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ASSOCIATIONS BETWEEN PARENTAL DIFFERENTIAL TREATMENT AND SIBLING
INVOLVEMENT AND CONFLICT

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ABSTRACT

The quality of sibling relationships has been shown to have important effects on child adjustment. Good quality sibling relationships can promote positive adjustment, while sibling relationships of poor quality can exacerbate adjustment problems as children age (Buist & Vermande, 2014). One factor that influences sibling relationship quality is parental differential treatment (Jenkins et al., 2005). This study examined the association between differential parental treatment in the way that parents respond to children's positive and negative emotions and sibling relationship quality. It was hypothesized that differential parental responses to children's emotions would be associated with more sibling conflict and less sibling involvement. It was also hypothesized that effects would be more salient for differential responses to children's positive emotions than children's negative emotions, and that maternal differential responses to children's emotions would have a greater effect on sibling conflict and involvement than paternal differential responses to children's emotions. Participants were four person families with two children between 2 to 5 years old. Mothers and fathers completed questionnaires on their own reactions to children's positive and negative emotions as well as questionnaires on each child's level of sibling involvement and conflict. Results indicated that differential parental reactions to children's emotions decreased both sibling involvement and sibling conflict. No evidence was found to show that parental differential responses to positive emotions impacted sibling relationships more than parental differential responses to negative emotions. There was also no evidence to show that maternal differential responses to children's emotions impacted sibling relationship quality more than paternal differential responses to

children's emotions. The findings of this study show the importance of taking a family systems perspective to examine the sibling relationship.

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Chapter 1

Introduction

Siblings play an integral role in the life of a child. The sibling relationship has been shown to help children adjust as they transition into school (Graham & Coplan, 2012) and develop social skills (Pike, Coldwell & Dunn, 2005). Positive sibling relationships can mitigate the development of internalizing behaviors, such as depression or anxiety (Buist & Vermande, 2014), and externalizing behaviors, such as conduct problems or fighting (Buist, Deković, & Prinzie, 2013). Positive sibling relationships can protect against maladjustment in stressful times (Gass, Jenkins & Dunn, 2007), while sibling relationships characterized by higher levels of conflict can exacerbate maladjustments as children grow older (Graham & Coplan, 2012).

In recent years, there is a growing trend in research to examine not only individual dyads within families, but also how those dyads influence each other (Nelson, O'Brien, Blankson, Calkins, & Keane, 2009). One such area of examination is the effect that parent-child dyads for two children in the same family can have on the sibling dyad. Parental differential treatment, how parents treat two children in the same family differently, has been shown to negatively impact the quality of the relationship between siblings (McHale, Updegraff, Jackson-Newsom, Tucker, Crouter, 2000; Meunier, Roskam, Stievenart, Van De Moortele, Browne & Wade, 2012). For example, differences in the level of conflict that parents have with each child are associated with increased sibling conflict (Shanahan, McHale, Crouter & Osgood, 2008).

The goal of the current study was to explore the association between parental differential treatment and sibling relationship quality by examining a unique aspect of differential treatment.

In this study, I explored differential parental emotion socialization by studying how parents respond to children's emotions. Understanding how parents' differential emotion socialization behaviors with two of their children may influence the sibling relationship is necessary to develop a better understanding of the types of differential treatment that impact sibling relationships.

Sibling Relationship Quality

Good sibling relationships can have protective effects as children grow up. For instance, as shy children enter school, good sibling relationships were found to protect against social anxiety in the classroom (Graham & Coplan, 2012). After experiencing a stressful event, children with affectionate sibling relationships were less likely to develop internalizing behaviors such as anxiety (Gass et al., 2007). Buist and Vermande (2014) found that harmonious sibling relationships, those characterized by high levels of warmth and low levels of conflict, were associated with children having fewer internalizing behaviors such as depression, and fewer externalizing behaviors such as aggression.

Siblings not only protect against potential risk factors, but they also promote positive outcomes, such as social negotiation skills (Stormshak, Bellanti, & Beirman, 1996). Downey and Condrón (2004) found that six year olds with at least one sibling at home had more interpersonal skills in kindergarten than children with no siblings. Older siblings are invaluable social tools because they model appropriate behaviors and teach younger siblings how to interact socially with other children their own age, making the transition to school easier (Brody, 1998). Positive involvement with a sibling, also characterized as warmth among siblings, is associated with fewer conduct problems, fewer feelings of loneliness, and greater feelings of self-worth as children get older (Stormshak, Bullock & Falkenstein, 2009). Stormshak, Bellanti and Beirman

(1996) also found that sibling relationships characterized by warmth and low levels of conflict are actually more beneficial than those with no conflict, because children need some conflict to gain an understanding of social problem-solving.

