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THE RELATIONSHIP BETWEEN PARENTAL INTERVENTION INTO SIBLING

CONFLICT AND THE QUALITY OF CHILDREN'S SIBLING RELATIONSHIPS

A Thesis

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Psychology

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by

David Matthew Casey

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Approved by:

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ABSTRACT

This study examined the linkages between parental intervention into sibling conflict and the quality of children's sibling relationships. The potential moderating effects of child temperament and each child's relationship with his/her parent(s) were also examined. Ninety-three parents with at least two children between 6-12 years of age served as the voluntary participants for the study. There was a sub-sample of 13 child sibling pairs as well. Parents completed five questionnaires on sibling relationships, parental intervention, child temperament, and parent-child relationships; the sub-sample of siblings were interviewed by the researchers regarding the same variables. It was predicted that parents would use less intervention with older siblings; however, this hypothesis was not supported. Indeed, results showed no significant relationship between the children's age and the type of parental intervention used. Furthermore, while child temperament and each child's relationship with his/her parents were significantly related to the quality of the children's sibling interactions, they did not serve as moderators of the relationship between parental intervention and the quality of the sibling relationship. Discussion of the findings focuses on the importance of examining different types of parental intervention in sibling research, methodological concerns regarding the study, and issues for future research.

ACKNOWLEDGEMENTS

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INTRODUCTION

Prior to the late 1970's, developmental researchers had concentrated on parent-child interactions and peer interactions, while often excluding sibling interactions (Bedford, 1989). However, in order to fully understand issues related to family functioning and child development, it is necessary to include siblings in family research. In recent years there has been a dramatic increase in research that examines sibling relationships. Much of the research on siblings, however, focuses on characteristics such as birth order and age spacing (Vandell, Minnett, & Santrock, 1987), role relationships and behaviors between young siblings (Brody, Stoneman, MacKinnon, & MacKinnon, 1985), differential parenting of siblings (Brody, Stoneman, & McCoy, 1994), as well as the quality of sibling relationships (Furman & Buhrmester, 1985). Fewer studies examine the direct role parents can play in their children's sibling relationship. The study of sibling interactions offers an exciting new perspective on the development of social and communication skills in children and adolescents (Dunn & Kendrick, 1981).

In this study, I addressed the following research question: Can researchers accurately predict the quality of sibling relationships during middle childhood by studying the effects of parental intervention into sibling conflict? To help answer this question, the study focused on parental intervention, parent-child relationships, and sibling relationships. The literature review itself focuses specifically on parental intervention into sibling conflict. The study examined linkages between parental intervention into sibling conflict and the quality of the sibling relationship. The following questions were

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addressed in this study: Do different amounts of each type of parental intervention techniques affect the quality of sibling relationships? Does the type of parental intervention vary based on the age of the siblings? What effect do other factors (e.g., child temperament) have on the linkages between parental intervention techniques and the quality of the sibling relationship? Before reviewing the literature on parental intervention into sibling conflict, one important question needs addressing: Why is it even important to study parental intervention into sibling conflict?

It is important to study parental intervention into sibling conflict because of the high incidence of sibling violence and abuse in our society. Raffaelli (1992) states that conflict often is a defining feature of sibling relationships, and it is common during childhood and adolescence. Furthermore, it is possible that the most frequent type of aggression occurs between siblings under the age of thirteen (e.g., Goodwin & Roscoe, 1990; Roscoe, Goodwin, & Kennedy, 1987; Steinmetz, 1977). For example, Steinmetz (1977) studied 57 families and found a high level of physical violence between the children in the family. In her study, 70% of the children under age nine and 68% of children ages nine to thirteen used some form of physical violence in resolving conflict with a sibling. Although we have evidence that sibling violence exists, investigators know relatively little about parents' roles in sibling conflict.

Some research has shown that sibling conflict may be regarded relatively leniently by both parents and siblings (Pagelow, 1989). It appears that the high frequency of conflict and the low incidence of injury in sibling arguments may discourage parents from getting involved or limit their involvement to high intensity disputes (Herzberger & Hall,

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1993). High intensity disputes typically include restraining, hitting, and pushing

(Herzberger & Hall, 1993). However, there are some examples of extreme sibling abuse.

In their research on preschool age children, Rosenthal and Doherty (1984) found cases

where siblings expressed their aggression by choking, throwing sharp objects, chasing

siblings with knives, and breaking bones. Therefore, while violence, or at least conflict,

may be part of many sibling relationships, little is known about the structure and process

of this sibling conflict (Raffaelli, 1992). For example, there is relatively little research on

parental intervention into sibling conflict and the ways in which this intervention may or

may not encourage better quality sibling relationships.

Past research has shown that sibling relationships may be influenced by parental

intervention (e.g., Felson & Russo, 1988). However, there are three different points of

view on parental intervention into sibling conflict. First, some experts believe that parents

should not intervene in sibling aggression (Felson & Russo, 1988). Second, other experts

believe that parents not only should intervene in sibling conflicts, but that they also need

to use strict behavior modification techniques in dealing with these situations (Adams &

Kelley, 1992). Moreover, there are other researchers of parental intervention techniques

who incorporate portions of these two diverging theories (i.e., they advocate more

moderate approaches). The review begins with a discussion of Felson and Russo's (1988)

research that explores the first view of parental intervention.

First Point of View: Parents Should Not Intervene in Sibling Conflict

Felson and Russo (1988) believe that parental intervention or punishment may

inadvertently encourage the behavior that it is supposed to inhibit. This occurs as parental

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intervention alters the balance of power in the sibling relationship (Felson & Russo, 1988). If the weaker antagonist anticipates parental intervention, support, or protection, he/she will be more likely to confront a stronger antagonist (Felson & Russo, 1988). This may explain why attempts by parents (i.e., third parties) to control aggressive behavior can inadvertently increase aggression and fighting between siblings (Felson & Russo, 1988).

In families, the parent is typically the powerful third party and the children are the two antagonists of unequal power. The siblings are perceived to have unequal power due to their age differences. Felson and Russo (1988) believe that parents are more likely to support the weaker antagonist (i.e., usually the younger sibling). By intervening, parents are inadvertently encouraging the younger sibling to continue to aggress against the older sibling. Therefore, through their actions, parents may inadvertently increase, rather than decrease, sibling conflict (Felson, 1983).

Felson and Russo's study (1988) uses data obtained from children in grades four through seven and their parents (n = 292). The children had a minimum of one sibling. The researchers measured the frequency of verbal aggression, the frequency of physical aggression, and who initiated the aggression. Their results indicated five punishment strategies that are used by parents. These strategies are presented in Table 1 (see next page).

Table 1

Punishment Strategies

      1) Punishing the older sibling (21.5% of the parents used this strategy)

      2) Punishing the younger sibling (9.3%)

      3) Punishing neither child (16.1%)

      4) Punishing both children (41.6%)

      5) Punishing whoever initiated the conflict (11.5%)

Felson and Russo (1988) suggest that there is a dilemma that parents face when their children fight. On the one hand, parents have good reasons for intervening in their children's fights and for punishing the older children (Felson & Russo, 1988). In particular, parents often want to protect the younger child, while at the same time punishing the older child (i.e., the idea being that the older children should know better). On the other hand, patterns observed in their research show that sibling aggression was most frequent when the older child was punished and least frequent when neither child was punished (Felson & Russo, 1988). Felson and Russo (1988) conclude that these results support their hypothesis that punishing the more powerful sibling results in more frequent aggression, while a laissez-faire approach results in less frequent aggression.

There are two issues to consider when examining the findings of Felson and Russo (1988). First, their research concentrates on the issue of punishment. However, the researchers do not appear to give a clear definition of what exactly is meant by punishment. Second, it is not clear whether the parents are monitoring the children from

another area, or are actually present when the aggression occurs between the siblings. A clarification of these two points would help to better understand the findings of Felson and Russo (1988).

Levi, Buskila, and Gerzi (1977) also examined issues related to parental intervention into sibling conflict. They believe that the central cause for sibling fights is the desire for parents' attention, and that parental interference prevents children from learning how to resolve their conflicts by themselves (Levi et al., 1977). Although the article by Levi et al. (1977) develops some interesting ideas, the sample size is extremely small (six families). Overall, the articles by Felson and Russo (1988), and Levi et al. (1977) are examples of research showing that non-parental involvement can sometimes be effective when parents are dealing with sibling conflict.

Ross, Filyer, Lollis, Perlman, and Martin (1994) present a thorough overview of issues related to parent intervention and sibling conflict. Ross et al. (1994) discuss whether parents should intervene in their children's sibling disputes. They point out three main theories arguing against parental intervention into sibling conflict. First, there is the belief that children fight to gain attention and that parental intervention reinforces this aim (Dreikurs, 1964). Independent of parental involvement, children will typically settle disputes quickly and equitably. Second, there is the argument presented by Brody and Stoneman (1987) that parental intervention prevents children from working out their own solutions. By intervening, parents are preventing their children from acquiring conflict resolution skills. Finally, there is the view maintained by Felson and Russo (1988),

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which, as mentioned earlier, states that a balance of power forms between siblings when

parents do not intervene into sibling conflict.

Second Point of View: Parents Should Use Behavior Modification Techniques to

Intervene in Sibling Conflict

But, siblings also fight when parents do not intervene. Therefore, other researchers

believe that some intervention is necessary to help decrease sibling aggression. Behavior

modification is the basis of the second viewpoint regarding parental intervention into

sibling conflict. Experts in this area believe that behavior modification techniques are

necessary to decrease sibling aggression. The research in this area is almost exclusively

on preschool-age children's sibling conflict (e.g., Jones, Sloane, & Roberts, 1992;

Tiedemann & Johnston, 1992). An exception is research completed by Adams and Kelley

(1992).

Adams and Kelley (1992) note that little research has been devoted to evaluating

effective interventions for sibling aggression during middle childhood. In their research,

Adams and Kelley (1992) compared the efficacy and treatment of two intervention

strategies for sibling aggression: time-out and overcorrection. Thirty mothers and their

children in aggressive sibling dyads participated in the study (Adams & Kelley, 1992).

There were two criteria for subject selection. First, the parents were originally seeking

assistance for the problem of sibling aggression (Adams & Kelley, 1992). Second, the

children exhibited an average of two or more sibling fights (verbal and/or physical

aggression) per day during the baseline period (Adams & Kelley, 1992). The definition of

aggression was established according to the Home Report Card (HRC). The HRC was a

recording sheet which provided the following definitions of aggression: any physical or verbal episode including hitting, pushing, kicking, spitting, biting, throwing objects, struggling over toys, name-calling, or hostile arguing. The mean age for the sibling pairs was 5.72 years, with an age range between 1-12 years old (Adams & Kelley, 1992). The subjects were solicited through various advertisements (e.g., radio announcements and newspapers).

Initially, the subjects were randomly assigned to one of three groups: time-out, overcorrection (i.e., restitution requiring the individual to over-compensate for misbehavior), or the control group (Adams & Kelley, 1992). Parents were trained in each of these procedures. After training, mothers used the Home Report Card (HRC) to record the frequency of sibling aggression (Adams & Kelley, 1992). The study results indicated that both time-out and overcorrection significantly reduced sibling aggression rates as compared to the control group (Adams & Kelley, 1992). Therefore, in this study, it appears that the behavior modification techniques were successful at reducing aggression between siblings.

In a related study, Heffer and Kelley (1987) assessed the effects of race and income on mothers' ratings of the acceptability of five child management interventions for dealing with sibling conflict. Participants were 83 mothers of children between the ages of two and twelve who were recruited from pediatric outpatient waiting rooms (Heffer & Kelley, 1987). These participants were presented with a case description of an eight-year-old boy who exhibited behavior problems in the home, including physical and verbal aggression toward his five year old sister (Heffer & Kelley, 1987). The mothers

had a choice between five intervention strategies to deal with the aggressive boy's behavior. These intervention strategies are presented in Table 2.

Table 2

Intervention Strategies

1) Positive Reinforcement - the boy was praised and provided with privileges when he complied to the parent's instructions

2) Response Cost - the boy was reprimanded and lost privileges when he disobeyed or behaved aggressively toward his sister

3) Time-out - the boy was placed in a quiet room for ten minutes whenever he did not comply with his mother's instructions or behaved aggressively toward his sister

4) Spanking - the boy received four swats on his bottom if he was noncompliant or aggressive

5) Medication - the boy received medication for the purpose of controlling his noncompliant and aggressive behavior

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The results showed that parents consistently rated response cost and positive reinforcement as significantly more acceptable than time-outs, spanking, or medication (Heffer & Kelley, 1987). Given the five choices, the participants felt that response cost and positive reinforcement were the most effective ways to deal with sibling conflict.

Similar to Heffer and Kelley (1987), Olson and Roberts (1987) also examined the use of alternative behavior modification techniques to help deal with sibling conflict. In

Olson and Roberts' (1987) study, participants were randomly assigned to one of three treatment conditions: social skills, time-out, or a combination of both social skills and time-out. The participants were eighteen mothers with at least two children participating (Olson & Roberts, 1987). The children ranged in age from 1.7 to 10.3 (mean = 5.4 years old).

In the Olson and Roberts (1987) study, the dependent variable was the frequency of daily sibling aggression. Mothers used the HRC to measure levels of sibling aggression during the baseline and treatment periods. Training procedures for the child consisted of observation of videotaped child models reacting to typical conflict situations (Olson & Roberts, 1987). The data indicated that children in the social skills condition were significantly more aggressive than children in the time-out condition, and also more aggressive than children in the combination condition (Olson & Roberts, 1987). Olson and Roberts (1987) suggest that behavior modification techniques (i.e., time-outs) may be a more effective way of dealing with sibling conflict than techniques like social skills training. However, Olson and Roberts (1987) did not discuss the long-range implications of using "strict" behavior modification techniques with children.

