested that sibling rivalry and its expressions could be subdued due to societal expectations. This concept could be extended to other behavior viewed as negative in the Indian culture like aggression and asocial behavior. So even if the children were aggressive and asocial, they could be muting their expression of these behaviors. In the current study,

the children got a higher score on prosocial behavior when compared to asocial or aggressive behavior which could be more liked or acceptable in India.

In this study, warmth and conflict did not interact to predict children's aggressive and prosocial behavior, but they did interact to predict asocial behavior. At high levels of conflict, children were relatively at the same level of asocial behavior. However, at low levels of conflict, high levels of warmth seemed to be related to more asocial behavior and low levels of warmth were related to less asocial behavior. It may be possible that who are temperamentally withdrawn (more asocial) elicit higher levels of warmth from their siblings, when their siblings are getting along together (i.e., at low levels of conflict). On the other hand, when children are relatively outgoing, they may not elicit the same high levels of warmth from their siblings, even when the siblings get along together (i.e., they have low levels of conflict), because their siblings don't need a very close relationship. Though interaction was found, the results need to be replicated. It is possible that the apparent interaction is anomalous (or a 'false positive').

Socialization patterns may differ in individualistic and collectivistic societies. Studies that focus on associations between sibling relationships and extrafamilial peer relationships in collectivistic societies are needed. In collectivistic societies like India, for example, these associations may be different than in individualistic societies like the United States. India is a close-knit culture. Interactions between members is high and resources are shared (Nuckolls, 1993). Conflict is probably bound to occur, but in India, its expression may be reduced (Seymour, 1993). Also, there is more of an emphasis on sharing and cooperativeness in Indian culture. As the child grows, the parents could try

hard to incorporate these values in their children. Individuals with these values could probably be a better fit in the Indian culture. This may facilitate learning appropriate social skills and handling conflicts in an appropriate way. There is a possibility that interaction with individuals other than siblings may provide the opportunity to practice these social skills.

Amongst variables like age, sex of the child, education and age of the parents, only age seemed to be associated with children's social skills. Results indicated that age was negatively correlated with aggressive and asocial behavior. This indicates that with increase in age, aggressive and asocial behavior seemed to decrease.

Aggression was positively correlated with asocial behavior. Being asocial, the child prefers to play alone, keeps peers at a distance, avoids peers, and is a solitary child. Being aggressive, the child is more likely to fight, bully, taunt, tease, kick, bite, and hit other children. When children are aggressive, other children may not like to play with them and often the aggressive child might end up playing alone and not have many friends (Johnson & Foster, 2005). Though aggressive and asocial behaviors were negatively correlated with prosocial behavior, these correlations were not significant. Prosocial behavior is expressed by helping others, recognizing feelings, being concerned and kind towards others and their distress, being cooperative, and offering help. It could be possible that even though a child is aggressive and asocial, the child could still be prosocial in certain situations.

This study included participants from different walks of life, background and education. Collection of data from different schools from different locations in the same

city helped in gathering a diverse sample. To further gain insight on the influence of culture, this study can be extended. A comparative study between children in United States and India could be more informative. Socialization patterns may differ in individualistic and collectivistic societies; we also need studies that focus on associations between sibling relationships and extrafamilial peer relationships in collectivistic societies. In collectivistic societies like India, for example, these associations may be different than in individualistic societies like the United States. Future research could include aspects like age difference in siblings, family structure, income to possibly shed more light on the development of social skills and influence of extended family. Data on views of parents on children upbringing, time parents spend with the child, the time spend together by siblings also could give more information on the influences on social skills. This study involved the sibling relationship. But in case of more than one sibling, the study did not specify which sibling relationship was studied. This is one of the limitations of this study. Finally, a study that includes observational measures of sibling and non-sibling interaction quality is needed to check the validity of the current findings and to add depth to our understanding of early peer interaction in India.