However, too much conflict between siblings has been associated with internalizing problems such as feeling hopeless or experiencing depressive symptoms, and externalizing problems such as antisocial behavior or criminal activities (Buist et al., 2013). Unsupportive sibling relationships plagued with high levels of conflict and low levels of warmth have been highly related with aggression (Stormshak et al., 1996). Just as good sibling relationships can protect against maladjustment, poor sibling relationships, or relationships filled with excessive conflict and low levels of warmth, can have an exacerbating effect, for example, making shy children more anxious as they enter the preschool classroom (Graham & Coplan, 2012). In one study, a less positive sibling relationship was found to be associated with more frequent expressions of problematic externalizing behaviors such as hyperactivity and aggression (Kramer & Kowal, 2005). Assessing sibling involvement and warmth, as well as sibling conflict is necessary to develop a better understanding of the nuances of the sibling relationship.

Parental Differential Treatment

Parental differential treatment occurs when parents treat two children in the same family unequally. Differential parental treatment is commonly studied by measuring differences in parental warmth, affection, or intimacy, as well as parental conflict, punishment, or control between siblings (Richmond, Stocker & Rienks, 2005; Shanahan et al., 2008; Kowal, Krull & Kramer, 2006; Jensen & Whiteman, 2014). Parental warmth is usually used to define positive behaviors (Feinberg & Hetherington, 2001). Parental expressions of warmth can be physical such as giving hugs or kisses (Coldwell, Pike, & Dunn, 2008), or they can manifest as

acceptance and support for that child (Shanahan et al., 2008). Some studies refer to this measure as supportive parenting, which includes positive parenting and establishing fair rules (Meunier et al., 2012). Differences in warmth from parents can have significant negative impacts on the disfavored child. For example, children who receive less maternal warmth compared to their siblings displayed more depressive symptoms (Shanahan et al., 2008) and more problem behaviors, such as fighting with other children (Coldwell et al., 2008). Differential paternal displays of warmth and affection impact child adjustment as well. Jensen and Whiteman (2014) found that young adolescents who reported less intimacy from their father compared with their sibling were more prone to delinquent behaviors such as skipping school or getting into trouble with the police. Differential paternal warmth impacts internalizing behaviors such as depressive symptoms, especially in adolescent girls (Shanahan et al., 2008). Children that are highly disfavored compared to siblings in the amount of warmth from parents show more behavioral problems as they age from children into adolescents (Meunier, Biscaglia, & Jenkins, 2012).

Negative differential parenting behaviors have been measured in several different ways in the previous literature. Volling (1997) defined negative parenting as parental control and measured control in terms of how much parents discipline each child. Other authors have studied negative parental differential treatment by examining the amount of conflict and negativity there is in the parent-child relationship as compared to the parents' relationship with a sibling (Feinberg & Hetherington, 2001). Parent-child conflict could be about many different aspects of a child's life. For example, choosing activities, homework, or social plans (Shanahan et al., 2008). Meunier and colleagues (2011) found that preschoolers who received less warmth and have more conflicts with their parents than their siblings had more externalizing behaviors such as aggression, as well as internalizing behaviors such as anxiety, low self-esteem and a

depressed mood. This finding is consistent with later studies showing that greater amounts of negative parental control, defined as parental punishment, ignoring, and inconsistent rewarding, resulted in greater externalizing behaviors (aggression and anger) in the disfavored child (Meunier et al., 2012; Meunier et al., 2011; Meunier, Boyle, O'Connor, & Jenkins, 2013). While both siblings are impacted by differential treatment, the favored child, or the child receiving less parental punishment or discipline, sometimes exhibits fewer externalizing problems later on (Richmond et al., 2005), so the impacts on the less favored child are more potent. In other studies, it has been shown that differential parental treatment can have negative impacts on the favored child as well as the disfavored child.

Not only does differential treatment have negative ramifications for children as individuals, but it also has implications for the quality of sibling relationships. Previous researchers have emphasized the importance of assessing the family as a whole or a system (O'Connor, Hetherington, & Reiss, 1998). In this way, we must consider how the relationships between each child and parent may impact the relationship between the siblings. For example, siblings who receive less warmth from parents relative their sibling show less positivity toward their sibling (McHale et al., 2000). Previous research has confirmed this idea that parental differential negativity and positivity toward each child does account for differences in sibling affection and hostility (Jenkins, Rasbash, Leckie, Gass & Dunn, 2012). Furthermore, McHale, Crouter, McGuire and Updegraff (1995) found that equal treatment, or the absence of differential treatment, is associated with more warmth between siblings. Although differential parental control and warmth are often studied, parents may also treat their children differently in other domains.