Not all parents view time-out as effective and acceptable for modifying children's behavior problems (Adams & Kelley, 1992). Instead, many parents use more moderate intervention strategies to deal with sibling conflict. The use of more "moderate" intervention strategies, rather than non-intervention or behavior modification techniques, represents the third point of view on parental intervention into sibling conflict.

Third Point of View: Parents Should Use "Moderate" Intervention Strategies in Sibling

Conflict

Kramer, Baron, Chung, Lin, Kowal, and Radey (1995) did an interesting study

which examined parental intervention into sibling conflict during the "Witching Hour."

This is the time of day just before dinner when both the parents and the siblings are often

tired. The researchers felt there would tend to be more incidents of sibling conflict during

this time of day (Kramer et al., 1995).

Kramer et al. (1995) point out that many parents are disturbed by conflict between

their children and would appreciate assistance. However, there is little consensus among

researchers about how, or even if, parents should intervene in their children's conflicts

(Kramer et al., 1995). Therefore, many of the practical resources that parents read contain

contradictory recommendations on how they should deal with sibling conflict (Kramer et

al., 1995). One of the objectives of their study was to help clarify what type of parental

intervention may be the most effective. Kramer et al. (1995) also wanted to evaluate

which parental intervention strategies are most closely related to positive sibling

relationships.

Eighty-eight two-parent families, consisting of siblings between three and nine

years of age, participated in the study (Kramer et al., 1995). The vast majority of

participants were Caucasian (95%). Three home observations were conducted in which

children's spontaneous conversations with their sibling were observed using a wireless

microphone system (Kramer et al., 1995). The objective was to observe sibling behavior

in the natural home environment (Kramer et al., 1995). When conflict occurred, the

researchers observed whether or not the parent chose to intervene and the strategies that the parent used to help resolve the conflict (Kramer et al., 1995). Finally, the quality of the children's sibling relationship was identified using a five-point Likert scale to rate the sibling interactions for involvement, warmth, agonism, control, and rivalry/competition (Kramer et al., 1995).

Based on the research, five categories of parental conflict management strategies were identified. These include: passive non-intervention, collaborative problem solving, redirection, power assertion, and commands to stop fighting. Mothers and fathers were most likely to use passive non-intervention when responding to sibling conflict (Kramer et al., 1995). Passive non-intervention was defined as responses that simply ignore the conflict between siblings and does not involve any type of parental intervention (Kramer et al., 1995). No differences were identified between mothers' and fathers' use of the five conflict management strategies (Kramer et al., 1995).

To allow for age comparisons, Kramer et al. (1995) made a distinction between younger sibling dyads (3 - 7 year olds) and older sibling dyads (4.5 - 9 year olds). The results suggest that, among younger sibling dyads, more maternal intervention into children's conflict was linked with reduced levels of coercive behaviors (Kramer et al., 1995). Furthermore, higher levels of maternal intervention were related to higher ratings of sibling involvement and warmth for younger sibling dyads, but lower ratings of sibling involvement and warmth for older sibling dyads (Kramer et al., 1995). It is a slightly different story for paternal intervention. Fathers' intervention into sibling conflict was linked with more agonism, control, and rivalry between younger siblings (Kramer et al.,

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1995). However, for the older sibling dyads, there was no significant relationship between paternal intervention and the quality of the sibling relationship.

Overall, the results suggest that the sibling interactions of younger children may be more positive when fathers either avoid intervening in children's conflicts, or if they do intervene, they use redirection and collaborative problem solving (Kramer et al., 1995). It appears that mothers may be allowed greater flexibility in their behavior since positive sibling interactions among younger sibling dyads was related to patterns of maternal intervention and non-intervention (Kramer et al., 1995). Furthermore, the results show that no one strategy stands out as closely linked to prosocial sibling interaction among older dyads (Kramer et al., 1995). The results suggest that parental use of redirection and commands to stop fighting are less effective with older sibling dyads (Kramer et al., 1995). Therefore, Kramer et al. (1995) suggest that non-intervention may be more warranted with older sibling dyads.

The preceding review considered some of the studies that examined the relationship between parental intervention and sibling conflict. As is evident, the discussion of different parental intervention techniques reveals the diverse findings of past research. Generally, there are significant gaps and inconsistencies in past research. In particular, there continues to be a general lack of research exploring the relationship between parental intervention and sibling conflict. A brief summary of other gaps and inconsistencies in the parental intervention research will be discussed next.

<u>Limitations in Past Research</u>

The findings from the past research on parental intervention into sibling conflict (and its linkages to the quality of children's sibling relationships) have been inconsistent in terms of both the "best" amount and type of intervention required. There also has been a tendency with past research to consider only maternal intervention into sibling conflict. With a few exceptions, paternal intervention into sibling conflict has been relatively ignored.

Another problem with past research on parental intervention into sibling conflict has to do with the age of the participants. The research that does exist on parental intervention into sibling conflict focuses on preschool-age children (0-5 year olds). There is much less research exploring the period of middle childhood (6-12 years of age). Middle childhood is a critical developmental period when substantial changes occur in both sibling relationships and child-parent relationships. It is also a period when significant physical and cognitive changes are occurring, and when there may be an increase in life-stress (e.g., going to a new school). These changes may have an significant impact on the quality of the existing sibling relationship. Furthermore, increased independence for the child during middle childhood may be associated with changes in the parent-child relationship as well as changes in parental intervention strategies (Felson & Russo, 1988).

A final gap in the research has to do with the examination of factors that may influence parental intervention and its link with the quality of children's sibling relationships. Kramer et al. (1995) point out that it's possible that parental use of specific

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conflict management strategies affects sibling relationship qualities. However, it's also conceivable that some third variable may influence the association between parental intervention and the quality of the children's sibling relationship. One such third variable is the temperament of the siblings. Past research has shown that children with highly active and emotionally intense temperaments tend to experience more conflict in their sibling relationships (Brody et al., 1994; Brody & Stoneman, 1987). For example, Mash and Johnson (1983) found that high, active temperaments in children were associated with a four-fold increase in sibling conflict. Therefore, temperament is an issue that needs to be considered when examining parental intervention into sibling conflict.

A second factor that needs to be considered is the parent-child relationship. Brody et al. (1994) found linkages between positive parent-child relationships and higher levels of positive affect and prosocial behavior in the sibling relationship. Conversely, negative parent-child relationships are associated with aggressive, self-protective behavior in sibling relationships (Brody et al., 1994). Therefore, sibling relationships appear to be influenced by the nature of each child's relationship with his/her parent(s). It seems apparent that both child temperament and the quality of each sibling's parent-child relationship need to be included in discussions of parental intervention into sibling conflict.

To fill the gaps in the research, the present study concentrated on a number of specific issues. First, the sibling participants were of middle-childhood age (6-12 years of age). Second, both mothers and fathers were included in the study. Finally, the researcher examined the potential moderating effects of child temperament and the parent-child

relationship on the association between parental intervention and the quality of the children's sibling relationship.

There are a number of issues surrounding parental intervention that need to be addressed in future research. For example, should parents intervene into sibling conflict or not, when should they intervene, how much should they intervene, what beliefs do parents have about sibling conflict, how do parents decide to intervene into sibling conflict, and finally, if parents do intervene, what techniques do they use? It is hoped that this study alleviated at least some of the gaps in the parental intervention research.

<u>Hypotheses</u>

For this study, the main research question was: What are the variables that allow researchers to accurately predict the quality of children's sibling relationships? With regard to the interrelationships between the children's ages, the amount of each type of intervention parents use to discourage sibling conflict, and the quality of the children's sibling relationship, the following hypotheses were proposed:

<u>Hypothesis #1</u>: Children's Age and the Amount of Parental Intervention

In general, it was hypothesized that parents would use more non-intervention with older siblings than with younger siblings. That is, in general, as children become older, more parental non-intervention in sibling conflict would be observed.

The first hypothesis was made on the basis of the findings given by Kramer et al. (1995). In their sample of three-to-nine-year-olds, Kramer et al. (1995) found that less parental intervention was required as children matured. Based on this finding, it seemed plausible to predict that this trend would continue with this sample of school-aged

children (6-12 year olds). That is, as siblings progress through middle childhood, there would be less of a need for parental intervention.

Hypothesis #2: Children's Age and the Amount of Each Type of Parental Intervention

It was hypothesized that the older the sibling, the more likely high levels of parental non-intervention would be used. Furthermore, the younger the sibling, the lower the level of parental non-intervention and the higher the levels of positive intervention and direct intervention. Positive parental intervention includes collaborative problem solving and redirection; and direct parental intervention includes power assertion, commands to stop fighting, and behavior modification techniques.

The rationale for making the second hypothesis was based on the research conducted by Kramer et al. (1995). They found that many parental intervention techniques were less effective with older sibling dyads (Kramer et al., 1995). For example, redirection and commands to stop fighting were less effective with older, compared to younger, siblings. It would seem logical that as a particular type of parental intervention becomes less effective, the parents would use it less and less. Therefore, there should be a decrease in intervention as the siblings mature. With the younger siblings in the present study, parents would more likely use both positive and direct intervention. That is, the younger the child, the greater the use of different types of intervention. However, again, as the children mature, the parents would use fewer and fewer amounts of positive and direct intervention, and higher amounts of non-intervention.

Hypothesis #3: Sibling Relationships and Parental Intervention Techniques: The

Younger Children

It was hypothesized that more positive sibling relationships among the younger

siblings would be associated with a higher amount of the "moderate intervention style"

(i.e., higher levels of positive intervention).

The third hypothesis was made on the basis of the findings given by Felson (1983).

Felson (1983) has suggested that higher amounts of parental intervention may increase

levels of sibling conflict. However, in this current study, the researcher anticipated that a

lack of parental intervention may signal to the younger children that parents are

unconcerned that they are fighting with each other. This perceived lack of concern may be

associated with continued aggression between the younger siblings. This researcher

believes that children as young as 6 or 7 years of age continue to need guidance and

support with their sibling relationships. Thus, in order to nurture a positive sibling

relationship, some parental intervention (i.e., collaborative problem solving or

redirection) would be required from time to time. It was hypothesized, therefore, that a

high amount of positive intervention would be associated with more positive sibling

relationships among the younger siblings in the study.

Hypothesis #4: Sibling Relationships and Parental Intervention Techniques: The

Older Children

It was hypothesized that the older the siblings, the more likely that a higher level

of non-intervention by parents would be associated with more positive sibling

relationships.

The rationale for making the fourth hypothesis was based on research from a variety of sources. Hartup (1992) concluded that, as children mature, they spend less and less time with their siblings and parents, and more time with their peers. Generally, this decreased level of interaction means there would be fewer opportunities for conflict between siblings (Vandell et al., 1987), and thus, fewer requirements for parental intervention (Kramer et al., 1995). Furthermore, as children mature, they are more skilled at managing sibling conflict independently, without the need for parental intervention. Therefore, for the older siblings, it was predicted that higher levels of parental non-intervention would be associated with more positive sibling relationships.

The next hypothesis concerned the interrelationship among the amounts of each type of parental intervention, the children's temperaments, and the quality of the children's sibling relationship. The hypothesis was stated as follows:

Hypothesis #5: Sibling Relationships, Child Temperament, and Parental Intervention

It was hypothesized that more positive sibling relationships would be associated with higher levels of parental non-intervention and less difficult temperaments of the siblings, whereas, more negative sibling relationships would be associated with higher amounts of direct intervention (e.g., power assertion, commands to stop fighting, and behavior modification techniques) and more difficult temperaments of the siblings.

The rationale underlying this hypothesis was based on research conducted by Brody et al. (1994). In this research, it was shown that children with highly active and emotionally intense temperaments (i.e., more difficult temperaments) experienced more

conflict in their sibling relationships (Brody et al., 1994). Therefore, it would seem

reasonable to predict that in a sibling relationship where at least one sibling is

emotionally intense, parents would perceive an increased need for more direct parental

intervention, irrespective of the participant's age. It was hypothesized that the

combination of a difficult temperament and more direct parental intervention would

actually be associated with more negative sibling relationships.

The sixth hypothesis concerns the interrelationship among the amounts of each

type of parental intervention, the quality of the parent-child relationships in the family,

and the quality of the children's sibling relationship. The hypothesis was stated as

follows:

Hypothesis #6: Sibling Relationships, Parent-Child Relationships, and Parental

Intervention

It was hypothesized that the quality of sibling relationships would be closely

related to the quality of parent-child relationships in the family, and the amount of each

type of parental intervention used in sibling conflict. More positive sibling relationships

would be associated with higher amounts of non-intervention and more affectional

parent-child relationships, whereas, more negative sibling relationships would be

associated with higher amounts of direct intervention and more conflictual parent-child

relationships.

This hypothesis was made on the basis of research conducted by Brody et al.

(1994), which found that positive parent-child relationships were linked with higher

levels of positive affection and prosocial behavior in sibling relationships. That was why

it was hypothesized that positive parent-child relationships (i.e., highly affectionate) in combination with more non-intervention by parents would be associated with more positive sibling relationships. Conversely, that was also why it was hypothesized that negative parent-child relationships (i.e., high in conflict) in combination with higher amounts of direct intervention would be associated with more negative sibling relationships during middle childhood.

In addition to the interrelationships among the variables listed above, the researcher also investigated whether or not the gender of sibling pairs in a family would influence the quality of sibling relationships.

Hypothesis #7: Sibling Status Variables (Exploratory Hypothesis)

Female-female sibling pairs were expected to have a more positive sibling relationship than either male-male or male-female sibling pairs.