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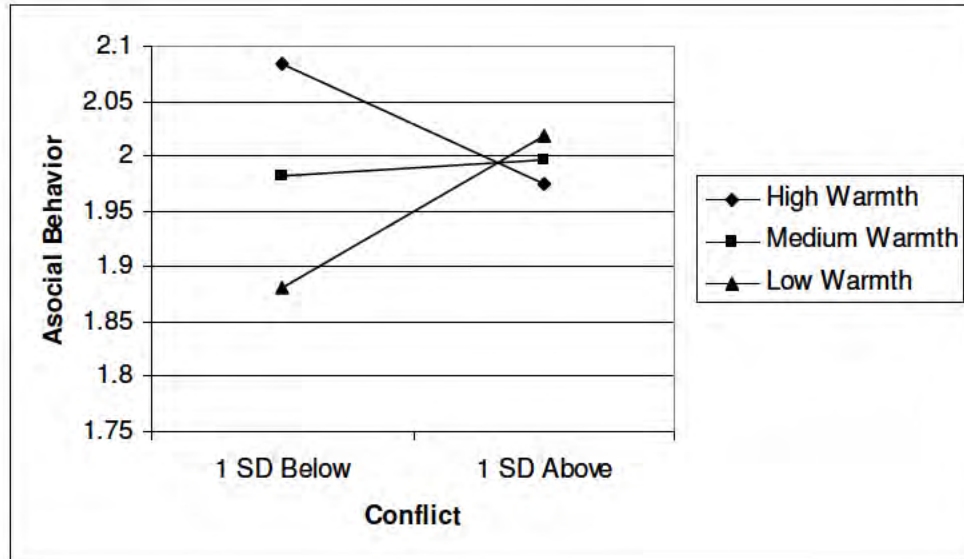
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Appendix

Figures

Figure 1  
*Interaction between Asocial Behavior and Conflict at Different Levels of Warmth.*



## Tables

Table 1  
*Descriptive Statistics for Demographic Variables – Children With and Without Siblings*

	N	Mean	Standard deviation
Age			
With	72	50.18	10.303
Without	44	44.57	11.67
Father's age			
With	75	35.77	4.25
Without	44	33.57	4.87
Father's education			
With	75	2.97	1.36
Without	44	3.78	1.18
Mother's age			
With	75	29.61	3.56
Without	44	28.59	3.90
Mother's education			
With	75	2.91	1.11
Without	44	3.61	1.37

Table 2  
*Descriptive Statistics of Social Skills for Children With and Without Siblings*

	N	Mean	Standard deviation
Aggression			
With	75	1.19	.22
Without	44	1.25	.35
Asocial			
With	75	1.29	.24
Without	44	1.35	.33
Prosocial			
With	75	2.21	.35
Without	44	2.34	.38

Table 3  
*Correlations Between Control Variables and Social Skills for Children With and Without Siblings*

	Aggression	Asocial	Prosocial
Age			
Pearson Correlation	-.303**	-.428**	.136
Sig. (2-tailed)	.001	.000	.145
N	116	116	116
Sex (male=0, female=1)			
Pearson Correlation	-.107	.087	.112
Sig. (2-tailed)	.249	.344	.224
N	119	119	119
Father's Age			
Pearson Correlation	-.047	-.054	-.079
Sig. (2-tailed)	.609	.560	.393
N	119	119	119
Father's education			
Pearson Correlation	.072	.164	-.093
Sig. (2-tailed)	.437	.075	.315
N	119	119	119
Mother's age			
Pearson Correlation	-.051	.023	-.146
Sig. (2-tailed)	.582	.807	.112
N	119	119	119
Mother's education			
Pearson Correlation	.049	.157	.019
Sig. (2-tailed)	.600	.088	.835
N	119	119	119



Table 4  
*Intercorrelations Between Variables for Children With Siblings*

	Warmth	Conflict	Aggression	Asocial	Prosocial
<b>Warmth</b>					
Pearson Correlation	1				
Sig. (2-tailed)					
N					
<b>Conflict</b>					
Pearson Correlation	.478**	1			
Sig. (2-tailed)	.000				
N	75				
<b>Aggression</b>					
Pearson Correlation	-.162	.012	1		
Sig. (2-tailed)	.165	.920			
N	75	75			
<b>Asocial</b>					
Pearson Correlation	-.045	-.126	.384**	1	
Sig. (2-tailed)	.698	.282	.001		
N	75	75	75		
<b>Prosocial</b>					
Pearson Correlation	.159	.046	-.158	-.179	1
Sig. (2-tailed)	.174	.693	.176	.125	
N	75	75	75	75	

\* $p < .05$ ,

\*\* $p < .01$

Table 5  
*Results of Hierarchical Regressions Predicting Social Skills of Children With Siblings*

	Aggression				Asocial				Prosocial			
	$\beta$	t	$\Delta R^2$	F	$\beta$	t	$\Delta R^2$	F	$\beta$	t	$\Delta R^2$	F
Step 1			.10	8.07*			.28	27.21***			.12	9.50*
Child age	-.32	-2.84			-.53	-5.22			.35	3.08		
Step 2												
Quality of Sibling Relationship			.03	1.11			.02	0.15			.01	.30
Warmth	-.19	-1.42			.15	1.28			.10	0.78		
Conflict	.14	1.05			-.19	-1.02			-.04	-0.29		
Step 3												
Interaction WxC			.01	0.47			.10	11.36**			.00	.44
Interaction	-.09	-.68			-.35	-3.39			-.08	-.67		

\* $p < .05$

\*\* $p < .01$

\*\*\* $p < .001$