Emotion Socialization

Children's ability to understand and regulate their own emotions is crucial to having successful interpersonal interactions throughout life (Kolak & Volling, 2011). Emotion socialization is the method in which parents teach their children about the experience and expression of emotion (Eisenberg, Cumberland, & Spinrad, 1998). One direct way that parents socialize their children's emotions is by responding to their children's expressions of emotion. This is often studied by examining parents' supportive and unsupportive reactions to children's positive and negative emotions (Yap, Allen, & Ladouceur, 2008). For example, when parents are unsupportive, such as minimizing or invalidating a child's emotions, when their children are expressing emotion children are left confused and have a hard time regulating their emotions in the future (Wilson et al., 2014). Additionally, maternal invalidation of a child's positive expressions was found to be associated with depressive symptoms in that child (Yap et al., 2008). Supportive reactions such as validating a child's emotions, comforting the child or helping her solve the problem causing her distress (Premo & Kiel, 2014) can help with children's socioemotional development and ability to cope with emotions as the child gets older (Eisenberg et al., 1998).

Just as parents can display different amounts of warmth and control when interacting with their children, they can also react differently to the emotional displays of different siblings. The overarching goal of this study is to understand these differences in reactions to each sibling and examine the association between parental differential treatment and sibling relationship quality. I anticipate that differential treatment will result in increased sibling conflict and decreased sibling involvement, but also that parental reactions to children's positive emotions will have more of an impact on sibling relationship quality than parental reactions to negative

emotions. Lastly, I predict that maternal differential treatment will be more likely to impact sibling relationship quality than paternal differential treatment.

I expect that parental differential treatment between siblings in the way parents respond to children's positive and negative emotions will result in more conflict and less involvement between siblings. Second, I anticipate that differences in responses to children's positive emotions will be associated with more sibling conflict and less sibling involvement than differences in responses to children's negative emotions. Lastly, I hypothesize that for both siblings, differences in maternal responses to positive and negative emotions will have more salient effects on sibling relationship quality than differences in paternal responses to positive and negative emotions. This study will provide further research on the subject of parenting, which may provide future implications about fostering a positive sibling relationship.

Chapter 2

Methods

Participants

Families ($N = 70$), including the mother, father, older sibling and younger sibling participated in the current study. All families included parents who were married or cohabiting ($n = 3$) and had two biological children between the ages of 2 and 5. The average age of the older sibling was 57.6 months ($SD = 7.57$ months; range = 37.5-74.1 months). The average age of the younger sibling was 32.6 months ($SD = 6.79$ months; range 23.9-58.7 months). The average age difference between the older sibling and younger sibling was 25.04 months. Mothers and fathers average ages were 32 years ($SD = 4.15$ years) and 34 years ($SD = 4.76$ years), respectively. The sibling dyad sex compositions were as follows: 17 girl/girl dyads, 21 boy/boy dyads, 15 older boy/younger girl dyads, 17 older girl/younger boy dyads. The median family income was \$70,000 ($Range = \$10,000 - \$250,000$). The average household size was 5 family members ($SD = 1.10$, $Range = 4$ to 8).

Procedure

Participants were recruited through flyers posted at local businesses, birth announcements, and a database of local families interested in research. Families came to the laboratory and participated in a 2.5-hour visit to the laboratory, during which they completed questionnaires and other procedures not outlined here. Parents completed questionnaires individually and were asked not to discuss their responses. Unfinished questionnaires were sent home to complete and return by mail.

Measures

Parental responses to children's negative emotions. Both parents completed the coping with children's negative emotions measure (CCNES) for each child (Fabes, Eisenberg, & Bernzweig, 1990). This questionnaire listed twelve potential situations, and parents were asked to rate the likelihood of each situation happening within their family on a 7-point Likert scale (1 = *very unlikely* to 7 = *very likely*). The measure included six subscales categorizing different types of reactions parents have to children's negative emotions: *distressed reactions* (e.g. "tell him/her not to embarrass us by crying"), *punitive reactions* (e.g. 'send my child to his/her room to cool off'), *minimization reactions* (e.g. 'tell my child that he/she is overreacting'), *expressive encouragement* (e.g. 'tell my child that it's OK to cry sometimes'), *emotion-focused reactions* (e.g. 'comfort my child and try to get him/her to forget about the incident), and *problem-focused reactions* (attempts to help the child find a way to solve the problem that is upsetting him or her). These subscales were combined to create two composite subscales: Parents' unsupportive reactions to children's negative emotions, and parents' supportive reactions to children's negative emotions. The unsupportive reaction to children's negative emotions composite was comprised of three subscales: distressed reactions, punitive reactions, and minimizing reactions (M-OS $\alpha = .88$, F-OS $\alpha = .93$, M-YS $\alpha = .88$, F-YS $\alpha = .92$). The supportive reaction to children's negative emotions composite contained three subscales: expressive encouragement, emotion-focused reactions, and problem-focused reactions (M-OS $\alpha = .92$, F-OS $\alpha = .94$, M-YS $\alpha = .93$, F-YS $\alpha = .96$). These types of parental responses reflect each parent's encouragement of negative emotions and the degree to which parents try to guide the child toward a solution that will reduce the emotion or the problem that is causing the emotion (Fabes et al., 1990). This