This hypothesis was based on past research (e.g., Buhrmester & Furman, 1990) showing that sisters tend to have more positive sibling relationships. If gender pair differences in the quality of sibling relationships were found, these differences would be controlled in the data analyses.

METHOD

Design

In this study a correlation-regression approach was adopted to investigate the interrelationships among the following variables: the age of the participant's children, the amounts of each type of parental intervention, the quality of children's sibling relationships, the level of each child's temperament, and the quality of the parent-child relationship.

Adult Participants

Of the 182 questionnaire packages distributed, 101 parents completed and returned the questionnaires (a 56% participation rate). However, eight parents were eliminated from the analyses due to incomplete questionnaires, or due to the fact that the parents did not meet the requirements of the study (e.g., only one child instead of two between the ages of 6-12). Therefore, for the purposes of this study, 93 families with at least two children between 6-12 years of age served as the voluntary sample.

One parent from each family served as the participant in the study. The sample of 80 mothers and 13 fathers ranged in age from 25 to 50 years ($\underline{M}$ = 35.6). Table 3 presents the demographic information for the parents (see next page; also see Appendix A). In the nine cases where there were three children in the family between 6-12 years of age, the parents were to randomly select two of the children for the purposes of the present study.

Table 3

Demographic Information on the Parents (N = 93)

Parent's Age

Range: 25 to 50 years (M = 35.6, SD = 5.52, N = 86)

Parent's Gender

Father   14% (13 participants)
Mother   86% (80 participants)

Number of Children in the Family

Range: 2 to 8 children (M = 2.8)

Number of Children Between 6-12 Years Old

2 children   90.3% (84 participants)
3 children   9.7% (9 participants)

Parent's Marital Status

8.6% Single
74.2% Married
11.8% Divorced
2.2% Widowed
3.2% Other

Parent's Ethnicity

57.0% Caucasian
17.2% African American
19.4% Hispanic
3.2% Asian
3.2% Other

Parent's Religion

30.1% Protestant
35.5% Catholic
1.1% Jewish

30.1% Other

Parent's Level of Education

    3.2% Less Than High School
  10.8% Completed High School
  24.7% Some College/University Courses
  34.4% Completed Junior College
  20.4% University Degree
    6.5% Masters Degree

Annual Income

    2.2% Less Than 5000
    7.5% 5001 - 14,999
  17.2% 15,000 - 24,999
  16.1% 25,000 - 34,999
  12.9% 35,000 - 44,999
  36.6% 45,000 +

The participants were recruited from the student population at a state university in

Southern California. The students were offered "extra credit" points for voluntary

participation in the study. Other potential participants were recruited through referrals

provided by the university students. All participants were treated in accordance with the

Ethical Principles of Psychologists and Code of Conduct (American Psychological

Association, 1992; see Appendix B for the informed consent form and Appendix C for

the debriefing statement).

The researcher attempted to include an equal representation of families from low,

medium and high socio-economic backgrounds. The researcher also attempted to include

a cross-section of families that reflected the ethnic diversity of the community (i.e.,

representative sample of African-Americans, Hispanics, and Asians). For the purposes of

this study, the participants only considered two children ranging in age from six-to-twelve-years-old.[1] Finally, the researcher attempted to achieve an approximately equal distribution of participants with children who varied on the following variables: gender of the children, relative ages of the children, and age spacing between the siblings.[2]

Table 4 presents the demographic information on the children of the adult participants (see next page). The older siblings ranged in age from 7 to 12 years (M = 10.3), and the younger siblings' ages ranged from 6 to 12 years (M = 7.6). There was one set of twins in the present study (12 years old).

Table 4

Demographic Information on the Children (N = 93)

Age of Younger Sibling   Age of Older Sibling

    Range: 6 to 12 years (M = 7.6)   Range: 7 to 12 years (M = 10.3)

Gender of Younger Sibling   Gender of Older Sibling

    Male   47.3% (44 participants)   Male   57.0% (53 participants)
    Female 52.7% (49 participants)   Female 43.0% (40 participants)

Gender Composition Variable

    Older Brother-Younger Brother   29.0% (27 sibling pairs)
    Older Sister-Younger Sister   24.7% (23 sibling pairs)
    Older Brother-Younger Sister   28.0% (26 sibling pairs)
    Older Sister-Younger Brother   18.3% (17 sibling pairs)

Age Spacing Between the Siblings

    0 Years   1.1% (1 sibling pair)
    1 Year   16.1% (15 sibling pairs)
    2 Years   29.0% (27 sibling pairs)
    3 Years   28.0% (26 sibling pairs)
    4 Years   14.0% (13 sibling pairs)
    5 Years   8.6% (8 sibling pairs)
    6 Years   3.2% (3 sibling pairs)

Child Participants

A sub-sample of children also participated in the present study. The adult

participants were asked if they would allow their children to be interviewed. Thirteen

parents allowed their children to participate in the study.[3] This sub-sample of children

included 13 pairs of siblings between the ages of 6 and 12. The siblings' perceptions of

the quality of their sibling relationship and the amount of each type of parental

intervention were assessed [4] (see Appendix D for parental permission form for child participation and Appendix E for the child verbal assent script).

Materials for Adult Participants

The study included questionnaires to assess the quality of the children's sibling relationship, parental intervention into sibling conflict, child temperament for each child, and the parent-child relationship for each individual child.

Sibling relationship. The quality of the children's sibling relationship was assessed using the parent version of the Sibling Relationship Questionnaire (SRQ) developed by Furman and Buhrmester (1985). The SRQ includes 48 items that measure 16 specific relationship qualities. Each of the 16 scales contain three 5-point Likert items, and each item asks how characteristic a feature is for the relationship (e.g., How much do your children argue?). The scales included anchors from 1 = "hardly at all" (characteristic of the children's relationship) to 5 = "extremely much", with a midpoint (3) that reads "somewhat".

Scores on the SRQ were used in the following way. The participants' children were compared based on the quality of their sibling relationships. Differences in the children's warmth/closeness, relative status/power, conflict, and rivalry in their sibling relationship were examined. Parents completed one SRQ for their two children between the ages of six and twelve.

For the SRQ, the 16 scale scores were derived by simply summing the three items that are related to that scale (Furman & Buhrmester, 1985). In general, the higher the score, the more the individual believed that the scale is representative of their children's

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sibling relationship. For example, a high score on the prosocial scale score means that the child tended to be more sociable. The derivation of factor scores is not as straightforward for the SRQ. However, Furman and Buhrmester (1985) have derived the factor scores on the basis of primary loadings. This means that the warmth/closeness factor consisted of scale scores for intimacy, prosocial behavior, companionship, similarity, admiration by sibling, and affection. Factor scores for relative status/power consisted of nurturance of sibling and dominance over sibling, minus the scale scores of nurturance by sibling and dominance by sibling. Conflict scores consisted of quarreling, antagonism, and competition. The rivalry score consisted of maternal and paternal partiality.

In past research, reliability estimates (Cronbach's alpha) for the SRQ's composite scores had all exceeded .70 (Furman & Buhrmester, 1985). In a separate study, the self-report version of the SRQ was administered to third, sixth, ninth, and twelfth graders (Buhrmester & Furman, 1990). In this case, the reliability estimates in the four subject groups were .71, .79, .77, and .81 respectively (Buhrmester & Furman, 1990). The test-retest reliability for each of the 16 three-item scales were found to range from .58 to .86 (mean r = .71). A review of the literature shows a lack of research examining the reliability and validity of the parent form of the SRQ. Therefore, the psychometric data presented here comes from research on the closely related self-report version of the SRQ.

The reliability estimates (Cronbach's alpha) for the SRQ scores in the present study ranged from a low of .60 for the sibling antagonism subscale, to a high of .92 for the sibling quarreling subscale. Only maternal partiality and antagonism had reliability estimates that were below .75.

There were three main reasons for using the SRQ in this study. First, Furman,

Jones, Buhrmester, and Adler (1989) had shown that the SRQ is the type of questionnaire

that can be accurately filled out by the children's parent. In particular, Furman et al.

(1989) concluded that other family members' perceptions of the quality of sibling

relationships were found to be moderately to strongly correlated with self-reports by

children. Second, there was evidence that the SRQ would be appropriate for measuring

the quality of sibling relationships in participants between the ages of six and twelve

(Furman & Burhmester, 1985). Finally, the SRQ was used because there is a lack of other

good measures that examine the quality of sibling relationships.

High test-retest reliability and low correlations with social desirability provide

encouraging evidence for the validity of the SRQ (Furman & Burhmester, 1985).

However, the SRQ has been used only in a limited number of studies. This means that

researchers using the SRQ should be cautious of any findings. At this point, more analysis

of the reliability and validity of the SRQ is required. However, the SRQ will be

interpreted as a subjective measure only (see Appendix F for the SRQ).

Parental intervention into sibling conflict. Upon review of published

questionnaires, it was apparent that there was no specific questionnaire that would be

entirely appropriate for measuring parental intervention. Therefore, a new questionnaire

was designed for this study by adapting items from two sources: the Parental Involvement

in Sibling Conflict (PISC) questionnaire (Nagel, 1995) and the observational scheme of

Kramer et al. (1995). The latter source was revised from an observational coding measure

to a set of questionnaire items (see below for details).

As the name suggests, the Parental Involvement in Sibling Conflict (PISC) questionnaire was developed to measure the amount of parental involvement into sibling conflict. The 25-item questionnaire is indexed using a five-point Likert scale. This scale ranges from "strongly disagree" (1) to "strongly agree" (5). The questionnaire is scored so that a high score equates to higher parental involvement (Nagel, 1995). Statistical analysis of the questionnaire indicates that the coefficient alpha for mothers' involvement in sibling conflict is .61 and for fathers' involvement is .63.

For the purposes of this study, only 11 of the original 25 PISC questions were used (e.g., "I separate my children when they are having a disagreement"). The remaining questions that dealt with issues not directly related to the amount of parental intervention used in sibling conflict were excluded. It was unclear how the reliability and validity would be affected by using only a portion of the PISC questionnaire. The reliability and validity for this new measure of parental intervention in sibling conflict was assessed in the present study.

The second source for this new parental intervention questionnaire was the observational scheme created by Kramer et al. (1995). As mentioned in the introductory section, Kramer et al. (1995) identified five categories of parental conflict management strategies. These five management strategies are listed and defined in Table 5 (see next page).

In the study by Kramer et al. (1995), coders listened to an audio transcript and identified which of the five strategies were used in each interaction. However, in the present study, the researcher did not code the various strategies. Instead, the present

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researcher used these definitions from each management strategy, along with items from

Nagel's PISC questionnaire, to develop a new questionnaire: the Parental Intervention

Questionnaire.

Table 5

Parental Conflict Management Strategies

Strategy

1. Non-Intervention	Responses that ignore the conflict and do not involve any type of parental intervention
2. Collaborative Problem Solving	Strategies in which parents actively work with both children together to reach a mutually acceptable resolution to the conflict
3. Re-Direction	Strategies that are aimed at ending conflict quickly by redirecting the children's attention to a non-conflictual topic or object
4. Power Assertion	Parents use their authority and power to end their children's conflicts
5. Commands to Stop Fighting	Parents using persuasive verbal methods in an effort to terminate their children's fighting

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The Parental Intervention Questionnaire included 11-items from the PISC

questionnaire (Nagel, 1995). These 11-items were developed to measure the following

constructs: non-intervention (6 questions), direct intervention (4), and behavior

modification techniques (1). The next 17-items in the Parental Intervention Questionnaire

were developed based on the research by Kramer et al. (1995). These 17-items were

developed to measure the following constructs: behavior modification techniques (3 questions), commands to stop fighting (4), collaborative problem solving (4), redirection (2), and power assertion (4). Therefore, there were 28-items on the Parental Intervention Questionnaire. Two final exploratory questions were included to allow the parents to identify specific parental intervention techniques that they tended to use.

The 28-items of the Parental Intervention Questionnaire were measured on a five-point Likert scale ranging from "strongly disagree" (1) to "strongly agree" (5). The participants received a score for each type of parental intervention that was being measured (e.g., collaborative problem solving). The non-intervention items were reversed before scoring, so that a high score on the measure indicated higher levels of non-intervention. In general, higher scores would mean that the parent tended to use (or believe in) that type of parental intervention. For example, higher scores on collaborative problem solving questions would be associated with the use of that particular type of parental intervention. This scoring procedure was intended to allow the researcher to compare the amounts of each type of parental intervention technique used by the participant. The reliability and validity of the Parental Intervention Questionnaire are described in the results section of the present study (see Appendix G for the newly adapted Parental Intervention Questionnaire).

Child temperament. The temperament of each of the participant's children was assessed using the Revised Dimensions of Temperament Survey (DOTS-R) developed by Windle and Lerner (1986). The DOTS-R is a revised version of the original Dimensions of Temperament Survey (DOTS) that was developed by Lerner, Palermo, Spiro, and

Nesselroade (1982). The survey was developed for use with children (3+), adolescents, and young adults. Both self-ratings and parent-ratings of temperament are possible with the DOTS-R. However, only the parent-ratings of the child's temperament was used in this study. Parents filled out two DOTS-R's, one for each of their children between the ages of six and twelve.

The DOTS-R includes 54 items that measures nine temperament attributes: activity level-general, activity level-sleep, approach/withdrawal, flexibility/rigidity, quality of mood, rhythmicity-sleep, rhythmicity-eating, rhythmicity-daily habits, and task orientation (Windle, Hooker, Lenerz, East, Lerner, & Lerner, 1986). A four-choice response format was used with each item: "usually false" (1), "more false than true" (2), "more true than false" (3), and "usually true" (4). An example of a DOTS-R item (indexing approach/ withdrawal) is "On meeting a new person my child tends to move toward him or her."

Scoring of the DOTS-R involves summing the item scores (i.e., 1, 2, 3, or 4) that correspond to each of the nine temperament attributes (Windle et al., 1986). It should be noted that 15 DOTS-R items are reversed in direction before scoring (Windle et al., 1986). With the exception of the task orientation attribute, higher DOTS-R scores indicated higher levels of each attribute. For example, higher scores on sleep rhythmicity indicated more regularity in sleeping pattern (Windle & Lerner, 1986). However, higher scores on task orientation indicated higher persistence and lower distractibility.

For the purposes of this study, only two of the nine attributes were used to calculate an individual level of temperament. Activity level-general (7 questions) and the

quality of mood (7 questions) were scored in the following way: Higher scores were associated with more positive temperament qualities (i.e., easy-going temperament), and lower scores were associated with more negative temperament qualities (i.e., a difficult temperament).

Research has shown that there are moderate to high internal consistency estimates of reliability for all nine attributes included in the DOTS-R (Windle & Lerner, 1986). When assessing the temperament of elementary-school-age children, the nine attributes of the DOTS-R have the following alpha coefficients: activity level-general .75, activity level-sleep .81, approach/withdrawal .77, flexibility/rigidity .62, quality of mood .80, rhythmicity-sleep .69, rhythmicity-eating .75, rhythmicity-daily habits .54, and task orientation .70 (Windle & Lerner, 1986).

In the present study, the reliability estimates (Cronbach's alpha) for the DOTS-R were assessed for both the younger and the older siblings. For the younger siblings, the reliability estimates for the nine attributes of the DOTS-R ranged from a low of .56 for rhythmicity-daily habits, to a high of .92 for quality of mood. Only rhythmicity-daily habits had a reliability estimate that was below .77. For the older siblings, the reliability estimates for the nine attributes ranged from a low of .66 for rhythmicity-daily habits, to a high of .89 for activity level-general. Only rhythmicity-sleep and rhythmicity-daily habits had reliability estimates that were below .79.

Concurrent validity studies have shown that the DOTS-R attributes are significantly associated with a range of perceived competence and intelligence measures (Windle, 1992). For instance, the findings of Windle et al. (1986) indicated significant

associations between DOTS-R attributes and measures of perceived social and cognitive competence among participants in early and late adolescence. Furthermore, Matheny (1989) reported significant associations between DOTS-R attributes and Wechsler Intelligence Scale for Children (WISC) measures of verbal and performance intelligence.

There are two main reasons why the DOTS-R was used as the measure of temperament in this study. First, the DOTS-R has overcome many of the limitations of the DOTS, while maintaining its virtue (Windle & Lerner, 1986). For example, the DOTS-R uses a four-choice response format instead of the more limiting dichotomous response format used in the DOTS. Second, the DOTS-R is a short, but moderately reliable, measure of temperament (Windle & Lerner, 1986; see Appendix H for the DOTS-R measure).

Parent-child relationship. The parent-child relationship was assessed, by the parents, using the Family Relationship Questionnaire (FRQ) developed by Henggeler and Tavormina (1980). The FRQ is comprised of a total of eleven items that assess parental and adolescent perceptions of the affect, conflict, and dominance in each of three family relationships: mother-adolescent, father-adolescent, and mother-father (Henggeler & Tavormina, 1980). In this study only the eight items assessing the relationships between mother and adolescent (4 items) and between father and adolescent (4 items) were used. Each of the eight items were rated according to a 5-point response format, ranging from "never" (1) to "always" (5), or "father/mother always gets his/her own way" (1) to "son/daughter always gets his/her own way" (5). The FRQ was developed for use with

families that vary in cultural composition and socioeconomic status, including families with low literacy rates (Henggeler & Tavormina, 1980).

For the FRQ, the test-retest reliability for a period of one to two weeks has been found to vary between .67 and .70 (Henggeler, Borduin, & Mann, 1987; Henggeler & Tavormina, 1980). These test-retest reliability values are comparable to those reported for other family inventories (Olson, McCubbin, Barnes, Larsen, Muxen, & Wilson, 1982). There is also evidence that members of problem families report the quality of their relations on the FRQ as reliably as members of healthy families (Borduin, Pruitt, & Henggeler, 1986). However, no evidence has been presented for internal consistency within each of the three scales (i.e., affection, conflict, or dominance). Furthermore, due to the design of the FRQ, the present researcher was unable to calculate reliability estimates (Cronbach's alpha) for the three scales of the FRQ.

Several studies support the criterion-related validity of the affect and conflict dimensions of the FRQ (e.g., Borduin et al., 1986; Hanson et al., 1984). However, to date, no data has been provided to show the validity for the dominance dimension or for the FRQ as a whole (Henggeler & Tavormina, 1980). Although explicit scoring procedures are not given for the FRQ, the assumption is that scores for each of the three scales are summed (Henggeler & Tavormina, 1980). In general, the higher the scores, the more representative the question (or scale) will be of that particular parent-child relationship.

In the past, the FRQ has been used exclusively to measure the relationship between parents and their adolescent children. However, due to the simple language used in the questionnaire, it is believed that it also would be useful with six-to-twelve-year-olds. The

present study was used as an opportunity to examine whether or not the FRQ is an appropriate measure to use for parents and their six-to-twelve-year-old children. Adult participants completed 2 FRQ's, one for each of their 2 children between the ages of 6-12 (see Appendix I for the FRQ).

Portions of a similar questionnaire were used as a type of a validity check on the FRQ. The Parental Control Measure developed by Greenberger and Goldberg (1989) was used to examine the level of affection between parents and their children. For the purpose of the present study, only 9 of the original 39 items were used. The other questions were not appropriate since they dealt with issues that were not directly related to the level of affection between parents and their children. For these nine items, the response options ranged from "strongly disagree" (1) to "strongly agree" (7), with the midpoint labeled "neither agree nor disagree" (e.g., "When I discipline my child, I also show understanding and affection"). There were three subscales in the original 39-item version of the Parental Control Measure: harsh, firm/responsive, and lax.

The scoring procedure for the Parental Control Measure was fairly straightforward. Higher scores were associated with more affection in the parent-child relationship and lower scores were associated with lower levels of affection in the parent-child relationship.

For the 39-item version, reliability for the three subscales was the following for men and women, respectively: .72 and .62 for the harsh scale, .69 and .55 for the firm/ responsive scale, and .60 and .59 for the lax scale (Greenberger & Goldberg, 1989).

Dornbusch, Ritter, Leiderman, Roberts, and Fraleigh (1987) reported similar alpha levels for their questionnaire that also measures parenting styles.

There appears to be construct validity for the parental control scales, since the scales are uncorrelated or, at most, weakly intercorrelated (Greenberger & Goldberg, 1989). Moreover, the parenting measures are not simply reflections of social class (Greenberger & Goldberg, 1989). For example, for men, neither level of education nor occupational prestige were significantly associated with any of the three subscales in the Parental Control Measure (Greenberger & Goldberg, 1989). For women, there was some relationships between social class and the type of parental control (i.e., subscales), however, these relationships were only weak-to-moderate in nature (Greenberger & Goldberg, 1989). Although the reliability of the original Parental Control Measure is known, the same cannot be said for the revised version (9-items). Therefore, the reliability for the nine-item version of the Parental Control Measure was assessed in the present study. The reliability estimate (Cronbach alpha) for the 9-item version (including only the affection scale) was .70 (see Appendix J for the revised Parental Control Measure).

Materials for Child Participants

In order to validate the parental reports of the relationships of interest, for 13 sibling pairs, each child was interviewed separately about their sibling relationship as well as their parents' intervention into their sibling conflict. A Visual Analogue Scale (VAS) was the interview technique used for the present study. The VAS measures are among the most reliable and simple self-report measures (Abu-Sadd, 1984). Furthermore,

VAS measures are especially useful with children because they minimize reliance upon verbal abilities (Abu-Sadd, 1984). The VAS requires the child to mark a space along a 10-cm. line that best describes the child's feelings or current experience about the relationship between the child and his or her siblings, or their parents' intervention (Nagel, 1995). The line was anchored by a "1" on one side (with a description reading "not at all like my brother/sister and me" or "not at all like my mother/father") and a "10" on the other side (reading "very much like my brother/sister and me" or "very much like my mother/ father").

During the interviews, using the VAS, children were asked specific questions from the Sibling Relationship Questionnaire and the Parental Intervention Questionnaire. However, in order to keep the attention of the children, the full length of the questionnaires were not used with the sub-sample. Instead, only some specific questions that were more pertinent for the children were included in the interview.

The questions for the children included three items from each of the following SRQ scales: companionship, intimacy, antagonism, and quarreling (12 total items). The inclusion of questions regarding companionship and intimacy allowed for the measurement of warmth/closeness between siblings. Conversely, the inclusion of questions regarding antagonism and quarreling allowed for the measurement of the conflict between siblings. The questions for the children also included 14 items from the Parental Intervention Questionnaire (2 items related to each of the types of parental intervention; see Table 5 for a description of the types). Therefore, there were a total of 28 items in the questionnaire for the children. The specific items were chosen in order to

get an equal representation of questions related to warmth/closeness, conflict, and the seven types of parental intervention. Finally, the questions were reworded in order to facilitate the understanding of the children (see Appendix K for the child interview protocol and the VAS and Appendix L for the questions for the interview with the children).

Procedure for Adult Participants

The researcher distributed the questionnaire packages to potential participants during class sessions on a university campus. The students were eligible for the study in one of two ways. Either they themselves had two children between the ages of 6-12, or they knew someone who fit this requirement. In either case, the participants with at least two children between the ages of 6-12 answered the questions in each questionnaire, and then were instructed to return the completed questionnaire package to the Peer Advising Center in the Department of Psychology at California State University, San Bernardino. When the completed questionnaire package was returned to the Peer Advising Center, the students received their "extra credit." The participants completed the following questionnaires: the Sibling Relationship Questionnaire (SRQ), the Parental Intervention Questionnaire, the Revised Dimensions of Temperament Survey (DOTS-R), the Family Relationship Questionnaire (FRQ), and the revised Parental Control Measure. The questionnaire package took approximately forty-five minutes to one hour to complete.

Procedure for Child Participants

Ten of the thirteen sibling pairs were interviewed at the university campus. The other three sibling pairs were interviewed at their home. The same procedures were used

in the interviews conducted at the university and at the homes. Furthermore, in order to establish interrater reliability, the researcher and one trained undergraduate interviewed each of the siblings.

The interview began with an introductory stage to help the child to feel relaxed and comfortable. During this time, the researcher asked the child about school and any interesting activities in which he/she may be involved.[5] This introductory stage did not last more than five minutes. Then the children were informed that the researcher was writing a paper as part of his university "schoolwork" and that the children were asked to help the researcher learn more about the ways in which siblings and parents do and don't get along. The researcher then asked the child specific verbal questions from the Sibling Relationship Questionnaire (SRQ), and the Parental Intervention Questionnaire. The child used the VAS technique to record their responses. The siblings were interviewed simultaneously, and each individual interview lasted between 15 and 20 minutes.

RESULTS

Preliminary Analyses

Analysis of the child interviews. Due to the small sample size (i.e., only 13 sibling

pairs), the interview data that was collected with the children was not analyzed.

Means, standard deviations, and ranges for the parental questionnaire data. As

mentioned earlier, based on factor loadings, Furman and Buhrmester (1985) derived four

factors scores for the Sibling Relationship Questionnaire (SRQ): warmth/closeness,

relative status/power, conflict, and rivalry. For this study, the means, standard deviations,

and ranges for these four factors are presented in Table 6.

Table 6

Means, Standard Deviations, and Ranges for Sibling Relationship Questionnaire

Factor Scores	Mean	SD	Range	N
(1) Sibling Warmth/Closeness	3.40	.68	1.57 - 4.86	86
(2) Relative Status/Power	-0.42	1.95	-5.00 - +3.33	86
(3) Sibling Conflict	3.02	.78	1.11 - 4.89	91
(4) Sibling Rivalry	2.81	.46	1.17 - 4.50	89

The Revised Dimensions of Temperament Survey (DOTS-R) measures nine

attributes. The means, standard deviations, and ranges for these nine attributes are

presented in Table 7 for the younger siblings, and Table 8 for the older siblings.

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Table 7

Means, Standard Deviations, and Ranges for The Revised Dimensions of Temperament
Survey (DOTS-R): Younger Siblings

Attributes	Mean	SD	Range	N
(1) Activity Level-General	19.15	4.83	8.00 - 28.00	92
(2) Activity Level-Sleep	11.25	3.42	4.00 - 16.00	91
(3) Approach-Withdrawal	19.60	5.11	7.00 - 28.00	91
(4) Flexibility-Rigidity	14.12	3.82	5.00 - 20.00	92
(5) Mood	24.29	4.36	11.00 - 28.00	92
(6) Rhythmicity-Sleep	16.47	3.93	6.00 - 24.00	91
(7) Rhythmicity-Eating	14.86	3.60	5.00 - 20.00	92
(8) Rhythmicity-Daily Habits	13.70	2.68	5.00 - 20.00	89
(9) Task Orientation	19.21	4.44	8.00 - 28.00	92

Table 8

Means, Standard Deviations, and Ranges for The Revised Dimensions of Temperament
Survey (DOTS-R): Older Siblings

Attributes	Mean	SD	Range	N
(1) Activity Level-General	17.02	5.29	7.00 - 28.00	92
(2) Activity Level-Sleep	10.23	3.20	4.00 - 16.00	92
(3) Approach-Withdrawal	19.38	4.21	7.00 - 28.00	90
(4) Flexibility-Rigidity	14.58	3.38	5.00 - 20.00	92
(5) Mood	23.53	4.38	12.00 - 28.00	92
(6) Rhythmicity-Sleep	16.73	3.69	6.00 - 24.00	91
(7) Rhythmicity-Eating	15.21	3.35	5.00 - 20.00	92
(8) Rhythmicity-Daily Habits	13.36	2.76	6.00 - 20.00	88
(9) Task Orientation	19.72	4.96	8.00 - 32.00	92

There are three scales included in the Family Relationship Questionnaire (FRQ): parent-child affection, conflict, and dominance. The means, standard deviations, and ranges for these three scales are presented in Table 9 for the younger siblings, and Table 10 for the older siblings.