measure has been previously found to have sound test-retest reliability and construct validity (Fabes, Poulin, Eisenberg & Madden-Derdich, 2002).

Parental responses to children's positive emotions. Mothers and fathers completed the parental reactions to children's positive emotions scale separately for the older and younger child (Yap et al., 2008). Parents were presented with 12 different scenarios where children experienced positive emotions. This measure uses a 7-point Likert scale (1 = *very unlikely* to 7 = *very likely*). This questionnaire contains subscales that reflect different reactions parents have to children's positive emotions: *encouragement reactions* (e.g., 'smile showing him/her that I am happy to see him/her having fun'), *reprimanding reactions* (e.g. 'frown at my child and tell him/her to be quiet'), *discomfort reactions* (e.g. 'be slightly embarrassed by my child's behavior'). In this study, the encouragement subscale was used as a measure of parents' supportive reactions to children's positive emotion (M-OS $\alpha = .69$, F-OS $\alpha = .85$, M-YS $\alpha = .78$, F-YS $\alpha = .87$). The reprimand subscale and the discomfort subscale were combined to create the composite labeled unresponsive reactions to children's PE (M-OS $\alpha = .91$, F-OS $\alpha = .93$, M-YS $\alpha = .93$, F-YS $\alpha = .94$). This measure has sound test-retest reliability and showed good construct validity (Ladouceur, Reid, & Jacques, 2002).

To evaluate parental differential treatment, younger sibling scores were subtracted from older sibling scores for the parents' responses to children's negative and positive emotions measures to create a difference score. Negative difference scores indicated that younger siblings received more of the given reaction from the specified parent. Positive difference scores indicated that older siblings received more of the given reaction from the specified parent. Difference scores that are close to zero indicate that little to no differential treatment occurred.

Sibling relationship quality. Parents completed the sibling inventory of behavior (SIB) scale for older siblings (Schaefer & Edgerton, 1981). Each of the 32 items in this questionnaire was answered on a 5- point Likert scale (1 = *never* to 5 = *always*). For this study, I focused on three subscales within the measure: Older siblings' *rivalry* (e.g., 'older child is competitive against your younger child'), older siblings' *aggression* [e.g., 'older child has physical fights with your younger child (not just for fun)'], and older siblings' *involvement* (e.g., 'older child has fun at home with your younger child'). The involvement subscale was used to measure sibling involvement (M-OS $\alpha = .87$, F-OS $\alpha = .87$). The older sibling rivalry and older sibling aggression subscales were averaged to make a composite reflecting older sibling conflict (M-OS $\alpha = .85$, F-OS $\alpha = .79$).

Parents also completed the sibling relationships in early childhood questionnaire (SREC) for younger siblings (Volling, 1997). For this study we focused on two subscales within the measure: Younger siblings' *positive involvement* (e.g., 'younger child is happy to see older brother/sister after they've been apart') and younger siblings' *conflict and rivalry* (e.g., 'younger child is cruel or does mean things to older sibling'). For comparison with the measures for older siblings, the positive involvement subscale was used to measure younger sibling's involvement (M-YS $\alpha = .78$, F-YS $\alpha = .83$), and the conflict and rivalry subscale was used to measure younger siblings' conflict (M-YS $\alpha = .77$, F-YS $\alpha = .80$). This measure was found to have good construct validity (Volling & Elins, 1998).

To assess sibling relationship quality, mothers' and fathers' responses to the sibling involvement and sibling conflict measures were combined to create one score for older sibling conflict with younger sibling, one score for younger sibling conflict with older sibling, one score

for older sibling involvement with younger sibling, and one score for younger sibling involvement with older sibling.