Table 9

Means, Standard Deviations, and Ranges for the Family Relationship Questionnaire: Younger Siblings

Scales	Mean	SD	Range	N
(1) Affection	12.71	2.06	6.00 - 15.00	88
(2) Conflict	7.86	1.86	4.00 - 13.00	87
(3) Dominance	4.96	1.38	2.00 - 10.00	84

Table 10

Means, Standard Deviations, and Ranges for the Family Relationship Questionnaire: Older Siblings

Scales	Mean	SD	Range	N
(1) Affection	12.49	2.16	5.00 - 15.00	87
(2) Conflict	7.66	1.75	4.00 - 13.00	86
(3) Dominance	4.81	1.25	2.00 - 10.00	83

The Parent-Child Relationship Questionnaire used in the present study only measured one of the scales from the original Parental Control Measure (i.e., affection). The mean, standard deviation, and range for the affection scale were as follows: $M = 4.95$, standard deviation = .91, and scores ranged from 2.22 to 6.67.

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Sibling status. The researcher completed a series of ANOVA analyses to assess if there were significant differences in the quality of the children's sibling relationships based on the sibling status variables. This required that an ANOVA be conducted for each of the four factor scores of the Sibling Relationship Questionnaire (SRQ) by the gender of the sibling pairs (i.e., sibling dyads) and then by the age spacing between the siblings. These analyses indicated that only the SRQ factor of sibling warmth/closeness was significantly different for the four sibling pairs (i.e., brother-brother, sister-sister, sister-brother, and brother-sister), $F(3, 82) = 2.99$, $p < .05$. A Scheffe post hoc test was completed for this analysis in order to examine which two of the four sibling gender pairs were significantly different on sibling warmth and closeness. The results of the Scheffe test indicated that the brother-brother sibling group and the older brother-younger sister group were significantly different on the sibling warmth/closeness factor ($M = 3.71$ vs. $M = 3.22$, $p < .10$). There were no other significant differences in the quality of the children's sibling relationships based on sibling gender and age spacing.

Intercorrelations among the criterion variables. A series of Pearson product-moment correlations were completed on the four scales of the SRQ: sibling warmth/closeness, sibling status/power, sibling conflict, and sibling rivalry. These intercorrelational analyses showed that sibling warmth/closeness and sibling conflict were negatively related to each other, $r(85) = -.36$, $p < .01$, indicating that higher scores on the sibling warmth/closeness scale were associated with lower scores on the sibling conflict scale. The remainder of the correlations between the sibling relationship scales were not significant.

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Due to the significant differences between sibling pairs on the warmth/closeness

variable, the intercorrelations between the criterion variables also were examined for each

of the four sibling gender groups. For the brother-brother gender pair, there was a

significant negative correlation between sibling warmth/closeness and sibling conflict,

r (23) = -.59, p < .01. For the sister-sister gender pair, sibling warmth/closeness also was

significantly correlated with sibling conflict in the expected negative direction, r (22) =

-.43, p < .05. For both the older brother-younger sister and the older sister-younger

brother gender pairs, no significant correlations were found between sibling warmth/

closeness, sibling status/power, sibling conflict, and/or sibling rivalry.

Analyses of the Parental Intervention Questionnaire

Since the Parental Intervention Questionnaire was specifically designed for the

present study, a factor analysis was conducted on the questionnaire items. Relative scores

on items in the Parental Intervention Questionnaire were submitted to factor analysis

using the technique of principal axis factoring with a direct oblimin rotation. The results

of the factor analysis are presented in Table 11 (see next page). The presentation of the

factor loadings were limited to values above .30 (+ or -). The remaining factor loadings

were set to zero.

It was initially hypothesized that there would be seven distinct types of parental

intervention techniques. However, it is apparent from Table 11 that the factor analysis

allowed the researcher to only partial out three types of parental intervention. Based on a

review of these items, the three factors were labeled: non-intervention (3 items), positive

intervention (7 items, which included items representing collaborative problem solving

and redirection), and direct intervention (14 items, which included items reflecting power assertion, commands to stop fighting, and behavior modification techniques). The other factors (i.e., types) were not significant. Therefore, the remainder of the discussion will concentrate on these three types of parental intervention.

Table 11

Loadings of PIQ Items on Types of Parental Intervention

Questions	Non-Intervention	Direct Intervention	Positive Intervention
1.	.61		
4.	.66		
7.	.42		
2.		.35	
3.		.60	
8.		.34	
12.		.42	
14.		.33	
18.		.44	
19.		.40	
21.		-.49	
22.		.40	
23.		.55	
24.		.55	
26.		.31	
27.		.35	
28.		.45	
5.			-.41
10.			-.42
13.			-.60
15.			-.40
16.			-.55
20.			-.37
25.			-.57

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It should be noted that only 24 of the original 28 items from the Parental

Intervention Questionnaire (PIQ) are listed in Table 11. Two of the items were deleted

from the analysis due to low factor loadings on all factors, and two other questions were

dropped because of their low item-total correlations. The reliability estimates (Cronbach's

alpha) for the three PIQ scales are: non-intervention = .64, positive intervention = .70,

and direct intervention = .78. Finally, the means, standard deviations, and ranges for the

three factors are presented in Table 12.

Table 12

Means, Standard Deviations, and Ranges for the Parental Intervention Questionnaire

	Factor Scores	Mean	SD	Range	N
(1)	Non-Intervention	2.99	.90	1.00 - 4.67	92
(2)	Positive Intervention	3.61	.67	2.00 - 5.00	93
(3)	Direct Intervention	3.09	.53	1.79 - 4.14	93

Intercorrelations among the predictor variables. The researcher also conducted a

series of Pearson product-moment correlations on the following types of parental

intervention: non-intervention, direct intervention, and positive intervention. It should be

noted that a higher score on non-intervention corresponds to a greater level of

intervention. The correlational analyses showed that direct intervention was significantly

and positively correlated with non-intervention, r (92) = .21, p < .05; and also positively

correlated with positive intervention, r (93) = .29, p < .01. That is, the greater the level of

direct intervention, the less non-intervention used and the greater the level of positive

intervention used. The remainder of the correlations between the types of parental intervention were not significant.

Correlations between the predictor and criterion variables. A series of correlations were performed for the four sibling relationship scales (criterion variables) and the three types of parental intervention (predictor variables). The correlational analyses indicated that sibling warmth/closeness was significantly and positively correlated with positive intervention, r (86) = .29, p < .01. That is, the greater the level of parental positive intervention (e.g., collaborative problem solving and redirection), the higher the score on the sibling warmth/closeness scale. The correlational analyses also indicated that sibling conflict was significantly and positively correlated with direct intervention, r (91) = .35, p < .01. That is, the greater the level of parental direct intervention (e.g., power assertion, commands to stop fighting, and behavior modification), the higher the score on the sibling conflict scale. Finally, the analyses indicated that sibling rivalry and positive intervention were significantly and negatively related to each other, r (89) = -.22, p < .05. That is, the greater the level of positive intervention, the lower the score on the sibling rivalry scale. The remainder of the correlations between the sibling relationship scales and the types of parental intervention were not significant.

Correlations of the predictor and criterion variables by sibling gender groups. The correlations between the types of parental intervention and sibling warmth/closeness were examined for each of the gender pairs. In this case, the correlations between the types of intervention and sibling warmth/closeness for all four gender pairs were not significant.

Main Analyses

The main analyses were a series of Pearson product-moment correlations. The correlations between the children's age and the amount of each type of parental intervention, as well as the correlations between the amount of each type of parental intervention and the quality of the children's sibling relationships were examined.

Amount of parental intervention and the age of the siblings. The first hypothesis was that parents would use more non-intervention with older siblings than with younger siblings. Therefore, the present analysis examined the correlation between the amount of parental non-intervention and the age of the siblings. The results showed that the amount of parental non-intervention was not significantly correlated with the age of the siblings.

Amount of each type of parental intervention and the age of the siblings. The second hypothesis was that the younger the sibling, the lower the level of non-intervention and the higher the levels of positive intervention and direct intervention. Therefore, correlations were completed between the levels of each type of parental intervention (non-intervention, positive intervention, and direct intervention) and the younger and older siblings' ages. However, none of the correlations examined were significant. That is, the level of each type of parental intervention used did not appear to be affected by the age of the sibling.

Sibling relationships and parental intervention techniques. Due to the setup of the SRQ measure, it was not possible to separate out who was the younger sibling and who was the older sibling. This was an oversight by the researcher in the development of the

initial hypotheses. However, the researcher has attempted a possible solution to this problem.

The third hypothesis was that more positive sibling relationships among the younger children would be associated with a higher amount of the "moderate intervention style" (i.e., parental positive intervention). In this analysis, positive intervention was presumed to be the "moderate" level of parental intervention since it involves collaborative problem solving and redirection. There were significant correlations between sibling warmth/closeness, the level of parental positive intervention, and the age of the younger sibling. Therefore, in order to test whether there would be more positive sibling relationships for younger siblings with parents who engage in more positive intervention, a hierarchical multiple regression was conducted. The criterion variable was sibling warmth/closeness, the predictor variable was the level of positive intervention, and the moderator was the younger child's age. This multiple regression indicated that the age of the younger sibling was a significant predictor of sibling warmth/closeness, Beta = -.24, F = 5.51, p < .05. That is, the younger the child, the higher the level of sibling warmth/closeness. The analysis also indicated that the amount of positive intervention was a significant predictor of sibling warmth/closeness, Beta = .31, F = 9.91, p < .01. That is, the higher the level of positive intervention the higher the level of sibling warmth/closeness. However, the interaction of the age of the younger sibling and the amount of positive intervention was not a significant predictor of sibling warmth/ closeness.

Fourth, it was hypothesized that the older the siblings, the more likely that a higher

level of non-intervention by parents would be associated with more positive sibling

relationships. There were significant correlations between sibling warmth/closeness, the

level of parental non-intervention, and the age of the older sibling. Therefore, in order to

test whether there would be more positive sibling relationships for older siblings with

parents who engage in lower amounts of parental intervention, a hierarchical multiple

regression was conducted. The criterion variable was sibling warmth/closeness, the

predictor variable was the level of parental non-intervention, and the moderator was the

older child's age. This multiple regression indicated that age of the older sibling was a

significant predictor of sibling warmth/closeness, Beta = -.30, $\underline{F}$ = 8.17, $\underline{p}$ < .01. That is,

the older the child, the lower the level of sibling warmth/closeness. However, the analysis

indicated that the amount of non-intervention was not a significant predictor of sibling

warmth/closeness. Similarly, the interaction of the age of the older sibling and the amount

of non-intervention was not a significant predictor of sibling warmth/closeness.

Moderating Variables

A series of multiple hierarchical regressions were to be completed to test for any

moderating effects of child temperament and/or parent-child relationships on the quality

of the children's sibling relationship. In these analyses, the quality of sibling relationship

variable was regressed on the level of a type of parental intervention, the child's

temperament (or the parent-child relationship) variable, and the interaction of these two

variables (i.e., a two-way interaction). These regression analyses were only run if there

was a significant correlation between the level of a type of parental intervention and the quality of sibling relationship variables.

Sibling relationships, child temperaments, and parental intervention. The fifth hypothesis was that more positive sibling relationships would be associated with higher levels of parental non-intervention and less difficult temperaments of the siblings; and more negative sibling relationships would be associated with higher amounts of direct intervention (e.g., power assertion, commands to stop fighting, and behavior modification) and more difficult temperaments of the siblings. For the purposes of this study, the following four attributes were used to calculate the temperament of the younger and older child: general activity level for the younger child, mood of the younger child, general activity level for the older child, and mood of the older child (see page 34). Higher scores were associated with more positive temperament qualities (i.e., easy-going temperaments), and lower scores were associated with more negative temperament qualities (i.e., difficult temperaments).

The results showed that parental non-intervention was not correlated with the general activity level for the younger or older child, or the mood of the younger or older child. Therefore, the regression for the positive aspects of the sibling relationship could not be conducted.

However, there were significant correlations between sibling conflict (criterion variable), direct intervention (predictor variable), and the general activity level of the older child (moderator). A hierarchical multiple regression indicated that general activity level for the older child was a significant predictor of sibling conflict, Beta = .21,

$F = 4.00$, $p < .05$. That is, the higher the general activity level for the older child, the higher the level of conflict between the siblings. The analysis also indicated that the amount of direct intervention was a significant predictor of sibling conflict, Beta = .29, $F = 7.75$, $p < .01$. That is, the higher the level of parental direct intervention, the higher the level of conflict between the siblings. However, the interaction of the general activity level of the older child and the amount of parental direct intervention was not significant in the regression equation.

Sibling relationships, parent-child relationships, and parental intervention. The sixth hypothesis was that the parent-child relationship would have a moderating effect on parental intervention and the quality of the sibling relationship. In particular, it was hypothesized that more positive sibling relationships would be associated with higher amounts of non-intervention and more affectional parent-child relationships, whereas, more negative sibling relationships would be associated with higher amounts of direct intervention and more conflictual parent-child relationships. For the purpose of this study, four attributes were used to calculate the parent-child relationship: the affection between the younger child and his/her parents, the conflict between the younger child and his/her parents, the affection between the older child and his/her parents, and the affection between the older child and his/her parents. Higher scores on the affection scale were associated with more affection between the child and parents, and higher scores on the conflict scale were associated with more conflict between the child and parents.