Chapter 3

Results

In the following sections, descriptive statistics and correlations are presented first. Next, an explanation of the covariates tested for this study is reported. Lastly, I present the results of the regression models that were conducted to assess the association between differential parental responses to children's emotions and sibling involvement and conflict.

Missing Data. The percentage of missing data on all key variables for mothers was 20% and 24.3% for fathers. To account for this missing data, expectation maximization estimation was performed using SPSS (Version 19). All analyses reported within used the EM estimated data.

Descriptive statistics. Descriptive statistics are presented in Table 1. On average, the level of differential supportive and unsupportive reactions for mothers and fathers was low. Correlations are presented in Table 2. Differential unsupportive and supportive reactions from both parents to children's positive and negative emotions were generally not correlated with sibling conflict for either sibling. The only exception to this was mothers' differential unsupportive responses to positive emotions, which was strongly negatively correlated with older siblings' conflict with younger siblings. Fathers' differential unsupportive responses to positive emotions were strongly negatively correlated with the younger siblings' involvement with older siblings. For both siblings, fathers' differential unsupportive responses to negative emotions and mothers' differential supportive responses to positive emotions were negatively correlated with sibling involvement. Fathers' differential unsupportive responses to positive emotions were

strongly positively correlated with fathers' differential unsupportive responses to negative emotions. Likewise, fathers' differential supportive responses to positive emotions were strongly positively correlated to fathers' differential supportive responses to negative emotions. Mothers' differential unsupportive responses to positive emotions and differential supportive responses to positive emotions were negatively correlated. Additionally, fathers' differential supportive responses to children's negative emotions were negatively correlated with fathers' differential unsupportive responses to children's negative emotions. Furthermore, fathers' differential unsupportive responses to children's negative emotions were negatively correlated with fathers' differential supportive responses to children's positive emotions. No significant correlations were found between mothers' differential responses and fathers' differential responses to children's positive or negative emotions.

Covariates. I tested covariates to determine their potential effects on the study outcome variables. First, I examine the impacts of siblings' sex on sibling involvement and conflict. Older siblings' sex was not found to be significantly associated with older siblings' conflict with their younger sibling ($t(68) = -.38, p = .71; r = -.06, p = .64$) nor older siblings' involvement with their younger siblings ($t(68) = .97, p = .33; r = .12, p = .31$). Younger siblings' sex was not found to be significantly associated with younger siblings' conflict with their older siblings ($t(68) = -1.39, p = .17; r = -.19, p = .13$) nor younger siblings' involvement with their older siblings ($t(68) = 1.06, p = .29; r = .14, p = .26$). Ethnicity was also tested by separating participants into minority and Caucasian groups. Ethnicity was not significantly associated with older siblings' conflict with their younger siblings ($t(68) = .11, p = .91; r = -.02, p = .86$), older siblings' involvement with their younger siblings ($t(68) = -.19, p = .85; r = -.03, p = .82$), younger siblings' conflict with their older siblings ($t(68) = -.35, p = .73; r = -.04, p = .72$), nor

younger siblings' involvement with their older siblings ($t(68) = .76, p = .45; r = .11, p = .36$).

Lastly, total family income was tested to assess associations with sibling involvement and sibling conflict. Total family income was not significantly associated with older siblings' conflict with their younger siblings ($r = .08, p = .52$), older siblings' involvement with their younger siblings ($r = .08, p = .52$), younger siblings' conflict with their older siblings ($r = .08, p = .52$), nor younger siblings' involvement with their older siblings ($r = -.06, p = .61$). Because these covariates were not significantly associated with sibling involvement or sibling conflict, they were trimmed from the regression models.

Parental differential treatment and sibling relationships. Regression models were conducted predicting both older and younger children's conflict and involvement with their sibling (total of 4 models). Predictor variables included mothers and fathers differential supportive and unsupportive reactions to children's positive and negative emotions. All analyses were conducted using SPSS (Version 19). Results for sibling involvement are reported in Table 3 and results for sibling conflict are reported in Table 4. The present study had three hypotheses. First, that parental differential treatment of siblings will result in increased sibling conflict and decreased sibling involvement. Second, I anticipated that children would be more sensitive to differential parental responses to their positive emotions than differential responses to their negative emotions. Therefore, differences in parental response to children's positive emotions are more likely to be associated with increased sibling conflict and decreased sibling involvement. My third hypothesis was that differential maternal reactions to children's positive and negative emotions would be more salient than differential paternal reactions to children's positive and negative emotions in terms of effect on sibling relationship quality.

Sibling involvement. In the model predicting older siblings' involvement with younger siblings, paternal differential unsupportive and supportive reactions to children's positive emotions was not associated with older siblings' involvement with younger siblings. Paternal differential supportive reactions to children's negative emotion were also not associated with older siblings' involvement with younger siblings. However, there was a marginally significant negative association between paternal differential unsupportive reactions to children's negative emotions and older siblings' involvement with younger siblings. This indicates that when fathers displayed more unsupportive reactions to younger sibling's negative emotions than that of older siblings, the older siblings were more involved with their siblings. Additionally, maternal differential supportive and unsupportive reactions to children's positive and negative emotions were not significantly associated with older siblings' involvement with younger siblings, with one exception. There was a marginally significant negative association between maternal differential supportive reactions to children's positive emotions and older siblings' involvement with younger siblings. This indicates that when mothers displayed more supportive reactions towards younger siblings' positive emotions relative to the older siblings, older siblings exhibited more sibling involvement with younger siblings.

The next model predicted younger siblings' involvement with older siblings. In this model, maternal differential reactions, both supportive and unsupportive, to children's positive and negative emotions were not significantly correlated with younger siblings' involvement with older siblings. Also, paternal differential supportive reactions to children's positive and negative emotions were not significantly associated with younger siblings' involvement with older siblings. However, paternal differential unsupportive reactions to children's positive emotions were significantly negatively associated with younger siblings' involvement with older siblings.

This indicates that when fathers displayed more unsupportive reactions to younger siblings' positive emotions than older siblings' positive emotions, younger siblings showed less involvement with older siblings. Additionally, there was a marginally significant negative association between paternal differential unsupportive reactions to negative emotions and younger siblings' involvement with older siblings. Fathers tended to display more unsupportive reactions to younger siblings' negative emotions than that of older siblings. This differential treatment was associated with less sibling involvement on the part of younger siblings.

Sibling Conflict. In the model predicting older siblings' conflict with younger siblings, there were no significant associations found with paternal differential supportive and unsupportive reactions to children's positive and negative emotions. Maternal differential unsupportive reactions to children's positive emotions were found to be significantly negatively associated with older siblings' conflict with younger siblings. This suggests that when mothers exhibited more unsupportive reactions to younger siblings' positive emotions than older siblings' positive emotions, older siblings showed less conflict with younger siblings. Maternal differential supportive reactions to children's positive emotions were also significantly negatively associated with older siblings' conflict with younger siblings. This indicates that when mothers showed more supportive reactions to younger siblings' positive emotions than older siblings' positive emotions, older siblings exhibited less conflict with younger siblings.

The last model predicted younger sibling's conflict with older siblings. Maternal differential unsupportive and supportive reactions to children's positive and negative emotions were not significantly associated with younger siblings' conflict with older siblings. Paternal differential supportive and unsupportive reactions to children's positive and negative emotions

were also not found to be significantly associated with younger siblings' conflict with older siblings.

Chapter 4

Discussion

Studying sibling relationships is important in psychological research because siblings play a role in many aspects of children's lives including social development (McHale, Updegraff, & Whiteman, 2012), cognitive development (Azmitia & Hesser, 1993), problematic externalizing behaviors during adjustment periods (Pike et al., 2005), and internalizing symptoms as children grow into adolescents (Gass et al., 2007). As family systems theory proposes, it is not sufficient to examine each dyad of the family individually, because the family functions as a whole (O'Connor et al., 1998). The goal of this study was to examine the association between parental differential treatment, in terms of parental responses to children's emotions, and two important dimensions of sibling relationship quality.

The first hypothesis of this study was that differences in parental responses to children's emotions would result in more sibling conflict and less sibling involvement. The results of this study partially supported this hypothesis, because I found that differential treatment was associated with lower levels of sibling involvement *and* lower levels of sibling conflict. One finding in support of my hypothesis showed that fathers were more unsupportive in response to younger siblings' positive and negative emotions than that of older siblings, and this differential treatment was associated with less involvement from younger siblings toward older siblings. As for sibling conflict, although older siblings received less supportive and unsupportive responses from mothers for positive emotion than younger siblings, these differential responses were associated with less sibling conflict from older siblings toward younger siblings. These results were not entirely consistent with previous research that the disfavored child typically shows less sibling positivity (McHale et al., 2000). For younger