The results indicated that there was a significant correlation between non-intervention and affection levels for the younger child, $r(87) = -.22$, $p < .05$, suggesting

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that the lower the level of parental intervention (i.e., more non-intervention), the higher

the level of affection between the younger child and his/her parents. However, there was

no correlation between non-intervention and the sibling relationship variable. Therefore,

no hierarchical multiple regression could be calculated for the positive qualities of the

sibling relationship.

The results also showed that there were significant correlations between sibling

conflict (criterion variable), the amount of parental direct intervention (predictor

variable), and the level of parent-child conflict with the older child (moderator). A

hierarchical multiple regression indicated that the level of parent-child conflict with the

older child was a significant predictor of sibling conflict, Beta = .23, $\underline{F}$ = 4.74, $\underline{p}$ < .05.

That is, the higher the level of conflict between the parent and the older child, the higher

the level of conflict between the siblings. The analysis also indicated that the amount of

direct intervention was a significant predictor of sibling conflict, Beta = .29, $\underline{F}$ = 8.15,

$\underline{p}$ < .01. That is, the higher the level of parental direct intervention, the higher the level of

conflict between the siblings. However, the interaction of the level of parent-child

conflict with the older child and the amount of parental direct intervention was not

significant in the regression.

DISCUSSION

In general, the purpose of this study was to gain a broader understanding of the relationship between parental intervention and the quality of the children's sibling relationship, and the potential moderating effects of child temperament and each child's relationship with his/her parent(s). Specifically, it was expected that the amount of each type of parental intervention would change as a function of the child's age. It also was expected that the amount of each type of parental intervention would affect the quality of the sibling relationship. Finally, it was expected that child temperament and the parent-child relationship would affect the relationship between parental intervention and the quality of the children's sibling relationship.

Effects of Sibling Status Variables

A preliminary analysis was completed to assess if there were significant differences in the quality of the children's sibling relationships based on the sibling status variables. The results showed that the scores for the sibling warmth/closeness factor were significantly different for the four sibling pairs. The post hoc analysis showed that the brother-brother sibling group and the older brother-younger sister group scored significantly different on the sibling warmth/closeness factor. The difference between these two particular sibling pairs was somewhat of a surprise. Past research conducted by Buhrmester and Furman (1990) found that sisters tend to have more positive sibling relationships, whereas, brothers tend to have less warm sibling relationships. However, the present study showed that the brother-brother sibling pair actually had the highest

average score on the sibling warmth/closeness factor. Therefore, the present results

appear to be in direct contradiction with the research of Buhrmester and Furman (1990).

There are two possible explanations as to why there was a significant difference in

sibling warmth/closeness only for the brother-brother sibling pairs and the older brother-

younger sister sibling pairs. First, there was an unequal number of siblings in each one of

the four sibling groups. These differences in the samples sizes may have influenced the

present results. Second, differences in variances may also have affected the present

results. Future research should attempt to have more equal sample sizes for the four

sibling groups.

The intercorrelations between the criterion variables showed that there was a

significant and negative correlation between sibling warmth/closeness and sibling conflict

for both the sister-sister gender pair and the brother-brother gender pair. As expected, the

higher the level of warmth/closeness between the siblings, the lower the level of conflict

between siblings. These results make intuitive sense since siblings with a close sibling

relationship would tend to argue and fight less frequently.

Parental Intervention Questionnaire

It was initially hypothesized that the analysis in this study would identify seven

types of parental intervention: non-intervention, direct, collaborative problem solving,

commands to stop fighting, redirection, power assertion, and behavior modification

techniques. However, the factor analysis only allowed the researcher to partial out three

types of parental intervention. Therefore, the Parental Intervention Questionnaire is

measuring only three distinct factors or types of parental intervention. It appears that

these three types of parental intervention can be identified as: non-intervention, positive intervention, and direct intervention.

A visual analysis of the factor loadings suggested that non-intervention is associated with low levels of parental intervention, positive intervention is associated with more "moderate" levels (or styles) of intervention (e.g., collaborative problem solving and redirection), and direct intervention is associated with high levels of parental intervention (e.g., commands to stop fighting, power assertion, and behavior modification techniques). In theory, it seems possible to use the three types of parental intervention identified in this study as a scale for lower or higher amounts of parental intervention. This theory would work for non-intervention. However, it is more complicated for positive intervention and direct intervention. There was a significant and positive correlation between positive intervention and direct intervention. Therefore, it appears that some parents use a mixture of both positive intervention and direct intervention. The relationship between positive intervention and direct intervention should be examined further.

Amount and Type of Parental Intervention, and the Age of the Siblings

It was initially hypothesized that parents would use more non-intervention with older siblings than with younger siblings (Hypothesis 1). The results indicated that the level of non-intervention did not appear to change as a function of the sibling's age. These findings are inconsistent with Kramer et al.'s (1995) research which showed that less parental intervention was required as children mature. The inability to clearly measure the amount of parental intervention may have influenced these results.

There also may be another reason for the lack of a significant correlation between the amount of parental intervention and the age of the siblings. The siblings in Kramer et al.'s (1995) study were 3-9 years of age, whereas, the siblings in the present study were 6-12 years of age. Kramer et al. (1995) found that less parental intervention was required as siblings matured (e.g., 8 year olds). The relationship between the amount of parental intervention and the age of the siblings may be crucial for children under the age of six. However, it is possible that this trend may not continue with the older siblings in the present study. Therefore, the lack of a relationship between the amount of parental intervention and the age of the siblings may be as a result of either the difficulties in measuring the amount of intervention and/or the age of the children in the present study.

It was also postulated that the older the sibling, the more likely high levels of non-intervention would be used. As well, the younger the siblings, the lower the level of non-intervention and the higher the levels of positive and direct intervention (Hypothesis 2). The results indicated that there was no significant relationship between the amounts of each type of parental intervention and the age of the siblings. Again, these findings are inconsistent with research conducted by Kramer et al. (1995). Kramer et al. (1995) found that some parental intervention techniques were less effective with older sibling pairs. Based on the research conducted by Kramer et al. (1995), the present researcher hypothesized that parents would tend to stop using the less effective parental intervention techniques with the older sibling pairs. However, the results indicated that the expected decrease in the level of positive and direct intervention did not occur.

Sibling Relationships and Parental Intervention Techniques

Unfortunately, due to the structure of the Sibling Relationship Questionnaire (SRQ), it was not possible to study these hypotheses directly. However, an alternative mode of measuring the relationships was identified. First, it was postulated that more positive sibling relationships among younger siblings would be associated with higher amounts of the "moderate" intervention style (i.e., high level of positive intervention; Hypothesis 3). In this analysis, a high level of positive intervention (e.g., collaborative problem solving and redirection) was presumed to be the "moderate style" of parental intervention. This hypothesis was based on the findings of Felson (1983). It had been suggested by Felson (1983) that higher amounts of parental intervention may increase levels of sibling conflict. The results of the present study indicated that, for the younger siblings, the level of positive intervention was indeed a significant predictor of sibling warmth/closeness. That is, the higher the level of positive intervention, the higher the level of sibling warmth/closeness. Therefore, if "moderate" is defined as positive intervention, it means that the results support the hypothesis. More positive sibling relationships among younger siblings were associated with higher levels of positive intervention.

It was also hypothesized that the older the children, the more likely that a higher level of non-intervention by parents would be associated with more positive sibling relationships (Hypothesis 4). The results from the present study indicated that the age of the older sibling was a significant predictor of sibling warmth/closeness in a negative direction. This meant that the older the child, the lower the level of sibling warmth/

closeness. This decrease in the level of warmth with older siblings may be related to differences in social interactions during middle childhood (Hartup, 1992). As children mature they tend to spend less and less time with their parents and siblings and more time with their peers (Hartup, 1992). Therefore, this decrease in the level of warmth between older siblings may be related to the amount of time they spend with each other. For example it would seem plausible to predict that, for most sibling relationships, the less time spent together, the lower the level of sibling warmth. Finally, the level of parental non-intervention was not a significant predictor of sibling warmth.

Child Temperament and Parent-Child Relationships

It was postulated that more positive sibling relationships would be associated with higher levels of parental non-intervention and less difficult temperaments of the siblings, whereas, more negative sibling relationships would be associated with higher amounts of direct intervention and more difficult temperaments of the siblings (Hypothesis 5). The results did not indicate a significant correlation between the temperament of the child and the level of non-intervention. However, a hierarchical multiple regression indicated that both the general activity level of the older child and the amount of direct intervention were significant, unique predictors of sibling conflict. This meant that the higher the general activity level of the older child, and the higher the amount of parental direct intervention, the higher the level of conflict between the siblings.

The rationale underlying this hypothesis was based on research conducted by Brody et al. (1994). Brody et al. (1994) concluded that children with highly active and emotionally intense temperaments (e.g., higher scores on the general activity level scale)

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experienced more conflict in their sibling relationships. The results from the present study confirmed this relationship for the older siblings. Older children scoring high on the general activity level tended to have more conflictual sibling relationships. However, the interaction of the general activity level for the older child and the amount of direct intervention was not a significant predictor of sibling conflict.

Finally, it was hypothesized that more positive sibling relationships would be associated with higher amounts of non-intervention and more affectional parent-child relationships, whereas, more negative sibling relationships would be associated with higher amounts of direct intervention and more conflictual parent-child relationships (Hypothesis 6). This hypothesis was made on the basis of research conducted by Brody et al. (1994), which found that positive parent-child relationships were linked with higher levels of positive affection and prosocial behavior in sibling relationships.

The results indicated that there were no significant correlations among the amount of parental non-intervention, affectional parent-child relationships, and the quality of the children's sibling relationships. However, the results indicated that the higher the level of conflict between the parent and the older child, the higher the level of conflict between the siblings. Furthermore, the higher the score on parental direct intervention, the higher the level of conflict between the siblings. Unfortunately, the interaction of the level of parent-child conflict for the older child and the amount of direct intervention was not a significant predictor of sibling conflict. Therefore, the hypothesis was not confirmed.

Critique of the Methodology

There are a number of methodological concerns that are evident in this study. First, there are concerns regarding the adult participants in the present study. A random sample of parents with at least two children between the ages of 6-12 was not included. The participants also received "extra credit" for participating in the present study. This may have influenced the type of individual who volunteered to participate, or it may have affected their answers to the questions (i.e., similar to the incentive of money). Therefore, future studies should include a random sample without an incentive. Moreover, there was an unequal number of mothers and fathers in the present study. There were only 13 fathers as compared to 80 mothers. Although finding fathers for research is a persistent problem, future researchers should try and have an equal number of mothers and fathers in their studies.

Second, the inability to clarify the younger or older sibling in the Sibling Relationship Questionnaire (SRQ) lead to difficulties in analyzing the following hypotheses: that more positive sibling relationships among the younger siblings would be associated with a higher amount of the positive intervention; and that the older the siblings, the more likely that a higher level of non-intervention by parents would be associated with more positive sibling relationships. Researchers should take this oversight in the SRQ into account when developing their study.

Third, it is evident from the present study that the Parental Intervention Questionnaire requires some refinement. For example, the reliability estimates (Cronbach's alpha) for the Parental Intervention Questionnaire were relatively low,

ranging from .64 to .78. Furthermore, there were only three questions on the Parental

Intervention Questionnaire that measured non-intervention. A revised questionnaire that

includes more items measuring non-intervention should be pilot tested on a larger sample

in order to examine further its reliability and validity. The notion of three major types of

parental intervention looks promising. Therefore, although the results related to the

Parental Intervention Questionnaire were somewhat disappointing, this does not mean

that the questionnaire should be abandoned.

Future Research

There were several possible implications of significant findings from the present

study. First, it was hoped that this study would lead to the identification of the most

effective parental intervention techniques to use during middle childhood. The results did

show that positive intervention was associated with sibling warmth. Therefore, it is

possible that the use of positive parental intervention facilitates positive relationships

between siblings. However, the relationship between positive intervention and the quality

of the sibling relationship should be examined more extensively in future research.

Overall, it does appear that the present research identified three major types of

parental intervention: non-intervention, positive intervention, and direct intervention.

Researchers should continue to examine this area in order to help parents use the most

effective strategies when dealing with conflict between their children. In particular, what

about the parents that appear to use both positive intervention and direct intervention?

How do these parents decide on which intervention technique to use in different sibling-

related scenarios?

Second, it was also hoped that the study would lead to a better understanding of the variables important in reducing sibling conflict. In turn, this better understanding would allow parents, educators, and children to work toward the development of better sibling relationships. This is a goal that future researchers can continue to strive for.

Third, the present study only had 13 sibling pairs in which to analyze. Future researchers should attempt to recruit a larger sample of children for their studies. This would allow for a validity check on the responses of the parents.

Fourth, the relationship between sibling gender and sibling warmth/closeness should be examined further. As mentioned earlier, past research has typically identified the sister-sister sibling pair as having the closest sibling relationship. However, in the present study the brother-brother sibling pairs tended to score the highest on the sibling warmth/closeness scale. What was different about the brothers in the present study? The findings are even more important given the fact that the majority of sibling violence occurs between brothers (Steinmetz, 1977). A more detailed examination of the brothers in the present study may facilitate a better understanding of sibling violence. Furthermore, it is hoped that the positive relationship between brothers may lead to new research that concentrates on the positive aspects of sibling relationships, rather than just negative aspects like sibling rivalry and conflict.