siblings, the results of this study were consistent with previous findings, because younger siblings received more unsupportive responses from fathers for positive and negative emotions and this was associated with less involvement from younger siblings toward older siblings. However, it is interesting that older siblings showed less sibling conflict when they were favored (received fewer unsupportive reactions to positive emotions from mothers) as well as when they were disfavored (received fewer supportive reactions to positive emotions from mothers). One possible explanation for these results is that children are able to perceive when differential treatment is fair versus when differential treatment is unfair. Konstanareas and Debois (2001) found that even children as young as two years old can comprehend the fairness and unfairness of parental practices. Perhaps older siblings showed less sibling conflict while favored *and* disfavored because they did not feel as if they were truly being treated unfairly. This is consistent with Kowal and Kramer's (1997) study involving children's understandings of parental behaviors. Children, ages 11-13, that viewed differential treatment as fair (due to age, sex, or other qualities of the sibling) showed more positivity toward their sibling, despite the presence of parental differential treatment. This promotes more recent findings that unequal treatment of siblings may not have negative consequences for sibling relationship quality if children do not believe they are actually being treated unfairly (McHale et al., 2000).

My second prediction stated that parental responses to children's positive emotions as opposed to children's negative emotions would result in more sibling conflict and less sibling involvement. This prediction was not supported. For younger siblings, fathers reacted with more unsupportive responses to younger siblings' positive emotions and negative emotions than that of older siblings, but in both cases this differential treatment was associated with less involvement from younger siblings toward older siblings. This could mean that the reaction,

supportive or unsupportive, is more important than the type of emotion being displayed by the child. Unsupportive responses to children's emotions were associated with less sibling involvement, or less positivity from younger siblings toward older siblings. This result does corroborate previous findings that children who receive less parental warmth than their siblings tend to display less warmth toward that sibling (Shanahan et al., 2008). As mothers responded more supportively toward younger siblings' positive emotions than older siblings' positive emotions, the level of sibling conflict from older siblings actually decreased, further disproving this hypothesis, because the disfavored child did not display any increased negativity toward his or her sibling in spite of the presence of maternal differential treatment.

Previous research on parental differential treatment primarily utilized only maternal reports of differential treatment. The final hypothesis of this study was that children would be more sensitive to differential treatment from mothers than differential treatment from fathers, and that differences in responses from mothers would be more likely to result in increased sibling conflict and decreased sibling involvement. This hypothesis was partially supported. Fathers' differential reactions resulted in less sibling involvement from younger siblings toward older siblings, but mothers' differential responses resulted in less sibling conflict from older siblings toward younger siblings. Mothers' differential treatment was not necessarily more influential than fathers' differential treatment when it came to overall sibling relationship quality. It is interesting to note that younger siblings' involvement toward older siblings appeared to be more influenced by fathers' differential treatment than mothers' differential treatment, because so much of the previous research on this subject has only collected data from mothers (Konstantareas & Desbois, 2001; Coldwell, Pike, & Dunn, 2008; Brody, Stoneman & Burke, 1987; McGuire, Dunn, & Plomin, 1995). In families with two parents, it is impractical to assess

parenting based only on the reports from one parent. Despite the fact that collecting data from fathers is difficult, it is important for future researchers to continue to examine both maternal and paternal differential treatment to fully understand the association between parental differential treatment and sibling relationship quality.

Although the current study is unique some limitations need to be noted. The main limitations of this study were the sample size and limited demographic variability. The small sample decreased power to detect results. Furthermore, the seventy participant families were relatively homogenous in terms of ethnicity, making it difficult to generalize the results beyond primarily Caucasian populations. A strength of this study is the reports from not only mothers, but fathers as well, allowing me to gain a more complete picture of the family dynamics.

The results of this study provide support for the importance of examining the family as a whole. I can conclude that differential parenting can have some negative impacts on sibling involvement, but differential treatment does not always have negative affects on sibling relationships, because children might be able to detect the fairness of differential treatment and understand the difference between appropriate differential treatment and inappropriate differential treatment. My results suggested that younger siblings may be more influenced by parental differential treatment, while older siblings may be more influenced by maternal differential treatment, so it is important for future researchers to assess paternal differential treatment, not just maternal differential treatment. In this study, the sample size was too small to detect how children's sex might affect the differential treatment from each parent, but with a larger sample size, it would be interesting to examine how differential treatment impacts the quality of sibling relationships when siblings are of the same sex or different sexes.

The unique approach of this study was to examine parental differential treatment in one aspect of parents' emotion socialization. Because there are many different aspects of parenting, considering this particularly dimensions of parental differential treatment is beneficial and could be utilized in future research. This study shows that there are important associations between parental differential reactions to children's emotions and the level of sibling involvement and conflict among preschool age children. These associations should be further explored in future research so we can gain more insight into the factors that contribute to a positive sibling relationship.

Appendix A

Tables

Table 1

Descriptive Statistics.