Finally, the present study appears to identify specific relationships that are important for parents to understand. For example, for the younger siblings, the higher the level of positive intervention (e.g., collaborative problem solving and redirection), the higher the level of sibling warmth. This means that if parents want to facilitate warmth

between their younger children, they should attempt to use positive intervention when intervening in sibling conflict. The key for parents appears to be that they need to be willing to change their intervention strategies based on the following variables: the age of the children, the temperament of the children, and the parent-child relationship. Success at intervening in sibling conflict, and the fostering of the positive qualities of the sibling relationship, is a difficult task for parents. However, in order to decrease the level of sibling violence, it is imperative that parents become more adept at using the most effective intervention strategies.

APPENDIX A

<u>Demographic Information</u>

1. Age: _____   Today's Date: _____

2. Sex: Male _____   Female _____

3. Total Number of Children: _____

4. Number of Children Between 6-12 Years of Age: _____

5. Marital Status: 1) Single _____
                     2) Married _____
                     3) Divorced _____
                     4) Widowed _____
                     5) Other _____

6. Race: 1) White _____
                     2) Black/African-American _____
                     3) Hispanic _____
                     4) Asian/Asian-American _____
                     5) Other _____

7. Religion: 1) Protestant _____
                     2) Catholic _____
                     3) Jewish _____
                     4) Other _____

8. Level of Education: 1) Less Than High School _____
                         2) Completed High School _____
                         3) Some College/University Courses _____
                         4) Completed Junior College _____
                         5) University Degree _____
                         6) Masters Degree _____
                         7) Doctorate Degree _____

9. Annual Income: 1) Less Than 5000 _____
   (optional)   2) 5001 - 14,999 _____
                         3) 15,000 - 24,999 _____
                         4) 25,000 - 34,999 _____
                         5) 35,000 - 44,999 _____
                         6) 45,000 + _____

APPENDIX B

Informed Consent Form

My name is David Casey, and I am a graduate student in the Life-Span Developmental Psychology Program at California State University, San Bernardino. With supervision from Dr. Stacy Nagel, I am conducting a research project on parents' feelings and thoughts about intervention into sibling conflict. In order to participate in the present study, you need to have two children between 6 and 12 years of age.

If you consent to participate in the study, you will be asked to complete a set of questionnaires concerning the quality of your children's relationship, parental intervention, child temperament, parent-child relationships, and background information about your family. The questionnaires should take between forty-five minutes and one hour to complete.

Participation in this project is strictly voluntary and you may choose not to answer particular questions. You may withdraw from the study at any time and have your data removed without penalty. Any information provided by you will be held in strict confidence. All of the questionnaire packages are pre-coded with a number in order to ensure the confidentiality of responses. This research has been reviewed and approved by the Institutional Review Board of California State University, San Bernardino.

Although there is no direct benefit from this project for your family, we believe that the information gathered will benefit parents' and educators' knowledge and understanding about parental intervention into their children's sibling relationships. Presently, there is a lack of information on children's sibling relationships during middle childhood (6-12 years of age). Your participation will help us fill in this important gap in our understanding.

If you decide to participate, you need to follow the directions for each of the questionnaires. When you have completed the questionnaires, you may return them to the administer of the test, at which time a debriefing statement describing the study in more detail will be distributed. At the conclusion of this study, you may receive a summary of the results. If you have any questions regarding the project, please contact Dr. Stacy Nagel in Jack Brown Hall #218 or at (909)880-7304. We thank you in advance for participating in the project.

I acknowledge that I have been informed of, and understand, the nature, purpose, and criteria of this study, and I freely consent to participate.

Place Check Mark Here: _____   Date: _____

APPENDIX C

Debriefing Statement

Thank you for participating in this study. The purpose of this study was to better understand how different types and amounts of parental intervention into sibling conflict affect the quality of the sibling relationship. We are particularly interested in how parental intervention strategies may change due to the age of the siblings, the temperament of the children, and/or the parent-child relationship. For example, do parents tend to use more or less parental intervention with older children? Does the temperament of children influence parental intervention, which in turn has an affect on the quality of the sibling relationship? Finally, what part does the relationship between the individual children and parents play in intervention into sibling conflict?

To date, the majority of research on parental intervention and the quality of sibling relationships has been completed on preschool-aged children (0-5). Not as much is known about parental intervention into sibling conflict with older children (6-12). This study will hopefully help us to better understand what parental intervention techniques foster positive sibling relationships for school-aged children.

It's anticipated that the group results of this study will be available by June 15, 1997. Please contact David Casey or Dr. Stacy Nagel after this time if you are interested in the outcome of the study.

Please contact Dr. Stacy Nagel at (909)880-7304 in 218 Jack Brown Hall, Psychology Department, California State University, San Bernardino, if you have any questions or concerns about your participation in this study. Please do not reveal the nature of this study to other potential participants. Thank you again for your participation.

APPENDIX D

Parental Permission Form for Child Participation

Part of this study involves interviewing children of the participants. By interviewing the children, we are hoping to gain even more insight into the relationship between parental intervention, siblings relationships, and parent-child relationships. If you allow your children to participate, each of your children between 6-12 years of age would be interviewed separately by two different researchers. During an approximately thirty minute interview, a researcher would be asking your child twenty-six questions regarding their sibling relationship and parental intervention. Your children can decline to participate, not answer specific questions, or ask a question at any time. Similar to the questionnaire package that you just completed, the information from your children also will be kept confidential. Furthermore, this page will be separated from the rest of your questionnaire package and it will not be entered into the data set.

The participation of the children would be extremely helpful in furthering our understanding into sibling relationships. If you would allow your children to participate, we would appreciate it if you competed the required information below. The researchers will randomly select a group of children to participate in the study. If your children are selected, a researcher will contact you in about a week to set up a convenient time for the researchers to talk with your children. We thank you in advance for allowing your children to participate in this study.

I am the legal guardian of the children named below and I acknowledge that I have been informed of, and understand, the nature and purpose of this study, and I freely give my consent for my children to participate.

Date: _____

Parent/Guardian's Signature: _____

Parent/Guardian's Name: _____

Name of Your First Child Between 6-12: _____

Name of Your Second Child: _____

Phone Number: _____

When is the Best Time to Reach You?: _____

APPENDIX E

<u>Child Verbal Assent Script</u>

You are being asked to be in a research study to see how brothers and sisters get along, and how children get along with their parents. Today, you will be asked about your opinions and feelings about your sister or brother and your parents. The researchers are doing a class assignment about what people really think about being a brother or sister.

The researchers are writing a book about what people really think about their relationship with their sister or brother, and their parents. The researchers want your opinions and feelings about these relationships. There are no right or wrong answers to the questions. Some of the questions during the interview may make you feel uncomfortable, but it is okay for you to refuse to answer any of the questions at anytime. Finally, everything you say during the interview is extremely confidential, and no one will know what you say, not even your parents or your brother or sister.

The researcher will be asking you a lot of questions in the next fifteen to twenty minutes and you do not have to answer any questions that you don't want to answer. You don't have to participate in any activity if you don't want to and you can ask the researcher anything you want to at anytime.

I agree to participate in the present study.

Place Check Mark Here: _____

Date: _____

APPENDIX F

Sibling Relationship Questionnaire (SRQ)
(Copyright 1990, © Wyndol Furman)

This questionnaire was completed by   MOTHER   FATHER   (circle one)

The phrase this sibling refers to (one child's initials): _____

This Child's Age: My child is _____ years and _____ months old

Child's Sex: Male _____ Female _____

Blank lines refer to (your other child's initials): _____

This Child's Age: My child is _____ years and _____ months old

Child's Sex: Male _____ Female _____

1. Some siblings do nice things for each other a lot, while other siblings do nice things
    for each other a little. How much do both _____ and this sibling do nice things
    for each other?
    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

2. Who usually gets treated better by mother, _____ or this sibling?
    _____ This sibling almost always gets treated better
    _____ This sibling often gets treated better
    _____ The children get treated about the same
    _____ _____ often gets treated better
    _____ _____ almost always gets treated better

3. How much does _____ show this sibling how to do things he or she doesn't know
    how to do?
    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

4. How much does this sibling show _____ how to do things he or she doesn't know
    how to do?
    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

5. How much does _____ tell this sibling what to do?
    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

6. How much does this sibling tell _____ what to do?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

7. Who usually gets treated better by father, _____ or this sibling?
   _____ This sibling almost always gets treated better
   _____ This sibling often gets treated better
   _____ The children get treated about the same
   _____ _____ often gets treated better
   _____ _____ almost always gets treated better

8. Some siblings care about each other a lot, while other siblings don't care about each other that much. How much do _____ and this sibling care about each other?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

9. How much do _____ and this sibling go places and do things together?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

10. How much do _____ and this sibling insult and call each other names?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

11. How much do _____ and this sibling like the same things?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

12. How much do _____ and this sibling tell each other everything?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

13. Some siblings try to out-do or beat each other at things a lot, while other siblings try to out-do or beat each other a little. How much do _____ and this sibling try to out-do or beat each other at things?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

14. How much does _____ admire and respect this sibling?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

15. How much does this sibling admire and respect _____?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

16. How much does _____ and this sibling disagree and quarrel with each other?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

17. Some siblings cooperate a lot, while other siblings cooperate a little. How much do _____ and this sibling cooperate with each other?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

18. Who gets more attention from mother, _____ or this sibling?

    ____ This sibling almost always gets more attention

    ____ This sibling often gets more attention

    ____ The children get about the same amount of attention

    ____ _____ often gets more attention

    ____ _____ almost always gets more attention

19. How much does _____ help this sibling with things he or she can't do by him or herself?

    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

20. How much does this sibling help _____ with things he or she can't do by him or herself?

    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

21. How much does _____ make this sibling do things?

    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

22. How much does this sibling make _____ do things?

    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

23. Who gets more attention from father, _____ or this sibling?

    ____ This sibling almost always gets more attention

    ____ This sibling often gets more attention

    ____ The children get about the same amount of attention

    ____ _____ often gets more attention

    ____ _____ almost always gets more attention

24. How much do _____ and this sibling love each other?

    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

25. Some siblings play around and have fun with each other a lot, while other siblings play around and have fun with each other a little. How much do _____ and this sibling play around and have fun with each other?

    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

26. How much are _____ and this sibling mean to each other?

    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

27. How much do _____ and this sibling have in common?

    __Hardly at all __Not too much __Somewhat __Very much __Extremely much

28. How much do _____ and this sibling share secrets and private feelings?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

29. How much do _____ and this sibling compete with each other?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

30. How much does _____ look up to and feel proud of this sibling?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

31. How much does this sibling look up to and feel proud of _____?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

32. How much do _____ and this sibling get mad at and get in arguments with each other?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

33. How much do both _____ and this sibling share with each other?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

34. Who does mother usually favor, _____ or this sibling?
   _____ This sibling almost always is favored
   _____ This sibling often is favored
   _____ Neither of the children are favored
   _____ _____ is often favored
   _____ _____ almost always is favored

35. How much does _____ teach this sibling things that he or she doesn't know?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

36. How much does this sibling teach _____ things that he or she doesn't know?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

37. How much does _____ order this sibling around?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

38. How much does this sibling order _____ around?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

39. Who does father usually favor, _____ or this sibling?
   _____ This sibling almost always is favored
   _____ This sibling often is favored
   _____ Neither of the children are favored
   _____ _____ often is favored
   _____ _____ almost always is favored

40. How much is there a strong feeling of affection (love) between _____ and this sibling?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

41. Some kids spend lots of time with their siblings, while others don't spend so much. How much free time does _____ and this sibling spend together?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

42. How much do _____ and this sibling bug and pick on each other in mean ways?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

43. How much are _____ and this sibling alike?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

44. How much does _____ and this sibling tell each other things he or she does not want other people to know?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

45. How much does _____ and this sibling try to do things better than each other?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

46. How much does _____ think highly of this sibling?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

47. How much does this sibling think highly of _____?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

48. How much does _____ and this sibling argue with each other?
   __Hardly at all __Not too much __Somewhat __Very much __Extremely much

APPENDIX G

Parental Intervention Questionnaire

The items below contain different views about parental intervention into sibling conflict. For the first 28 questions please select the option which best corresponds to YOUR point of view. Please use the following scale:

1 = Strongly disagree	4 = Somewhat agree
2 = Somewhat disagree	5 = Strongly agree
3 = Neither agree nor disagree	

1. _____ I think it's a big mistake for parents to involve themselves in their children's squabbles.

2. _____ I think it's important for me to protect my younger child when my children disagree.

3. _____ I separate my children when they are having a disagreement.

4. _____ Parents should be involved with their individual children, but they should let the children's sibling relationship evolve on its own.

5. _____ I encourage my children to come to me to help settle any conflicts between them.

6. _____ I have no desire to influence my children's relationship with one another. I will let nature take its course.

7. _____ Unless they are physically fighting, I don't get involved in my children's squabbles.

8. _____ When my children are having an argument, I figure out who caused it and punish only him/her.

9. _____ I expect my children to work out their problems together without my help.

10. _____ When my children are fighting with each other, I try to get them to "kiss and make up."

11. _____ I try not to interfere in my children's sibling relationship.

1 = Strongly disagree	4 = Somewhat agree
2 = Somewhat disagree	5 = Strongly agree
3 = Neither agree nor disagree	

12. _____ I hate to admit it, but I sometimes raise my voice to get my children to stop fighting.

13. _____ When my children argue I try and sit down with both of them and discuss each child's position.

14. _____ I tell my children to be quiet and play nicely when they are fighting.

15. _____ I try to redirect my children to some other activity when they argue.

16. _____ I try and help my children to device a suitable solution to their conflict.

17. _____ Parents should not yell at their children to get them to stop arguing.

18. _____ I think it's important to let my children know that there will be consequences if they continue to argue.