	Mothers			Fathers		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
Differential Supportive Reactions to PE	-0.10	0.42	-1.67 – 0.83	-0.02	0.55	-1.88 – 1.50
Differential Unsupportive Reactions to PE	0.18	0.42	-0.58 – 1.67	0.07	0.53	-1.21 – 1.54
Differential Supportive Reactions to NE	-0.05	0.29	-0.92 – 0.64	-0.08	0.41	-1.64 – 0.78
Differential Unsupportive Reactions to NE	0.07	0.26	-0.72 – 0.82	0.14	0.40	-0.72 – 1.92
Older Sibling Involvement*	3.76	0.52	2.33 – 5.00			
Older Sibling Conflict*	2.61	0.39	1.62 – 3.77			
Younger Sibling Involvement*	3.90	0.39	2.13 – 4.88			
Young Sibling Conflict*	2.54	0.45	1.57 – 3.86			

Note: * denotes the mean scores of mothers' and fathers' reports. They are reported in the mothers' column.

Table 2

Correlations among key study variables.

Measure	1	2	3	4	5	6	7	8	9	10	11	12
1. OS Involvement												
2. OS Conflict												
3. YS Involvement												
4. YS Conflict												
5. F Differential UR to PE	-.12	-.07	-.37**	-.08								
6. M Differential UR to PE	.12	-.36**	.07	-.15	.03							
7. F Differential SR to NE	-.00	.03	-.12	.14	-.13	-.14						
8. M Differential SR to NE	-.08	-.01	-.04	-.05	-.13	.16 [†]	-.18 [†]					
9. F Differential UR to NE	-.21*	-.12	-.29**	-.08	.37**	-.00	-.22*	-.01				
10. M Differential UR to NE	.02	-.18 [†]	.05	-.02	-.01	.15	.10	-.13	.19 [†]			
11. F Differential SR to PE	-.13	.07	-.06	.10	-.05	-.08	.47**	-.18 [†]	-.24*	-.01		
12. M Differential SR to PE	-.25*	-.17 [†]	-.21*	-.17	.11	-.26*	-.06	.03	-.03	-.02	.09	

Notes: UR = Unsupportive Response, SR = Supportive Response, NE = Negative Emotion, PE = Positive Emotion; [†] $p < .10$, * $p < .05$, ** $p < .01$

Table 3

Parental Differential Treatment and Sibling Involvement

	Older Sibling's Involvement					Younger Sibling's Involvement				
	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Fathers										
Differential UR to PE	-.024	.140	-.025	-.173	.863	-.211	.097	-.289	-2.178	.033
Differential SR to PE	-.177	.134	-.188	-1.325	.190	-.025	.093	-.035	-.265	.792
Differential UR to NE	-.359	.189	-.276	-1.895	.063	-.258	.131	-.268	-1.973	.053
Differential SR to NE	.000	.187	.000	.002	.998	-.212	.129	-.277	-1.639	.106
Mothers										
Differential UR to PE	.062	.161	.050	.381	.704	.004	.112	.004	.034	.973
Differential SR to PE	-.269	.160	-.214	-1.674	.099	-.179	.111	-.192	-1.612	.112
Differential UR to NE	.084	.251	.043	.335	.739	.148	.174	.102	.855	.396
Differential SR to NE	-.165	.233	-.092	-.707	.482	-.147	.161	-.111	-.910	.366

Notes: UR = Unsupportive Response, SR = Supportive Response, NE = Negative Emotion, PE = Positive Emotion

Table 4

Parental Differential Treatment and Sibling Conflict

	Older Sibling's Conflict					Younger Sibling's Conflict				
	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Fathers										
Differential UR to PE	.016	.097	.021	.160	.873	-.033	.126	-.039	-.264	.792
Differential SR to PE	.063	.093	.090	.680	.499	.054	.120	.066	.451	.653
Differential UR to NE	-.138	.131	-.143	-1.051	.297	-.058	.170	-.052	-.344	.732
Differential SR to NE	-.094	.130	-.102	-.729	.469	.049	.168	.045	.292	.771
Mothers										
Differential UR to PE	-.422	.112	-.465	-3.776	.000	-.216	.145	-.204	-1.494	.140
Differential SR to PE	-.282	.111	-.304	-2.540	.014	-.230	.144	-.212	-1.598	.115
Differential UR to NE	-.103	.174	-.071	-.595	.554	-.058	.170	-.052	-.344	.732
Differential SR to NE	.166	.162	.088	.720	.474	.028	.209	.018	.131	.896

Notes: UR = Unsupportive Response, SR = Supportive Response, NE = Negative Emotion, PE = Positive Emotion

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- Trained in operating INTERACT coding software
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