19. _____ I use my authority position as a parent to discourage my children from continuing to fight.

20. _____ I use sibling conflict as an opportunity to help my children develop sharing and cooperation skills.

21. _____ I do not believe that parents should threaten to punish children when they are arguing/fighting.

22. _____ When my children are having an argument, I request that they move to separate areas/rooms.

23. _____ My children know that if they fight, there will be "heck to pay".

24. _____ I will punish my children when they are arguing/fighting by taking away a favorite activity/thing.

25. _____ I believe it is important for parents to help their children resolve their conflicts.

26. _____ As a consequence of their arguing/fighting, I request that my children do an extra chore around the house.

1 = Strongly disagree   4 = Somewhat agree
2 = Somewhat disagree   5 = Strongly agree
3 = Neither agree nor disagree

27. _____ Yelling at my children is sometimes the only way to get them to stop arguing/fighting.

28. _____ As a consequence of their arguing/fighting, I request my children to spend quiet time alone.

---

29. Which of the following have you used to manage your children's conflicts within the past year. (check all that apply)
    _____ Taking away a toy
    _____ Redirect them to some other activity
    _____ Separate them
    _____ Punish only one sibling
    _____ Sit down and discuss the conflict with my children
    _____ Threaten to punish my children if they continue to argue
    _____ Shout at my children to stop arguing/fighting
    _____ I independently solved the conflict for my children
    _____ None of the above, I believe that parents should not intervene in sibling conflict

30. Now let's say you had to intervene in your children's conflict. What would be your choices?

    1) _____

    2) _____

    3) _____

APPENDIX H

The Revised Dimensions of Temperament Survey (DOTS-R)
(Copyright 1992, © Michael Windle and Richard M. Lerner)

Your Child's Initials: _____

Child's Sex: Male _____ Female _____

Child's Age: My child is _____ years and _____ months old

How to Answer:

    On the following pages are some statements about how children like your own may behave. Some of the statements may be true of your child's behavior, and others may not apply to him or her. For each statement we would like you to indicate if the statement is usually true of your child, is more true than false of your child, is more false than true of your child, or is usually false of your child. There are no "right" or "wrong" answers because all children behave in different ways. All you have to do is answer what is true or false for your child.

Here is an example of how to fill out this questionnaire. Suppose a statement said:

    "My child eats the same things for breakfast every day."

If the statement were usually false for your child, you would respond:

    "A", usually FALSE.

If the statement were more false than true for your child, you would respond:

    "B", more FALSE than true.

If the statement were more true than false for your child, you would respond:

    "C", more TRUE than false.

If the statement were usually true for your child, you would respond:

    "D", usually TRUE.

    On the line to the left of each statement write an A if the statement is usually false of your child, write a B if the statement is more false than true of your child, write a C if the statement is more true than false of your child, or write a D if the statement is usually true of your child.

PLEASE KEEP THESES FOUR THINGS IN MIND AS YOU ANSWER:

1. Give only answers that are true or false for your child. It is best to say what you really think.

2. Don't spend to much time thinking over each question. Give the first, natural answer as it comes to you. Of course, the statements are too short to give all the information you might like, but give the best answer you can under the circumstances. Some statements may seem similar to each other because they ask about the same situation. However, each one looks at a different area of behavior. Therefore, your answers may be different in each case.

3. Answer <u>every</u> question one way or another. Don't skip any.
4. Remember: A = usually FALSE
                B = more FALSE than true
                C = more TRUE than false
                D = usually TRUE

1. _____ It takes my child a long time to get used to a new thing in the home.

2. _____ My child can't stay still for long.

3. _____ My child laughs and smiles at a lot of things.

4. _____ My child wakes up at different times.

5. _____ Once my child is involved in a task, nothing can distract him or her from it.

6. _____ My child persists at a task until it is finished.

7. _____ My child moves around a lot.

8. _____ My child can make him/herself at home anywhere.

9. _____ My child can always be distracted by something else, no matter what he or she may be doing.

10. _____ My child stays with an activity for a long time.

11. _____ If my child has to stay in one place for a long time, he/she gets very restless.

12. _____ My child usually moves toward new objects shown to him/her.

13. _____ It takes my child a long time to adjust to new schedules.

14. _____ My child does not laugh or smile at many things.

15. _____ If my child is doing one thing, something else occurring won't get him/her to stop.

16. _____ My child eats about the same amount for dinner whether he/she is home, visiting someone, or traveling.

17. _____ My child's first reaction is to reject something new or unfamiliar to him/her.

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18. _____ Changes in plans make my child restless.

19. _____ My child often stays still for long periods of time.

20. _____ Things going on around my child can not take him/her away from what he/she is doing.

21. _____ My child takes a nap, rest, or break at the same time every day.

22. _____ Once my child takes something up, he/she stays with it.

23. _____ Even when my child is supposed to be still, he/she gets very fidgety after a few minutes.

24. _____ My child is hard to distract.

25. _____ My child usually gets the same amount of sleep each night.

26. _____ On meeting a new person my child tends to move toward him or her.

27. _____ My child gets hungry about the same time each day.

28. _____ My child smiles often.

29. _____ My child never seems to stop moving.

30. _____ It takes my child no time at all to get used to new people.

31. _____ My child usually eats the same amount each day.

32. _____ My child moves a great deal in his/her sleep.

33. _____ My child seems to get sleepy just about the same time every night.

34. _____ I do not find my child laughing often.

35. _____ My child moves toward new situations.

36. _____ When my child is away from home he/she still wakes up at the same time each morning.

37. _____ My child eats about the same amount at breakfast from day to day.

38. _____ My child moves a lot in bed.

39. _____ My child feels full of pep and energy at the same time each day.

40. _____ My child has bowel movements at about the same time each day.

41. _____ No matter when my child goes to sleep, he/she wakes up at the same time the next morning.

42. _____ In the morning, my child is still in the same place as he/she was when he/she fell asleep.

43. _____ My child eats about the same amount at supper from day to day.

44. _____ When things are out of place, it takes my child a long time to get used to it.

45. _____ My child wakes up at the same time on weekends and holidays as on other days of the week.

46. _____ My child doesn't move around much at all in his/her sleep.

47. _____ My child's appetite seems to stay the same day after day.

48. _____ My child's mood is generally cheerful.

49. _____ My child resists changes in routine.

50. _____ My child laughs several times a day.

51. _____ My child's first response to anything new is to move his or her head toward it.

52. _____ Generally, my child is happy.

53. _____ The number of times my child has a bowel movement on any day varies from day to day.

54. _____ My child never seems to be in the same place for long.

Family Relationship Questionnaire (FRQ)
(Copyright 1980, © Scott W. Henggeler & Joseph B. Tavormina)

Your Child's Initials: _____ Sex: Male _____ Female _____

Child's Age: My child is _____ years and _____ months old

If you are a single parent, please complete questionnaire items that pertain to you only.

Circle one answer for each question.
A. When mother and son/daughter disagree with each other
    1. mother always gets her own way
    2. mother usually gets her own way
    3. both get their own way equally often
    4. son/daughter usually gets his/her own way
    5. son/daughter always gets his/her own way

B. When father and son/daughter disagree with each other
    1. father always gets his own way
    2. father usually gets his own way
    3. both get their own way equally often
    4. son/daughter usually gets his/her own way
    5. son/daughter always gets his/her own way

    For the remaining questions fill in the blank space with one of the following choices:
        1 = never   4 = often
        2 = rarely   5 = always
        3 = sometimes

C. Mother and son/daughter _____ have arguments with each other.

D. Father and son/daughter _____ have arguments with each other.

E. Our family _____ have arguments with each other.

F. Mother and son/daughter are _____ warm and affectionate toward each other.

G. Father and son/daughter are _____ warm and affectionate toward each other.

H. Our family is _____ warm and affectionate toward each other.

Parent-Child Relationship Questionnaire
(Revised Parental Control Measure)

The items below contain different views about raising children. For each, select the option which best corresponds to how YOU feel. Please use the following scale:

1 = Strongly disagree	5 = Slightly agree
2 = Disagree	6 = Agree
3 = Slightly disagree	7 = Strongly agree
4 = Neither agree nor disagree	

1. _____ I show my child love, but I don't go in for a lot of hugging and kissing.

2. _____ I encourage my child's questions but don't feel I have to answer all of them.

3. _____ When my child needs discipline, I try not to dilute it with sympathy or affection.

4. _____ I don't give my child a lot of praise when he/she does something well, so as not to spoil my child.

5. _____ The worst thing I can do is spoil my child.

6. _____ I always praise my child when he/she does something well.

7. _____ When I discipline my child, I also show understanding and affection.

8. _____ I do not enforce a rule if my child becomes upset.

9. _____ When my child has done something really wrong, I show my disappointment by spanking or turning away from him/her.

Child Interview Protocol and the Visual Analogue Scale (VAS)

What did your mother and father tell you are the reasons for me meeting you today? (Listen and respond to the child's response; if parents said something don't contradict what the parents told them, just repeat it or rephrase it). Then say all of the following: I am writing a book for college on how brothers and sisters and other people in a family get along and I need to talk to people with brothers or sisters about their experiences. For my book, I need the "real scoop" on how siblings get along. For example, I am interested in what kinds of things they do together, what they like about each other, what they disagree about. So, for my book, I would like to ask you some questions about you and _____, and a few questions about your mom and dad (or just mom or dad if it's a single parent). I will be writing down what you say just so I can remember it later. But, whatever you say is confidential. No one will know or see your answers except me - not your parents, not your brothers or sisters, not your teachers. Would you like to help me with the book? Do you have any questions? If you have any questions as we talk, just ask and I will be happy to answer them.

Well, this is what I use to help me with my interview for the book (show them the towel bar). It looks like a bar to hang towels on, so I call it my "towel bar". This side of the bar has the number one and says "not at all like my brother/sister and me" and this side says "very much like my brother/sister and me" and is the number ten. When I read you a sentence, you get to move this piece here (point to the moving piece) wherever you think it best describes your answer along the scale. So, if I said, "my sister/brother and I play together often" and you thought that would be "very much like me and my sister/brother", you would then move the piece to the number ten. If you thought that it is "not at all like me and my sister/brother", where would you move the piece? (make sure the child understands). Remember, though, you can move the piece anywhere on the scale so if you felt that you do things with your sister/brother most of the time but not always, you might move the piece to the number eight or the number nine. Do you have any questions about how to use the towel bar? (Make sure the child understands; practice again if necessary; Protocol from Nagel, 1995).

Questions for the Interview with the Children

    Range 1-10, Where:
    1 = Not at all like my brother/sister and me
    10 = Very much like my brother/sister and me

1. ____ My sibling and I go places and do things together.

2. ____ My sibling and I insult and call each other names.

3. ____ My sibling and I tell each other everything.

4. ____ My sibling and I disagree and quarrel with each other.

5. ____ My sibling and I play around and have fun with each other.

6. ____ My sibling and I are mean to each other.

7. ____ My sibling and I share secrets and private feelings with each other.

8. ____ My sibling and I get mad at and get in arguments with each other.

9. ____ My sibling and I spend a lot of our free time with each other.

10. ____ My sibling and I bug and pick on each other in mean ways.

11. ____ My sibling and I tell each other things we don't want other people to know.

12. ____ My sibling and I argue with each other.

    The following questions will ask you about how your parents deal with you and your brother/sister.
    Range 1-10, Where:
    1 = Not at all like my father/mother
    10 = Very much like my father/mother

13. ____ Unless we are fighting, my father/mother does not get involved in the arguments between me and my brother/sister.

14. ____ My father/mother physically separate me and my brother/sister when we are having an argument.

15. ____ My father/mother will punish me for arguing/fighting with my brother/sister by taking away a favorite activity or object.

16. ____ My father/mother tells me to be quiet and play nicely when I am fighting with brother/sister.

17. ____ When me and my brother/sister are arguing, my father/mother try and sit down with both of us and discuss each child's position.

18. ____ My father/mother let me know that there will be consequences if me and my brother/sister continue to argue.

19. ____ When me and my brother/sister argue, my father/mother try to redirect me to some other activity.

20. ____ My father/mother expects me and my brother/sister to work out our argument without their help.

21. ____ My father/mother encourage me to go to them to help settle any conflicts between me and my brother/sister.

22. ____ Because of the arguing/fighting between me and my brother/sister, my father/mother request that I spend quiet time alone.

23. ____ Sometimes when my brother/sister and I are arguing/fighting, or father/mother can only get our attention by raising their voice.

24. ____ My father/mother try and help me and my brother/sister find suitable solutions to our conflict.

25. ____ I know that if my brother/sister and I argue/fight that there will be consequences from my father/mother.

26. ____ When me and my brother/sister are arguing/fighting, my father/mother request that we move to separate areas/rooms.

ENDNOTES

[1] Limiting the number of children decreased the number of questionnaires that needed to be filled out (e.g. the completion of a Sibling Relationship Questionnaire for each pair of children). Furthermore, more than two siblings makes it difficult to statistically account for all the potential sibling combinations.

[2] This last distinction is necessary since previous research has shown a tendency toward increased conflict between siblings who are close in age (Furman & Buhrmester, 1985).

[3] At the completion of the session with the parents, the researcher asked for written permission from the parents to allow their children to be interviewed by the researcher (see Appendix D for the Parental Permission Form for Child Participation).

[4] The researcher wants to compare the linkages between the quality of sibling relationships, the amount of each type of parental intervention, child temperament, and parent-child relationships from both the parent's and the child's perspective. In the past, researchers (e.g., Furman & Buhrmester, 1985) have found that it is important to get the children's own perceptions of relationships that involve them.

[5] The children will be told that the interviews will be confidential and that their sibling(s) and parents will not be given any of the information presented in the interview.

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